DOI: 10.1093/oxrep/gri026

# GENDER AND ETHNICITY—MARRIED **IMMIGRANTS IN BRITAIN**

CHRISTIAN DUSTMANN

University College London and CReAM (Centre for Research and Analysis of Migration) FRANCESCA FABBRI

University of Munich and CReAM<sup>1</sup>

In this paper we investigate the economic activity of married or cohabiting female immigrants in Britain. We distinguish between two immigrant groups: foreign-born females who belong to an ethnic-minority group and their husbands, and foreign-born white females and their husbands. We compare these to native-born white women and their husbands. Our analysis deviates from the usual mean analysis and investigates employment, hours worked and earnings for males and females, as well as their combined family earnings, along the distribution of husbands' economic potential. We analyse the extent to which economic disadvantage may be reinforced at the household level and investigate the extent to which it can be explained by differences in observable characteristics. We find that white female immigrants and their husbands have an overall advantage in earnings over white native born, both individually and at the household level. Minority immigrants do less well, in particular at the lower end of the husbands' economic potential distribution. This is mainly due to the low employment of both genders, which leads to a disadvantage in earnings, intensified at the household level. Only part of this differential can be explained by observable characteristics.

#### I. INTRODUCTION

In Britain, unemployment in 2004 was among the lowest in any European country at 4.8 per cent. Furthermore, employment rates (defined as the percentage of those in work over the working age)

of both males and females were high, at 79 and 70 per cent, respectively. This suggests the labour market is in a healthy state.

These aggregate numbers may, however, conceal adverse economic circumstances of particular

We thank an anonymous referee, and Theresa Casey, Marco Manacorda, and Jonathan Wadsworth for helpful comments. We also thank participants at the annual CesIfo conference on 'Employment and Social Protection', Munich, and the European Society for Population Economics, Paris, for comments. We gratefully acknowledge the support of the Economic and Social Research Council (grant RES-000-23-0332). Fabbri gratefully acknowledges financial support from the Munich Graduate School of Economics/Deutsche Forschungsgemeinschaft.

<sup>&</sup>lt;sup>1</sup> E-mail addresses: c.dustmann@ucl.ac.uk; francesca.fabbri@lrz.uni-muenchen.de

groups. In a recent report, Dustmann et al. (2003) (see also Dustmann and Fabbri, 2005) suggest that, for most ethnic minorities and immigrant groups, employment rates and wages are significantly lower than those of white natives. These disadvantages seem particularly pronounced for females. Between 1981 and 2000, the unconditional participation of minority immigrant women remained below 60 per cent, whereas that of white native women steadily increased from 66 to 76 per cent. Even when conditioning on observable characteristics (such as age, number of children, education, and region of residence), the probability of black African, Pakistani, and Bangladeshi women being out of the labour force is between 15 and 22 per cent higher than it is for white native women.

In this paper, we further investigate the questions of whether and why immigrant groups are more disadvantaged than native-born whites. Our emphasis is on the female population, and we distinguish between white native-born females, and white and ethnic-minority foreign-born females. Our analysis deviates from most previous work that analyses the outcomes of males and females in isolation, by concentrating on the family context. Analysis at the level of the individual may conceal reinforcement of disadvantage at the household level. Analysis of the outcomes of different female sub-populations in a family context may help to shed light on differences across these groups, in particular when comparing groups that differ in their origin, ethnicity, and cultural background. The downside is that our analysis refers not to the whole population, but only to married or cohabiting individuals.

Previous analysis of labour-market fortunes of female immigrants in isolation includes papers by Long (1980), Funkhouser and Trejo (1988), Cobb-Clark (1993), Schoeni (1998), and Dustmann and Schmidt (2001). Most of these papers are in the tradition of Chiswick's (1978) seminal study and investigate assimilation of female immigrants, some implementing Borjas's (1985, 1995) approach to take account of cohort effects. Our work is not the first to analyse immigrant and native-born labour-

market outcomes in a family context. Earlier work by Duleep and Sanders (1993) explains patterns of labour-force participation of married Asian women as the outcome of a family investment strategy. More recent work by Baker and Benjamin (1997), Cobb-Clark (2001), and Blau et al. (2003) reexamines this labour-supply pattern for immigrants for Canada, Australia, and the USA in a household context, testing alternative theories of labour-supply behaviour. The importance of analysis of labour supply and economic activity at the household level has also been emphasized in a related literature on poverty and inequality (see recent work by Gregg and Wadsworth (2001) and Gregg et al. (2004)). These authors draw attention to the fact that individual-level consideration of economic activity may obscure the true extent of disadvantage of particular groups in the labour market.<sup>2</sup>

Our paper does not aim for a structural interpretation of female labour supply, such as in the papers by Baker and Benjamin (1997) and Blau *et al.* (2003); we leave this for future work. Our emphasis is on the differences in labour-market outcomes of different immigrant groups, compared to native-born whites, where we distinguish between white immigrant females and immigrant females with an ethnic-minority background, with our reference group being white native-born females. We concentrate on married or cohabiting couples, allowing us to investigate economic disadvantage of particular groups in a family context.<sup>3</sup> We define the ethnic group according to the ethnic and immigrant status of the wife.<sup>4</sup>

Our analysis has several goals. Little is known about labour-market activity of different female groups in general, and in Britain in particular. A first contribution is to establish some key facts about the economic achievements of female immigrants belonging to different groups, and compare them with native-born white females. Rather than concentrating on means of the distribution, we investigate differences in outcomes across groups along the distribution of the husbands' economic potential. Our measure for economic potential is wages,

<sup>&</sup>lt;sup>2</sup> Other reasons to study female behaviour in a household context are disincentives created by social security systems. See, for example, Dilnot and Kell (1987) and Dustmann and Micklewright (1993).

<sup>&</sup>lt;sup>3</sup> For simplicity, we generally refer to both groups as 'married'; we refer to males in the couple as 'husbands' and females as 'wives'

<sup>&</sup>lt;sup>4</sup> Accordingly, a couple where, for instance, the wife belongs to an ethnic-minority group and is an immigrant, and the husband is white UK born would be classified as being in the minority immigrant sample.

where we impute wages for husbands who do not work. We also analyse the correlation between employment outcomes for husbands and wives for each of the groups, taking random pairing as the benchmark. Furthermore, we investigate whether any group disadvantage with respect to earnings is aggravated or alleviated when we consider the household context. Finally, we analyse the extent to which differences in employment across the different groups are explained by differences in own characteristics, and differences in characteristics of the partner.

The structure of the paper is as follows. Section II describes the data used and the sample and provides some descriptive statistics. In section III we investigate differences in hourly wages and weekly earnings, considering the entire wage distribution of individuals in the minority immigrant, white immigrant, and white native groups. In section IV, economic outcomes (namely employment, wages, and hours worked) of the three groups are compared along the distribution of the economic potential of the husband. In section V and VI we investigate the differentials in employment probabilities and earnings at the household level. In section VII we undertake some simple decompositions to analyse the potential determinants of employment differentials. Finally, in section VIII, we discuss the results and provide some conclusions.

#### II. THE DATA AND THE SAMPLE

### (i) The Labour Force Survey

The data set we use for our analysis is the British Labour Force Survey (LFS). The LFS is a household survey, conducted by the Office for National Statistics (ONS). It provides a wide range of data on labour-market statistics and related topics such as training, qualifications, income, and disability. The LFS has been carried out in Britain since 1973. Between 1973 and 1983 it was on a biennial basis, changing into an annual survey from 1983 onwards. The sample size is about 60,000 households in each survey, or around 0.5 per cent of the population.

From 1992 onwards, the survey changed to a rotating quarterly panel, with the same individuals being interviewed for five consecutive quarters. Each quarter about 59,000 households are interviewed with about 138,000 respondents. The quarterly LFS contains information on gross weekly earnings and number of hours worked for the fifth quarter wave (1992–6) or the first and the fifth quarter (1997 onwards).

Our sample covers the period from spring 1992 to the first 2 months of 2005. We choose the starting date of 1992 because since that date the LFS has been a quarterly rotating panel with information on wages.

We pool the data over the entire period, and take account of time variation in estimation by including year and quarter dummies. The main reason for pooling the data is to obtain sufficient numbers of observations on some of the groups. Immigrants represent about 10 per cent of the working-age population in Britain, and minority immigrants represent about 48 per cent of all immigrants (LFS 2004). Therefore, the size of the samples of minority and white immigrants in a survey which is representative of the entire population (such as the LFS) is fairly small. For example, the total number of observations available on wages of immigrant minority (married) women is 3,930, with about 200 observations yearly from 1993 to 1996 and about 400 observations afterwards. Similar small sample sizes are available for minority immigrant males, with a total of 5,422 observations on wages. For white immigrants, sample sizes are slightly larger, with 7,151 observations for women and 7,192 observations for men. The small sample size and the type of analysis conducted in the paper also limit the degree of further data decomposition (by ethnic group, for example).

#### (ii) The Sample

We restrict our analysis to individuals who are married or who are cohabiting. We distinguish between three groups, where the group definition is defined by the status of the female. In the first group we include couples where the wife is foreign born, and belongs to an ethnic minority.<sup>5</sup> The second

<sup>&</sup>lt;sup>5</sup> We define ethnic-minority individuals as belonging to the Indian, Bangladeshi, Pakistani, Chinese, Caribbean, or other smaller ethnic groups. In our sample, 34 per cent of ethnic-minority individuals are Indian, the largest ethnic group. The second largest minority group are the Pakistanis (14 per cent). Breaking down ethnic-minority individuals into sub-groups may provide further insight, as there are likely to be differences in performance between these groups (see Dustmann *et al.* (2003) and Dustmann and Fabbri (2005) for some evidence). We leave this for future work.

Table 1				
Same Ethnicity Couples and Same Immigrant (or Native) Status Couple	S			

	Same ethnicity (%)	Same immigrant status (%)
Minority immigrants	83	85
White immigrants	98	33
White natives	99	97

group of our sample consists of couples where the wife is foreign born, but white. Minority immigrant women represent 3.8 per cent of our sample of women and white immigrant women 4.5 per cent. The third group of our sample includes couples where the wife is born in Britain, and white. Notice that this allocation implies that we assign couples according to the wife's origin; if, for instance, the husband is white British born, and the wife is foreign born, and belongs to a minority group, the couple is assigned to the minority foreign-born sample. As our focus is on females, this seems an appropriate classification.

Table 1 provides the percentages of endogamous marriages for women in our sample. We provide two definitions of endogamous marriage. In the first, we consider couples whose members are both from the same ethnic group. In the second, we define endogamous couples as couples where both partners are foreign born (in the case of immigrants), or both native born (in the case of British-born individuals)

In our sample, 83 per cent of minority immigrant females are married to husbands from the same ethnic group, and 85 per cent are married to husbands who are foreign born. By contrast, the overwhelming majority of white immigrant females (98 per cent) are married to white men, whereas only 33 per cent are married to foreign-born husbands.

In Table 2 we describe the basic features of our data. Panel 1 contains information for couples where the wife is from an ethnic minority immigrant background, panel 2 for couples where the wife is a white immigrant, and panel 3 for couples where the wife is white British born. The first column of each panel refers to wives, and the second column to their

husbands. Standard deviations (where applicable) are reported in italics underneath the mean of each variable.

The age structure of husbands in the three groups is fairly similar, with white natives being slightly older than the two immigrant groups. Wives are between 3 and 4 years younger than their husbands and this age difference seems to be more pronounced for ethnic-minority immigrants.

White immigrant wives have on average been longer in Britain (21 years) than ethnic-minority immigrant wives (17 years). Immigrant husbands of minority immigrant females have lived in Britain on average 3 years longer than their wives. Interestingly, immigrant husbands of white immigrant females have lived in Britain for about 15 years, on average, which is about 6 years less than the average for white immigrant women. Further decomposition (not reported in the table) shows that the average years since migration (YSM) of white immigrant females endogamously married is also about 15 years; in contrast, white immigrant women exogamously married have lived in Britain on average for 22 years. For minority immigrant women, the difference in YSM between those in an endogamous or exogamous marriage is only 1 year.

There are considerable differences in educational attainments. It is notable that native whites (both wives and husbands) leave full-time education the earliest, with nearly identical numbers for husbands and wives (at 16.8 years of age), while white immigrants stay on at school for more than 1½ years longer. Again, figures for husbands and wives in this group are almost the same. Among minority immigrants, there is about a year of difference between husbands and wives; nevertheless, husbands of

<sup>&</sup>lt;sup>6</sup> About 31 per cent of the white sample comes from EU (before enlargement) countries, about 15 per cent from old Commonwealth countries (Australia, New Zealand, Canada, and South Africa), and about 8 per cent from the United States.

Table 2
Descriptive Statistics (means)

	Minority	immigrants	Whiteir	nmigrants_	White	natives
Variables	Wives	Husbands	Wives	Husbands	Wives	Husbands
Age	38.67	42.99	39.38	41.92	40.80	43.05
	9.26	9.83	10.07	10.59	10.23	10.59
Years since migration	17.05	20.00	21.50	15.52	_	29.04
	11.30	12.05	15.05	14.93		14.09
Degree	11.02	21.64	17.95	28.35	11.16	15.73
A-levels	16.74	21.97	23.67	32.34	28.31	44.13
O-levels	43.15	34.31	43.29	28.52	37.83	25.64
No qualifications	29.09	22.08	15.09	10.77	22.69	14.50
Age left full-time	18.13	19.04	18.56	18.58	16.83	16.81
education	3.44	3.90	3.37	3.64	2.17	2.44
In employment	46.79	71.74	64.39	84.14	71.34	83.89
Hours worked	32.68	41.05	31.38	42.86	29.02	43.00
(labour force)	11.25	10.89	11.74	10.50	11.70	9.62
Hours worked	14.72	29.04	19.78	35.71	20.34	35.67
(total population)	17.93	20.80	17.79	18.63	16.50	18.39
Log hourly wages	2.09	2.27	2.18	2.52	2.03	2.35
	0.52	0.62	0.55	0.59	0.51	0.52
Log hourly wages	2.00	2.21	2.17	2.49	2.01	2.33
(imputed for all labour force)	0.52	0.61	0.54	0.59	0.50	0.52
Log weekly earnings	5.49	5.96	5.55	6.23	5.30	6.08
	0.73	0.72	0.80	0.64	0.80	0.54
No. children below	1.51	1.51	0.96	0.96	0.96	0.96
19 years	1.37	1.37	1.09	1.09	1.10	1.10
London	45.15	45.18	28.01	27.92	6.16	6.15
No. observations	36,795	36,378	43,465	43,324	882,645	881,392

minority women stay on at school longest, and minority wives stay on more than 1 year longer than native-born wives.

The figures for the different degrees suggest a slightly different educational distribution than the years of full-time education. This may be due to difficulties in comparing foreign with British qualifications. With the exception of minority females, the percentage of degree holders is higher among all immigrant groups than among native whites. However, a very substantial fraction of minority wives and husbands (29 and 22 per cent, respectively) report leaving education without any degree. This is

slightly higher than in the native white population, where respective numbers are 23 and 14 per cent. The numbers are lowest for white immigrants, at 15 and 11 per cent, respectively. Overall, and similar to the age of leaving full-time education, the largest differences in educational attainments between males and females are in the ethnic-minority immigrant group. A higher fraction is at the high end of the skill distribution, but, at least for ethnic-minority immigrants, a higher fraction is also without any school-leaving qualification.

We define individuals as employed if they are working at the time of the survey and as non-

<sup>&</sup>lt;sup>7</sup> About 22 and 29 per cent of foreign-born husbands and wives, respectively, do not fit into any of the standard British education classifications, compared to 14 and 23 per cent of native-born whites. We classify these individuals into the 'no qualification' category. This seems roughly appropriate, as their age leaving full-time education is similar (15 years for both female groups and 16 and 15 years for minority immigrant and white native males, respectively).

employed if they are unemployed or inactive (i.e. out of the labour force). We therefore define employment over the total working-age population. Earnings for the self-employed are not reported in the LFS. We have, therefore, decided to exclude the self-employed from our analysis.

There are differences in employment rates between the groups. Among men, the employment rate of husbands of minority immigrant women is lowest, at 72 per cent. In contrast, males married to nativeborn and to white immigrants have similar employment rates of 84 per cent. For females, differences are far more dramatic: among ethnic-minority immigrants the employment rate is only 47 per cent, while it is substantially higher among white immigrants and natives (at 64 and 71 per cent, respectively). In the employed sample, ethnic-minority females work the longest hours, on average 33 hours a week, whereas white immigrant and white native females work 31 and 29 hours, respectively. On the other hand, husbands of ethnic-minority women work on average 41 hours a week, 2 hours fewer than husbands of white women.

The difference in employment rates can also be seen in the difference in observed weekly hours worked for the total sample (where we set hours of individuals out of work to zero). Foreign-born ethnic-minority women work an average of 15 hours, whereas white (immigrant and native) women work 20 hours a week. Similarly, their husbands work 30 hours, whereas husbands of white (immigrant and native) women work 36 hours.

The survey reports weekly hours of work and gross weekly earnings for those individuals who are employed. We construct hourly wages by dividing gross weekly earnings by the total number of hours worked in a week (including overtime). As measures of wages, we use log gross hourly wages and log gross weekly earnings.

As we explain above, the LFS is a rotating panel, where individuals are interviewed in five waves in

consecutive quarters. Earnings information was collected only in the last (fifth) wave until 1997, and from then onwards in the first and the last waves. Therefore our data on employment status and weekly hours worked are quarterly, while our wage and earnings data are on a yearly basis.

We impute wages for individuals who have missing wages owing to non-reporting.8 Imputations are done separately for each ethnic (minority immigrants, white immigrants, and white natives) and gender group. Wages are predicted from regressions of the log of deflated9 hourly wages on individual characteristics (education, potential experience and potential experience squared, dummies for working part-time, region, year and quarter, and, for the immigrant samples, years since migration and its square). To our predictions, we add an error term, drawn from a normal distribution, whose variance equals the variance of the residuals from the regression of those who report earnings. We allow this variance to differ across the three groups, and between males and females. 10 We use the same procedure to predict wages for individuals who do not work, which we use for computing husband's economic potential.

We eliminate the time trend from our wage information by normalizing wages to 2004. We report log hourly wages for those who are working and imputed wages for the whole working-age population in Table 2, for those waves where individuals were interviewed about their earnings. Hourly wages (weekly earnings) for those who work include imputations for those who have missing values owing to non-reporting. Log hourly wages of immigrant women are, on average, higher than for native women. In particular, immigrant white women earn 16 per cent more than white native women. Minority immigrant women earn 6 per cent more than native women. In contrast, husbands married to white immigrant women earn 18 per cent more than those married to white native women, and husbands of minority immigrant women earn 8 per cent less than husbands of white natives.

<sup>&</sup>lt;sup>8</sup> About 22 per cent of all earnings observations are missing. The percentage of non-reporting is slightly smaller than that in the US Current Population Survey where, in 2001, 31 per cent of all public- and private-sector wages were imputed (see Hirsch and Schumacher, 2004). Other than for the UK LFS, earnings for those with missing values in the US Census or CPS are imputed by the Census, using 'hotdeck' procedures. See Lillard *et al.* (1986) for details.

<sup>&</sup>lt;sup>9</sup> As deflator, we use the monthly Retail Price Index, available on the ONS website, www.statistics.gov.uk

<sup>&</sup>lt;sup>10</sup> This procedure was suggested by Lillard *et al.* (1986) as an alternative to the 'hot deck' procedure, which matches non-respondents with demographically similar donors.

Mean log hourly wages including individuals who are not in employment are lower for minority females than for females of the other two groups, which reflects the lower employment rate and stronger selection on observables among minority females who work. The larger difference between minority and native women in weekly earnings than in hourly wages reflects the fact that minority women who work, work for longer hours than natives. In contrast, husbands of minority women earn less than husbands of native women. Husbands of white immigrant women earn more than the other two groups.

Ethnic-minority women and men have, on average, more dependent children (below age 19) than white immigrants and natives (1.51 against 0.96 for immigrants and natives), and these differences are quite pronounced in each of the children's age groups that we consider.

The strong concentration of immigrants in the Greater London area is noteworthy, in particular that of ethnic-minority immigrants. While only around 6 per cent of the native-born white couples live in Greater London, nearly 28 per cent of the white immigrants, and nearly 45 per cent of the ethnic-minority immigrants do so.

#### **III. WAGES AND WEEKLY EARNINGS**

We proceed to inspect differences in wages and weekly earnings between minority and white immigrants on the one hand, and native-born whites on the other. The simple means we have displayed in the tables above may give insufficient evidence of the differences in economic conditions between the different groups. Rather than concentrating on means, we consider the entire distribution of individuals in particular groups. A good summary of the individual's economic potential is the wage, and we rank individuals in each of these groups, distinguishing between husbands and wives, according to their position in the group and gender-specific wage distribution, splitting the overall distribution into deciles. To avoid distortion of this measure, we need to take account of the fact that we observe individuals at different stages of their labour-market career. To determine the individual's percentile position, we therefore follow Juhn and Murphy (1997) and rank individuals for each year of potential experience based on their percentile position in the hourly wage distribution. <sup>11</sup> This maps and compares the advantage and disadvantage of the two immigrant groups across the group-specific distributions of economic potential.

Figures 1 and 2 report results for log hourly wages (including only individuals who work and imputing wages for missing wage observations owing to non-response) for husbands and wives, respectively, where the left panel compares minority immigrants and the white native born, and the right panel white immigrants and the white native born. Figure 1 suggests different patterns for the two groups of husbands. The difference in log wages between husbands of white natives and husbands of minority immigrants in the bottom deciles is about 0.27, which translates into a 31 per cent wage difference. This difference diminishes over the decile rank, and turns into an advantage from the 8th decile onwards.

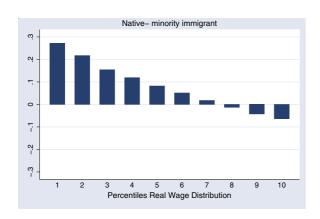
Comparing native-born whites with white immigrants provides a different picture. The mean wage advantage of 18 per cent, which we report in Table 2, is mainly driven by wage advantages in the upper part of the distribution. In comparison to white native born, both immigrant populations have a relative advantage at the top end of the respective wage distributions.

As Figure 2 illustrates, minority immigrant women have a wage advantage over the entire range of the wage distribution which is slightly larger in the middle deciles and towards the top end of the distribution. This advantage, together with the very low employment rate, suggests high selection into work of this immigrant group. White immigrant females have again an advantage throughout the wage distribution, which is slightly more pronounced in the middle deciles, and smallest in the lowest deciles range.

Figures 3 and 4 display differentials in log weekly earnings. As for wages, we include only individuals who work and impute wages for wage observations missing owing to non-response. The difference in

<sup>&</sup>lt;sup>11</sup> As mentioned before, we also normalize wages and earnings to eliminate time trend.

Figure 1
Log Hourly Wage Differentials, Husbands



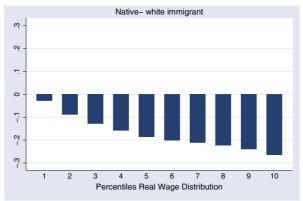
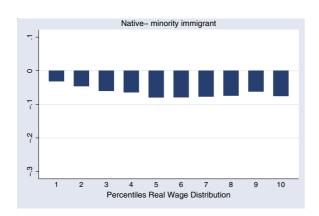


Figure 2
Log Hourly Wage Differentials, Wives



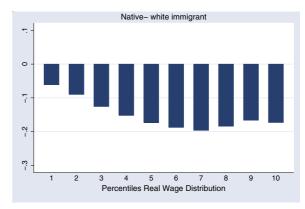
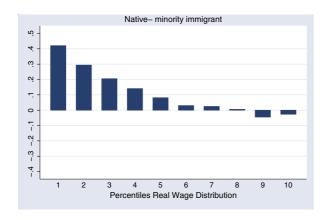


Figure 3
Log Weekly Earnings Differentials, Husbands



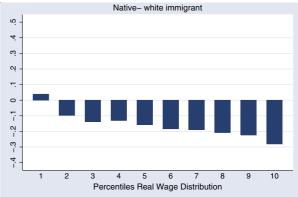
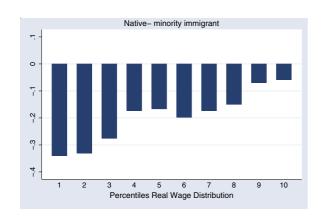
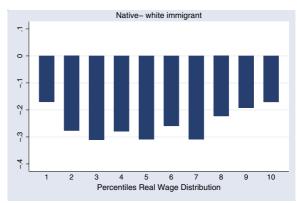


Figure 4
Log Weekly Earnings Differentials, Wives





earnings between husbands of minority immigrants and white natives is now increasing even further, in particular in the bottom deciles, which is due to husbands of white natives working more hours, as compared to husbands of minority immigrants. In the bottom decile, the difference in weekly earnings is around 52 per cent. For white immigrants, differences remain roughly similar across the distribution to those in log wages.

For wives, the wage differential in favour of immigrants increases substantially (especially for the minority group) when considering log weekly earnings, in particular at the low end of the distribution. Earnings differentials here are around 40 per cent in favour of minority immigrants. Unlike their husbands, minority female immigrants who do work, work substantially more hours than native whites at the bottom parts of the wage distribution. Similarly, the positive differences in log weekly earnings increase for white immigrant females but resemble roughly the distribution of hourly wage differences, which is due to a similar distribution of hours worked.

The figures suggest that white immigrant women (as well as their husbands) are at a significant advantage regarding their wages and earnings on average, and that this advantage is increasing towards the middle and top deciles of the respective distributions. For minority immigrants who work, there seems to be a divide between husbands and wives. Females have slightly higher wages, and a large advantage in weekly earnings (owing to their higher labour supply). In contrast, their husbands

are particularly disadvantaged at the bottom end of the earnings distribution, owing both to lower wages, as well as lower working hours. This disadvantage disappears and turns to an advantage at the top end of the distribution.

## IV. COMPARING OUTCOMES ALONG THE MALE IMPUTED WAGE DISTRIBUTION

In the previous section, we compared wages and earnings considering only those who are in work. However, the figures in Table 2 suggest that there are large differences in employment between the different groups, in particular for female minority immigrants. Consideration of the total population may change conclusions about economic advantage. Furthermore, analysis of economic advantage at the level of the individual may be misleading. At the household level, relative disadvantage of particular groups of individuals may well be reinforced, or mitigated, depending on how males and females are paired.

## (i) Matching of Wives and Husbands

We commence by comparing women in the different groups along the distribution of economic potential of their husbands. As a first step, we relate women's economic potential (measured as their observed or imputed wage) along the distribution of husbands' economic potential (likewise measured as observed or imputed wage). We do not attempt

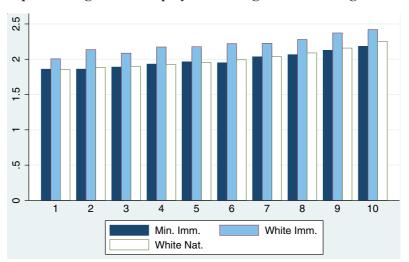


Figure 5
Female Imputed Wages and Employment along the Male Wage Distribution

to control for selection of those who work when computing these predictions, which may lead to underestimating the economic potential of those who are not in work.

We follow Juhn and Murphy (1997) and use imputed wages for individuals who do not work, computed by the imputation method we describe above. For each year of potential experience, we then rank individuals according to the husband's percentile distribution in the (imputed) wages in each survey year. We compute the decile differences in the respective distributions in the various outcomes between the two immigrant groups, and white native-born individuals.

In Figure 5, we display wages of wives along their husbands' imputed wage distribution. Several interesting facts emerge from this figure. The differences across the husbands' distribution tend to increase slightly between white immigrant and ethnic-minority and native women. The figure also suggests that wives with higher wage potential tend to be married to husbands with higher wage potential tend to be married to husbands with higher wage potential. This sorting is also observed for other countries (see, for instance, Juhn and Murphy, 1997). These patterns are similar across the different groups, suggesting that changes in the economic potential of women across the distribution of their husbands' potential are comparable across groups.

#### (ii) Hours Worked

In Figures 6 and 7 we display the differences in the number of hours worked per week between minority immigrants (left panel) and white immigrants (right panel), and white natives. We set hours worked to zero for those individuals who do not work. Again, we rank decile differences along the male imputed wage distribution.

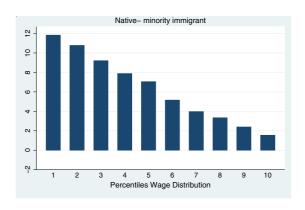
Figure 6 refers to husbands, and suggests considerable overall differences in weekly hours worked at the low end of the imputed wage distribution for those married to minority females, relative to those married to white natives. In contrast, total hours worked are very similar between those married to white immigrants, and to white natives.

Figure 7 refers to wives. Similar to the figures for their husbands, there is a considerable disadvantage in hours worked for minority females along the whole distribution, which is particularly large at the bottom end. Hours worked for white foreign-born females and native-born females are very similar.

Combined with our findings in section III, these figures suggest that female minority immigrants who are at the bottom of the wage distribution and who work, compensate for their wage disadvantage relative to native-born females by working longer hours. This leads to an overall earnings advantage at

<sup>&</sup>lt;sup>12</sup> The same diagram with only working wives who report wages looks almost identical.

Figure 6
Husbands' Weekly Hours Worked Differentials along their Imputed Wage Distributions, total population



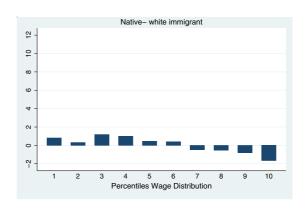
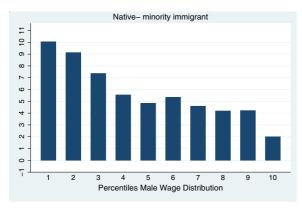
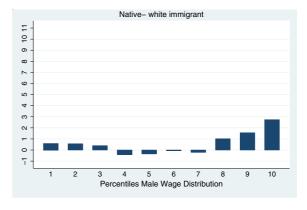


Figure 7
Female Weekly Hours Worked Differentials along the Husbands' Imputed Wage Distributions, total population





the lower deciles. However, when considering the entire population, the low employment rate of minority immigrant females leads to lower total hours worked. Along the distribution of their husbands' economic potential, this disadvantage seems to be particularly pronounced at the bottom percentiles.

#### (iii) Weekly Earnings

How does this translate into weekly earnings differences? In Table 3 we display percentage differences in mean weekly earnings across the male wage distribution for wives and husbands, where earnings of those who do not work are set to zero. For husbands of female minority immigrants, the average difference is 31 per cent, implying that, on average, they earn 31 per cent less; however,

differentials are very large at the bottom end of the distribution, and decrease when we move to the top end of the distribution. In the top decile, the difference is only 6 per cent, compared to 77 per cent in the first decile. For those married to white immigrants, the difference to natives is negative on average (at 16 per cent), suggesting an overall advantage, in particular at the top end of the distribution.

The first and third columns report figures for females. The disadvantage for female minority immigrants remains on average higher and in the husbands' lowest decile is even larger than for their husbands (where white women earn more than twice as much as ethnic-minority women). The disadvantage is most pronounced in the bottom

Table 3							
Percentage	Differential	in	Weekly	Earnings	(total	population)	

	Minority	Minority immigrants		nmigrants
Deciles	Wives	Husbands	Wives	Husbands
1	117.59	76.56	-6.96	-6.52
2	81.13	63.79	-6.82	-10.15
3	61.66	43.66	-9.90	-10.13
4	38.62	38.54	-18.89	-14.09
5	24.33	30.95	-18.57	-16.73
6	37.20	23.56	-19.38	-17.96
7	26.75	16.33	-17.84	-19.36
8	10.13	23.12	-12.92	-19.76
9	7.77	13.24	-10.39	-21.91
10	2.16	6.16	-3.80	-25.28
Average over				
total sample	43.60	31.35	-12.55	-16.19

deciles of the husbands' economic potential. Comparing native-born wives to white immigrants, the differentials are overall in favour of immigrants, with stronger advantage in the middle of the distribution.

For robustness, we replicated our descriptive analysis in sections III and IV on the sub-samples of same ethnicity couples and same immigrant status only. In the first case, results are very similar to those deriving from the total sample. In the second case, we find that couples in endogamous relationships perform worse than couples in exogamous relationships. This evidence is stronger for white immigrant couples. In particular, with respect to white natives, wage and earnings disadvantages for ethnic-minority couples are slightly higher than those found in the main analysis. In contrast, wage and earnings advantages for white immigrant couples are lower. This evidence suggests that there is a potential premium for intermarried immigrants. Study of intermarriage premium, however, involves the complicated task of disentangling its selection and productivity components.<sup>13</sup> This kind of analysis is beyond the scope of this paper and will be addressed in future research.

## V. EMPLOYMENT AND NON-EMPLOYMENT CONCENTRATION AT THE HOUSEHOLD LEVEL

One result that stands out from Figures 6 and 7 is the considerable difference in employment rates across the different groups, with ethnic-minority immigrants (and, in particular, females) having much lower employment rates than individuals in the other groups. In this section we investigate whether these differences are reinforced at the household level.

#### (i) Measuring Polarization

We commence by reporting some statistics of the distribution of employment at household level for the three groups we consider.

In the first two rows of Table 4 we report the probabilities of husbands and wives being employed. These numbers reiterate those in Table 2, and show large differences in employment, in particular between minority immigrants and the other two groups. Row 3 reports the conditional probability of the wife being in employment, given that the husband is in

<sup>&</sup>lt;sup>13</sup> See Meng and Gregory (2005) and Kantarevic (2004) for a thorough discussion on the issue.

Table 4
Probability of Being in Employment and Polarization ( $h = husband$ , $w = wife$ )

	Minority immigrant	Whiteimmigrant	White native
(1) P(h=1)	71.74	84.14	83.89
(2) P(w=1)	46.79	64.39	71.34
(3) $P(w = 1 h = 1)$	55.85	69.18	77.33
(4) $P(h = 1, w = 1)$	40.06	58.21	64.87
(5) $P(w = 1)P(h = 1)$	33.57	54.18	59.84
(6) $P(w = 1, h = 1) - P(w = 1)P(h = 1)$	1) 6.49	4.03	5.03
(7) (6)*100/P(w=1)P(h=1)	19.33	7.43	8.40

work. If employment events within households were independent, this probability should be equal to the marginal probability in row 2. The numbers suggest that conditional on the husband working, the probabilities of minority immigrant, white immigrant, and white native-born women being employed increase by 9, 5, and 6 percentage points, respectively, or by 19, 7.4, and 8.4 per cent.

In rows 4 and 5 we report the joint probability of the household being in work, and the product of the marginal probabilities, respectively. If the events of the husband and the wife being employed were independent, then P(h = 1, w = 1) = P(h = 1)P(w = 1)1). The difference between the actual probability of employment at the household level, and the predicted probability, P(h = 1, w = 1) - P(h = 1)P(w = 1)1), is called *polarization* by Gregg and Wadsworth (2004) and Gregg et al. (2004)<sup>14</sup> and is reported in row 6. If work was randomly distributed across individuals, independent of their household formation, then this index would equal zero. The index is higher for ethnic-minority immigrant households than for white native-born households. Note that, as this index is sensitive to the size of the smallest marginal probability,15 it may be misleading when comparing different groups. In row 7 we report the percentage difference between the joint probability and the product of the marginal probabilities of employment, which is largest for minority individuals. 16 These numbers reiterate findings in previous sections that both minority immigrant wives and their husbands have lower employment probabilities than wives and husbands in the other two groups.

They suggest, in addition, that there is a stronger polarization of working males and females in the same households for the minority group.

# (ii) Employment Probabilities along Husband's Economic Potential

In Figure 8 we display the marginal probabilities of employment of husbands and wives for the three groups along the husbands' imputed wage distribution. For females, the figure suggests fairly stable employment probabilities for the two white groups across the distribution. For minority immigrant women, employment probabilities at the bottom deciles are about 30 per cent, but increase to between 50 and 60 per cent at the top deciles. Husbands of female minority immigrants show a similar increase, starting at about 60 per cent at the bottom decile and rising to over 80 per cent at the top decile.

Figure 9 displays joint probabilities of both partners working (P(h = 1, w = 1), left panel) and both partners not working (P(h = 0, w = 0), right panel) along the deciles of the male imputed wage distributions. As before, the figure shows large differences between groups. For white natives and white immigrants, the probability of both partners working seems to have a slightly concave shape. It is lowest on the 1st and 10th deciles and highest in the middle of the distribution. On the other hand, for minority immigrants, it increases along the distribution, with the probability of both partners working growing from 20 per cent in the bottom decile of the male distribution to 50 per cent in the top decile.

<sup>&</sup>lt;sup>14</sup> They compute P(h = 0, w = 0) - P(h = 0)P(w = 0), which is equal to P(h = 1, w = 1) - P(h = 1)P(w = 1).

<sup>15</sup> This is as both P(h = 1, w = 1) and P(h = 1)P(w = 1) must be smaller than min $\{P(h = 1), P(w = 1)\}$ .

<sup>&</sup>lt;sup>16</sup> Alternatively, this index can be written as 100 \* (P(w=1|h=1) - P(w=1))/P(w=1), the percentage difference between the conditional and unconditional employment probability of the wife.

Figure 8
Wives' and Husbands' Employment Probabilities along Husbands'
Imputed Wage Distribution

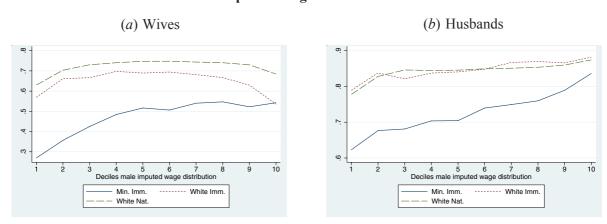
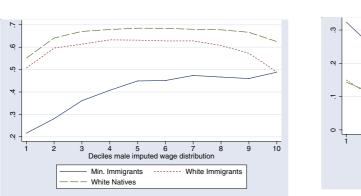
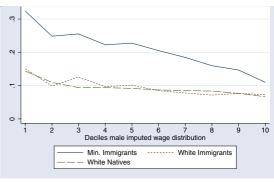


Figure 9
Household Full-employment and Non-employment Probabilities along the Male
Wage Distribution



(a) Full employment

(b) Non-employment



In the right panel, we display the joint probabilities of joblessness. Similarly, this figure shows that the probability of joblessness decreases slightly for couples with white immigrant or native-born white females over the interdecile range of the husbands' imputed wage distribution and ranges between 14 and 8 per cent. For minority immigrants, it decreases from around 32 per cent in the bottom deciles to around 10 per cent in the top deciles.

These figures suggest that households where both partners are employed and both partners are non-employed, seem to be fairly equally distributed along the distribution of husbands' economic potential for households with white native-born and immigrant women. For households with minority wives, the joint probability that both partners are in employment is lower at the lower parts of the husbands'

imputed wage distribution. This is due to individual employment probabilities of males and their female partners both being lower for males with low economic potential, as suggested by Figure 8. It may be reinforced by a lower degree of sorting of employed females and males at lower deciles of the husbands' economic potential. Evidence for this is provided by the analysis on the polarization index that follows.

In Figure 10 we display the difference in the joint probability and the product of the marginal probabilities of husband's and wife's employment (Gregg and Wadsworth's 'polarization' index) for the three groups. The counterfactual in each decile of the wage distribution is computed as the product of the marginal probabilities  $P(h=1)^D P(w=1)^D$ , where D is the respective decile. The figure reiterates the results in Table 4, that polarization is on average

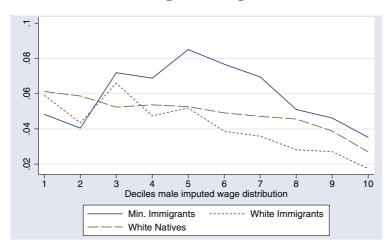
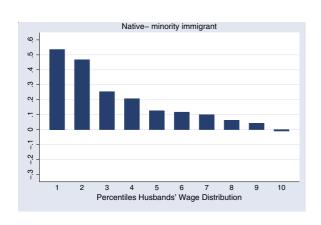
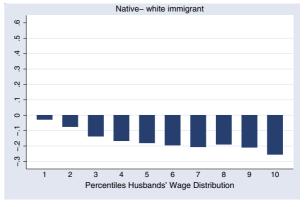


Figure 10 Polarization along Male Wage Distribution

Figure 11
Family Log Weekly Earnings Differentials along the Male Group Wage Distributions





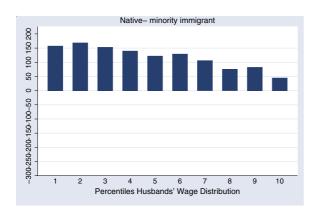
slightly higher for minority immigrant couples than for white native and white immigrant couples. Furthermore, while polarization seems to decrease steadily for white couples, it has an inverse U-shape for minority couples. It increases until about the median, and then decreases, first reinforcing and then counteracting the slope of the joint household full-employment probabilities, as compared to those obtained by random matching.

# VI. FAMILY EARNINGS ACROSS THE DISTRIBUTION OF HUSBANDS' ECONOMIC POTENTIAL

The results in the previous sections suggest that males and females from the ethnic-minority population are disadvantaged with respect to their wages relative to individuals from the white majority population. They also indicate relatively low individual and household employment rates at the bottom ranges of the distribution of the husbands' economic potential for minority males and females. All this suggests that earnings disadvantages in the minority population in the lower deciles of the overall distribution, are aggravated at the household level.

To investigate this, we display in Figure 11 the differences in family log gross weekly earnings. In Figure 12 we display differences in gross weekly earnings, where we include couples where both are out of employment, and we set weekly earnings at zero. In Table 5 we report the percentage differences along the distribution of husbands' economic potential for this last group.

Figure 12
Family Weekly Earnings Differentials along the Male Group Wage Distributions (total population)



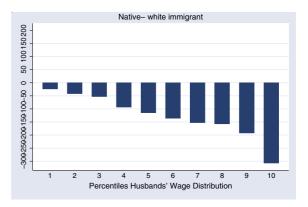


Table 5
Percentage Differential in Family Weekly Earnings (total population)

Decile	Minority immigrants	White immigrants	
1	90.70	-6.63	
2	68.79	-9.12	
3	49.36	-10.22	
4	38.48	-15.63	
5	28.69	-17.33	
6	27.78	-18.62	
7	19.63	-19.13	
8	11.81	-18.04	
9	11.17	-19.03	
10	4.15	-21.57	
Average over total sample	35.06	-15.53	

Consider first Figure 11, where we only include couples where at least one partner is in work. For ethnic-minority couples, the earnings differential at the lower end of the distribution is larger than at other points of the distribution. In the bottom decile, white native households earn, on average, 68 per cent more than minority households. This differential decreases to 28 per cent in the third decile and turns to an advantage only in the top decile.

For white immigrant families, the differential is negative, with white immigrant families earning more than native families throughout the distribution, and in particular between the middle and the top end of the distribution.

Figure 12 includes non-working households and reports actual differences without the logarithmic

transformation. Earnings differentials for minority couples vary between £44 and £168. The average differential between minority and white native families in the first decile is £158 per week. In percentage terms (reported in Table 5), this differential is large. Average family earnings for minorities in the first decile amount to a mere £173 per week, against £330 per week for white natives. This means that white native families in the first decile of husbands' distribution of economic potential earn almost twice as much as minority families. In contrast, the earnings difference in the tenth decile is £44, which, in relative terms, translates into a 4 per cent difference between native and minority earnings.

For white immigrants, differentials in the middle deciles are substantially in favour of immigrants. In percentage terms, these differentials are highest between the middle and top end of the distribution.

VII. WHAT EXPLAINS EMPLOYMENT DIFFERENCES BETWEEN GROUPS?

In the previous sections we have illustrated considerable differences in employment, in particular between minority immigrants and white natives. These differences contribute to the sizeable disadvantage in earnings of couples where the wife belongs to an ethnic minority, in particular at the lower deciles of the distribution of husbands' economic potential. In this section we investigate the possible reasons for these differences in terms of observed characteristics.

Our analysis relies on standard Oaxaca decompositions for employment probabilities, where the estimation is based on linear probability models. Regressions use two specifications: one using a set of individual characteristics (such as education, age, and number of children), and a second adding partner's characteristics, including educational achievements and age. The interpretation of our estimates and decomposition is non-causal. As before, we investigate employment decompositions along the husbands' wage potential. The full specifications with estimated coefficients and decompositions for the overall samples are reported in the Appendix tables.

As we saw in Table 2, there are both similarities and differences in observed characteristics between the immigrant groups and native whites. One particularly distinguishing feature of minority immigrants was the larger number of children in each of the age categories. This may have an important effect on labour-supply behaviour. The estimated coefficients in Appendix Table 1 show evidence of a slightly smaller response to the presence of children in the age groups between 0 and 9 years in the sample of minority females. On the other hand, there seems to be a slightly stronger response from minority females to having a degree or A-levels, compared to the other groups. The second set of columns in Appendix Table 1 includes partner characteristics. For all groups, having a partner with a degree increases employment probabilities, while employment probabilities of minority and white native

women increase with partner's age at a decreasing rate.

Figures 13–16 report both the raw employment differential and the 'explained' part of wives' and husbands' employment differentials along the husbands' imputed wage distribution. The white native group is taken as the norm for the decompositions.

Figure 13 partly reiterates the findings from Figure 8 (left panel). The employment differential between minority and white native wives is higher in the lower part of the husbands' wage distribution. Figure 13 shows that the fraction of this differential that can be explained by individual and partner's characteristics decreases along the distribution, but is overall quite small.

Figure 14 reports differentials between white immigrants' wives and white natives' wives. It shows that the employment disadvantage is higher for wives whose husbands are in the highest deciles. The overall differentials are, however, much lower than for minority wives and their husbands. Hardly any of the differential can be explained by individual and partner's characteristics.

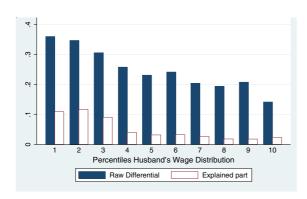
For husbands of minority immigrant women (Figure 15), a larger part of the unemployment differential is explained by individual and partner's characteristics, but the explained proportion remains below 50 per cent.

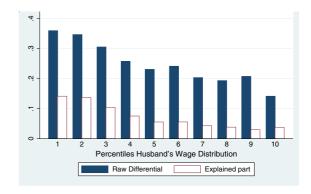
Figure 16 reports results for husbands of white immigrant women. Here the numbers seem to suggest that according to their observed characteristics, and relative to husbands of white native women, the employment rate of husbands of white immigrant women should be higher in most deciles. However, the overall differences are very small.

# VIII. DISCUSSION AND CONCLUSIONS

In this paper we present a detailed analysis of immigrant women in Britain in a household context. We distinguish between immigrant women who belong to ethnic-minority communities, and white immigrant women. We consider married or cohabiting couples, and analyse both women and their husbands. Much of our analysis compares these

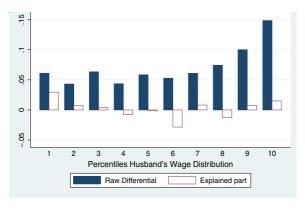
Figure 13
Oaxaca Employment Decompositions, Minority Immigrant Wives

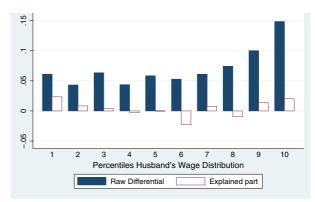




*Notes*: The left panel reports results unconditional on partner's characteristics, the right panel conditional on partner's characteristics.

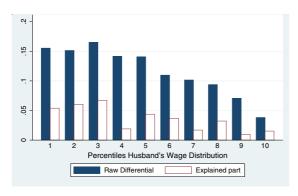
Figure 14
Oaxaca Employment Decompositions, White Immigrant Wives

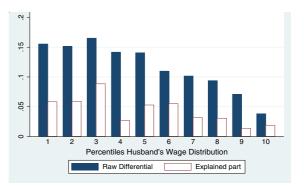




*Notes*: The left panel reports results without partner's characteristics, the right panel with partner's characteristics.

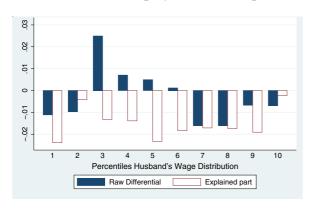
Figure 15
Oaxaca Employment Decompositions, Husbands of Minority Immigrant Wives

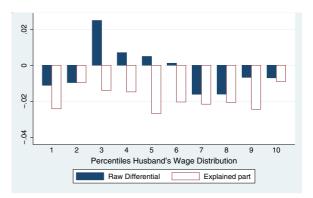




*Notes*: The left panel reports results unconditional on partner's characteristics, the right panel conditional on partner's characteristics.

Figure 16
Oaxaca Employment Decompositions, Husbands of White Immigrant Wives





*Notes*: The left panel reports results without partner's characteristics, the right panel with partner's characteristics.

groups along the husbands' distribution of economic potential.

We find large differences between the two immigrant groups, relative to husbands and wives in couples where the woman is white British born. Couples where the wife is a white immigrant have labour-supply patterns similar to couples where the wife is white and native born. However, white female immigrants have higher wages and weekly earnings than white native-born women. Their husbands are likewise more successful on average, and increasingly so when moving up the distribution of their economic potential.

In contrast, results for ethnic-minority couples reveal a more complex scenario. Average wages of ethnic-minority females are slightly higher than those of white natives. Owing to higher labour supply, their weekly earnings are even higher. However, the employment rate of ethnic-minority foreign-born women is much lower than for white natives. This leads to a large economic disadvantage for the total ethnic-minority female population. The disadvantage is particularly pronounced at the bottom of the distribution of the husbands' economic potential. Husbands of ethnic-minority women, in addition, have both wage and earnings disadvantages at the lower end of their economic potential. Labour supply and employment rates are also lower than for husbands of white native women, again particularly at the lower end of their wage distribution.

There is evidence of sorting of females along the economic potential of males for all groups. Employment probabilities for both white immigrant and white native women do not greatly differ along this distribution, while those of minority immigrants are much lower on average. When investigating employment patterns along the distribution of husbands' economic potential, we find very low employment at the bottom deciles, and convergence to those of white immigrants at the top deciles. This translates into a serious disadvantage for minority immigrant couples in terms of weekly earnings, in particular at the bottom of the distribution of the husbands' economic potential. In contrast, immigrant couples with a white wife have, on average, an advantage in terms of weekly earnings, when compared to natives.

Our analysis is a first exploration of the economic activity of different immigrant groups in Britain in a household context. It demonstrates substantial differences among groups in the immigrant population, and large differences within these groups along the distribution of husbands' economic potential. We have not attempted to estimate structural models and we have been parsimonious when dealing with particularities in our data. Future work should explore additional important issues which we could not address in this paper. For instance, while we demonstrate large employment differentials for both males and females between the groups of ethnic-minority immigrant wives and white native-born wives, we are unable to explain these differences in

terms of observed characteristics. We also aggregate various ethnic groups; we know from other sources (for instance Dustmann *et al.*, 2003; Dustmann and Fabbri, 2005) that there are differences in performance between the different non-white groups. A further breakdown of ethnic-minority individuals into different ethnic groups could provide further interesting insights. We have also shown that a fraction of immigrant women are

married or cohabiting with men outside their ethnic groups. Recent work by Meng and Gregory (2005) finds large earnings advantages for those immigrants who are married to natives. Extension of this analysis to the British case, and considering differences in ethnic origin, may contribute to drawing a more complete picture of economic differences across the various groups.

Appendix Table 1
Employment Regressions Used in the Oaxaca Decomposition, Wives

	Minorityi	mmigrants	Whitein	nmigrants	White n	atives
O-level	0.158	0.131	0.129	0.125	0.163	0.154
	[26.92]**	[20.20]**	[19.45]**	[17.56]**	[131.36]**	[121.48]**
A-level	0.375	0.334	0.234	0.221	0.203	0.196
	[50.83]**	[41.90]**	[32.42]**	[28.54]**	[153.95]**	[142.49]**
Degree	0.360	0.331	0.255	0.250	0.251	0.261
	[41.69]**	[33.45]**	[32.69]**	[28.33]**	[145.78]**	[134.86]**
Age	0.063	0.053	0.033	0.033	0.049	0.042
	[28.41]**	[20.03]**	[16.67]**	[13.15]**	[124.01]**	[74.11]**
Age squared /100	-0.078	-0.063	-0.047	-0.044	-0.069	-0.056
	[28.23]**	[19.10]**	[19.31]**	[14.09]**	[142.23]**	[82.36]**
Children aged 0-4	-0.162	-0.162	-0.223	-0.222	-0.211	-0.212
	[41.14]**	[41.33]**	[57.06]**	[56.96]**	[235.95]**	[236.97]**
Children aged 5–9	-0.086	-0.086	-0.118	-0.116	-0.101	-0.101
	[24.27]**	[24.37]**	[29.58]**	[29.21]**	[120.45]**	[121.47]**
Children aged 10–18	-0.044	-0.043	-0.038	-0.037	-0.042	-0.042
	[16.02]**	[15.49]**	[11.79]**	[11.57]**	[62.49]**	[63.27]**
Partner's O-level		0.038		-0.018		0.052
		[5.42]**		[2.23]*		[33.82]**
Partner's A-level		0.127		0.066		0.058
		[16.26]**		[8.07]**		[41.15]**
Partner's degree		0.044		0.006		0.006
		[5.12]**		[0.63]		[3.16]**
Partner's age		0.014		-0.001		0.010
		[5.90]**		[0.25]		[18.70]**
Partner's age sq./100	)	-0.019		-0.004		-0.015
		[7.03]**		[1.40]		[25.51]**
Constant	-0.875	-0.994	0.094	0.092	-0.158	-0.248
	[16.92]**	[17.55]**	[2.11]*	[1.94]	[18.93]**	[27.83]**
Observations	36,791	36,791	43,464	43,464	882,626	882,626
R-squared	0.20	0.21	0.13	0.14	0.13	0.14

*Note*: Absolute value of t statistics in brackets \* significant at 5 per cent; \*\* significant at 1 per cent.

Appendix Table 2
Employment Differential Decompositions, Wives

	Minority imr	nigrants	Whiteim	migrants
	Without partner's controls	With partner's controls	Without partner's controls	With partner's controls
Raw differential	0.245	0.245	0.069	0.069
Unexplained	0.194	0.172	0.062	0.056
% unexplained	79.1	70.2	89.0	80.9
Explained	0.051	0.073	0.008	0.013
% explained	20.9	29.8	11.0	19.1

Appendix Table 3
Employment Regressions Used in the Oaxaca Decomposition, Husbands

	Minority i	mmigrants	Whitein	nmigrants	White n	atives
O-level	0.125	0.095	0.164	0.119	0.145	0.124
	[11.61]**	[8.11]**	[15.33]**	[10.52]**	[66.84]**	[56.65]**
A-level	0.236	0.195	0.196	0.145	0.168	0.142
	[19.87]**	[15.05]**	[18.58]**	[12.89]**	[84.06]**	[69.43]**
Degree	0.275	0.227	0.231	0.167	0.201	0.163
	[22.94]**	[16.24]**	[21.59]**	[13.82]**	[84.37]**	[61.88]**
Age	0.056	0.046	0.043	0.035	0.050	0.040
	[16.54]**	[11.52]**	[17.83]**	[11.09]**	[95.02]**	[52.58]**
Age squared /100	-0.001	-0.001	-0.001	-0.000	-0.001	-0.001
	[19.43]**	[14.32]**	[20.64]**	[13.80]**	[111.33]**	[66.32]**
Children aged 0–4	-0.055	-0.046	-0.021	-0.020	-0.032	-0.031
	[8.76]**	[6.99]**	[4.10]**	[3.89]**	[25.51]**	[24.19]**
Children aged 5–9	-0.038	-0.036	-0.034	-0.034	-0.035	-0.036
	[6.73]**	[6.18]**	[6.31]**	[6.39]**	[30.00]**	[30.55]**
Children aged 10–18	-0.028	-0.028	-0.008	-0.010	-0.023	-0.026
	[6.30]**	[6.23]**	[1.79]	[2.35]*	[24.89]**	[27.57]**
Partner's O-level		0.058		0.104		0.082
		[5.40]**		[10.77]**		[44.77]**
Partner's A-level		0.101		0.124		0.093
		[7.71]**		[11.68]**		[47.08]**
Partner's Degree		0.069		0.118		0.084
		[4.32]**		[9.98]**		[31.07]**
Partner's age		0.016		0.012		0.015
		[3.60]**		[3.48]**		[18.90]**
Partner's age sq./100	)	-0.016		-0.013		-0.016
		[3.02]**		[3.01]**		[16.83]**
Constant	-0.562	-0.678	-0.149	-0.256	-0.188	-0.305
	[6.52]**	[7.32]**	[2.50]*	[3.99]**	[15.45]**	[23.72]**
Observations	11,744	11,744	13,830	13,830	277,724	277,724
R-squared	0.15	0.16	0.13	0.14	0.14	0.15

*Note*: Absolute value of *t* statistics in brackets. \* significant at 5 per cent; \*\* significant at 1 per cent.

Appendix Table 4						
<b>Employment</b>	<b>Differential</b>	Decomposition	ons,	Husbands		

	Minority immigrants		White immigrants	
	Without partner's controls	With partner's controls	Without partner's controls	With partner's controls
Raw differential	0.121	0.121	-0.003	-0.003
Unexplained	0.080	0.072	0.011	0.014
% unexplained	65.5	59.4	-418.4	-528.9
Explained	0.042	0.049	-0.013	-0.016
% explained	34.5	40.6	518.4	628.9

#### REFERENCES

- Baker, M., and Benjamin, D. (1997), 'The Role of the Family in Immigrants' Labor-market Activity: An Evaluation of Alternative Explanations', American Economic Review, **87**(4), 705–27.
- Blau, F. D., Kahn, L. M., Moriarty, J. Y., and Portela Souza, A. (2003), 'The Role of the Family in Immigrants' Labormarket Activity: An Evaluation of Alternative Explanations: Comment', American Economic Review, 93(1), 429–47.
- Borjas, G. J. (1985), 'Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants', *Journal of Labor Economics*, **3**, 463–89.
- (1995), 'Assimilation and Changes in Cohort Quality Revisited: What Happened to Immigrant Earnings in the 1980s?', *Journal of Labor Economics*, **13**(2), 201–45.
- Chiswick, B. R. (1978), 'The Effect of Americanization on the Earnings of Foreign-born Men', *The Journal of Political Economy*, **86**, 897–921.
- Cobb-Clark, D. A. (1993), 'Immigrant Selectivity and Wages: The Evidence for Women', *American Economic Review*, **83**, 986–93.
- (2001) 'Gender, Comparative Advantage and Labor Market Activity in Immigrant Families', IZA Discussion Paper No. 293.
- Dilnot, A., and Kell, M. (1987), 'Male Unemployment and Women's Work', Fiscal Studies, 8(3), 1–16.
- Duleep, H. O., and Sanders, S. (1993), 'The Decision to Work by Married Immigrant Women', *Industrial and Labor Relations Review*, **46**(4), 677–90.
- Dustmann, C., and Schmidt, C.M. (2001), 'The Wage Performance of Immigrant Women: Full-time Jobs, Part-time Jobs and the Role of Selection', CEPR Discussion Papers 2702.
- Fabbri, F. (2005), 'Immigrants in the British Labour Market', Fiscal Studies, forthcoming.
- Micklewright, J. (1993), 'Benefits, Incentives and Uncertainty', in N. Barr and D. Whynes (eds), *Current Issues in Welfare Economics*, Macmillan, 87–104.
- Fabbri, F., Preston, I., and Wadsworth, J. (2003), 'Labour Market Performance of Immigrants in Britain Labour Market', Home Office Online Report 05/03, available at http://www.homeoffice.gov.uk/rds/pdfs2/rdsolr0503.pdf
- Funkhouser, E., and Trejo, S. J. (1988), 'Labor Market Outcomes of Female Immigrants in the United States', in J. P. Smith and B. Edmonston (eds), *The Immigration Debate: Studies on the Economic, Demographic and Fiscal Effects of Immigration*, National Academic Press.
- Gregg, P., and Wadsworth, J. (2001), 'Everything You Ever Wanted to Know about Measuring Worklessness and Polarization at the Household Level but Were Afraid to Ask', *Oxford Bulletin of Economics and Statistics*, **63**(0),777–806.
- (2004), '2 Sides To Every Story. Measuring the Polarisation of Work', Centre for Economic Performance Discussion Paper No. 632.

- Gregg, P., Scutella, R., and Wadsworth, J. (2004), 'Reconciling Workless Measures at the Individual and Household Level: Theory and Evidence from the United States, Britain, Germany, Spain and Australia', Centre for Economic Performance DP No. 0635.
- Hirsch, B., and Schumacher, E. J. (2004), 'Match Bias in Wage Gap Estimates Due to Earnings Imputation', *Journal of Labor Economics*, **22**, 689–722.
- Juhn, C., and Murphy, K. M. (1997), 'Wage Inequality and Family Labor Supply', *Journal of Labor Economics*, **15**(1), 72–97.
- Kantarevic, J. (2004), 'Interethnic Marriages and Economic Assimilation of Immigrants', IZA Working Paper No. 1142. Lillard, L., Smith, J. P., and Welch, F. (1986), 'What Do We Really Know about Wages? The Importance of Nonreporting and Census Imputation', *Journal of Political Economy*, **94**(3), 489–506.
- Long, J. E. (1980), 'The Effect of Americanization on Earnings: Some Evidence for Women', *Journal of Political Economy*, **88**(3), 620–9.
- Meng, X., and Gregory, R. G. (2005), 'Intermarriage and the Economic Assimilation of Immigrants', *Journal of Labor Economics*, **23**(1), 135–75.
- Schoeni, R. F. (1998), 'Labor Market Assimilation of Immigrant Women', *Industrial and Labor Relations Review*, **51**(3), 483–504.