Ethnic penalties in the labour market: Employers and discrimination

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Summary

The aim of this study was to:

- review the current position of ethnic minorities in Britain's labour market;

- explore how ethnic minority representation and achievement varies by different employer characteristics;

- establish how far these variations might be linked to discrimination in the workplace.

This report presents findings based on data from the pooled Quarterly Labour Force Surveys (QLFS) 2001-2004, the Sample of Anonymised Records (SARs) from the 2001 Census, and the pooled General Household Surveys for 1973-2001. The report also draws on the Home Office Citizenship Surveys 2001 and 2003 for questions on perceptions of unequal treatment in the workplace and of the British Social Attitudes (BSA) surveys 1983-2003 for evidence on prejudice towards ethnic minorities. Throughout, analysis is restricted to respondents of working age (16-59 for women and 16-64 for men).

The report makes an important distinction between, on the one hand, the overall (or gross) patterns of disadvantage before taking account of individual characteristics (such as the educational level) of members of the different ethnic groups and on the other hand, the net patterns after controlling for the education, age and other characteristics of group members.

Key findings

- Overall a number of ethnic minority groups, notably Pakistani, Bangladeshi, Black Caribbean and Black African men continue to experience higher unemployment rates, greater concentrations in routine and semi-routine work and lower hourly earnings than do members of the comparison group of British and other whites. Women from these groups also have higher unemployment rates than the comparison group although, for those in work, average hourly earnings tend to

be as high or higher than those of white women.

- The situation of Pakistani and even more so of Bangladeshi groups is a particular cause for concern. They have notably high proportions of men who are economically inactive (largely because of long-term sickness and disability) as well as unemployment rates of well over ten per cent. Bangladeshi men who are actually in work are disproportionately concentrated in semi-routine and routine work.

- These differentials cannot be explained by the age, education or foreign birth of ethnic minority groups. Even for the second generation, born and educated in Britain, we find significant net disadvantages (after statistical controls) for Black African, Black Caribbean, Pakistani and Bangladeshi men in the labour market with respect to unemployment, earnings and occupational attainment. We term these ethnic disadvantages 'ethnic penalties'. The ethnic penalties experienced by Black Africans, both men and women, are especially high. Indians and Chinese tend to be able to compete on somewhat more equal terms than the other minorities, but even they experience some disadvantage.

- The patterns for women are broadly similar to those for men, although ethnic minority women tend not to be quite as disadvantaged relative to the white comparison group as are ethnic minority men relative to white men.

- There is some clear evidence that the 'first generation' who were born overseas experience even greater ethnic penalties than the 'second generation' who were born and educated in Britain, especially with respect to occupational attainment. However, the patterns of disadvantage in the second generation are broadly similar to those in the first generation and only a little smaller in magnitude.

- While there has been clear improvement over time in the occupational levels of ethnic minorities, the disadvantages experienced by Caribbean and Pakistani/ Bangladeshi men with respect to unemployment are longstanding and show no sign of declining. However, there are some indications that Indians now compete on more equal terms with whites than they used to.

- While the ethnic penalties calculated from statistical models of unemployment, occupation and earnings must not be equated directly with discrimination, there is considerable evidence from the Home Office Citizenship Survey (HOCS) 2003 and from field experiments that unequal treatment on grounds of race or colour is likely to be a major factor underlying the pattern of ethnic penalties.

- The ethnic composition of the public sector differs somewhat from that of the private sector, with ethnic minorities tending to be drawn towards the public sector. Within the private sector there is a clear pattern for ethnic minorities to be under-represented in professional and managerial occupations and over-represented in semi-routine and routine occupations. Ethnic minority men also tend to have lower earnings than whites in the private sector. These patterns are not so marked for women and are not found in the public sector, where ethnic penalties tend to be markedly lower than in the private sector.

- Within broad industrial groupings, occupational patterns and ethnic penalties parallel those found in the public and private sectors. The public administration, education and health grouping overlaps to a large extent with the public sector, and thus, the pattern of ethnic penalties is very similar too. Within the private sector industrial differences were not especially large. We find similar and substantial ethnic penalties in all four of the larger industrial groupings of manufacturing, distribution, transport and banking.

- Contrary to our expectations there was no tendency for equal treatment to be more prevalent in larger establishments. Indeed, ethnic penalties tended to be larger in medium and large establishments than they were in small establishments. Possibly this is related to the presence of co-ethnic employers in small establishments, but the available data do not enable us to pursue this issue.

- Self-reported prejudice on the part of white men and women displays a modest longer-term decline, but there are considerable year-to-year fluctuations. There has been a worrying short-term increase in prejudice in the last few years, possibly fuelled by adverse media publicity over immigration and asylum seekers.

- Levels of self-reported prejudice are found to be significantly lower in the public administration, education and health sector than elsewhere and are significantly higher in sectors such as manufacturing, construction and transport. It is possible that this acts analogously to the 'chill factor' in Northern Ireland and may explain why ethnic minorities tend to opt for employment in the public sector. However, there are other possible interpretations of these findings.

The report concludes by suggesting possible implications for policy. The trends over time suggest that these ethnic disadvantages experienced by Africans, Caribbeans, Pakistanis and Bangladeshi groups cannot be expected to resolve of their own accord. Policy interventions will be needed.

Policies should probably be aimed at several different targets. Pre-labour market policies aimed at ethnic minority educational inequalities will be important. While these will not in themselves reduce ethnic penalties net of education, it is still true that some (but not all) minority groups that are disadvantaged in the labour market are also disadvantaged in education. Given the strong links between educational success and labour market success, and given that educational investments have much the same payoffs for ethnic minorities as they do for whites, education must be a key policy arena. Such policies would not need to be targeted at ethnic minorities in particular but should be aimed at overcoming educational disadvantage generally.

Active labour market policies aimed at getting 'discouraged workers' into education and training or the unemployed into work will also be important, and again need not be targeted at ethnic minorities specifically.

However, it is very important to recognise that ethnic minorities' difficulties in obtaining employment are not restricted to those with low levels of education and

training (who have been the usual focus of active labour market policies). Ethnic minorities face difficulties in gaining employment regardless of their level of education.

Improved careers services at schools, further education colleges and those universities where ethnic minorities are over-represented may be helpful if lack of knowledge about job openings is a source of ethnic minority disadvantage. But if, as we suggest in the report, discrimination is a major factor in the ethnic penalties, then policies aimed at employers will be necessary.

Given the differences that we have found between the public and private sectors, one possibility might be to extend the Race Relations (Amendment) Act 2000 to the private sector. However, it is too soon to be sure how effective the Act has been within the public sector. (The differences in ethnic disadvantage between the public and private sectors which we have documented in this report almost certainly antedate the Act.)

One possibility might be to strengthen and monitor the working of the Act in the public sector. A more rigorous scheme of ethnic minority monitoring, and enforcement procedures, with rigorous evaluation might give a sound evidence base for deciding whether or not to extend provisions to the private sector and might also help to remedy some of the disadvantages still apparent in the public sector. Pilot schemes might be developed and evaluated with particular public sector bodies.

Given the evidence of ethnic penalties within the private sector, it might be appropriate to develop voluntary experimental schemes for ethnic monitoring in collaboration with the CBI or to develop monitoring schemes for private sector companies that win public sector contracts.

1   Introduction

Our aim in this report is to achieve the three main research objectives described in the research specification, namely to:

- review the current position of ethnic minorities in Britain's labour market;

- explore how ethnic minority representation and achievement varies by different employer characteristics;

- establish how far these variations might be linked to discrimination in the workplace.

In reviewing the current position of ethnic minorities we first describe four main outcomes: labour force participation, unemployment, occupation, and earnings and we show how these vary by ethnicity. We first look at the patterns of overall or 'gross' disadvantage experienced by different ethnic minorities. We then turn to consider the 'net' disadvantages, sometimes termed 'ethnic penalties', which remain after controlling statistically for individual characteristics such as the age and educational level of those concerned. Heath and McMahon (1997) define ethnic penalties as the disadvantages that ethnic minorities experience in the labour market compared with British whites of the same age and human capital. To estimate the ethnic penalties we carry out statistical analysis of the various outcomes, controlling statistically for age, educational level and other relevant characteristics as well as for ethnicity. We must emphasise that these ethnic penalties must not be equated with discrimination per se, although discrimination is likely to be one major component of the ethnic penalties. We are also able to chart how far, and for which groups, these ethnic penalties have declined over time.

Establishing whether there is discrimination by employers in hiring or promoting workers is clearly of great importance but is of considerable difficulty. The only really sound approach is to conduct field experiments such as those carried out by Daniel (1968), CRE (1996), Noon (1993) and Noon and Hoque (2001). (See Riach and Rich 2002 for a review.) In field experiments job applications are made, either in writing or in person by actors, purporting to come from individuals with the same qualifications and experience but with different ethnic origins. The outcomes of these applications in terms of invitations to interview or job offers are recorded and

an objective comparison of the success rates of whites and ethnic minorities can be made. The 1996 CRE investigation for example showed that whites' chances of getting an interview were nearly three times larger than those of Asians and almost five times larger than those of Blacks. Similar results have been found in the USA and in Europe (on the USA, see Darity and Mason 1998 and on Europe, see Zegers de Beijl 2001).

While direct measures, such as field experiments, on discrimination in hiring are beyond the scope of this research, it is useful to consider ethnic minorities' own perceptions and experiences of unequal treatment at work and to see how far these parallel the patterns of ethnic penalties found by the statistical analysis. While these data cannot be definitive in the way that field experiments can be, they may indicate how plausible it is to posit discrimination as the explanation for any observed ethnic penalties.

In exploring how ethnic minority representation and achievement vary by different employer characteristics we focus on the occupational attainment and earnings of employees, again drawing on the Labour Force Surveys and the Sample of Anonymised Records (SARs) from the 2001 Census. Our particular focus is the comparison of ethnic minority experience in the public and private sectors. We also explore differences between industries and between large and small firms. We first investigate patterns of sectoral choice – do ethnic minorities tend to gravitate towards the public sector, for example, in preference to the private sector? We then turn to patterns of over- and under-representation at different occupational levels, and finally, we examine ethnic penalties with respect to earnings and occupational attainment in the different sectors.

There are a number of possible explanations why ethnic minorities might tend to gravitate towards one sector rather than another. One explanation would be the availability of jobs at the appropriate skill level in the local area. Another would be the preferences of minority applicants for certain kinds of work, for example as professionals. But another possibility is that they anticipate, or experience, greater prejudice or discrimination in certain sectors. This may either be because of discrimination by employers that simply makes it harder to obtain jobs in a particular sector, or it may be because of prejudice by white co-workers in certain sectors making working conditions unpleasant. This is analogous to what is known as the 'chill factor' in Northern Ireland where Catholics may be unwilling to apply for jobs in a Protestant firm (or vice versa) because of the hostility they anticipate from co-workers belonging to the other community. We can check this latter hypothesis by investigating levels of self-reported racial prejudice on the part of the white population working in the relevant sectors. The results of this analysis cannot be definitive but will provide some insight into the 'warmth of the welcome' that ethnic minorities are likely to experience in different sectors.

To achieve these objectives the research team have conducted statistical analysis of a range of the most recent and authoritative nationally-representative datasets. These include the SARs of the 2001 Census and pooled data files from the Quarterly

Labour Force Surveys (QLFS) 2001-2004, in order to give the most up-to-date picture of the current labour market positions of ethnic minorities in Britain. The General Household Surveys (GHS) for the period 1973-2001 are analysed to observe changes over time. Ethnic minorities' perceptions of unequal treatment in the workplace are examined using the Home Office Citizenship Survey (HOCS) 2003. For reports of prejudice against ethnic minorities, we use the British Social Attitudes (BSA) Surveys 1983-2003.

In carrying out this work we use the current conceptions of ethnicity as exemplified by the measures used in the 2001 Census. This is a self-report measure where respondents are asked to indicate their cultural background[1]. We distinguish the following groups:

- Black African;

- Black Caribbean;

- Black mixed;

- Indian;

- Pakistani;

- Bangladeshi;

- Chinese;

- British and other whites.

We compare the first seven groups with the final category of 'white', which includes the British, the Irish, and other whites. 'Black mixed' include African and White mixed as well as Caribbean and White mixed groups. Various small and heterogeneous groups are excluded from this report due to small numbers in the QLFS.

The notion of ethnicity is itself a contentious one. Much official terminology is still couched in inappropriate racial terms (e.g. the use of the term 'white', which does not of course refer to a distinct ethnic or cultural group). This confusion is partly because lay writers often think only of the visible ethnic minorities. In fact Britain contains many white ethnic minorities, the largest being the Irish. There is substantial evidence that Irish Catholics in Northern Ireland historically suffered disadvantage in the labour market, certainly with respect to unemployment, that was on a par with that experienced by the visible ethnic minorities in England. Up until quite recently, Catholic unemployment rates tended to be twice those of Protestants. (See for example, Heath, Breen and Whelan, 1999, Li and O'Leary forthcoming). Unfortunately, it is beyond the scope of this project to extend the study to white ethnic minorities or to Northern Ireland.

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[1] See Appendix A for the precise wording of the question.

The report begins in Chapter 2 by reviewing the evidence on the patterns of gross and net disadvantage experienced by ethnic minorities in the overall British labour market. We then turn in Chapter 3 to consider how far the net disadvantages or ethnic penalties might be related to experiences of discrimination. In Chapter 4 we then turn to disaggregated analyses, looking separately at different sectors of the labour market, while in Chapter 5 we look at patterns of self-reported prejudice on the part of the white population employed in these different sectors. Finally, in Chapter 6 we consider the policy implications of our findings.

2 The current position of ethnic minorities in the labour market

In this chapter we first report the overall rates of labour force participation, unemployment, occupational attainment and earnings of our seven ethnic minority groups, comparing them with the figures for British and other whites. This is intended to give an overall summary picture of ethnic minorities' experience in the labour market and describes overall patterns, or 'gross' disadvantages before any statistical controls for individual characteristics such as age or education. In this summary picture we do not distinguish generations. That is to say, we pool the 'first generation' who migrated to Britain with the 'second generation' who were born and educated in Britain. There are in fact a number of reasons to expect the first generation to have greater difficulties than the second generation since some members of the first generation will lack fluency in the English language, will have foreign qualifications (which may not be recognised by British employers) and will have foreign work experience that may not be easily transferable to a British context. There is some evidence that these disadvantages diminish the longer the first generation have spent in Britain, but we expect the major change to be generational. It is important, therefore, to recognise that these initial results provide only an overall summary and are not intended to provide a detailed analysis.

The detailed analysis follows when we turn, next, to a statistical analysis of the net disadvantages, or ethnic penalties, experienced by ethnic minorities in the British labour market at the beginning of the twenty-first century. In this statistical analysis of net disadvantage we take account of the age, educational level, generation and region of residence of the ethnic minority members. This enables us to determine whether particular ethnic groups are disadvantaged in the labour market when compared with the British and other whites of the same age, with the same qualifications, and living in the same region. We are also able to determine whether these disadvantages have been reduced in the second generation, who have been born and educated in Britain. To calculate these net disadvantages, or ethnic

penalties, we conduct multivariate analysis controlling for relevant individual characteristics.

Finally, we consider evidence on trends over time, exploring the changes in both gross and net disadvantages experienced by ethnic minorities over the last two to three decades of the twentieth century.

For these analyses we draw primarily on the pooled Quarterly Labour Force Surveys (QLFS) for the years 2001-2004. This is the most up-to-date information available. We include all sample members in the age range 16-64 in the case of men and 16-59 in the case of women since these represent what can be termed the working-age population. We have also replicated our analyses using the Sample of Anonymised Records (SARs) from the 2001 Census and for the analysis over time we draw on the pooled General Household Surveys (GHS) for the period 1973-2001.

2.1   Labour force participation

Our first question is about patterns of labour force participation. We distinguish between people who are economically active, that is to say who are either in work or actively seeking work, and those who are economically inactive and outside the labour market, perhaps as students or looking after the home, and who are not therefore, available for, or seeking, work. Previous researchers have found that ethnic minority men tend to have lower labour force participation rates than the white British (Berthoud, 2000, 2002; Strategy Unit, 2003), and our findings confirm that this still holds true at the start of the twenty-first century. We find that all seven groups of ethnic minority men have lower labour force participation rates than the British and other whites, although the differences are not very large in the case of the Black Mixed, Caribbean and Indian groups. The lowest participation rates are those of Pakistani and Bangladeshi men. This is shown by the black bars in Figure 2.1 which represent those who were economically active in the period 2001-2004. Only around 62 per cent of Bangladeshi and 69 per cent of Pakistani men were economically active, compared with 85 per cent of British men.

In the case of men, there are two main sources of inactivity – full-time education on the one hand and 'other inactive' on the other. The category of 'other inactive' includes respondents who were long-term ill, or temporarily sick or disabled, as well as a residual category of people who were not looking for work. As we can see, these sources of non-participation in the labour market differ considerably between ethnic groups. Chinese and African men show particularly high rates of full-time education while Bangladeshi, Pakistani and Caribbean men have particularly high rates of 'other inactivity'. More detailed analysis shows that the Pakistani and Bangladeshi men have worryingly high rates of long-term sickness and disability while among the Caribbeans some might be termed 'discouraged workers'. That is to say, experience of difficulty in obtaining work (which we shall see when we turn to unemployment rates) might discourage some workers eventually from even looking for work. If this is a correct interpretation, it would mean that their situation in the labour market may be even worse than the figures on unemployment, which

we report in later sections, would suggest. Conversely, the situation of groups which have high rates of full-time education might be rather better than the analysis of unemployment would suggest, since higher qualification levels tend to lead to greater chances of securing employment in the future. (See Tables B.9 and B.10 for more details of the different categories of inactivity).

Figure 2.1 Labour force participation, men 2001-2004

Source: LFS, 2001-2004 (See Appendix B for full details of percentages).
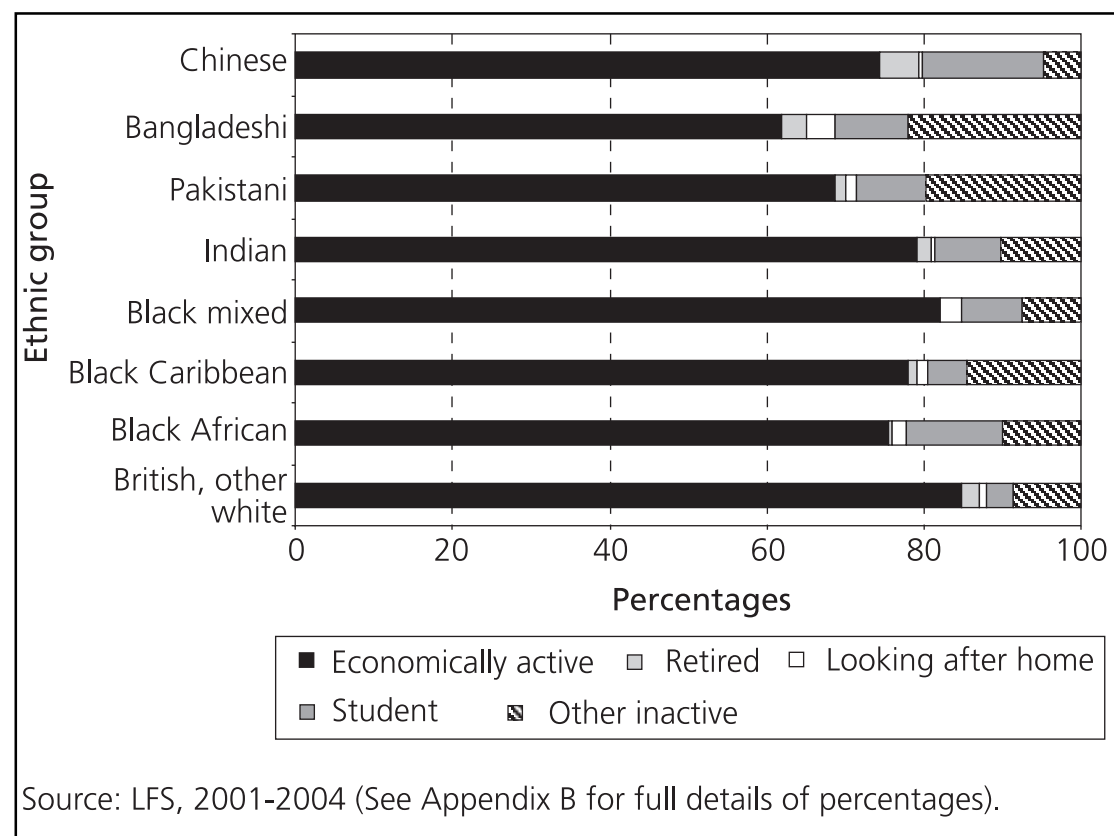
Figure 2.2 shows the corresponding picture for women. In general, women have lower participation rates in the labour market due to home and family responsibilities, and as we can see this is one of the major sources of economic inactivity. Important variations between ethnic minorities can be observed however. Less than 20 per cent of Bangladeshi and just over 25 per cent of Pakistani women were economically active in the 2001-2004 period, compared with over 70 per cent of British and other white women.

Figure 2.2 Labour force participation, women 2001-2004

Source: LFS, 2001-2004 (See Appendix B for full details of percentages).
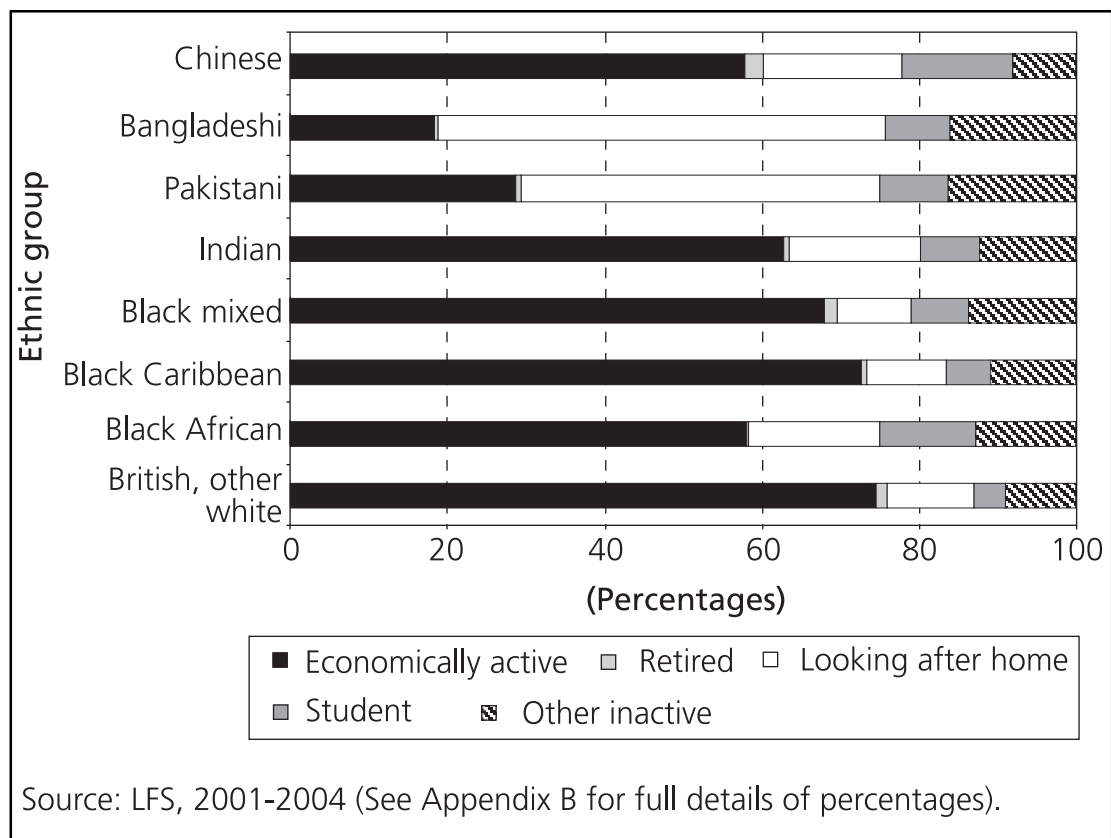
These two groups had the highest proportions 'looking after the home', almost reaching 60 per cent for Bangladeshi women and around 50 per cent for Pakistani women (see white bars). As with men, we also find relatively high proportions of Bangladeshi and Pakistani women who fall into the 'other inactive' category and detailed analysis shows that many of these are long-term sick and disabled, just as in the case of the men.

As with men, Chinese and African women have the highest proportions of students but Caribbean women differ markedly from Caribbean men. They are in fact the group who come closest to the British and other white women in their profile, with almost 75 per cent being economically active.

The high proportions of the Bangladeshi and Pakistani women who are looking after the home and therefore, economically inactive has important implications for our subsequent analyses of other labour market outcomes such as unemployment. In these subsequent analyses we exclude the inactive individuals and this means that there might be substantial 'selection biases'. That is to say, the Bangladeshi and Pakistani women who are active in the labour market will be a more select group than is the case for other groups of women and may have various characteristics which mean that their experiences in the labour market may well not be typical.

2.2   Unemployment

We now turn to unemployment and focus on people who were economically active, excluding the inactive (that is, the retired, full-time students, those looking after the home and the other inactive described above). Among the economically active we distinguish employees, the self-employed and the unemployed (people available for and seeking work). Within the first two categories we also distinguish people who work full-time from those who work part-time, a particularly important distinction in the case of women.

High rates of unemployment among ethnic minorities have been a longstanding concern and our data show that, for all groups other than the Indian and Chinese, unemployment rates continue to be substantially higher than for the British and other whites. Among the British and other whites the unemployment rate averaged 4.8 per cent in the 2001-2004 period. The Chinese and Indians are quite similar to this with unemployment rates of 4.3 and 6.2 per cent respectively. However, we should note that self-employment rates were relatively high among both these groups (in line with much previous research) as they also are among Pakistanis. It has been suggested in the literature that high rates of self-employment may, in part, be a response to difficulties experienced in gaining work as employees (Clark and Drinkwater, 1998). The low rates of unemployment among Indians and Chinese should not therefore be taken as conclusive evidence that they do not experience difficulties in the labour market.

Figure 2.3   Patterns of employment and unemployment, men 2001-2004

Source: LFS, 2001-2004 (See Appendix B for full details of percentages).
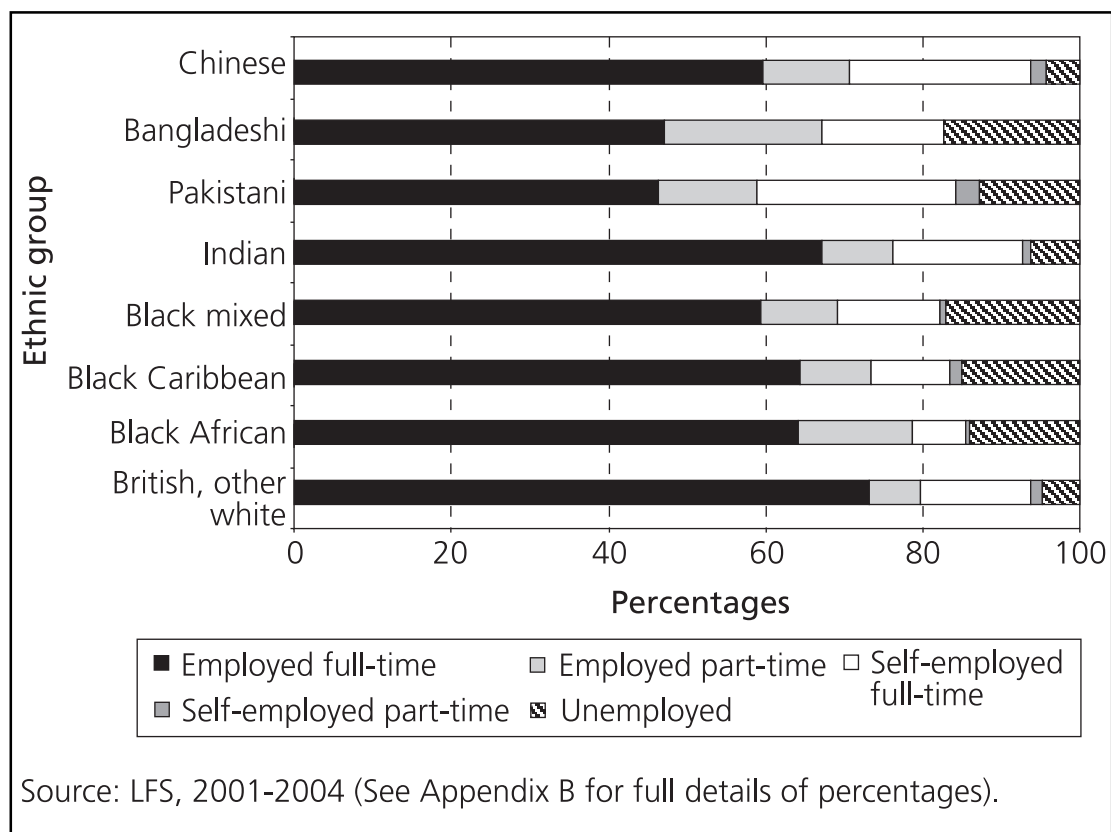
Among the other groups we find very high unemployment rates, in some cases three times those of the white comparison group. They are highest among the Bangladeshi and Black Mixed men at 17.3 and 17.0 per cent respectively, followed by the Black Caribbean men with 15.1 per cent, Black African with 13.9 per cent and Pakistani men with 12.9 per cent. Again, this pattern is in line with a great deal of previous research.

Figure 2.4 presents the picture for women. As we can see, both unemployment and self-employment rates are generally much lower among women than among men. It is also noticeable that the proportions of full-time to part-time work vary somewhat between groups. Black African and Black Caribbean women are much more likely to work full-time (62 per cent and 60 per cent) than are members of the comparison group of British and other whites, while rates of part-time work are highest among Pakistani and Bangladeshi women. These patterns of full-time and part-time work may reflect the different patterns of household responsibilities in the different ethnic groups. Black women, for example, may be more likely to be the main earner within the household (Holdsworth and Dale 1997).

Figure 2.4   Patterns of employment and unemployment, women 2001–2004

Source: LFS, 2001-2004 (See Appendix B for full details of percentages).
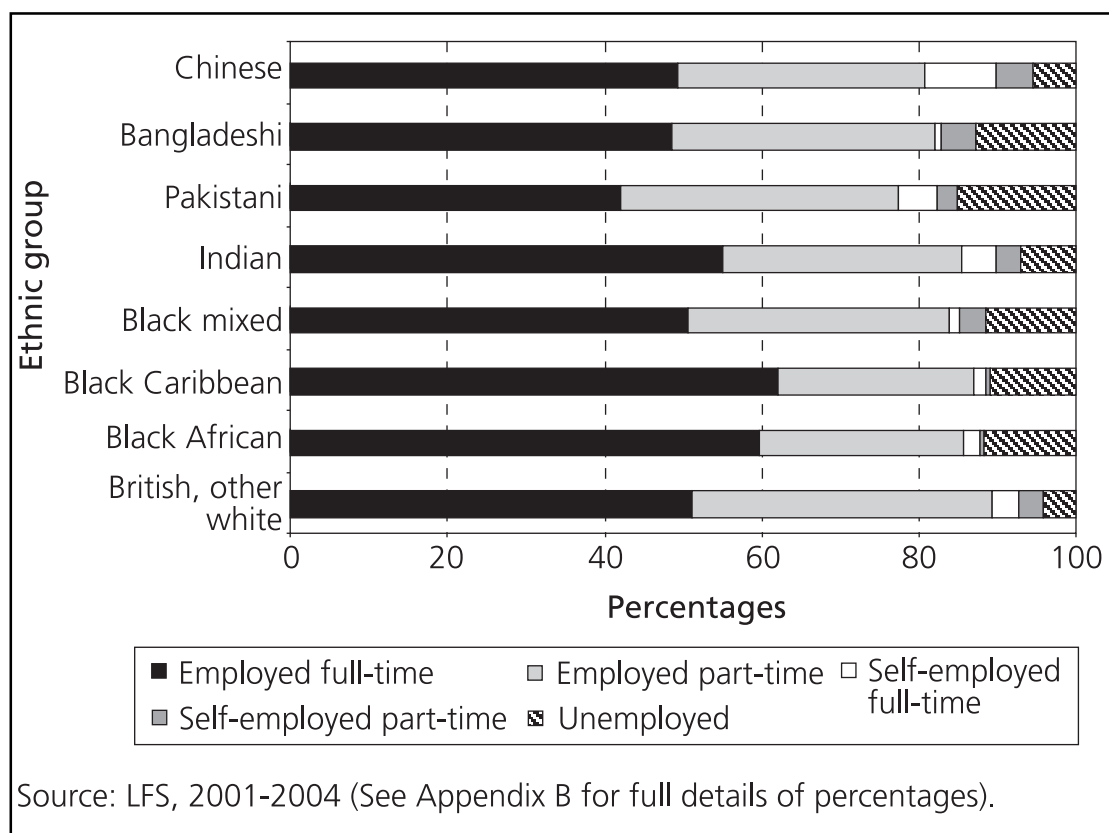
In other respects, however, the differentials among our seven groups of women parallel those found among men. Thus, the lowest unemployment rates (and the highest self-employment rates) are to be found among the Chinese and Indian

women with 5.5 per cent and 6.9 per cent respectively being unemployed. Even these figures are higher than those of the white comparison group (4.1 per cent). All the other groups have substantially higher unemployment rates than the white comparison group, with rates that are two or three times as high. The highest unemployment rate is for Pakistani women at 15.1 per cent, followed by Bangladeshi women at 12.8 per cent. The unemployment picture, then, continues to show worrying gaps between most ethnic minorities and the white comparison group.

2.3   Occupational attainment

We now turn to occupational attainment, restricting our analysis to those individuals who were employees (that is, excluding the self-employed and the unemployed). We use the National Statistics Socio-Economic Classification (NS-SEC), focusing in particular on the relatively advantaged professional and managerial positions of the salariat on the one hand (NS-SEC 1 and 2) and the relatively disadvantaged semi-routine and routine occupations (NS-SEC 6 and 7) on the other. The latter category includes less-skilled jobs such as sales assistants, operatives, and labourers.

Figure 2.5   Occupational attainment, men 2001-2004

Source: LFS, 2001-2004.
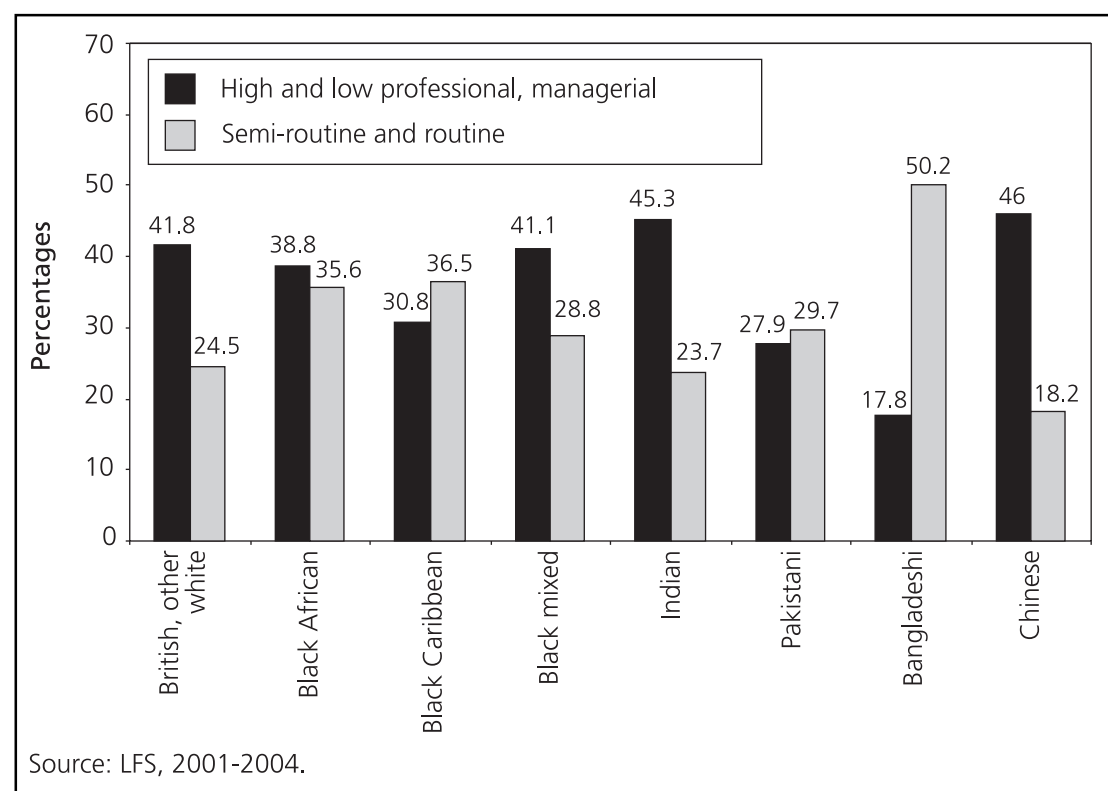
Figure 2.5 presents the proportion of men in higher and lower managerial and professional occupations (the salariat) and in semi-routine and routine occupations. In most respects, the results parallel those we have already seen for unemployment. Groups such as Bangladeshis, Black Caribbeans and Black Africans who had high rates of unemployment also have high proportions in semi-routine and routine work. This is particularly striking in the case of Bangladeshi men, 50 per cent of

whom were in semi-routine and routine work. Black Caribbeans and Black Africans come next with 37 per cent and 36 per cent respectively in this kind of less skilled work. Conversely, the Chinese (46 per cent) and Indian (45 per cent) groups have the highest proportions in professional and managerial work, slightly higher than among the British and other white comparison group (42 per cent). Interestingly, however, the Black Mixed group, which had quite a high rate of unemployment, comes quite close to the white comparison group in the proportion holding professional and managerial jobs (41 per cent).

Figure 2.6   Occupational attainment, women 2001–2004

Source: LFS, 2001-2004.
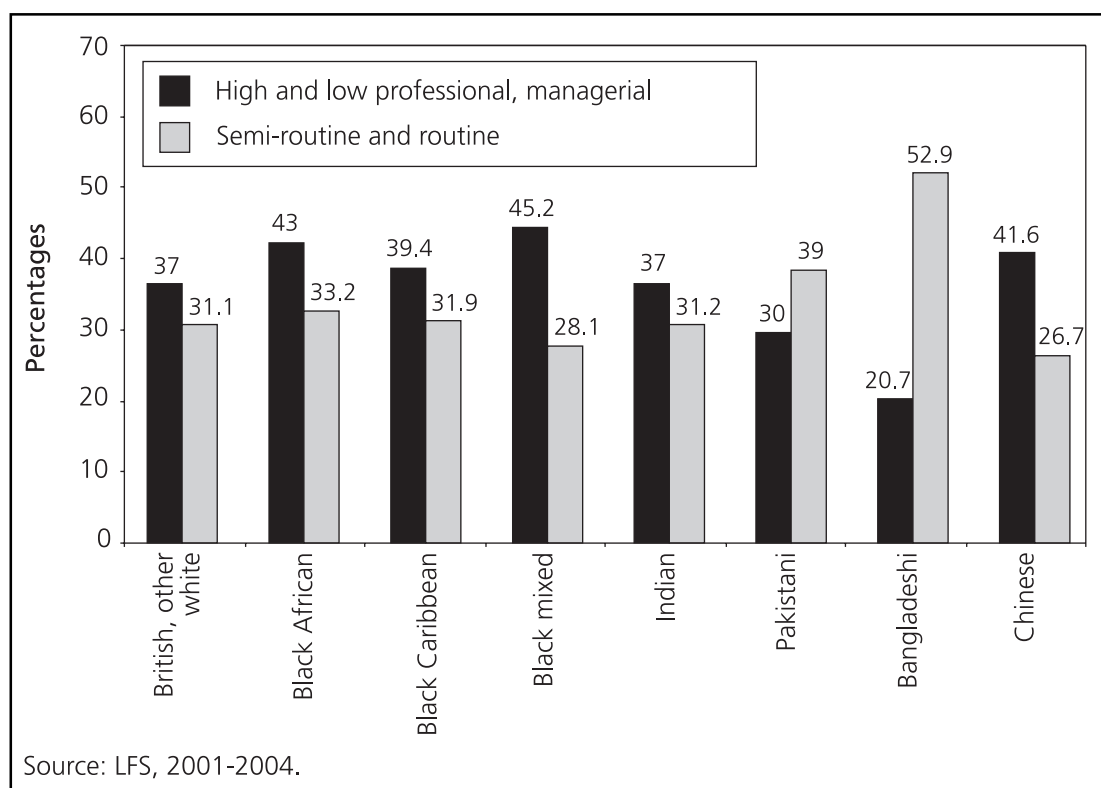
Figure 2.6 shows the corresponding picture for women. We find some parallels with the men's picture but also some important differences. Similar to men we find a very high proportion (53 per cent) of Bangladeshi women in semi-routine and routine work, while Chinese and Indian women have relatively high proportions in professional and managerial work (42 per cent and 37 per cent respectively). However, they are joined by the Black African (43 per cent), Black Caribbean (39 per cent) and Black Mixed (45 per cent) groups who are all quite successful in accessing these occupations. Further investigation suggests that the majority of these more successful women are found in the lower managerial and professional occupations rather than in the higher levels. High proportions of Black Caribbean women in occupations such as nursing have long been a feature of the British labour market and of the NHS in particular, but the high proportions of Black African and Black mixed women in these occupations is less well-known.

2.4   Earnings

In Figure 2.7 we show the average hourly earnings of men and women from our seven ethnic minority groups, expressed as a percentage of the earnings of our white comparison group. The baseline mean hourly earnings were £11.36 for British and other white men and £8.81 for women between 2001 and 2004. These figures cover employees only and exclude the self-employed (and the unemployed). They are averaged across the period and have not been adjusted for inflation. Hourly earnings are defined as before-tax earnings from one's main job. The legal minimum wage at this time was £4.10 in 2001 rising to £4.20 in 2002 for workers aged 22 and over. It was raised again to £4.50 in 2003 and £4.85 in 2004.

Figure 2.7   Average hourly earnings (per cent of British White earnings), 2001-2004

Source: LFS, 2001-2004.
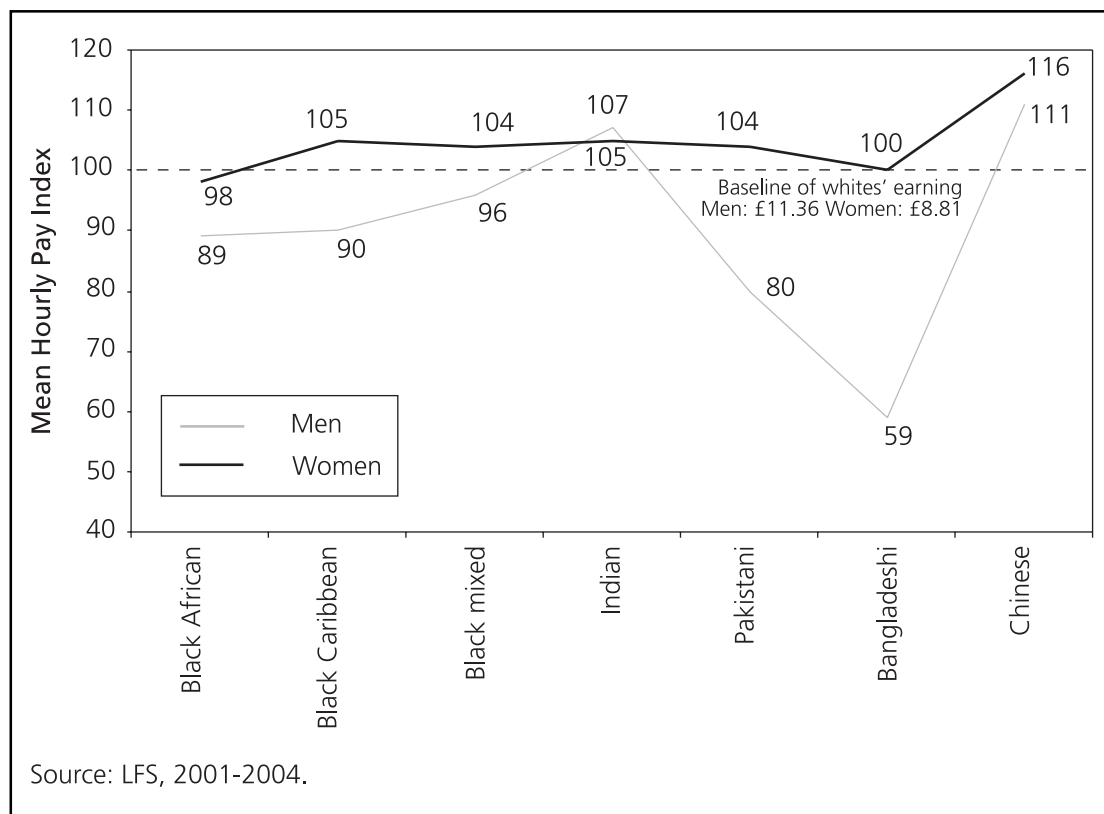
Not surprisingly, the pattern of earnings differentials largely reflects the pattern of occupational differentials that we found earlier since the kind of occupation that one has is a major factor in one's rate of pay. As we can see, the two groups of men that were most successful in occupational terms (the Chinese and Indians) also have the highest hourly earnings. At 111 per cent and 107 per cent respectively they are actually greater than those of the white comparison group. At the other extreme come the Bangladeshi men, earning only 59 per cent as much as the white comparison group. On average, throughout this period, Bangladeshi men earned only £6.70 – not far above the minimum wage. Pakistani men are also quite disadvantaged, earning 80 per cent of the white figure (an average of £9.09) while

Black African and Black Caribbean men have shortfalls of around ten per cent. For those who were in work, the proportion of men aged 22 and above earning below the national minimum wage during this period varies remarkably by ethnic group. Forty-five per cent of Bangladeshi men belong to this group, followed by 15 per cent of Pakistani men, compared to only four per cent of British and other white men.

As would be expected from the occupational data, the picture for women is rather different with most groups earning slightly more than the comparison group of white women and there is little difference in the proportions earning less than the minimum wage. Thus, 11 per cent of British or other white women earned below the national minimum wage compared with 12 per cent for Pakistani and Bangladeshi women.[2] We must be cautious, however, in interpreting this picture. First of all, as we emphasised earlier, there may be considerable selection biases, especially in the case of Bangladeshi and Pakistani women who had notably low rates of economic activity. Secondly, we should note the high proportion of white British women who work part-time whereas, as Figure 2.4 showed, Black African and Black Caribbean women tend to be more likely to engage in full-time paid work. As has been shown elsewhere, hourly earnings of part-time workers tend to be considerably lower than those of full-time workers (Joshi 2005).

Overall, then, we find that, at the beginning of the twenty-first century, a number of ethnic minority groups, notably Pakistani, Bangladeshi, Black Caribbean and Black African men continue to experience higher unemployment rates, greater concentrations in routine and semi-routine work and lower hourly earnings than do members of the comparison group of British and other whites. Women from these groups also have higher unemployment rates than the comparison group although, for those in work, average hourly earnings tend to be as high or higher than those of white women. The situation of Pakistani and even more so of Bangladeshi groups is a particular cause for concern. They have notably high proportions of men who are economically inactive (largely because of long-term sickness and disability) as well as unemployment rates of well over ten per cent. Bangladeshi men who are actually in work are disproportionately concentrated in semi-routine and routine work.

To be sure, part or all of these 'gross' disadvantages might be explained by the lower educational levels of the workers concerned. Education is a major factor protecting against unemployment and helping to secure higher level jobs and higher income. Many, although by no means all, of these groups (especially those who migrated from less developed countries) will have relatively low levels of educational qualification and this could well explain some of their disadvantage in the labour market. This argument is likely to apply particularly to the Bangladeshis and Pakistanis. For example, 48 per cent of Bangladeshi men had low or no qualifications (defined as qualifications lower than a pass at GCSE at grade C) and 29 per cent of Pakistani men had low qualifications, compared with 13 per cent of British and other

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[2] The proportion of men earning below the minimum wage is 4.7 per cent for Africans; 4.4 per cent for Caribbeans; 3.7 per cent for Black mixed; 6.8 per cent for Indians; and 8.7 per cent for Chinese. For women, the corresponding figures are 9 per cent; 5.5 per cent; 9.6 per cent; 10.7 per cent and 16.3 per cent.

whites who had this level of qualification. The pattern for women is similar: 59 per cent of Bangladeshi women had low level or no qualifications, followed by 43 per cent of Pakistani women. The comparable figure for British and other whites is only 16 per cent. (See Appendix B for full details).

However, not all ethnic minorities are poorly qualified. Black Africans, in particular, tend to be quite highly qualified. Twenty-seven per cent had qualifications at degree level or above (compared with 18 per cent of the British and other whites) and only 11 per cent had lower-level qualifications (see Daley 1996 for a detailed account of Black Africans in Britain and the reasons for the high educational levels). So far from explaining ethnic disadvantage, then, it may well be that underlying disadvantages have been masked by focusing on the gross picture. Highly educated groups like the Black Africans, who appear to be doing quite well in the labour market, may actually be experiencing quite substantial ethnic penalties once we take account of their educational qualifications. We turn next, therefore, to an investigation of the ethnic penalties.

2.5 Ethnic penalties in the labour market

Sociologists have used the term 'ethnic penalties' to refer to any remaining disparity that persists in ethnic minorities' chances of securing employment or higher-level jobs, or income, after taking account of their measured personal characteristics such as their age, qualifications, and the like. We use the term 'ethnic penalty' to refer to all the sources of disadvantage that might lead an ethnic group to fare less well in the labour market than do similarly qualified Whites. In other words it is a broader concept than that of discrimination, although discrimination is likely to be a major component of the ethnic penalty' (Heath and McMahon 1997: 91. See also Berthoud 2000, Carmichael and Woods 2000.)

It is important to note that the statistical analysis of labour force outcomes from which calculation of ethnic penalties is derived can only tell us **whether** ethnic minorities are significantly disadvantaged compared with similarly-qualified members of the white comparison group. It cannot tell us **why** they are disadvantaged. Aside from discrimination, there are a number of other plausible explanations for the presence of significant ethnic penalties: for example, ethnic minorities may lack information about possible job opportunities; they may live in areas where there are relatively few openings or where public transport to potential places of employment is expensive or unreliable (the 'spatial mismatch' theory); they may lack the specific work experience or training necessary for the available jobs (a particular problem when there is industrial restructuring) (for a review see Strategy Unit, 2003). In addition, we should note that our measure of ethnic penalties does not take any account of what might be called pre-labour market disadvantage. For example, some ethnic groups might be disadvantaged within the educational system (perhaps because they live in disadvantaged neighbourhoods with poor schooling) and thus, might have lower educational attainment than would otherwise have been the case. However, our measures of ethnic penalties are specific to the labour market and take educational qualifications as given.

Nevertheless, statistical calculation of ethnic penalties gives us valuable information about the extent to which ethnic minorities are disadvantaged in the labour market when compared with similarly-qualified members of the white comparison group. To estimate the ethnic penalties, we use multiple regression. This enables us to control for personal characteristics (and other relevant variables) and thus to compare ethnic minorities' experiences in the labour market with those of members of the white comparison group with the same age and qualifications. The parameter estimates associated with our seven ethnic minority groups can be thought of as estimates of the sizes of the ethnic penalties (in the case of negative parameter estimates) or ethnic premiums (in the case of positive estimates) experienced by these groups in the British labour market. We begin with an analysis of the avoidance of unemployment, and then turn to occupational attainment and earnings. As in the previous section we use the pooled QLFS for 2001-2004. In the case of unemployment and occupational attainment we can replicate our analysis using the (SARs) from the 2001 Census.

For the analysis of unemployment we use logistic regression since we have a binary dependent variable contrasting employment (including self-employment) with unemployment. Our control variables are age, qualifications, marital status, year and region. Some scholars (Blackaby *et al.*, 2002; Dustmann *et al.*, 2003, Frijters *et al.*, 2003) include additional control variables, for example health status, but we have chosen to employ rather fewer controls since it is not always clear what the causal relationships are between, say, health status and unemployment. It may well be, for example, that unemployment leads to poorer health, rather than the other way round (Bartley, 1994; Bethune, 1997; Shields and Wheatley Price, 2003), in which case it would be misleading to include health status as a control variable. In the case of migrants it would also be desirable to include measures of English language fluency and the number of years lived in Britain (although these variables are not so relevant to the second or later generations, thus, creating statistical difficulties in a pooled analysis of both generations).[3]

Considering the control variables first, it is well known that unemployment has a curvilinear relationship with age, tending to be relatively high when people are young, declining gradually as people get older but then increasing once again as people get closer to retirement age. We, therefore, allow for a curvilinear relationship by including age squared among our control variables. We find that the pattern of the parameter estimates for age and age squared is exactly as expected given this curvilinear relationship between age and unemployment.

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[3] In general our strategy has been to control for 'confounding' variables, such as age or region whose omission might lead to misleading estimates of ethnic penalties, but not to control for 'mediating' or explanatory variables such as language fluency which might explain why ethnic minorities experience penalties. In other words we omit variables that might in principle be causally related to ethnic origin but do include variables such as age which may be associated with ethnic origin but are in no sense caused by ethnicity.

We distinguish six levels of education (details in Appendix A) and as expected, we see that higher levels of qualification tend to protect people from unemployment. Again, this is a well-known pattern. Married or cohabiting men tend to have higher probabilities of gaining employment than the single and again this standard finding is reflected in our results. We also include a control for year, since unemployment rates have changed slightly in the period covered by our pooled dataset, and controls for region, since unemployment rates vary somewhat between the regions of Britain. As is shown in Table C.1, unemployment in this period was significantly higher in the North East, and lower in the South East, than in the rest of England.

We run separate analyses for men and women. Our particular interest is in the ethnic penalties, that is the parameter estimates associated with the seven ethnic groups, and in the effect of generation. These are shown in Table 2.1. (The full results for the control variables are shown in Appendix C.) The estimates shown in Table 2.1 tell us how each of the ethnic groups compared with the comparison group of British and other whites, after controlling for age, education, marital status and region. Estimates that are significantly different from the comparison group are shown in bold and negative estimates indicate that the group is worse off than the comparison group, that is experience an ethnic penalty. In the case of generation, we contrast those born overseas (the first generation) with those born in Britain.

Table 2.1   Ethnic penalties in access to employment

	Parameter estimates (contrast with unemployment)	
	Men	**Women**
Intercept	1.82 (.11)	2.20 (.13)
Ethnicity		
Black African	-1.03 (.13)	-.96 (.14)
Black Caribbean	-.91 (.10)	-.87 (.11)
Black mixed	-.81 (.16)	-.73 (.17)
Indian	-.22 (.11)	-.50 (.11)
Pakistani	-.84 (.11)	-1.15 (.13)
Bangladeshi	-1.04 (.15)	-.71 (.24)
Chinese	-.11 (.22)	-.30 (.23)
British, other whites	0	0
Generation		
Born overseas	.15 (.09)	.04 (.10)
Born in Britain	0	0
Chi-square (D.F.)	5,725. 92 (30)	3,529.64 (30)
N (weighted)	*11,6464*	*10,1864*

Source: LFS 2001-2004.
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey and region. See Appendix C for details of full models.

As we can see, in the case of men, all the groups, other than the Chinese, display significant negative parameter estimates, that is ethnic penalties. Most of the results

are in line with those that we might have anticipated from the summary statistics given in Figure 2.3 with large ethnic penalties for the Bangladeshi, Pakistani, Black Mixed and Black Caribbean groups. However, the particularly high penalty experienced by the Black Africans is important. As we noted earlier, Africans are a relatively well-educated group and their high education had partly masked the difficulties they experience in obtaining work. When we control for their educational level, as we do in this analysis of ethnic penalties, we find that they are very considerably disadvantaged compared with similarly-qualified British and other whites. The picture for women, shown in column two, is broadly similar. Once again, every single group, apart from the Chinese, incurs a significant ethnic penalty, and the magnitude of the penalties is broadly similar to those found for men.

We also take account of 'generation'. As we noted earlier, the 'first generation', who were born abroad and subsequently migrated to Britain, may have a number of disadvantages in the British labour market that are not shared by the 'second generation' who were born and brought up in Britain. The first generation will tend to have foreign qualifications and work experience and these may not be so highly regarded by British employers. Some groups will also lack fluency in the English language, again limiting their chances in the labour market. In contrast, the second generation will have British qualifications and experience, and most will be fluent in English (Modood *et al.*, 1997). We, therefore, also include a variable distinguishing those born overseas (the first generation) from those born in Britain (second generation). Note that the first generation will not necessarily be the parents of the second generation, since the first generation will also include many recent arrivals in this country.

Contrary to our expectations, however, we find that the parameters associated with generation are not significantly different from zero for either men or women. In other words we cannot reject the hypothesis that the ethnic penalties, with respect to unemployment, are the same for the second generation as they are for the first. Similar results on the lack of generational differences with respect to unemployment have been found by Leslie *et al* (1998) and Model (1999). However, when we repeated these analyses using the SARs 2001 we did find a modest generational disadvantage with the first generation having greater difficulty in accessing jobs than the second. (The results are shown in Appendix C). In other respects, however, the patterns for both men and women are almost identical to those found in the Labour Force Survey (LFS), although in general the SARs tends to show slightly larger ethnic penalties for all groups than are found in the pooled LFS.

It is not entirely clear why there should be these differences in the results obtained from the LFS and the SARs. The SARs will have a higher response rate than the LFS and this might account for the differences since non-respondents to the LFS might be particularly disadvantaged individuals or recent arrivals with relatively poor English. However, we should also recognise that the Census is a self-report form often filled in by the head of household rather than by each individual and this might lead to some bias. In general we would expect interviewer-administration with the relevant individual, as in the LFS, to give somewhat more reliable results. Overall, however, the two sources are in agreement that African, Caribbean, Black Mixed,

Pakistani and Bangladeshi men and women all experience very substantial ethnic penalties with respect to unemployment in both generations, while Indians and Chinese are markedly less disadvantaged. It is reasonably clear too that, if there are any generational differences with respect to unemployment, they are relatively small. There can be no doubt that the second generation, born and educated in Britain, still experience very substantial disadvantages in obtaining work.

2.6 Ethnic penalties – occupational attainment

Table 2.2 then shows the comparable analyses for occupational attainment. For this analysis we focus solely on employees (excluding both the self-employed and the unemployed). We distinguish four occupational outcomes – the managerial and professional occupations of the salariat (NS-SEC 1 and 2), intermediate occupations (NS-SEC 3), lower supervisory or technical occupations (NS-SEC 5) and semi-routine and routine occupations (NS SEC 6 and 7) and therefore, use a multinomial logistic regression. However, for simplicity, we report in Table 2.2 only the results for access to the salariat (taking the semi-routine and routine category as the reference category).

Table 2.2   Ethnic penalties in access to the salariat

	Parameter estimates (Contrast with semi-routine or routine occupations)	
	Men	**Women**
Intercept	-2.90 (.07)	-2.85 (.06)
Ethnicity		
Black African	-1.12 (.15)	-.50 (.16)
Black Caribbean	-.66 (.11)	-.17 (.11)
Black mixed	.06 (.22)	.19 (.19)
Indian	.00 (.11)	.15 (.12)
Pakistani	-.31 (.14)	.15 (.17)
Bangladeshi	-.44 (.21)	-.42 (.30)
Chinese	.59 (.23)	-.07 (.23)
British, other whites	0	0
Generation		
Born overseas	-.28 (.11)	-.67 (.11)
Born in Britain	0	0
Chi-square (D.F.)	44,444.69 (99)	41,255.66 (99)
N (weighted)	*94,077*	*85,839*

Source: LFS, 2001-2004
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey, region, sector, part-time work, and size of establishment. See Appendix C for details of full models.

In addition to the controls used in the analysis of unemployment, we also include controls for full-time or part-time work, which as we have seen, varies considerably

between our different groups of women, for sector, distinguishing the public from the private sector, and for firm size. Full details are given in Appendix C.

Among the control variables we should note that education has a particularly strong relationship with access to the professional and managerial occupations of the salariat, and a fairly strong relationship with access to intermediate occupations. Both these relationships are much stronger than those found for unemployment. We should also note that full-time workers have better chances of reaching higher-level occupations than do part-time workers. There is also an important relationship between sector and occupation. This reflects the fact that there tend to be relatively more professional and managerial jobs, and fewer semi-routine and routine ones, in the public sector. In other words, the occupational compositions of the two sectors differ in important ways. (We look at this in more detail in Chapter 4.)

The magnitude of the ethnic penalties with respect to occupational attainment is generally rather smaller than those found for unemployment, although the pattern of differentials is broadly similar. This pattern has been found in previous research too (Berthoud, 2000, 2002, Carmichael and Woods, 2000, Heath and McMahon, 1997, Leslie *et al* 1998 although Platt 2005 obtains somewhat different results[4]). We

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[4] Platt first controls for class origins and finds that *'all the minority groups except the Pakistanis (and the Bangladeshis – but the result for that group is not statistically significant) have a higher probability of professional/managerial outcomes than can be explained by their origins … alone'* (Platt 2005, p.21). She then finds that, after adding further controls for education, *'the positive ethnic group effects disappear'* (p.24). In other words, Platt finds that there is no ethnic penalty for the Caribbean, Black African, Indian or Chinese groups in access to professional and managerial destinations, although she does find significant ethnic penalties, after controlling for education, for the Pakistani and Bangladeshi groups. See her Table A.1. Platt's results are, thus, different from ours, and from other researchers', with respect to the Caribbean and Black African groups, where we find significant ethnic penalties for men, whereas she finds no penalties. It is possible that this difference in results is due to the fact that Platt has included additional control variables such as class origins. However, we suspect that, while controls for class origins (which are not available in our datasets) might slightly reduce our estimates of ethnic penalties, this is only a small part of the story. It is more likely that the discrepancy is due to the fact that Platt pools men and women and constructs a combined measure of family class. For married or cohabiting couples, she assigns family class on the basis of the higher social class of either partner. This is an unusual procedure when looking at occupational outcomes, and Platt's own analysis shows that this procedure has a major impact on the notional class distribution of Caribbean men. (She does not provide any results for Black African men.) In short, we suspect that Platt's optimistic results for Caribbeans and Black Africans are because many of these men have been 'promoted' by her procedure to professional and managerial class positions (on the basis of their partners' occupations) although they themselves have lower-level occupations. We do not, therefore, feel that her results give an accurate picture of the disadvantages experienced by Caribbean and Black African men in the labour market.

also find significant generational differences, with the second generation having improved chances compared with the first generation, especially in the case of women, of accessing salariat or intermediate occupations. This could well be due to differences in English language fluency between the generations since it is extremely difficult for anyone lacking fluency to perform a salariat job (analysis of the Fourth National Survey of Ethnic Minorities shows that not a single sample member lacking fluency accessed a job in the salariat). First-generation women, especially from Pakistani or Bangladeshi backgrounds, are particularly likely to lack fluency (Modood *et al* 1997), and this could well account for the large generational difference among women.

However, even in the second generation, it still remains the case that Black African, Black Caribbean, Pakistani and Bangladeshi men all experience significant ethnic penalties in gaining access to the professional and managerial jobs of the salariat. And it must be remembered that these disadvantages are additional to those already reported for unemployment. In other words, even those ethnic minority individuals who have been fortunate enough to secure jobs still tend to fare somewhat worse in occupational terms than equally-qualified whites of the same age.

The pattern of ethnic penalties is not quite so striking for women, at least according to the LFS data. Table 2.2 shows a significant ethnic penalty only for Black African women in access to the salariat. However, when the same analysis is conducted on the SARs we find significant ethnic penalties for all groups of women (apart from the Black Mixed group). The SARs does, however, confirm the picture from the LFS that, with respect to occupational attainment, ethnic penalties are smaller for women than for men and that generational progress has been greater for women than for men.

2.7   Ethnic penalties – earnings

The LFS (but not the SARs) also enables us to examine ethnic penalties with respect to earnings. We follow the same procedure as before including controls for qualifications, region and industry.

Our earlier analysis of the gross differentials (which did not include controls for education and so on) suggested that Indians and Chinese secured as high, or higher, hourly earnings than the white comparison group while Pakistanis and Bangladeshis fell a long way behind. Inclusion of the controls leads to a somewhat different conclusion about net differentials. As we can see from Table 2.3, all the ethnic groups earn less than comparably qualified whites, although in the case of the Black Mixed group, the shortfall is not statistically significant. Indians, however, do show a significant shortfall and, perhaps most importantly, we also find that Black Africans (who appeared to be relatively successful according to the gross differentials) fare almost as badly as the Bangladeshis relative to equally-qualified whites. The reason for this changed picture is, as we noted earlier, that Indians and Black Africans are relatively well-educated groups and it was their high education that masked their ethnic penalties.

If we exponentiate the logged earnings (from Table C.3), the predicted hourly earning for a single British or other white male of average age with no qualification, working in a large firm in the Midlands in 2004 is found to be £7.24. Working in London would increase this to £9.49 per hour. For single white males with degree qualifications working in a large firm in London, their average hourly earnings are predicted to be £19.49. However, comparable figures for ethnic minority men are significantly lower. For example, single African males with the same characteristics earn £5.70, £7.46 and £15.33 respectively. Figures for Bangladeshi men are even lower at £5.26, £6.89 and £14.15.

Shortfalls tend to be slightly smaller for women, although of course it must be remembered that this is in the context of generally lower hourly earnings for women than for men. For example, the predicted hourly earnings of British women with no qualifications working full-time in the Midlands is £6.96; while their counterparts working in London are predicted to earn £9.12 per hour. Women with degrees working full-time in London earn significantly more at £18.73 per hour. African women suffer the largest ethnic penalty and the corresponding predicted hourly earnings for them are £5.87, £7.69 and £15.80. (We should not perhaps place too much weight on the absence of any ethnic penalty for Pakistani women and the relatively small penalty for Bangladeshi women: these estimates may well be a consequence of the selection bias discussed earlier.)

We also see that the second generation fare slightly better than the first, but substantively the generational difference is rather small when compared to the ethnic penalties. This is confirmed by the analysis of Blackaby *et al* (2002) who concluded that *'ethnic minorities do not appear to face a level playing field in the UK labour market … Native ethnic minorities also appear to be faring little better than their parents. Our findings imply that ethnic differences in labour market remuneration cannot be explained* [by] *poor qualifications and an unfavourable regional and industrial distribution'* (Blackaby *et al* 2002, p.294).

Table 2.3   Ethnic penalties in hourly earnings

	Men	Women
Intercept	1.772 (.011)	1.733 (.009)
Ethnicity		
Black African	-.240 (.024)	-.169 (.023)
Black Caribbean	-.114 (.019)	-.050 (.016)
Black mixed	-.056 (.034)	.014 (.028)
Indian	-.057 (.017)	-.076 (.016)
Pakistani	-.143 (.022)	-.007 (.026)
Bangladeshi	-.315 (.035)	-.116 (.046)
Chinese	-.071 (.035)	-.048 (.032)
British, other whites	0	0

Table 2.3   Continued

	Men	Women
Generation		
Born overseas	-.079 (.017)	-.052 (.016)
Born in Britain	0	0
Adjusted R^2 (D.F.)	.413 (33)	.399 (38)
N (weighted)	*74,979*	*69,203*

Source: LFS, 2001-2004.
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey, region, sector, part-time work, and size of establishment. See Appendix C for details of full models.

Overall, then, the analysis of both the LFS and the SARs confirms that, as expected, the second generation fares slightly better in the British labour market than does the first, migrant generation, but that many native-born ethnic minorities, and most especially Black Africans, Black Caribbeans, Pakistanis and Bangladeshis, fare substantially worse than equally-qualified whites. The disadvantaged position of the Black Africans is of particular importance as it is largely hidden in aggregate statistics.

2.8   Changes over time – evidence from the General Household Survey

While the analysis above suggests that ethnic minorities continue to be disadvantaged in the British labour market, it could still be the case that their situation was even worse in the past and that progress has been made over time towards equality of opportunity, even if this goal has not yet been fully attained. In particular we might have hoped that the implementation of the Race Relations Act 1976 would have had some impact, as might declining racial prejudice if Britain has become a more tolerant and multicultural society. Iganski and Payne (1996) for example, using aggregate LFS statistics suggest that there has been some real progress in reducing the magnitude of the gross disadvantages experienced by ethnic minorities in Britain, although they do not control for education or generation in order to calculate net disadvantages and instead focus solely on the gross inequalities.

Using the GHS we are able to look at trends over the last 30 years both with respect to the gross differences in unemployment rates and occupational attainment and at the net differences or ethnic penalties after controlling for qualifications and so on. However, there are a number of technical difficulties in identifying a consistent measure of ethnicity over time and our findings should be treated with appropriate caution. The first years of the GHS asked only about respondents' own and parents' country of birth, not about ethnicity, and we have, therefore, used this country-of-birth information to construct our time series. (See Appendix A for technical details.)

Checks suggest that this gives a measure that is consistent for all the larger groups with the self-reported ethnicity measures used in the remainder of this report but is more problematic for groups like the Chinese. We, therefore, exclude the Chinese from consideration in this section. Because of the smaller sample size, we also pool Pakistanis and Bangladeshis into a single combined group.

For this analysis we have grouped the GHS data into three decades that can approximately be described as the 1970s, 1980s and 1990s. (Note that our series begins only in 1973 and that the most recent data available to us is 2001, so the actual decades that we use are 1973-1982, 1983-1992 and 1993-2001)

Table 2.4 shows the overall unemployment rates of ethnic minorities and whites in our three decades. Unemployment rates tended to be relatively low in the 1970s before rising considerably in the 1980s and falling back somewhat in the 1990s. This is reflected in the figures for British and other whites which were 5.5 per cent in the 1970s (for men), rising to 9.6 per cent in the 1980s and falling back to 8.0 per cent in the 1990s.

As we can see, male ethnic minority unemployment rates tended to be around twice as high as those for whites in the 1970s, with unemployment rates of around ten per cent for Caribbeans, Indians and Pakistanis/Bangladeshis compared with the 5.5 per cent for whites. In the 1980s, male unemployment rose to 14 per cent among Indians, to 22 per cent among Caribbean men and 33 per cent among Pakistanis and Bangladeshi men. In the 1990s, the rates for all four groups fell back somewhat, the Indian rate continuing to decline towards the white rate but the Pakistani and Bangladeshi rate remaining almost three times the white rate. The figures for the third of these decades are broadly similar to those reported earlier for the years 2001-2004.

Table 2.4   Unemployment rates – evidence from the GHS 1973-2001

	73-82		83-92		93-01	
	Men	Women	Men	Women	Men	Women
National origin						
Caribbean	**11.4**	**10.3**	**22.2**	**14.5**	**18.9**	**9.1**
	(735)	(672)	(627)	(585)	(350)	(406)
Indian	**11.1**	7.1	**13.6**	**10.5**	9.8	6.9
	(855)	(421)	(780)	(476)	(528)	(405)
Pakistani/	9.5	**18.2**	**33.1**	27.6	**23.7**	**19.8**
Bangladeshi	(359)	(33)	(341)	(76)	(333)	(126)
British/other	5.5	5.0	9.6	7.0	8.0	5.1
whites	(77,914)	(50,966)	(60,546)	(44,530)	(33,610)	(27,612)

Source: GHS 1973-2001.
Note: figures in brackets give the base N. Figures emboldened are significantly different from those for the comparison group.

Unemployment rates are generally lower for women but the trends over time are similar to those for men, with the Indian rate converging with the rate for British and other whites, while the Pakistani and Bangladeshi rate has, if anything, become even more out of line.

Overall, then, these data suggest that the experience of these three ethnic groups has been diverging somewhat over time, Indians tending to converge with whites while the disadvantage of Pakistanis and Bangladeshis has become even more distinct. However, we must remember that immigration has been continuing throughout this period while a second generation has also been coming of age. The explanation of these trends will, therefore, be rather complex and is beyond the scope of this report. In their more detailed analysis of these data, Heath and Yu (2005) find that both period and lifecycle effects were at work but that the second generation were just as disadvantaged in the 1990s, relative to whites, as the first generation had been at a similar stage of the lifecycle twenty years earlier.

Somewhat different trends, however, are apparent when we turn to occupational attainment, shown in Table 2.5.

Table 2.5   Salariat occupations – evidence from the GHS 1973-2001

							Percentages
	73-82		83-92		93-01	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
National origin						
Caribbean	**7.1**	**25.2**	**16.6**	**40.7**	**34.3**	**43.8**
	(622)	(596)	(429)	(484)	(242)	(345)
Indian	**21.2**	13.0	**39.9**	26.1	49.0	32.8
	(675)	(369)	(521)	(371)	(363)	(323)
Pakistani/	6.3	**7.4**	**18.4**	**29.5**	**23.0**	**24.7**
Bangladeshi	(304)	(27)	(179)	(44)	(191)	(81)
British/other	27.4	19.0	38.9	30.9	44.5	37.3
Whites	(66,366)	(46,343)	(45,984)	(37,983)	(25,999)	(23,970)

Source: GHS 1973-2001.
Note: figures in brackets give the base N. Figures emboldened are significantly different from those for the comparison group.

Occupational change has led to a general expansion of salariat positions over this period, up from 27 per cent to 45 per cent in the case of the British and other white men. The benefits of this expansion have also been shared by Caribbeans, Indians and Pakistanis/Bangladeshis (just as Iganski and Payne had showed) although to greater and lesser extents. However, unlike the situation for unemployment, there are indications that these ethnic groups have been catching up with, and in the case of Indian men overtaking, the British and other whites. Thus, in the 1970s, only seven per cent of Caribbean men were in the salariat compared with 27 per cent of British and other whites. By the 1990s both sets of percentages had increased substantially, but the gap had also closed with the Caribbean men at 34 per cent, only ten percentage points behind the British and other whites on 44 per cent.

In their more detailed analysis, Heath and Yu (2005) suggest that this improvement has largely been a result of second-generation advancement, the first generation remaining a long way behind the British and other whites throughout their life cycle. They suggest that this advancement on the part of the second generation is largely due to their educational progress, with the second generation showing much higher levels of educational attainment than their parents. Similarly, Rothon (2005) has shown from Youth Cohort Survey data that, among the second generation, Indians have overtaken whites in their proportions gaining five or more GCSEs while Caribbeans, Pakistanis and Bangladeshis have also made large absolute gains.

A key question, therefore, is what the trends in labour market success look like after controlling for education and generation. We investigate this in Tables 2.6 and 2.7.

Table 2.6   Ethnic penalties in access to employment – trends over time

					Parameter estimates (contrast with unemployment)	
	73-82		83-92		93-01	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Intercept	2.34 (.07)	2.91 (.11)	1.41 (.05)	2.47 (.08)	1.40 (.08)	2.10 (.11)
National Origin						
Caribbean	-.49 (.17)	-1.03 (.20)	-.76 (.12)	-.92 (.14)	-.68 (.16)	-.48 (.19)
Indian	-.71 (.17)	-.57 (.27)	-.46 (.13)	-.44 (.18)	-.29 (.17)	-.28 (.22)
Pakistani/Bangladeshi	-.20 (.24)	-1.60 (.53)	-1.19 (.15)	-1.30 (.30)	-.94 (.17)	-.91 (.26)
British, Other Whites	0	0	0	0	0	0
Generation						
Born overseas	-.30 (.11)	.08 (.16)	-.19 (.09)	.18 (.12)	-.21 (.11)	-.01 (.15)
Born in Britain	0	0	0	0	0	0
Chi-square (D.F.)	1,764.95 (23)	1,076.12 (23)	3,575.88 (23)	1,635.19 (23)	1,500.78 (23)	829.79 (23)
N	*50,263*	*34,480*	*57,533*	*44,410*	*30,762*	*27,174*

Source: GHS 1973-2001.
Model controlling for age (centred), age-squared, region and marital status.
* = unreliable parameter estimate not reported, N falls below 10.

Looking first at unemployment, we see that the general pattern for the 1990s found in these GHS data closely parallels that which we have already seen in the much larger cumulated QLFS 2001-2004 and in the SARs 2001. The GHS also picks up the finding that the Pakistani/Bangladeshi and Caribbean groups experience large ethnic penalties while Indians experience a much smaller ethnic penalty.

Turning next to the trends over time, the most striking finding is that Indians (both men and women) appear to show clear signs of reduced penalties, the figures for Indian men falling from -0.71 in the 1970s to -0.46 in the 1980s and -0.29 in the 1990s. The trends over time for Caribbeans and Pakistanis/Bangladeshis are less clear but it would be safest to conclude that there has been no real change. We have

to be careful in interpreting these figures because of the large standard errors and it is wise to look at the overall pattern rather than at particular figures which may be misleadingly high or low because of sampling error.

Table 2.7 reports the corresponding analysis of ethnic penalties with respect to occupational attainment. For simplicity, we focus solely on the contrast between obtaining professional and managerial work versus routine and semi-routine work.

**Table 2.7   Ethnic penalties in access to the salariat –
trends over time**

	Parameter estimates (contrast to semi-skilled and unskilled occupations)					
	73-82		**83-92**		**93-01**	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Intercept	-1.28 (.13)	-2.58 (.10)	-1.71 (.11)	-2.35 (.08)	-2.10 (.13)	-2.37 (10)
National origin						
Caribbean	**-1.05 (.25)**	**-.40 (.19)**	**-1.29 (.20)**	-.09 (.16)	-.23 (.23)	**-.46 (.19)**
Indian	**-.69 (.20)**	**-1.43 (.28)**	-.05 (.18)	**-.58 (.19)**	-.10 (.21)	**-.77 (.20)**
Pakistani/ Bangladeshi	**-1.81 (.44)**	-1.69 (1.07)	**-.63 (.27)**	-.29 (.47)	**-1.08 (.28)**	-.31 (.38)
British, Other whites	0	0	0	0	0	0
Generation						
Born overseas	**-.57 (.10)**	-.14 (.11)	**-.25 (.10)**	-.12 (.10)	.03 (.13)	-.12 (.12)
Born in Britain	0	0	0	0	0	0
Chi-square (D.F.)	19,893 (72)	16,035 (72)	21,247 (72)	18,873 (72)	10,467 (72)	10,381 (72)
N	*42,271*	*31,120*	*43,591*	*37,803*	*23,678*	*23,471*

Source: GHS 1973-2001.
Model controlling for age (centred), age-squared, region and marital status.

The picture given by Table 2.7 is far from clear, although for all three groups of men (and for two of the three groups of women), the ethnic penalties are smaller in the most recent decade than in the earliest decade. The ethnic penalties found in the first decade (the 1970s) are also substantially larger than those we found for the beginning of the twenty-first century. There are, then, some encouraging signs that ethnic minorities are more likely, if they are in work, to have jobs commensurate with their qualifications than they used to be. Again, this is in line with Heath and Yu's more detailed investigation of these data.

However, we must emphasize that these encouraging signs only apply to those lucky enough to be in work. The most important message from these analyses of trends over time, we believe, is that both Caribbean and Pakistani/Bangladeshi men continue to be substantially disadvantaged with respect to unemployment even though some gains have been made by those who actually have jobs. Whether

looked at from the perspective of gross or net disadvantages, we have to conclude that Black, Pakistani and Bangladeshi disadvantage in finding jobs is a longstanding phenomenon that shows no sign of disappearing through natural processes.

It is by no means clear why the trends over time with respect to unemployment and to occupational attainment are so different. One possibility is that the earlier arrivals in the 1960s and 1970s were willing to accept jobs that were substantially below the levels appropriate for their education since they had come in search of work and were willing to accept whatever work was available (Daniel 1968). This would in effect mean that they experienced substantial ethnic penalties in occupational attainment. It could well be that the growing second generation in the 1990s (and perhaps more recent arrivals too) are no longer willing to accept lower-level jobs than the ones occupied by their white peers. They may well have come to share the same aspirations and expectations as their white contemporaries and hence, may be unwilling to accept jobs below the level normally deemed appropriate for their education. Instead, they prefer to be unemployed while they look for more appropriate work. (In economists' language this would mean that ethnic minorities' 'reservation wages' will have increased over time and have reached parity with their white contemporaries' reservation wages.) This would show itself in ethnic penalties with respect to unemployment but not with respect to occupational attainment.

3 Perceptions of unequal treatment in the workplace

In this chapter we explore whether the ethnic penalties reported in Chapter 2 might plausibly be attributed to discrimination. As we noted earlier, we cannot infer directly from statistical calculation of net disadvantages (that is, of ethnic penalties) that actual discrimination is the root cause of the disadvantages. There is a wide variety of other plausible explanations including lack of information about job opportunities, lack of contacts with potential employers, or difficulties of transport to the areas where job vacancies are located. Discrimination is only one among several potential explanations for ethnic penalties.

As we also noted earlier, the most robust evidence that discrimination occurs is provided through field experiments. In these experiments application letters can be sent to employers purporting to come from similarly qualified and experienced applicants from different ethnic backgrounds. Researchers can then observe whether the fictitious applicants from different backgrounds receive the same treatment (for example being called to interview) by employers. Actors can also be used to make personal applications rather than sending application letters. Field experiments of this kind have regularly shown unequal treatment (Munn *et al*, 2003; Strategy Unit, 2003).

Field experiments raise important ethical issues since the prior agreement of the individual companies used in the experiment is not obtained. However, in the absence of field experiments, respondents' own reports of discrimination may provide a reasonable alternative. Indeed, the first British field experiments were explicitly designed to validate respondents' reports of discrimination and did show that the reports were well-founded (Daniel 1968).

In order to investigate ethnic minorities' perceptions of discrimination we draw on the Home Office Citizenship Survey (HOCS) 2003. The HOCS over-sampled ethnic minorities and also included two important questions asking respondents whether they had ever been refused a job, and if so on what grounds. It also asked whether they had ever been treated unfairly at work with respect to promotion (and, again,

if so on what grounds). (For further discussion of the results of HOCS 2003 see Green *et al*. 2004.)

The HOCS 2003 asked respondents:

> *May I check, in the last five years, have you been refused or turned down for a job?*
>
> [IF YES] *Do you think you were refused the job for any of the reasons on this card?*
>
> > *Your gender*
> >
> > *Your age*
> >
> > *Your race*
> >
> > *Your religion*
> >
> > *Your colour*
> >
> > *Where you live*

(The first question was asked only of people who were currently in work together with those who had had a job or looked for one in the last five years.)

We cannot be certain of course about the validity of these responses; it is, in theory, possible that people might rationalise any job rejections as being a result of racial discrimination when in fact the job rejection was perhaps due to lack of appropriate skills or experience. On the other hand, it is also possible that respondents underestimate how often they have been treated unfairly on racial grounds since they may well be unaware that their skills and experience are superior to those of white applicants for the job. Moreover, we shall see in this chapter that there are good grounds for believing that the responses may well be valid indicators of discrimination. Further validation for these reports of discrimination is provided by the finding from HOCS 2001 that, when ethnic minorities reported that they anticipated worse treatment than other races from particular sorts of employer, their responses were mirrored by white groups who reported that they anticipated better treatment than other races by these employers. (See Appendix A for details of question wording and Table B.11 for detailed results).

Tables 3.1 and 3.2 show the distribution of answers both to the initial question on experience of discrimination in the HOCS 2003 and to the follow-up, focusing on reasons relating to race or colour. As in previous chapters we show the results separately for men and women. Again, as before, we restrict the analysis to respondents of working age.

Table 3.1   Experience and grounds for being refused a job, men

Row percentages

	Has been refused job on non-racial grounds	Has been refused job on racial grounds	Overall reported refusals	N
White	21.2	0.4	21.6	2,470
African	28.0	25.7	53.7	214
Caribbean	21.6	11.3	33.9	213
Black Mixed	24.1	11.1	35.2	54
Indian	18.9	8.4	27.3	417
Pakistani	27.3	8.7	36.0	231
Bangladeshi	20.5	7.5	28.0	161
Chinese	18.9	1.9	20.8	53
Other	22.9	11.2	34.1	349
All ethnic minorities	22.6	11.4	34.0	1,343

Source: HOCS 2003.

The first column in Table 3.1 shows the percentages who reported that they had been refused a job on grounds of gender, age (the most common basis for being refused a job), or other reasons, i.e. on non-racial grounds. The second column shows the percentages who reported they had been refused a job on grounds of race or colour, while the third column shows the overall rate of refusal (being the sum of the first two columns).

As we can see from the first column of Table 3.1, the proportions who report refusals on non-racial grounds do not differ greatly between ethnic groups and whites. However, the second column shows that a significant proportion of ethnic minorities reports that they have been refused a job on grounds of race or colour. This is on top of the other refusals and hence, the overall refusal rate for ethnic minorities, shown in the third column, is substantially higher than that for whites. On average an extra 12 per cent of ethnic minorities, compared with whites, reported that they had been refused a job, and almost all of this excess is made up of refusals on racial grounds. This suggests that ethnic minorities are not simply rationalising their failures to obtain jobs on racial grounds whereas whites attribute failures to other reasons.

We should also note the particularly high rate of refusals on racial grounds for African men and the low rate for Chinese men. For all other groups the rates are fairly similar. (A formal test of significance indicates that Africans are significantly more likely to report refusals on racial grounds while Indians and Chinese are significantly less likely to do so. None of the other differences is statistically significant). It is striking that this pattern is consistent with the evidence on ethnic penalties in unemployment that we saw in Chapter 2, where we found that Africans experienced the largest ethnic penalties with respect to unemployment whereas Indians and Chinese experienced the lowest penalties. This provides important

corroborating evidence that differences in ethnic penalties may reflect differences in experience of discrimination.

Table 3.2   Experience and grounds for being refused a job, women

Row percentages

	Has been refused job on non-racial grounds	Has been refused job on racial grounds	Overall reported refusals	N
White	17.5	0.3	17.8	2,800
African	19.9	15.9	35.8	271
Caribbean	17.3	8.6	25.8	394
Black Mixed	27.2	6.2	33.4	81
Indian	22.1	6.7	28.8	371
Pakistani	23.0	5.6	28.6	126
Bangladeshi	21.8	6.9	28.7	87
Chinese	20.4	13.0	33.4	54
Other	21.8	6.0	27.8	348
All ethnic minorities	20.6	9.2	29.8	1,384

Source: HOCS 2003.

Turning next to women, we find that overall rates of refusal are slightly lower for both white and ethnic minority women than they are for men, again perhaps reflecting the slightly lower unemployment rate experienced by women. The rate of refusal on racial grounds is also slightly lower than that found for men, again in line with the slightly lower ethnic penalties experienced by women. In other respects the pattern is more or less the same as for men, with African women again notable for their high rate of rejection. (In fact, only in the case of African women is the rate of refusal on racial grounds significantly higher than that for ethnic minorities in general. The somewhat anomalous result for Chinese women should, therefore, probably be attributed to sampling error.) This again is in line with the evidence on ethnic penalties that we saw in Chapter 2.

HOCS also asked about unequal treatment with respect to promotion at work. Respondents were asked:

In the last five years, have you been treated unfairly at work with regard to promotion or a move to a better position?

[IF YES] *Do you think you were discriminated against because of*

Your gender

Your age

Your race

Your religion

Your colour

Where you live

As we can see, the rates of unfair treatment with respect to promotion are generally lower than in getting a job (20 per cent in Table 3.3 compared with the 34 per cent shown in Table 3.1.). The reported rate of unfair treatment on racial grounds is no different from the corresponding figure for job refusals, but ethnic minorities report lower overall rates of unfair treatment on non-racial grounds. It is possible, therefore, that some small element of rationalisation may be at work here.

Table 3.3   Self-report of unequal treatment at work, men

Row percentages

	Has experienced unequal treatment on non-racial grounds	Has experienced unequal treatment on racial grounds	Overall reported unequal treatment	N
White	12.9	0.6	13.5	2,410
African	7.0	22.6	29.6	199
Caribbean	11.0	16.8	27.8	191
Black Mixed	16.0	10.0	26.0	50
Indian	4.6	12.2	16.8	394
Pakistani	6.2	12.9	19.1	194
Bangladeshi	6.7	5.3	12.0	150
Chinese	6.3	4.2	10.5	46
Other	8.9	12.8	21.7	305
All ethnic minorities	7.0	13.5	20.5	1,226

Source: HOCS 2003.

As with job refusals, the overall rates for women are slightly lower than for men, but the pattern is rather similar with African women being particularly likely to report unfair treatment on racial grounds.

Table 3.4   Self-report of unequal treatment at work, women

Row percentages

	Has experienced unequal treatment on non-racial grounds	Has experienced unequal treatment on racial grounds	Overall reported unequal treatment	N
White	10.4	0.5	10.9	2,730
African	10.6	13.6	24.2	236
Caribbean	9.3	9.1	18.4	375
Black Mixed	9.6	6.8	16.4	73
Indian	7.4	10.0	17.4	339
Pakistani	2.6	11.4	14.0	114
Bangladeshi	9.5	4.1	13.6	74
Chinese	2.0	4.1	6.1	49
Other	8.0	10.5	18.5	323
All ethnic minorities	8.2	9.8	18.0	1,260

Source: HOCS 2003.

We can regard this as reasonable corroboration that discrimination is indeed one part of the explanation for the observed ethnic penalties with respect to unemployment. In line with the pattern of ethnic penalties we find that ethnic minorities do report higher rates of job refusal and higher rates of unfair treatment with regard to promotion than do members of the white comparison group. In the case of job refusals, the excess is made up almost wholly of refusals that are believed to have been on racial grounds. While this does not mean discrimination is the only explanation of the ethnic penalties, it makes it highly probable that it is an important part of the explanation.

We should also note that discrimination can take a number of different forms. There is, for example, the important legal distinction between direct and indirect discrimination. Within the category of direct discrimination, economists sometimes make a distinction between a 'taste for discrimination' and 'statistical discrimination' (Becker 1957, Arrow 1972). The former occurs when an employer is racially prejudiced in the conventional sense. The latter occurs when an employer believes (perhaps on the basis of prior evidence) that certain groups of workers are, on average, likely to display lower productivity as employees. The self-report data in the HOCS on job refusals and unfair treatment does not enable us to determine which of these possible mechanisms for discrimination is at work.

4   Different employers, different outcomes?

Our first objective in this section is to explore whether ethnic minorities are under- or over-represented among particular types of employer; for example, are they under-represented in the private sector relative to the public sector? Our second objective is then to consider whether, within particular sectors of the economy, ethnic minorities are over-represented in lower-levels jobs, while British and other whites are over-represented at higher levels. This might give us some clues as to whether particular sectors provide less favourable opportunities for ethnic minorities to achieve high occupational status.

Our initial hypothesis was that ethnic minorities might be under-represented in the private sector (which is not subject to ethnic monitoring through the Race Relations (Amendment) Act 2000), and more specifically that ethnic minorities might be specially under-represented in more traditional industries that had not been recruiting labour in recent years to the same extent as some newer industries. There is also American evidence that the public sector has been a particularly important avenue of advancement for African Americans, perhaps because of affirmative action policies in the public sector, (Waldinger, 1995) and it will be of considerable interest to see whether the same pattern obtains in Britain.

Throughout this chapter we consider patterns of over- and under-representation among employees. We exclude the self-employed from consideration. The unemployed are also excluded as they cannot be assigned to a particular sector. We begin by looking at the broad distinction between the public and private sectors. We then turn to explore differences between industries before turning finally to different sizes of establishments.

4.1   Ethnic employment in the public and private sector

We begin in this section by considering the overall pattern of ethnic employment in the public and private sectors. We then disaggregate by occupational level before finally considering the ethnic penalties within each sector. For these analyses we

draw on the Labour Force Survey (LFS) since the Sample of Anonymised Records (SARs) does not specifically ascertain whether people are employed in the public or private sectors.

Overall, the public sector is a great deal smaller than the private sector. Approximately 19 per cent of male employees are in the public sector but this figure rises to 36 per cent for women. These proportions do, however, differ somewhat between ethnic groups. Black African (30 per cent), Chinese (24 per cent), Black Caribbean (22 per cent) and Indian (20 per cent) men have somewhat higher proportions in the public sector while Pakistani (17 per cent) and Bangladeshi (nine per cent) men have markedly lower proportions in the public sector. Figure 4.1 shows the corresponding percentages employed in the private sector.

Figure 4.1   Proportion of ethnic groups employed in the private sector

Source: LFS, 2001 – 2004
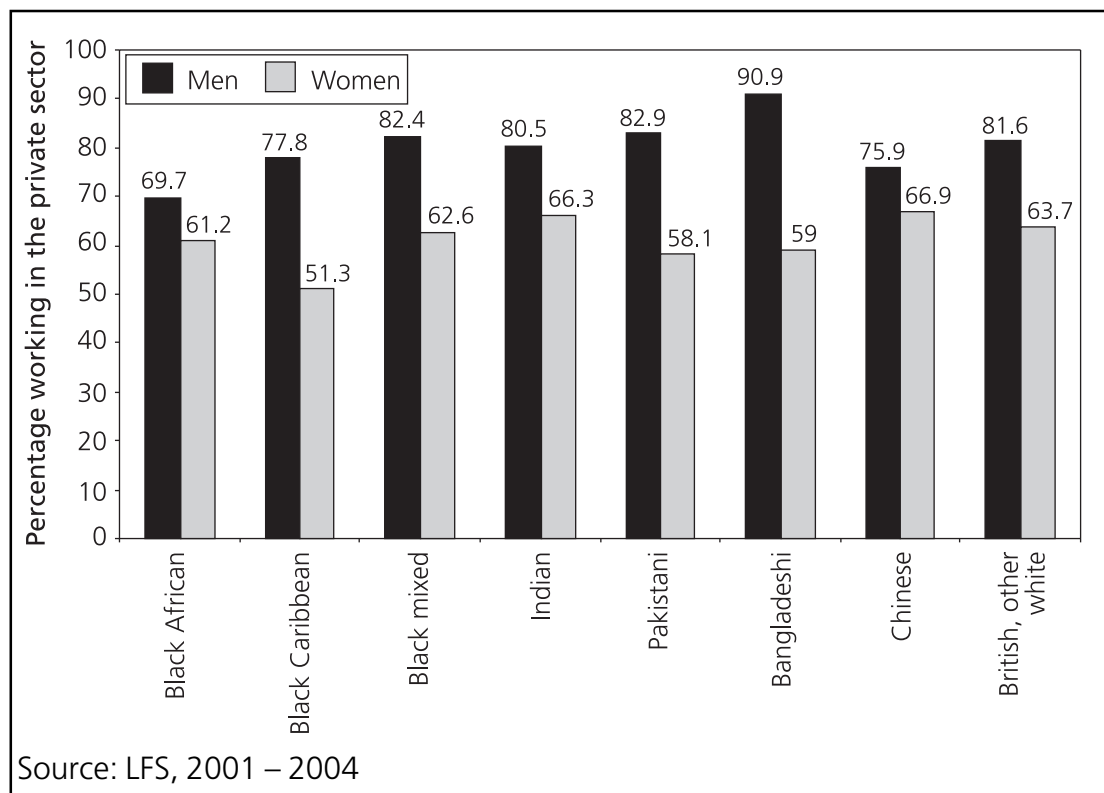
Moreover, the ethnic minorities such as the Bangladeshis and Pakistanis who take up employment in the private sector tend to take up jobs at a much lower level than those who go into the public sector. This can be seen from Table 4.1.

Table 4.1   Occupational levels of whites/ethnic minorities in the public and private sectors, male employees

	Private		Public	
	Whites	**Ethnic minorities**	**Whites**	**Ethnic minorities**
Professional and managerial	**46.4**	**41.9**	**62.3**	**66.5**
Intermediate	**5.4**	**6.5**	13.8	12.9
Skilled	**19.3**	**15.2**	**9.0**	**5.5**
Semi-routine and routine	**28.9**	**36.4**	14.9	15.1
Mean hourly earnings (£)	**11.14**	**9.98**	**12.38**	**13.22**
N (weighted)	*76,758*	*4,863*	*17,303*	*1,370*

Column percentages (header, right-aligned above table)

Source: LFS 2001-2004.
Figures in bold indicate that the white/ethnic minorities difference is statistically significant.

As we can see from Table 4.1, within the private sector, 36 per cent of ethnic minority men are in semi-routine and routine work while the corresponding figure is only 29 per cent for white men. Ethnic minority men also earn substantially less than whites in the private sector. In contrast, within the public sector we find that ethnic minorities are more likely than whites to be found in professional and managerial posts and correspondingly, tend to have higher hourly earnings.

The pattern for female employees looks slightly different. Figures from Table 4.2 suggest that the differences between the occupational distributions of white and ethnic minority female employees in the two sectors are not as great as they are for men.

Table 4.2   Occupational levels of whites/ethnic minorities in the public and private sectors, female employees

	Private		Public	
	Whites	**Ethnic minorities**	**Whites**	**Ethnic minorities**
Professional and managerial	35.9	36.9	**53.0**	57.8
Intermediate	**21.6**	**18.5**	21.4	21.1
Skilled	9.2	8.1	3.9	3.5
Semi-routine and routine	**33.3**	**36.5**	21.8	17.7
Mean hourly earnings (£)	**8.16**	**8.53**	9.95	10.16
N (weighted)	*53,693*	*3,207*	*30,590*	*2,137*

Column percentages (header, right-aligned above table)

Source: LFS 2001-2004.
Figures in bold indicate that the white/ethnic minorities difference is statistically significant.

However, we must not immediately assume that these differences in the occupational distributions of ethnic minority men are the result of unequal treatment. It could well be that more highly qualified ethnic minorities choose to work in the public sector in

preference to the private sector and that the distributions in Table 4.1 simply reflect flows of more and less educated manpower into the two sectors.

We need, therefore, to explore patterns of recruitment of highly-qualified manpower to the public and private sectors respectively. Accordingly, we carry out an analysis of what might be termed sectoral choice. The dependent variable in the analysis is whether a respondent works in the private or public sector and the explanatory variables include ethnicity, generation, educational qualifications and our other usual control variables. The analysis, thus, tells us whether ethnic minorities are more likely to be found in the public sector than are similarly-qualified members of the white comparison group. What we find from Table 4.3 is that, controlling for educational level and the other individual characteristics, ethnic minorities are significantly less likely to be found in private sector work than are whites.[5]

Table 4.3   Sectoral choice – working in the private sector

	Parameter estimates (contrast with being in public sector)	
	Men	**Women**
Constant	1.16 (.09)	.78 (.07)
Ethnicity		
Ethnic minorities	-.17 (.07)	-.22 (.06)
British, other whites	0	0
Generation		
Born overseas	-.02 (.09)	.06 (.07)
Born in Britain	0	0
Chi-square (D.F.)	8,311 (26)	12,563 (26)
N (weighted)	*88,162*	*84,884*

Source: LFS 2001-2004.
Model controlling for ethnicity, qualification, generation, age, age-squared, marital status, year of survey, region, part-time work, and size of establishment. See Appendix C for details of full models.

There could be a number of possible explanations for this pattern. It might reflect preferences on the part of ethnic minorities for certain kinds of work, for example as professionals, for which opportunities are greater in the public sector. Or it might reflect actual experiences of being turned down for jobs in the private sector or beliefs about likely discrimination and opportunities in the two sectors. The data

---

[5] We also modelled each ethnic group separately. Because of the small numbers involved, few of the specific ethnic parameters were statistically significant but the results show that African men (parameter estimate =-0.39) and Caribbean men (p.e. = -0.46) were significantly less likely to be working in the private sector. For women, the same is true for Caribbeans (p.e. -0.56), Pakistanis (-0.42) and Bangladeshis (-0.82).

available do not allow us to decide between these different explanations and possibly there is some truth in all of them. We pursue this question further in Chapter 5. However, for the moment the important point to note is that the choice of working in the public or private sectors is not random with respect to ethnicity. Ethnic minorities are more likely to obtain work in the public sector than are similarly-qualified members of the white comparison group.

4.2 Ethnic penalties in the private and public sector

Our key question is whether, once arrived in a sector, ethnic minorities obtain the same treatment as whites within that sector. To answer this question we carry out analyses similar to those reported in Section 2.5 on ethnic penalties but splitting our sample into those employed in the public and private sectors respectively. That is, we look at the relationship between ethnicity and occupational attainment in each sector controlling for qualification level, marital status, age, year of survey, region, full- or part-time working, size of firm and generation. We focus on access to the professional and managerial jobs of the salariat.

The estimates for ethnicity and generation are shown in Table 4.4 (the full results are shown in Appendix C). As we can see, there is a significant ethnic penalty for ethnic minority men in the private sector (although not for women). While the ethnic penalty in the public sector is of broadly the same magnitude as in the private sector, it does not reach statistical significance. The result of this analysis is, therefore, inconclusive.

Table 4.4   Ethnic penalties in access to the salariat in the private and public sectors

	Private sector		Public sector	
	Parameter estimates (contrast with semi routine or routine occupations)			
	Men	**Women**	**Men**	**Women**
Intercept	-3.64 (.08)	-3.30 (.07)	-3.16 (.18)	-2.98 (.19)
Ethnicity				
Ethnic Minorities	-.30 (.09)	.06 (.10)	-.34 (.20)	-.09 (.15)
British, Other Whites	0	0	0	0
Generation				
Born overseas	-.41 (.11)	-1.08 (.13)	.26 (.25)	-.11 (.19)
Born in Britain	0	0	0	0
Chi-square (D.F.)	32,644 (78)	21,142 (78)	7,803 (78)	18,666 (78)
N (weighted)	*76,117*	*54,071*	*17,960*	*31,768*

Source: LFS 2001-2004.
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey, region, part-time work, and size of establishment. See Appendix C for details of full models.

However, a much clearer picture emerges when we turn to hourly earnings. Table 4.5 shows that men from ethnic minorities experience a significantly larger penalty with respect to hourly earnings in the private sector than they do in the public sector. In the case of men these coefficients translate into an earnings differential between ethnic minority and white men of £0.65 in the private sector but a differential of only £0.34 in the public sector. For women, however, the results are very similar in the two sectors.

Table 4.5   Ethnic penalties in hourly earnings in the private and public sectors

	Private		Public	
	Men	**Women**	**Men**	**Women**
Constant/Intercept	1.783 (.013)	1.695 (.011)	1.776 (.023)	1.707 (.014)
Ethnicity				
Ethnic Minorities	-.115 (.015)	-.045 (.015)	-.059 (.026)	-.046 (.017)
British, Other Whites	0	0	0	0
Generation				
Born overseas	-.132 (.018)	-.117 (.019)	.003 (.031)	-.025 (.022)
Born in Britain	0	0	0	0
Adjusted R^2 (D.F.)	.412 (26)	.361 (26)	.380 (26)	.414 (26)
N (weighted)	*60,227*	*43,408*	*14,751*	*25,794*

Source: LFS 2001-2004.
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey, region, part-time work, and size of establishment. See Appendix C for details of full models.

It is also interesting to observe that the first generation experience even larger ethnic penalties within the private sector, while in the public sector the generational differences are substantively small.

It is important to be cautious about the interpretation of these results. As we showed in Table 4.3 there are processes of sectoral choice at work and it is always conceivable that these could account for the differences in ethnic penalties. For example, it might be that it is the more ambitious individuals from ethnic minorities who opt to work in the public sector while ambitious whites opt for the private sector. A selective process of this kind could, in principle, account for the differences in the ethnic penalties. On the other hand, it is also possible that there is less discrimination or prejudice against ethnic minorities in the public sector and that is why ethnic minorities prefer to work there and experience somewhat reduced ethnic disadvantages. We pursue this further in Chapter 5.

4.3   Ethnic composition of industries

In this section we explore in more depth some of the differences between specific industries in order to check whether the disadvantages shown in the previous section are located in particular areas of the private sector or are more general. Because of its greater size, we use the SARs for this analysis in preference to the LFS since numbers in the LFS quickly become very small once we disaggregate by industry.

There are nine broad categories of industry that we can usefully distinguish, namely:

• agriculture and fishing;

• energy and water;

• manufacturing;

• construction;

• distribution, hotel and restaurants;

• transport and communication;

• banking, finance and insurance, etc;

• public administration, education and health;

• other services.

The public administration, education and health category is broadly (but not exactly) equivalent to the public sector. According to the LFS, 76 per cent of employees in this category are employed by public sector organisations (and they make up 86 per cent of the total public sector). The only other industrial groupings with an appreciable number of public sector workers are transport and communication, with 11 per cent, and other services with 22 per cent. All the other industrial groupings have five per cent or fewer public sector employees.

Figure 4.2 presents an overview of the ethnic composition of these nine industrial groupings, for simplicity distinguishing between whites and all ethnic minorities combined. As expected, there are relatively high proportions of whites in agriculture, energy and water, and construction. The highest proportions of ethnic minority employees are to be found in the distribution, transport, banking and public administration groupings.

We can dig down a little deeper to see whether these broad patterns hold equally true for the different ethnic minorities. There is little to report about the representation of particular ethnic minorities within the sectors such as agriculture, energy and construction which are predominantly white (partly because of the very small numbers involved). In the case of men, the distribution, hotel and restaurant category, as might be expected, is notable for the relatively high number of Chinese, Indian and Bangladeshi employees. Some of these, we suspect, will be employed by

employers belonging to the same ethnic group. The transport and communications category is notable for relatively high numbers of Pakistani and Caribbean workers while Black Africans are particularly likely to be found in banking and public administration (probably reflecting their high qualifications).

There will of course be various complex social processes involved in these patterns, which will tend to reflect historical patterns of geographical settlement as well as current preferences and perceptions and the presence of co-ethnic employers.

Figure 4.2   Proportion of whites in different industries – 2001

Source: SARS 2001.
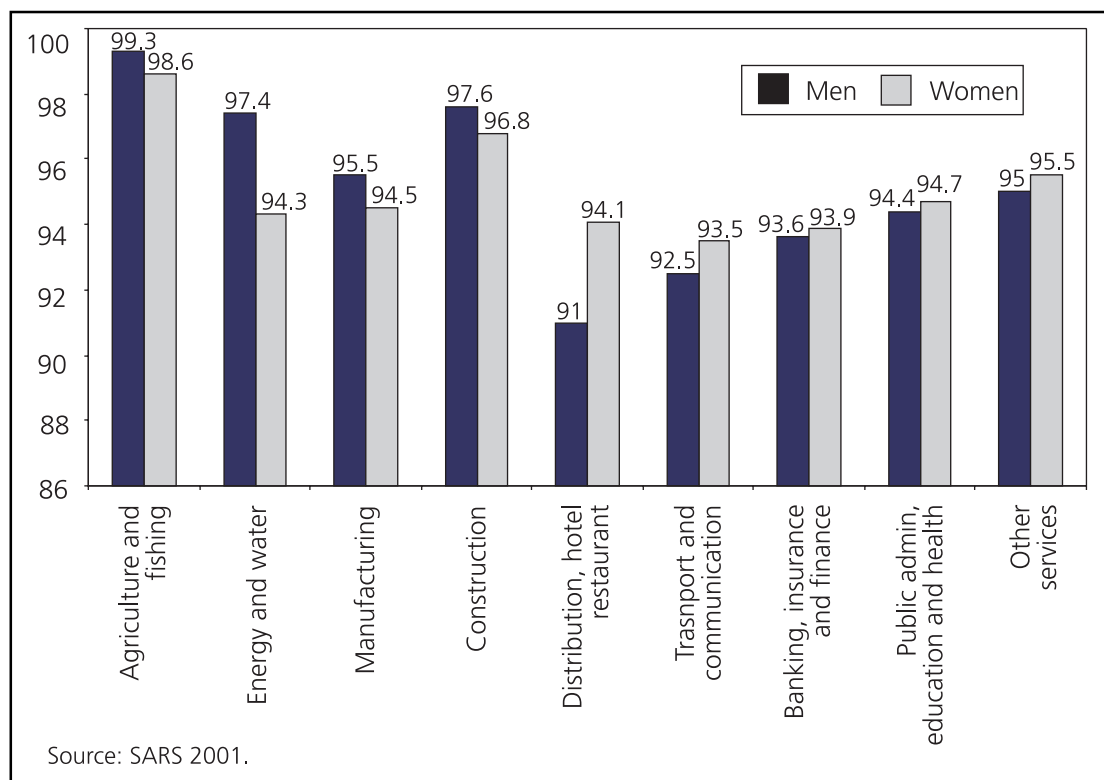
**Figure 4.3   Distribution of ethnic minority men in major industries –
2001**

Source: SARs 2001 (See Appendix B for full details of percentages).
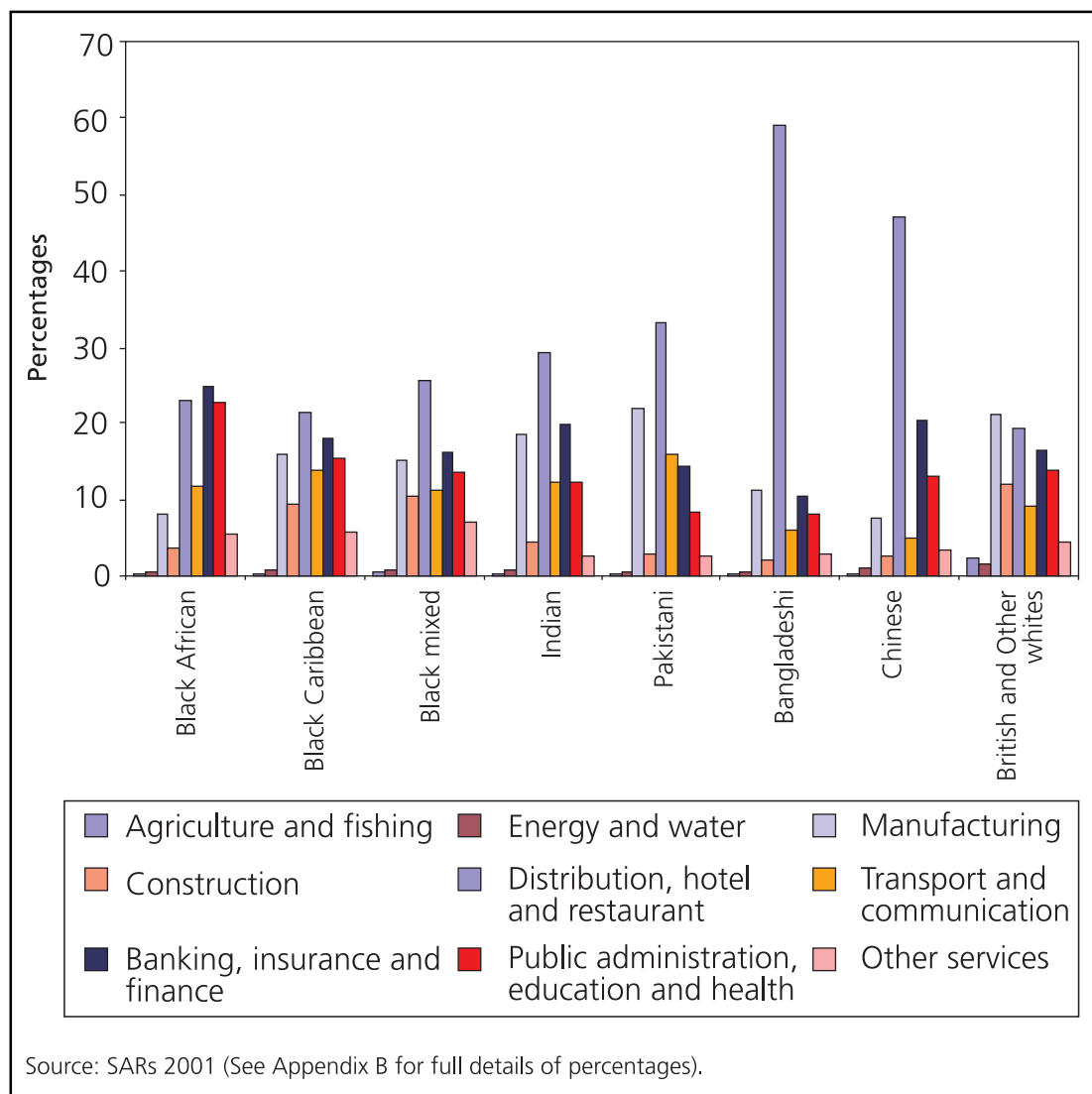
Figure 4.4   Distribution of ethnic minority women in major industries – 2001

Source: SARs 2001 (See Appendix B for full details of percentages).
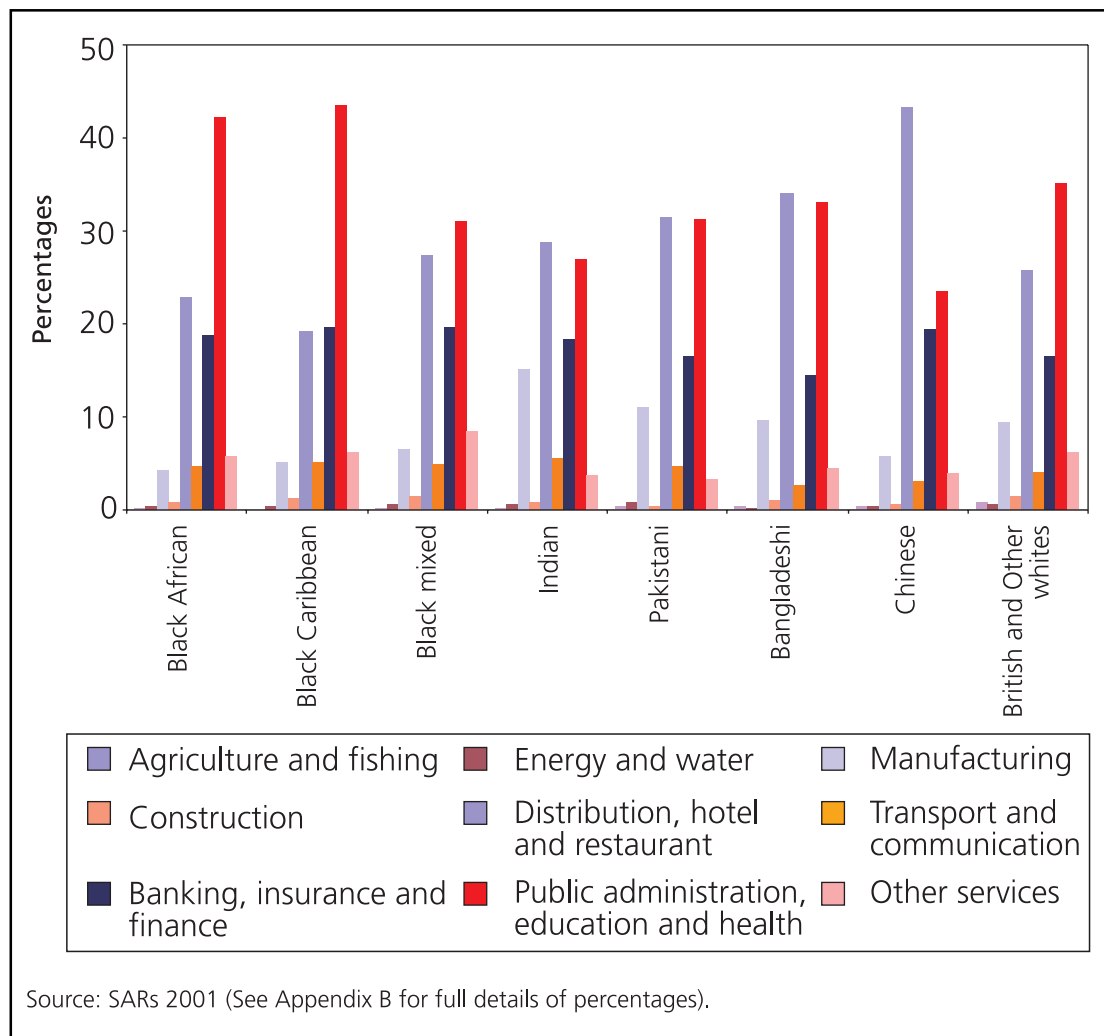
We next turn to the occupational distribution of ethnic minorities in the five largest industrial groupings. Table 4.6 shows that the same pattern as observed in the private sector as a whole also applies to the manufacturing, distribution, and banking groupings. In these three industrial groupings we find that ethnic minorities are substantially under-represented in professional and managerial jobs but are over-represented in semi-routine and routine work. Ethnic minority earnings are also substantially less than those of white individuals in these three groupings, especially so in the case of banking.

As expected, the situation in the public administration sector is very similar to the one that we have already reported for the public sector (not surprising, given the overlap). But it is notable that the transport and communication category does not show a picture of major ethnic differences. As we noted earlier, this is the industrial grouping with the highest proportion (outside public administration) of public sector employees.

Table 4.7 shows the corresponding distributions for women. The patterns for women are broadly similar to those found for men, although the distribution, hotel and restaurant grouping is rather anomalous with its low proportion of white women in professional and managerial work and the very high proportions of both white and ethnic minority women in semi-routine and routine jobs. However, it is also noticeable that the earnings differentials between white and ethnic minority women tend to be relatively small in all five industrial groupings and are of a very different order of magnitude from those found among men. This probably reflects the fact that women, both white and ethnic minority, tend to be concentrated in a relatively narrow range of occupations.

Table 4.6   Occupational levels of whites/ethnic minorities in major industries, male employees

(Column percentages)

	Manufacturing		Distribution hotel and restaurants		Transport and communication		Banking finance insurance		Public administration, education, health	
	Whites	Ethnic minorities	Whites	Ethnic minorities	Whites	Ethnic minorities	Whites	Ethnic minorities	Whites	Ethnic minorities
Professional/managerial	32.2	22.5	34.5	24.2	26.6	25.9	67.2	64.7	52.9	65.0
Intermediate	5.3	5.3	6.1	5.4	14.9	21.9	14.4	16.0	28.3	20.6
Skilled	23.6	16.7	20.0	17.9	12.8	10.6	5.8	4.2	6.9	3.0
Semi-skilled and routine	38.9	55.5	39.4	52.5	45.6	41.6	12.6	15.1	12.0	11.4
N	*90,308*	*3,842*	*67,747*	*5,461*	*37,009*	*2,603*	*70,768*	*4,463*	*62,209*	*3,384*

Source: SARs 2001.
Figures in bold indicate that the white/ethnic minorities difference is statistically significant.

Table 4.7   Occupational levels of whites/ethnic minorities in major industries, female employees

(Column percentages)

	Manufacturing		Distribution hotel and restaurants		Transport and communication		Banking finance insurance		Public administration, education, health	
	Whites	Ethnic minorities	Whites	Ethnic minorities	Whites	Ethnic minorities	Whites	Ethnic minorities	Whites	Ethnic minorities
Professional/managerial	24.6	16.7	17.7	16.0	24.7	24.1	37.6	41.6	43.0	47.3
Intermediate	23.3	13.4	13.9	14.2	48.2	48.1	44.3	41.4	24.4	25.4
Skilled	**9.6**	**8.0**	10.8	11.2	**4.2**	**2.8**	2.5	2.3	4.3	3.5
Semi-skilled and routine	42.5	61.9	57.7	58.6	25.0	23.1	15.6	14.8	28.4	23.7
N	*36,318*	*1,980*	*85,586*	*4,425*	*16,011*	*1,040*	*65,321*	*3,971*	*140,606*	*7,488*

Source: SARs 2001.
Figures in bold indicate that the white/ethnic minorities difference is statistically significant.

4.4   Ethnic penalties in major industries

As before, we need to check whether these overall differences in occupational attainment can be explained by the educational levels (and other characteristics) of the workers in each industrial grouping. We, therefore, follow the same procedure as before and calculate the ethnic penalties using SARs 2001. We report the results in Table 4.8.

The story is clear cut. In the case of both men and women, we find substantial and highly significant ethnic penalties of broadly similar magnitudes in the manufacturing, transport, distribution, hotel and restaurant and banking groupings. These ethnic penalties are a great deal larger than those found in the public administration, health and education grouping.

Table 4.8   Ethnic penalties in access to the salariat in major industries

Column percentages

	Manufacturing		Distribution hotel and restaurants		Transport and communication		Banking and finance		Public administration, education, health	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Constant/Intercept	-3.16 (.10)	-3.35 (.10)	-3.66 (.08)	-3.34 (.07)	-3.41 (.13)	-2.95 (.16)	-2.50 (.11)	-2.20 (.09)	-2.32 (.10)	-2.13 (.06)
Ethnicity										
Ethnic minorities	-.96 (.07)	-1.24 (.11)	-.68 (.06)	-.63 (.07)	-.90 (.08)	-.77 (.13)	-.78 (.07)	-.57 (.08)	-.30 (.09)	-.27 (.05)
British, other whites	0	0	0	0	0	0	0	0	0	0
Generation										
Born overseas	-.29 (.06)	-.53 (.09)	-.43 (.05)	-.54 (.05)	.04 (.07)	-.41 (.11)	-.37 (.07)	-.58 (.07)	-.16 (.07)	-.28 (.04)
Born in Britain	0	0	0	0	0	0	0	0	0	0
Chi-square (D.F.)	25,891 (78)	11,284 (75)	15,040 (78)	19,264 (75)	10,976 (78)	3,186 (75)	20,365 (78)	19,228 (75)	24,207 (78)	72,754 (75)
N	73,722	26,423	56,762	62,030	31,177	13,035	55,195	51,483	50,363	112,780

Source: SARs 2001.
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey, region, sector, part-time work, and size of establishment. See Appendix C for details of full models.

When we look in more detail at the experiences of particular ethnic groups, we find the same general patterns that were previously observed in the public and private sectors as a whole. Thus, Chinese and Black Mixed men tend to experience smaller ethnic penalties than the other minorities, and this holds broadly true across all industrial groupings. Conversely, African, Caribbean, Pakistani and Bangladeshi and even Indian men tend to experience fairly substantial ethnic penalties in manufacturing, distribution, transport and banking alike. Given the small samples involved for particular ethnic groups in particular industries, there are some occasional deviations from this pattern and one should not place undue reliance on individual figures. Perhaps the most notable exception is that of the Indian men in banking and finance, where they appear not to experience any significant ethnic penalty.

Overall, then, the findings obtained when we distinguish between different industrial groupings are broadly similar to those found when we compared the public and private sectors. Not surprisingly, given the substantial overlap between the public sector and our public administration, education and health grouping, the results are almost identical to those we found earlier for the public sector, with relatively small ethnic penalties in the public administration grouping. More interestingly, within the private sector differences between the major industries were not especially large. The SARs show similar and substantial ethnic penalties in all four of the larger industrial groupings of manufacturing, distribution, transport and banking.

4.5   Ethnic distribution by size of establishments

In this section, we examine the representation of ethnic minorities in establishments of different sizes. It has been suggested that ethnic minorities might be more successful in larger firms which have more formal recruitment and promotion procedures, whereas smaller firms might be more likely to rely on informal, word-of-mouth methods of recruitment and promotion. On the other hand, we must also remember that ethnic minority businesses may also tend to be small and may disproportionately employ co-ethnics (that is, ethnic minority employers may tend to employ workers belonging to the same ethnic group as themselves). The two different processes might therefore tend to cancel out. (Unfortunately, we have no information that would enable us to determine whether the individual was employed by a co-ethnic or not.)

The LFS record the number of employees where respondents work. We distinguish small establishments with up to 24 employees, medium-size establishments with 25 to 499 employees, and finally, establishments with 500 or more employees, which we classify as large establishments. However, we should note that this measure deals only with establishments, not firms. Small establishments may be part of larger firms and will tend to have the policies and procedures laid down by their head offices. A classification of establishments, rather than of firms, is not, therefore, ideal for our purpose.

Figures 4.5 and 4.6 give the details of the distribution of ethnic minorities in small, medium and large establishments. If there were no variations in ethnic minority representation in establishments of different sizes, we would expect to see the three columns in the figures to be exactly the same height. As we can see, there are some variations in the height of the columns, although they do not follow any very clear pattern. For all ethnic groups, employees are most likely to be working in medium-sized establishments with the exception of Bangladeshi and Chinese men. We find larger proportions of African, Caribbean and Indian men in large establishments but smaller proportions of Bangladeshi men in medium and large establishments. In general, the differences, other than those for Bangladeshi and Chinese men, are rather small.

Figure 4.5   **Ethnic distribution in small, medium and large establishments, male employees 2001-2004**

Source: LFS, 2001-2004.
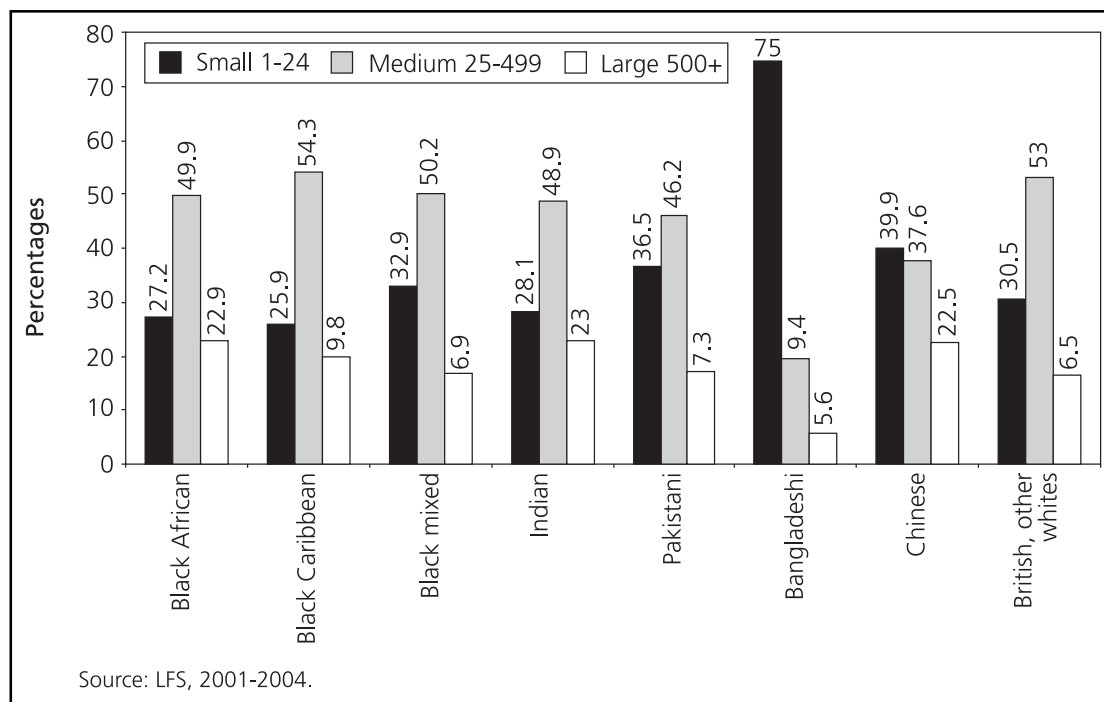
The story for women is broadly similar, with slightly larger proportions of Africans, Caribbeans and Indians employed in larger establishments. Interestingly, we find a much higher proportion of Chinese women working in small establishments.

Figure 4.6   Ethnic distribution in small, medium, and large establishments: female employees 2001-2004

Source: LFS, 2001-2004.
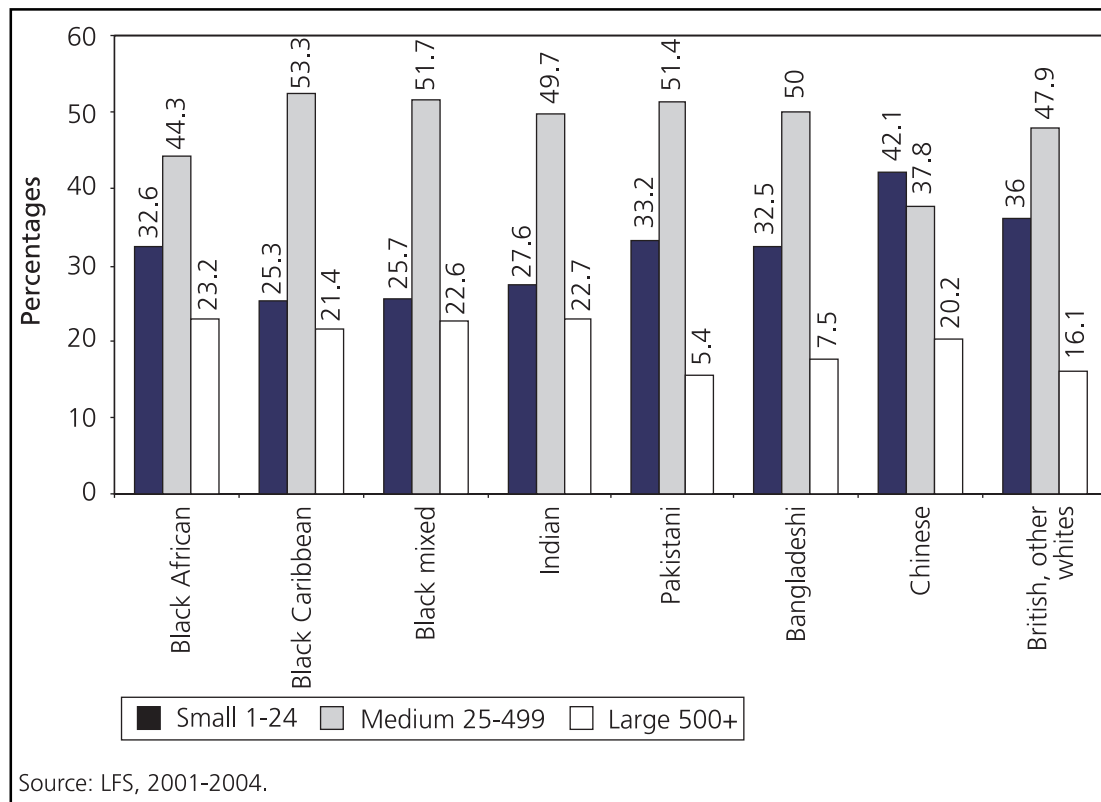
We next look, in Table 4.9, at the occupational distributions within the different sized establishments. As might be expected, larger establishments tend to have rather more professional and managerial workers and fewer semi-routine and routine workers, but the differences are not especially great. Within all three categories of establishment, we see a modest tendency for ethnic minority men to occupy lower occupational levels and to have lower hourly earnings.

Table 4.9   Occupational levels of whites/ethnic minorities in small, medium and large establishments, male employees

						(Column percentages)
	Small		**Medium**		**Large**	
	Whites	**EM**	**Whites**	**EM**	**White**	**EM**
Professional and managerial	43.0	41.7	**47.1**	**43.1**	59.5	59.2
Intermediate	5.5	6.1	**7.5**	**9.8**	8.8	7.6
Skilled	**21.3**	**16.6**	**17.4**	**12.6**	13.5	9.8
Semi and routine	**30.2**	**35.6**	**28.0**	**34.5**	18.1	23.5
Mean hourly earnings (£)	**9.48**	**8.77**	**11.52**	**10.42**	14.14	14.12
N (weighted)	*27,528*	*1,414*	*47,863*	*2,053*	*14,934*	*882*

Source: LFS 2001-2004.
Figures in bold indicate that the white/ethnic minorities difference is statistically significant.

The positions of white and ethnic minority women, shown in Table 4.10, do not show any major differences from each other. Few of the differences are statistically significant.

Table 4.10   Occupational levels of whites/ethnic minorities in small, medium and large establishments, female employees

						Column percentages
	Small		**Medium**		**Large**	
	Whites	**EM**	**Whites**	**EM**	**White**	**EM**
Professional and managerial	**33.3**	**37.1**	42.1	42.9	59.5	59.2
Intermediate	**19.7**	**16.4**	21.7	21.1	8.8	7.6
Skilled	9.3	9.9	7.3	6.1	**13.5**	**9.8**
Semi and routine	37.7	36.7	28.9	29.9	**18.1**	**23.5**
Mean hourly earnings (£)	**7.56**	**8.31**	9.07	8.98	10.71	10.79
N (weighted)	*29,735*	*1,121*	*39,507*	*1,880*	*13,259*	*827*

Source: LFS 2001-2004.
Figures in bold indicate that the white/ethnic minorities difference is statistically significant.

4.6   Ethnic penalties in small, medium and large establishments

Finally, how do ethnic penalties vary according to size of establishment? Table 4.11 shows that there are no ethnic penalties for either men or women in access to the salariat in the smaller establishments, whereas there are quite substantial penalties for men in the medium-sized and larger establishments and indeed, they are greatest in the large establishments. This is counter to our initial hypothesis that large establishments might be more meritocratic, relying on more formal and neutral selection procedures. Possibly any tendency in this direction is offset by employment among co-ethnics in smaller establishments but we do not have the data to pursue issues of employment by co-ethnics. There is a large American literature on the 'ethnic enclave', where ethnic minority-run firms employ co-ethnic workers. However, whether employment in the ethnic enclave is beneficial to the ethnic minority employees is disputed. While they may be able to obtain jobs in the enclave, these may be relatively low level and poorly paid jobs which do not provide the same opportunities for advancement as those in larger mainstream firms. (Raijman and Tienda, 1999).

Table 4.11 Ethnic penalties in access to the salariat by size of establishment

	Contrast with semi routine and routine occupations					
	Small		**Medium**		**Large**	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Constant/Intercept	-2.73 (.10)	-3.12 (.10)	-3.10 (.11)	-3.44 (.10)	-3.16 (.22)	-2.55 (.19)
Ethnicity						
Ethnic minorities	.20 (.14)	.18 (.14)	-.52 (.11)	-.04 (.12)	-.69 (.20)	-.52 (.21)
British, other whites	0	0	0	0	0	0
Generation						
Born overseas	-.62 (.17)	-.77 (.18)	-.27 (.14)	-.82 (.15)	.11 (.24)	-.59 (.26)
Born in Britain	0	0	0	0	0	0
Chi-square (D.F.)	11,475 (78)	11,838 (78)	20,544 (78)	21,894 (78)	7,997 (78)	6,797 (78)
N (weighted)	*28,720*	*30,657*	*41,160*	*42,359*	*15,724*	*14,023*

Source: LFS 2001-2004.
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey, region, sector, and part-time work. See Appendix C for details of full models.

A somewhat similar story is evident when we turn to ethnic penalties with respect to earnings: Once again there is no significant ethnic penalty in small establishments for either men or women but significant penalties in medium and larger ones. However, we need to put this in the context of overall earnings levels in the different sizes of establishment: hourly earnings tend to be higher in larger establishments. Hence, while ethnic minorities are disadvantaged compared with whites in larger establishments, they, nevertheless, earn more than their fellow ethnic minority members who are employed in smaller establishments. This can be seen more clearly if we look at the predicted hourly earnings. For whites of average age and education we find that expected hourly earnings are £10.28, £11.59 and £12.06 in small, medium and larger establishments respectively. For ethnic minority men they are £9.87, £10.28 and £11.47. As we would expect, British and other white females earn less than men in all three types of establishment at £9.97, £10.70 and £11.13. Ethnic minority women in small establishments earn the same as British and other white women, but they earn significantly less in medium and large establishments at £10.18 and £9.68.

Table 4.12   Ethnic penalties in earnings by size of establishment

| | Small | | Medium | | Large | |
	Men	**Woman**	**Men**	**Woman**	**Men**	**Woman**
Intercept	1.68 (.02)	1.67 (.02)	1.72 (.02)	1.68 (.01)	1.76 (.03)	1.74 (.02)
Ethnicity						
Ethnic minorities	-.04 (.03)	-.00 (.02)	-.12 (.02)	-.05 (.01)	-.05 (.02)	-.14 (.02)
British, other whites	0	0	0	0	0	0
Generation						
Born overseas	-.21 (.03)	-.07 (.03)	-.08 (.02)	-.10 (.02)	-.08 (.03)	-.01 (.03)
Born in Britain	0	0	0	0	0	0
Adjusted R^2 (D.F.)	.336 (26)	.320 (26)	.397 (26)	.399 (.26)	.405 (26)	.386 (26)
N (weighted)	*21,879*	*24,181*	*40,468*	*33,714*	*13,504*	*12,016*

Source: LFS 2001-2004.
Model controlling for ethnicity, generation, qualification, age, age-squared, marital status, year of survey, region, sector, and part-time work. See Appendix C for details of full models.

While the interpretation of these results is far from clear, the hypothesis that ethnic penalties would be reduced in the larger establishments with their more formal recruitment and promotion procedures is not supported by the evidence (although we must remember the important conceptual distinction between firms and establishments). We should be careful, however, not to draw any strong conclusions about the experience of ethnic minorities in different sizes of establishment. The differences that we have been able to identify may have a variety of causes but certainly there is no cause for complacency in larger establishments.

5 The warmth of the welcome

In this chapter we explore the attitudes of white people towards ethnic minorities, drawing on the British Social Attitudes (BSA) surveys. The aim of this chapter is to see if patterns of sectoral choice and ethnic penalties are paralleled by patterns of prejudice against ethnic minorities. In particular does the public administration sector with its higher levels of ethnic minority representation and lower ethnic penalties also exhibit lower levels of prejudice against ethnic minorities? To put the matter more vividly, does the public administration sector demonstrate a warmer welcome to ethnic minority workers?

The BSA surveys are nationally-representative sample surveys that have been conducted almost every year since 1983. A standard question carried in the surveys explores self-reported prejudice among respondents. This question enables us to look at trends over time and also to compare people within different sectors of the economy. The BSA does not tell us about discrimination or indeed about attitudes to co-workers from different races or ethnic groups but simply provides some estimates of whether people think of themselves as prejudiced or not. However, this might give us some sense of the warmth of the welcome or what in the Irish context is termed the 'chill factor'. (See for example McCrudden *et al* 2004.) That is to say it will tell us something about the attitudes that whites are likely to have towards ethnic minority co-workers and hence, perhaps gives us some indications as to whether ethnic minorities feel welcome or not.

5.1 Trends over time in self-reported prejudice

The BSA question on self-reported prejudice is included at the end of a battery of three questions. Respondents are first asked to give their views about general trends in prejudice and only after answering two questions on trends are they asked about their own level of prejudice. The idea behind this is that the previous questions will

sensitise respondents to issues of prejudice and encourage them to think about their own prejudice. The actual question on prejudice reads:

How would you describe yourself….as very prejudiced against people of other races, a little prejudiced, or not prejudiced at all?

Naturally, there must be some doubt about the meaning of these responses. Possibly, people are simply giving what they assume to be 'politically correct' answers. However, there has been considerable detailed investigation of these questions (e.g. Rothon and Heath 2003) and they have been found to correlate closely with other concrete questions, for example, on immigration policy and equal opportunities legislation.

We first look at trends in self-reported prejudice over time. Figure 5.1 shows the trends from 1983 to 2003, breaking them down by gender. (As usual we restrict the analysis to respondents of working age). As we can see, there has been a modest decline in self-reported prejudice over this 20-year period although there are some marked year-to-year fluctuations. This overall decline in prejudice makes good theoretical and empirical sense. Firstly, self-reported prejudice tends to be somewhat lower among highly-educated respondents and, as is well known, education levels have been rising in Britain. There is also other evidence from the BSA series that Britons are becoming somewhat more liberal in their attitudes in general over time (Park and Surridge, 2003). There is also some evidence that increased contact between members of different ethnic groups can reduce prejudice (Brown, Vivian and Hewstone, 1999, Voci and Hewstone, 2002) and there is hard evidence from the Labour Force Survey (LFS) that one particular form of contact – interethnic partnerships – have increased markedly in recent decades (Mutarrak, 2005), especially between whites and people of Caribbean ancestry. Some decline in prejudice over the long term is not, therefore, unexpected.

However, as well as the general downwards trend, Figure 5.1 shows a marked increase in prejudice in the two most recent years. This increase has been the focus of considerable discussion and one possibility is that it has been in part a consequence of increased hostile media stories about illegal immigration and refugees (McLaren and Johnson 2004). It will be of considerable interest to see whether the London Bombings in July 2005 lead to a further increase in prejudice.

Figure 5.1   Self-reported prejudice 1983-2003

Source: BSA, 1983-2003.
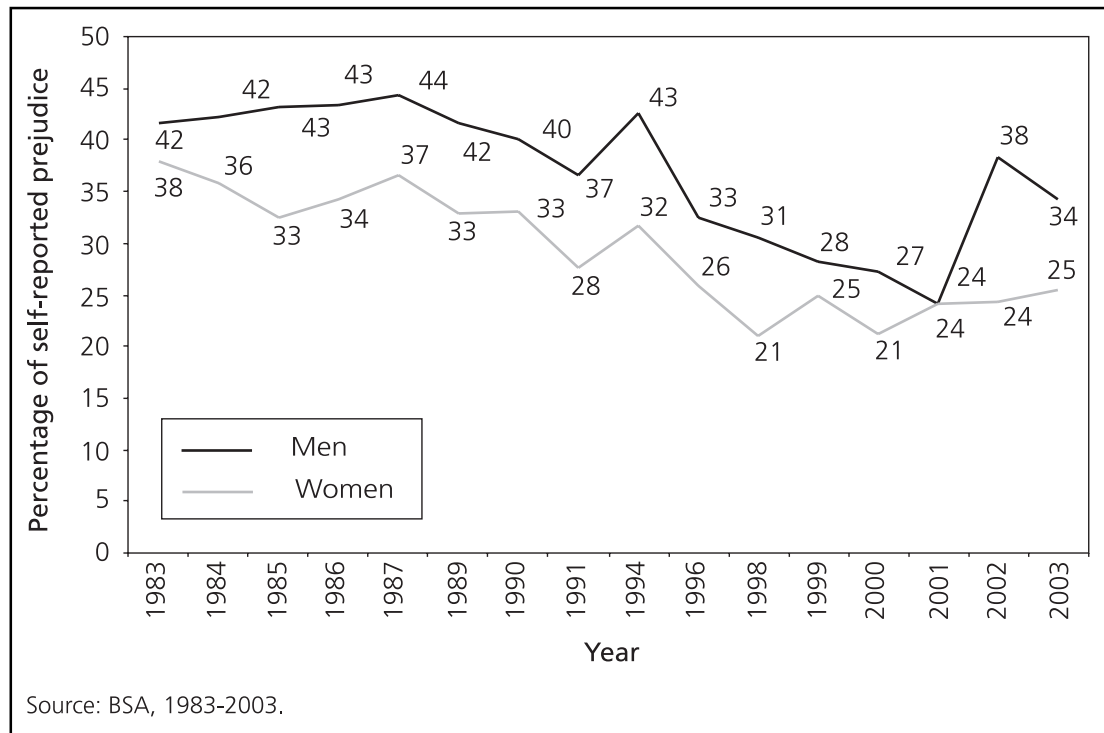
5.2   The chill factor

Next, we turn to consider whether self-reported prejudice towards ethnic minorities varies between industrial groupings. This might give us some clues as to whether minorities might experience a less warm welcome in some sectors of the economy. If the welcome is less warm, we might expect this to be associated with lower employment of ethnic minorities in that sector. In other words, our hypothesis is that it will be linked to patterns of sectoral choice.

The BSA does not distinguish between the public and the private sectors but it does contain the standard official classification of industries. We can, therefore, use it to distinguish between the broad industrial groupings used in Chapter 4. As before, we can broadly equate the public administration, health and education sector with the public sector.

For this analysis we have pooled together the years 2001-2003 in order to get a sufficiently large sample size. We look only at white respondents who are currently employees or employers in the relevant sector.

Table 5.1   Self-reported prejudice in major industries (per cent very or fairly prejudiced)

	All current employees and employers	N	Those with post-school qualifications	N
Manufacturing	**36.3**	504	29.6	152
Construction	**36.5**	189	37.5	48
Distribution, hotel and restaurants	33.1	547	29.3	82
Transport and communication	**38.2**	228	34.0	53
Banking, finance and insurance	28.1	505	24.3	247
Public administration, education and health	**24.1**	1,156	**20.7**	604
All	29.9	3,357	24.3	1,262

Pooled BSA 2001-03. Emboldened figures are significantly different from the value expected if there were no association between sector and self-reported prejudice..

Table 5.1 shows a clear pattern, with employees in public administration, education and health displaying significantly lower prejudice than the average. We also see significantly higher levels of self-reported prejudice in the manufacturing, construction and transport sectors, while distribution and banking are close to the overall average.

The differences are not especially great, and we should recognize that they might be linked to the educational levels of employees in the different sectors. As we noted earlier, highly educated respondents tend to be less prejudiced (strictly speaking are less likely to report that they are prejudiced) and there are relatively large numbers of highly educated employees in banking and in public administration. (As we saw in Chapter 4, these two sectors have particularly large proportions of professional and managerial workers and hence recruit many employees with university or professional qualifications.) However, we can easily check for this, and in the second column of Table 5.1 we report the levels of self-reported prejudice among employees with post-school qualifications. As we can see, levels of prejudice are generally about four points lower among these highly-qualified respondents but the pattern is the same as the overall one shown in the first column of the table.

As we noted earlier, the warmth of the welcome is likely to influence patterns of sectoral choice. We would expect that ethnic minorities who encounter prejudice might tend to switch to a different establishment (if they have the choice) where the welcome is warmer. The results in Table 5.1 might, therefore, be a potential explanation for our finding in Chapter 4 that ethnic minorities were more likely to choose employment in the public sector than would be expected solely from their educational levels and other individual characteristics.

However, we must recognize that other possible interpretations of these data are possible. It is possible that the causal processes work the other way round. Thus, the 'contact hypothesis' would suggest that white workers in establishments that recruit larger numbers of ethnic minority workers would tend to become less

prejudiced as a consequence of their increased contacts. Cross-sectional data of the kind we have available is unable to tell us about causal direction.

5.3   The attitudes of employers and managers

It is important to recognize that the attitudes of co-workers should not be regarded as an explanation of the level of ethnic penalties in different sectors. However, levels of prejudice among employers and managers may be relevant to questions of ethnic penalties since the recruitment and promotion decisions that probably account for ethnic penalties will largely be in the hands of employers and managers.

Table 5.2   Self-reported prejudice in major industries – white employers and managers (per cent very or fairly prejudiced)

	Per cent	N
Manufacturing	**36.3**	91
Construction	**38.2**	55
Distribution, hotel and restaurants	39.2	125
Transport and communication	**39.5**	43
Banking, finance and insurance	26.3	167
Public administration, education and health	**19.0**	163
All	**30.0**	691

Pooled BSA 2001-03.

The pattern observed in Table 5.2 is very like the one that we have previously seen in Table 5.1. Managers in public administration, education and health display significantly less prejudice than those in other sectors. There is not a great deal of difference between employers and managers in the manufacturing, construction, distribution or transport groupings. However, employers and managers in the banking sector do not appear to be especially prejudiced. This is rather at odds with our finding that ethnic penalties are quite large in this sector.

In general, however, we can see that there is a fairly clear parallel between the patterns of racial prejudice across broad industrial groupings and the patterns of sectoral choice and ethnic penalties in these groupings that we observed earlier. The most striking parallel is that involving the public administration, education and health grouping. As we have emphasised, this does not, on its own, prove any causal role for prejudice and discrimination. However, the findings certainly do not dispel concerns we may have about the possible role of prejudice and, taken in the context of our other findings, suggest that it must be one of the prime suspects.

6 Conclusions and implications for policy

Using the most recent data from the 2001-2004 period we have found that Black African, Caribbean, Pakistani and Bangladeshi men continue to experience considerable disadvantages in the British labour market. They experience higher unemployment rates, greater concentrations in routine and semi-routine work and lower hourly earnings than do members of the comparison group of British and other whites. These differentials cannot be explained by the age, education or foreign birth of ethnic minority groups. Even for the second generation, born and educated in Britain, we find significant net disadvantages after statistical controls ('ethnic penalties') for Black African, Black Caribbean, Pakistani and Bangladeshi men in the labour market with respect to unemployment, earnings and occupational attainment. The net disadvantages experienced by Black Africans, both men and women, are especially high. Indians and Chinese tend to be able to compete on somewhat more equal terms than the other minorities, but even they experience some disadvantage.

The disadvantages are particularly noticeable with respect to unemployment. At all levels of education, men from these ethnic minorities are much less likely to obtain jobs than are equally-qualified white men. These disadvantages hold true for the second generation, who were born and educated in Britain, although the magnitude of the disadvantages is even greater for the first generation. The problems cannot, therefore, be ascribed to difficulties associated with migration such as having foreign qualifications or foreign work experience. The ethnic penalties that we have documented affect the second generation born and educated in Britain. Indeed, our measures of ethnic penalties presented in our various statistical analyses are those found among the second generation.

These disadvantages or ethnic penalties are rather smaller for women than for men. Possibly this is because British and other white women already share major disadvantages with ethnic minority women. That is, the ethnic gap is narrower among women than among men because white British women are disadvantaged in the labour market rather than because ethnic minority women are favoured.

Discrimination may not be the whole story, but it does seem to be an important part of the explanation. As we have seen, evidence from the Home Office Citizenship Survey (HOCS) shows that, while ethnic minorities report almost exactly the same rates of job refusal arising from non-racial factors as whites, their overall refusal rate is substantially higher than that for whites. On average, an extra 12 per cent of ethnic minorities compared with whites reported that they had been refused a job, and almost all of this excess is made up of refusals on racial grounds. This suggests that ethnic minorities are not simply rationalising their failures to obtain jobs on racial grounds whereas whites attribute failures to other reasons. While it is not conclusive evidence, it strongly suggests that discrimination on racial grounds is likely to be a major component of the ethnic penalties we have found.

We also found evidence that, among those working in the different sectors, ethnic penalties with respect to occupational attainment and earnings were greater in the private sector. Again, this is consistent with evidence from the British Social Attitudes (BSA) that employers and managers in some industries in the private sector display greater racial prejudice than their equivalents in public administration, health and education.

It is important to recognize that, while we have very considerable confidence in our descriptive findings, our causal interpretations are provisional and that alternative interpretations are certainly possible. Effective policy making requires sound causal interpretations. One implication of our research is that more work needs to be done on the causal issues, perhaps through the careful monitoring of pilot policy interventions or through field experiments on racial discrimination.

It is also important to recognize that there are some paradoxes in our findings. In particular Indians report the same levels of unfair treatment as other minorities but have, nonetheless, made greater progress over time and now experience smaller ethnic penalties than the other groups. The fact that they report similar levels of discrimination is not unexpected: prejudice tends to rely on stereotyping on the basis of irrelevant visible characteristics such as skin colour and we suspect that many white people will be unable to distinguish Indians from Pakistanis or Bangladeshis. However, the Indian success suggests that there are other important processes at work that might be instructive for policy. In particular, Indian educational progress has been notable and would repay further investigation.

However, the Indian case does seem to be exceptional. The trends over time suggest that the ethnic disadvantages experienced by the other groups such as Africans, Caribbeans, Pakistanis and Bangladeshis cannot be expected to be resolved of their own accord. Policy interventions will be needed.

There are several different possible focuses for policy. Pre-labour market policies aimed at ethnic minority educational inequalities will be important. While these will not in themselves reduce ethnic penalties net of education, it is still true that some (but not all) minority groups that are disadvantaged in the labour market are also disadvantaged in education. Given the strong links between educational success

and labour market success, and given that educational investments have much the same payoffs for ethnic minorities as they do for whites, education must be a key policy arena. There may also be what economists term 'human capital externalities'. That is to say, if the average level of education within a group is high, this may benefit other members of the group, even those with low education. This might happen if the more educated group members are able to help their co-ethnics with information about job opportunities or to act as role models. Such policies would not need to be targeted at ethnic minorities in particular but should be aimed at overcoming educational disadvantage generally.

Active labour market policies aimed at getting 'discouraged workers' into education and training or the unemployed into work will also be important, and again need not be targeted at ethnic minorities specifically. Such policies may be particularly important for groups like Bangladeshis who have low average levels of education and high rates of economically inactive men. Such policies could be targeted at deprived areas generally rather than specifically at Bangladeshis. They might take the form of strengthening and increasing the resourcing for existing policies that have proved successful. The Connexions Services (which aims to help young people not currently in education, training or work) might be given specific targets to help young people in deprived geographical areas.

However, it is very important to recognize that ethnic minorities' difficulties in obtaining employment are not restricted to those with low levels of education and training (who have been the usual focus of active labour market policies). Ethnic minorities face difficulties in gaining employment at all levels of education (Cheung and Heath forthcoming; Heath *et al*, 2000). Ethnic minority graduates tend to be disadvantaged in the same way that those with low-level qualifications are disadvantaged.

Improved careers services at further education colleges and the universities where ethnic minorities are over-represented may be helpful if lack of knowledge about job openings is a source of ethnic minority disadvantage. But if, as we suggest in this report, discrimination is a major factor accounting for the observed ethnic penalties, then policies aimed at employers will be necessary. The evidence that we have presented on continued ethnic penalties, on the rates of job refusals reported by members of ethnic minorities, and on the levels of prejudice reported by white managers and employers, all suggest that discrimination continues to be a major problem and is unlikely to disappear of its own accord without some new and effective interventions. Such interventions will need to be directed at firms and employers.

Turning, then, to possible policies, the following may be worth considering: Firstly, in order to deal with discrimination in the private sector, one possibility would be to extend the Race Relations (Amendment) Act to the private sector, or perhaps initially to large firms within the private sector. However, this does assume that the Act has been successful in reducing discrimination and ethnic disadvantage in the public sector, and this should not be taken for granted. Given the recency of the Act, it is

likely that the differences between the public and private sectors found in our data have causes that antedate the Act. It could also be argued that the Act may, in practice, prove to be relatively ineffective since it appears to rely on establishing policies and procedures within public bodies. Noon and Hoque (2001) have found in large private sector firms that equal opportunity policies are rather ineffective in reducing ethnic penalties: *'The results demonstrate that companies with an ethnic minority statement are more likely to discriminate against the Asian applicant than are companies without any statement of equal opportunities. This worrying result further supports the argument that companies continue to use such statements behind which to hide discriminatory practices'* (Hoque and Noon 2001, p.79). More direct action to tackle ethnic penalties may well be needed. Further research over the next few years will be needed in order to evaluate whether the Act has in fact improved the situation of ethnic minorities within the public sector but in the absence of hard evidence about its effectiveness, it might be premature to extend it at present to the private sector.

There is already, however, some hard evidence that the more longstanding enforcement regime in Northern Ireland has been effective. (See for example McCrudden *et al* 2004.) The essential features of the Northern Ireland arrangements are that annual monitoring returns, detailing the religious composition of the workforce, are returned to the Equality Commission for Northern Ireland (ECNI) by each firm (both private and public). The ECNI scrutinizes the returns and enters into voluntary agreements (and more rarely, legally enforceable agreements) with firms to work towards a more representative balance of the religious communities (bearing in mind local factors that may be relevant).

Public bodies are already required to undertake monitoring under the Race Relations (Amendment) Act but our understanding is that the results are not followed up in any general way by enforcement agencies. It might be possible to undertake a pilot scheme, for example, in local authorities or higher education institutions, where the public bodies concerned were required to send in monitoring returns of the ethnic composition of their staff and where, if particular groups were under-represented relative to what might be expected from the relevant labour market, voluntary agreements were established identifying recruitment targets to be met. In some ways this would be analogous to the arrangements recently introduced for remedying social class disadvantages in access to higher education.

While it could clearly be argued that reducing ethnic penalties in the public sector is not the current priority, some groups such as Africans and Caribbeans do appear to be disadvantaged within the public sector; while other groups such as Pakistanis and Bangladeshis have not perhaps been able to use the public sector for upwards mobility as much as other groups have done. It would also be valuable to have evidence from a properly monitored pilot scheme before trying to extend the arrangements to the public sector.

However, it may also be that existing provisions would enable some ethnic monitoring and enforcement to be carried out with private sector firms who have won public sector contracts. This has been an important component of American

affirmative action policies which, the evidence suggests, have been broadly successful in improving the situation of African Americans (See Darity and Mason 1998 for a recent review). Again, a key component of any such policy would need to be the monitoring of the ethnic composition of a contractor's work force and agreements to remedy imbalances where these were evident.

Finally, given the evidence of ethnic penalties within the private sector, it might be appropriate to develop voluntary pilot schemes for ethnic monitoring in collaboration with the CBI, the TUC and the CRE. It may well be that a great deal of the ethnic disadvantage in the private sector is unintentional and unrecognized by senior management. Monitoring schemes may well have an important role in helping employers to recognize where their equal opportunities policies are failing in practice and may encourage responsible employers to address the weaknesses identified. This could at least provide a start.

It is unlikely that there will be any quick or easy solutions to problems of discrimination specifically or to ethnic disadvantage more generally. A range of diverse policies, aimed at different possible causes of disadvantage, will be needed.

Appendix A
Data and technical details

We use four data sources for the analysis in this report: Quarterly Labour Force Survey (QLFS), the Sample of Anonymised Records (SARs) from the 2001 Census, General Household Survey (GHS), and the Home Office Citizenship Survey (HOCS) 2003. Throughout, we have selected respondents of working age for our analysis, i.e. 16-64 for men and 16-59 for women.

A.1   Data sources

A.1.1   Quarterly Labour Force Survey

The QLFS is a quarterly sample survey of 60,000 households living at private addresses in Great Britain. Its purpose is to provide information on the UK labour market that can then be used to develop, manage, evaluate and report on labour market policies. The questionnaire design, sample selection, and interviewing are carried out by the Social and Vital Statistics Division of the Office for National Statistics (ONS) on behalf of the Statistical Outputs Group of the ONS. The survey seeks information on respondents' personal circumstances and their labour market status during a specific reference period, normally a period of one week or four weeks (depending on the topic) immediately prior to the interview. For further details of the LFS see http://www.esds.ac.uk/government/lfs/

The analysis in this report draws mainly on the pooled QLFS 2001-2004. The results from the 2001 Census showed that previously released LFS data have overestimated the UK population by about a million. This affects all estimates and rates related to unemployment, employment and economic activity levels. The ONS therefore, undertook a re-grossing and re-weighting exercise. Details of these can be found in the LFS user guide (2002). All analyses used in this study employ the latest fully re-weighted data of the QLFS from 2001 to 2004.

The data of all multivariate analyses using the LFS in the study have been weighted using the person weight (pwt03). However, the person weight inflates all values hugely. We therefore multiplied by a constant in order to make the Ns more appropriate. For analysis of earnings, we also used the person income weight (piwt03).

A.1.2   General Household Survey

The analysis in Section 2.6 uses the pooled GHS for the period 1973-2001 inclusive (but excluding 1997 and 1999). The GHS is a continuous government survey conducted by the ONS. The survey covers persons living in private households in Great Britain (and excludes Northern Ireland). The sampling unit is the household and the sampling frame is the Postcode Address File. Within each household, interviews are attempted with all household members aged 16 or over. The sample is stratified by region, proportion of households with no car, proportion of households in SEG 1-5, or SEG 13, and proportion of people who were pensioners. The survey is conducted face-to-face, and from 1994, moved to computer-assisted personal interviewing (CAPI). Response rates tend to be high (around 75 percent for the most recent surveys). For further details see www.statistics.gov.uk/statbase

A.1.3   Sample of Annoymised Records (SARS) 2001

The three per cent individual SAR contains some 1.76 million person records. For each person it contains the main demographic, health and socio-economic variables and derived variables such as social class; household information; data on the sex, economic position and social class of the individual's family head; and limited information about other members of the individual's household (e.g. number of pensioners), area identification at Government Office Regions (GOR) level in England, and for the countries of Wales, Scotland and Northern Ireland. For further details see http://www.ccsr.ac.uk/sars/2001/indiv/

A.1.4   Home Office Citizenship Survey 2001

From HOCS 2001 we have taken the questions asking respondents whether they thought they were treated by a particular organisation the same, better or worse than other ethnic groups. Question R5 in the Race Equality module asked:

> *'Now imagine yourself working for these organisations…*[Please say] *whether you think these organisations would treat you worse than people of other races, better than people of other races, or the same as people of other races? It doesn't matter if you had no direct contact with the organisations, it's just your perceptions I'm after.'*

The answers were coded as:

1 I would be treated worse than other races.

2 I would be treated better than other races.

3 I would be treated the same as other races.

4 No opinion.

This question was repeated 18, covering 19 different types of organisations, namely the local council, council housing department/Housing Association, local school, local hospital, local GP practice, the Home Office, the Immigration Authorities, the Courts, the Crown Prosecution Service, the Prison Service, the Probation Service, the police, the fire service, the armed forces, bank or building society, insurance company, private landlord or letting agent, petrol station and supermarket.

There were separate questions asking about treatment as a member of the public and as an employee. We report here the responses to questions on treatment as an employee. Respondents were also asked whether they had had contact with the organisation as an employee or as a member of the public. We restrict ourselves here to those respondents who had had contact with the relevant organization as an employee. In effect, then, we have employees' perceptions of whether the organisation treats different races equally (although we should note that respondents were not necessarily current employees – they may have been employed by the organisation at some time in the past).

A.1.5   Home Office Citizenship Survey 2003

The analysis in Chapter 3 and 5 draw, on data from the HOCS 2003. The individual weight (weight1) of the combined sample was applied. We used data on self-report of racial discrimination in the workplace, e.g. being refused a job and experience of unfair treatment on racial grounds. See the HOCS user guide for further details.

A.2   Definition of key variables

Ethnic groups

From spring 2001, the classification of ethnic groups in all government surveys has changed according to the new output classification in the 2001 Census. The ONS warns user that '*no comparison should be made between the old and new ethnic classifications in the LFS, because not only are the categories different but the questions and coding of answers underlying the data are also very different*' (ONS, 2002). It is no longer possible, therefore, to make direct comparisons over time. However, analysis of the spring 2001 LFS data suggests that '*the experiences of approximately equivalent groups are not changed greatly*' (Smith, 2002). In this report we only use LFS 2001-2004 so the lack of comparability over time does not present a problem. In the case of GHS, we use data from 1973 to 2001, thus, avoiding the problem of re-classification.

The 2001 Census question on ethnic group is as follows:

What is your ethnic group?

- Choose ONE section from A to E, then ✓ the appropriate box to indicate your cultural background.

A White

 ☐ British ☐ Irish

 ☐ Any other White background, please write in

B Mixed

 ☐ White and Black Caribbean

 ☐ White and Black African

 ☐ White and Asian

 ☐ Any other Mixed background, please write in

C Asian or Asian British

 ☐ Indian ☐ Pakistani

 ☐ Bangladeshi

 ☐ Any other Asian background, please write in

D Black or Black British

 ☐ Caribbean ☐ African

 ☐ Any other Black background, please write in

E Chinese or other ethnic group

 ☐ Chinese

 ☐ Any other, please write in.

Based on the Census classification, we distinguish the following groups:

- Black African;
- Black Caribbean;
- Black Mixed;
- Indian;
- Pakistani;
- Bangladeshi;
- Chinese;
- British and other whites.

Generations

When using the LFS, we define British-born ethnic minorities as the second generation and all overseas-born ethnic minorities as first generation, regardless of their age when they arrived in Britain. However, in the case of the GHS, we use information on respondents' country of birth and parents' country of birth to define 'ethnicity'. This is a measure of respondent's national origin rather than subjective definition of one's ethnic identity. We also treat ethnic minority children arriving in Britain below the age of six as the second generation. This was done in order to obtain comparability with studies in other countries, for which the GHS data which we use had been prepared.

Age

Age is measured in years but is centred on the average age for the full sample, namely 39 years. In presenting the parameter estimates for age in the logistic regressions we multiply the estimate by ten.

Age standardisation

The age profile of ethnic minorities in Britain is much younger than that of the British whites. Many labour market outcomes are correlated with age. For example, younger people are more likely to be unemployed and they are less likely to be in higher professional and managerial jobs. To avoid presenting a misleading picture (e.g. youth unemployment is much higher among ethnic minorities), we standardised the age profile of all ethnic minority groups based on the age distribution of the British whites. We created the age weights using five-year age groups, for different ethnic groups and for men and women. Separate weights were computed for the two time periods covered in this study. All bivariate analyses presented using the LFS were weighted by age.

Occupational class

Analysis of occupational class is restricted to employees only. We use the new National Statistics-Social Economic Class (NS-SEC) for the LFS and SARs throughout this report. The reduced version of NS-SEC has seven categories:

1 higher managerial and professional occupations;

2 lower managerial and professional occupations;

3 intermediate occupations;

4 small employers and own account workers;

5 lower supervisory and technical occupations;

6 semi-routine occupations;

7 routine occupations.

Since we are primarily interested in discrimination and ethnic penalties in the labour market, we exclude small employers and own account workers. We further reduce this to the following four categories:

• higher and lower managerial and professional occupations;

• intermediate occupations;

• lower supervisory and technical occupations;

• semi-routine and routine occupations.

In the case of the over-time analysis using the GHS, we construct a comparable variable using the government socio-economic group (SEG) classification. We collapse the 16 categories into five:

1 salariat: professional, managerial and administrative work (SEGs 1.1, 1.2, 2.2, 3, 4, 5.1 and 5.2);

2 routine non-manual: clerical and secretarial work (SEG 6);

3 petty bourgeoisie: small employers and own account workers (other than professional but including farmers) (SEGs 2.1, 12, 13, 14);

4 skilled manual: manual foremen, technicians and skilled manual workers (SEGs 8 and 9);

5 semi and unskilled: less skilled jobs, both manual and non-manual (SEGs 7, 10, 11 and 15).

We exclude members of the armed forces, SEG 16.

Highest educational qualifications

The variable of highest qualification obtained was extracted from each data set and was recoded into six categories:

1 degree or above or equivalent;

2 higher education but below degree level;

3 GCE A-level or equivalent;

4 GCSE grades A-C or equivalent;

5 other qualification;

6 no qualification.

Economic activity

Economic activity is constructed using information from variable INECACR (LFS) and the classification is consistent over time. ECONACT in the 2001 SARS and ECSTILO in the GHS were used to construct this variable. We treated respondents on government training schemes and unpaid family workers as being 'in work'.

Economically-active respondents cover those in paid work or looking for paid work although currently unemployed. Other inactive respondents cover those who are permanently sick or disabled. The number of retired respondents of working age is relatively low in our sub-sample. Student includes those in full-time education. Looking after the home is the final category:

1 in work;

2 unemployed International Labour Organisation (ILO);

3 other inactive;

4 retired;

5 students;

6 looking after home.

Unemployment

When calculating unemployment we restricted our sample to economically active people, i.e. those who were in work (either employed or self-employed) or unemployed who were seeking work. Unemployment is then measured using the ILO definition and thus, refers to people who are both looking and available for work.

Sector

Only the LFS contains a variable on sector. PUBLICR, a binary variable, enables us to distinguish respondents who work in the private or public sector. The SARS does not record information on sector, but we can construct a similar variable using data from INDSTRY0. In this case, we treat public administration, education, health and social work as the 'public' sector.

Industry

The LFS records a broad classification of industry. The variable INDSECT is used in the analysis in Chapter 4. The nine industries are:

• agriculture and fishing;

• energy and water;

• manufacturing;

• construction;

• distribution, hotel and restaurants;

• transport and communication;

• banking, finance and insurance, etc;

• public administration, education and health;

• other services.

In the SARS, we are able to recode the detailed 17-category variable INDUSTRY0 into the same nine as with the LFS for replication purposes.

Size of establishment

Both the LFS and SARS record information on the number of employees in the workplace. We distinguish small, medium and large establishments. Small establishments contain one to 24 employees, medium 25 to 499 and large establishment have 500 or more employees.

Earnings

We calculate the natural logarithm of hourly earnings (before tax and deductions). Since we control for year in our regressions, we do not adjust earnings for inflation. Again, all multivariate analyses of earnings were weighted using piwt03 and then multiplied by a constant to obtain appropriate Ns.

Full-time or part-time work

We have taken the variable FTPT for our analysis. Full-time work is defined as working more than 30 hours per week.

Marital status

In all the multivariate analyses, we controlled for respondents' marital status. This variable was recoded into three levels:

1 married or cohabiting;

2 divorced, separated or widowed;

3 single.

Region

Our analyses also controlled for government regions, a variable recoded into 11 categories from GOR: North East, North West, Yorkshire, Northern Ireland, East England, London, South East, South West, Wales, Scotland and the Midlands. The last one was used as the reference category in our models.

Appendix B
Supplementary tables

Table B.1   Ethnicity by highest qualification, men

	No or primary qualification	Other qualifications	GCSE Grades A-C or equivalent	GCE A-level or equivalent	Higher education	Degree or equivalent	N
Black African	10.5	26.9	10.6	14.0	11.4	26.5	1,262
Black Caribbean	18.9	17.4	21.5	26.4	5.8	9.9	1,302
Black Mixed	18.9	18.1	14.2	24.8	6.7	17.3	387
Indian	17.1	22.1	11.5	17.4	5.9	26.1	2,753
Pakistani	28.8	28.1	12.2	11.9	3.8	15.1	1,691
Bangladeshi	47.8	27.2	9.7	6.1	1.4	7.7	636
Chinese	20.7	24.7	9.5	13.6	4.1	27.4	566
British, other whites	13.0	12.0	18.3	31.2	7.9	17.5	13,8093

LFS 2001-2004.

Table B.2   Ethnicity by highest qualification, women

	No or primary qualification	Other qualifications	GCSE Grades A-C or equivalent	GCE A-level or equivalent	Higher education	Degree or equivalent	N
Black African	18.5	27.5	12.5	13.0	14.0	14.4	1,566
Black Caribbean	12.8	15.5	28.9	17.5	14.0	11.3	1,544
Black Mixed	16.9	12.7	26.7	15.9	10.0	17.8	510
Indian	20.6	23.8	15.8	15.1	6.2	18.6	2,697
Pakistani	42.7	22.8	15.0	9.1	2.4	8.0	1,673
Bangladeshi	59.3	16.3	12.5	6.8	1.1	4.0	632
Chinese	21.8	27.2	9.5	10.0	9.3	22.2	600
British, other whites	15.5	12.6	28.0	18.8	9.7	15.4	13,0553

LFS 2001-2004.

Table B.3   Labour force participation, men 2001-2004

	Economically active	Retired	Looking after home	Students	Other inactive	N
Black African	75.6	0.4	1.7	12.3	10.1	1,272
Black Caribbean	78	1.1	1.2	5.1	14.6	1,315
Black Mixed	82	0	2.8	7.7	7.5	388
Indian	79.1	1.7	0.6	8.3	10.3	2,785
Pakistani	68.7	1.3	1.5	8.8	19.8	1,720
Bangladeshi	61.8	3.3	3.6	9.3	22	644
Chinese	74.2	4.9	0.5	15.4	4.9	566
British, other whites	84.6	2.3	1	3.5	8.6	13,8914

LFS 2001-2004.

Table B.4   Labour force participation, women 2001-2004

	Economically active	Retired	Looking after home	Students	Other inactive	N
Black African	58	0.4	16.7	12.2	12.6	1,577
Black Caribbean	72.8	0.6	10.1	5.8	10.7	1,557
Black Mixed	68	1.6	9.6	7.1	13.7	510
Indian	62.7	0.8	16.5	7.7	12.1	2,713
Pakistani	28.7	0.8	45.5	8.7	16.3	1,684
Bangladeshi	18.4	0.3	57.1	8.2	16	637
Chinese	57.8	2.5	17.7	14	8	600
British, other whites	74.8	1.2	11.3	4	8.8	131,182

LFS 2001-2004.

Table B.5   Patterns of employment and unemployment, men 2001-2004

	Employed full time	Employed part time	Self-employed full time	Self-employed part time	Unemployed	N
Black African	64.2	14.3	6.8	0.7	13.9	961
Black Caribbean	64.6	9	9.9	1.5	15.1	1,025
Black Mixed	59.4	9.7	12.9	0.9	17	317
Indian	67	9	16.6	1.1	6.2	2,202
Pakistani	46.3	12.7	25.2	2.9	12.9	1,181
Bangladeshi	47.1	20.1	15.5	0	17.3	399
Chinese	59.8	11	23.1	1.9	4.3	419
British, other whites	73.2	6.6	13.9	1.5	4.8	124,013

LFS 2001-2004.

Table B.6   Patterns of employment and unemployment, women 2001-2004

	Employed full time	Employed part time	Self-employed full time	Self-employed part time	Unemployed	N
Black African	59.7	26	2	0.7	11.6	915
Black Caribbean	62	24.9	1.7	0.6	10.8	1,134
Black Mixed	50.6	33.2	1.4	3.5	11.3	347
Indian	55	30.5	4.5	3.1	6.9	1,701
Pakistani	42.1	35.5	4.7	2.7	15.1	484
Bangladeshi	48.7	33.3	0.9	4.3	12.8	117
Chinese	49.3	31.4	9.2	4.6	5.5	348
British, other whites	51.2	38.2	3.3	3.2	4.1	98,136

LFS 2001-2004.

Table B.7   Distribution of ethnic minority men in major industries – 2001

	Agriculture and fishing	Energy and water	Manufacturing	Construction	Distribution, hotel and restaurant	Transport and communication	Banking, insurance and finance	Public administration, education and health	Other services	N
Black African	0.3	0.6	8.0	3.6	22.8	11.7	24.7	22.7	5.5	4,018
Black Caribbean	0.2	0.7	15.9	9.3	21.3	13.8	18.0	15.3	5.6	4,913
Black Mixed	0.5	0.9	15.1	10.5	25.4	11.1	16.0	13.5	6.9	1,698
Indian	0.2	0.8	18.4	4.5	29.2	12.2	19.7	12.3	2.7	10,205
Pakistani	0.4	0.6	21.9	2.9	33.3	15.8	14.3	8.4	2.6	5,966
Bangladeshi	0.3	0.5	11.3	2.0	59.0	5.9	10.4	8.0	2.7	2193
Chinese	0.2	1.0	7.6	2.6	47.2	4.9	20.3	12.9	3.3	2219
British, other whites	2.3	1.7	21.0	12.1	19.3	9.1	16.3	13.8	4.4	506,877

SARs 2001.

Table B.8   Distribution of ethnic minority women in major industries – 2001

	Agriculture and fishing	Energy and water	Manufacturing	Construction	Distribution, hotel and restaurant	Transport and communication	Banking, insurance and finance	Public administration, education and health	Other services	N
Black African	0.2	0.5	4.3	0.7	22.9	4.6	18.8	42.3	5.6	4,048
Black Caribbean	0.1	0.5	5.0	1.1	19.1	5.0	19.5	43.4	6.2	5,792
Black Mixed	0.1	0.6	6.5	1.4	27.3	5.0	19.7	31.1	8.4	1,829
Indian	0.1	0.6	15.1	0.8	28.8	5.5	18.3	27.0	3.7	9,086
Pakistani	0.4	0.9	11.0	0.4	31.5	4.6	16.6	31.2	3.3	3,394
Bangladeshi	0.4	0.3	9.6	0.9	34.0	2.7	14.6	33.0	4.5	1,078
Chinese	0.3	0.3	5.7	0.6	43.3	3.0	19.3	23.4	4.0	2,323
British, other whites	0.8	0.5	9.4	1.5	25.8	4.1	16.6	35.2	6.1	467,057

SARs 2001.

Table B.9   Reasons for economic inactivity, men

	Students	Homemakers	Retired	Long-term sick or disabled	Temporary sick	Other or no reason	Believes no job	Not looked, not looking	Waiting for results	Not seeking, not like, not need
Black African	12.3	1.6	0.4	5.7	1	2.1	0	1.7	0	0.1
Black Caribbean	5.1	1.4	1.1	8.1	2	2.1	0.5	2.1	0.1	0.1
Black mixed	7.6	2.9	0	4.6	0	1.1	0	1.3	0	0.3
Indian	8.3	0.7	1.7	7.8	1	0.9	0	0.9	0	0
Pakistani	8.7	1.4	1.3	14.6	1	1.6	0.5	1.2	0.1	0.3
Bangladeshi	9.3	3.7	3.3	16.6	2	1.5	0.3	1.3	0.2	0
Chinese	15.4	0.5	5	1.9	1	1.8	0	0.2	0	0
British, other whites	3.6	1	2.3	6.5	1	0.7	0.1	0.6	0	0.3

LFS 2001-2004.
Note: The total does not add up to 100 per cent because economically active respondents are not reported.

Table B.10   Reasons for economic inactivity, women

	Students	Homemakers	Retired	Long-term sick or disabled	Temporary sick	Other or no reason	Believes no job	Not looked, not looking	Waiting for results	Not seeking, not like, not need
Black African	12	17	0.4	6	1.1	2.7	0.3	2.1	0	0.5
Black Caribbean	6	10	0.6	6.7	0.9	1.5	0.2	1.3	0.1	0.1
Black mixed	7	9	1.6	7.8	1	3.1	0	1.4	0.2	0.2
Indian	8	17	0.8	7.9	0.8	1.8	0	1.4	0	0.3
Pakistani	9	46	0.8	10.6	0.7	2.1	0	1.6	0	1.2
Bangladeshi	8	57	0.3	11.3	0.5	2.4	0.2	1.9	0	0
Chinese	14	18	2.5	2.2	0	2.5	0.2	1.8	0	1.3
British, other whites	4	11	1.2	5.7	0.6	1	0.1	0.7	0	0.7

LFS 2001-2004.
Note: The total does not add up to 100 per cent because economically active respondents are not reported.

Table B.11   **Perceptions of unequal treatment in the workplace, net treatment (per cent perceiving better treatment – per cent perceiving worse treatment)**

	White	N	All ethnic minorities	N
Local GP practice	+6	115	+2	56
Local hospital	+4	246	-4	166
Local school	+8	275	0	93
Council housing department/housing association	+5	78	-4	51
Local council	+14	146	-14	85
The armed forces	+6	104	–	–
Bank/building society	+11	112	–	–
Supermarket chain	+5	148	-2	60
Insurance company	+4	95	–	–
The courts	+9	75	–	–
The Home Office	+9	64	–	–
The Police	+30	163	-55	51
The Fire Service	+3	78	–	–

Note: the net balance is not shown where the number of respondents is less than 50.
Unweighted sample.

Appendix C
Full tables of multivariate analysis

Table C.1   Avoidance of unemployment

	Parameter estimates (contrast with unemployment)	
	Men	**Women**
Constant	1.82 (.11)	2.20 (.13)
Age	.16 (.01)	.37 (.02)
Age – squared	-.14 (.01)	-.08 (.12)
Ethnicity		
Black African	-1.03 (.13)	-.96 (.14)
Black Caribbean	-.91 (.10)	-.87 (.11)
Black mixed	-.81 (.16)	-.73 (.17)
Indian	-.22 (.11)	-.50 (.11)
Pakistani	-.84 (.11)	-1.15 (.13)
Bangladeshi	-1.04 (.15)	-.71 (.24)
Chinese	-.11 (.22)	-.30 (.23)
British	0	0
		Continued

Table C.1   Continued

	Parameter estimates (contrast with unemployment)	
	Men	**Women**
Qualification		
Degree or equivalent	1.34 (.05)	.1.30 (.06)
Higher education	1.29 (.07)	1.38 (.08)
GCE A level or equivalent	1.20 (.04)	1.15 (.05)
GCSE grades A-C or equivalent	.86 (.04)	.79 (.05)
Other qualification	.58 (.05)	.31 (.05)
No qualification	0)	0
Marital status		
Married/cohabiting	1.09 (.04)	.76 (.04)
Divorced/separated	-.02 (.06)	-.15 (.06)
Single	0	0
Year		
2001	-.08 (.04)	.00 (.04)
2002	-.17 (.04)	-.03 (.04)
2003	-.09 (.04)	.00 (.04)
2004	0	0
Region		
North East	-.53 (.07)	-.19 (.08)
Nest West	-.06 (.05)	.02 (.06)
Yorkshire	-.05 (.06)	.04 (.07)
Northern Ireland	-.30 (.08)	.08 (.11)
East England	.29 (.06)	.16 (.07)
London	-.22 (.05)	-.15 (.06)
South East	.22 (.05)	.13 (.06)
South West	.23 (.06)	.24 (.07)
Wales	-.05 (.07)	-.11 (.08)
Scotland	-.47 (.05)	-.18 (.06)
Midlands	0	0
Generation		
First generation	-.15 (.09)	.04 (.10)
Second generation	0	0
Chi-square (D.F.)	5,725.92 (30)	3,529.64 (3029)
N (weighted)	*116,464*	*101,864*

Source: LFS, 2001-2004.

Table C.2 Avoidance of unemployment (SARs)

	Men	Women
	Parameter estimates (contrast with unemployment)	
Constant	1.74 (.02)	2.15 (.03)
Ethnicity		
Black African	-1.37 (.05)	-1.30 (.06)
Black Caribbean	-.97 (.05)	-.60 (.06)
Black mixed	-.98 (.07)	-.80 (.08)
Indian	-.53 (.05)	-.46 (.05)
Pakistani	-1.18 (.05)	-1.31 (.06)
Bangladeshi	-1.33 (.07)	-1.39 (.10)
Chinese	-.26 (.10)	-.44 (.10)
British, white other	0	0
Age group		
16-19	-.80 (.02)	-1.00 (.03)
20-24	-.35 (.02)	-.48 (.03)
25-29	-.06 (.02)	-.16 (.03)
45-59	-.02 (.02)	.48 (.02)
60-64	-.19 (.03)	–
30-44	0	0
Qualification		
Level 4/5	1.28 (.02)	1.30 (.03)
Level 3	1.04 (.03)	1.10 (.03)
Level 2	.89 (.02)	.93 (.03)
Level 1	.70 (.02)	.55 (.03)
Other qualification	.57 (.03)	.32 (.04)
No qualification	0	0
Generation		
First generation	-.20 (.03)	-.40 (.03)
Second generation	0	0
Marital status		
Married/cohabiting	1.27 (.02)	.75 (.02)
Divorced/separated	.19 (.02)	-.17 (.03)
Single	0	0
		Continued

Table C.2   Continued

	Parameter estimates (contrast with unemployment)	
	Men	**Women**
Region		
North East	-.50 (.03)	-.23 (.04)
North West	-.17 (.02)	.01 (.03)
Yorkshire	-.14 (.03)	.02 (.03)
Northern Ireland	-.31 (.04)	-.20 (.05)
East England	.37 (.03)	.22 (.03)
London	-.05 (.02)	-.03 (.03)
South East	.39 (.03)	.36 (.03)
South West	.23 (.03)	.17 (.04)
Wales	-.21 (.03)	-.16 (.04)
Midlands	0	0
Chi-square (D.F.)	193,00.87 (29)	10,601.32 (28)
N	*42,1862*	*34,1857*

Source: SARs 2001.

Table C.3   Access to the Salariat

	Parameter estimates (contrast with semi routine or routine occupations)	
	Men	**Women**
Constant	-2.90 (.07)	-2.85 (.06)
Age	.23 (.01)	.35 (.01)
Age – squared	-.22 (.01)	-.27 (.01)
Ethnicity		
Black African	-1.12 (.15)	-.50 (.16)
Black Caribbean	-.66 (.11)	-.17 (.11)
Black mixed	.06 (.22)	.19 (.19)
Indian	.00 (.11)	.15 (.12)
Pakistani	-.31 (.14)	.15 (.17)
Bangladeshi	-.44 (.21)	-.42 (.30)
Chinese	.59 (.23)	-.07 (.23)
British, white other	0	0
Qualification		
Degree or equivalent	4.78 (.05)	4.73 (.06)
Higher education	3.70 (.05)	3.92 (.05)
GCE A level or equivalent	2.00 (.04)	2.48 (.05)
GCSE grades A-C or equivalent	1.65 (.04)	1.90 (.04)
Other qualification	.54 (.04)	1.05 (.05)
No qualification	0	0

Continued

Table C.3   Continued

	Parameter estimates (contrast with semi routine or routine occupations)	
	Men	**Women**
Generation		
First generation	-.28 (.11)	-.67 (.11)
Second generation	0	0
Marital status		
Married/cohabiting	.59 (.03)	.45 (.03)
Divorced/separated	.12 (.05)	.10 (.04)
Single	0	0
Year		
2001	-.04(.03)	-.02 (.03)
2002	.02 (.03)	-.03 (.03)
2003	.04 (.03)	0 (.03)
2004	0	0
Part-time work		
Full-time	1.69 (.05)	1.89 (.02)
Part-time	0	0
Region		
North East	-.29 (.05)	-.15 (.06)
North West	.01 (.04)	.02 (.04)
Yorkshire	-.12 (.04)	-.07 (.04)
Northern Ireland	-.37 (.06)	-.14 (.07)
East England	.50 (.04)	.29 (.04)
London	.99 (.04)	.66 (.04)
South East	.68 (.04)	.36 (.04)
South West	.23 (.04)	.02 (.04)
Wales	-.10 (.05)	-.10 (.05)
Scotland	-.30 (.04)	-.14 (.04)
Midlands	0	0
Sector		
Private	-.68 (.03)	-.30 (.02)
Public	0	0
Size of establishment		
Small and medium	.09 (.02)	-.40 (.02)
Large	0	0
Chi-square (D.F.)	44,444.69 (99)	41,255.66 (99)
N (weighted)	*94,077*	*85,839*

Source: LFS, 2001-2004.

Table C.4   Access to the Salariat (SARs)

	Men	Women
Parameter estimates (contrast with semi routine or routine occupations)		
Constant	-2.36 (.04)	-2.56 (.03)
Ethnicity		
Black African	-1.58 (.07)	-1.29 (.07)
Black Caribbean	-.45 (.06)	-.21 (.06)
Black mixed	-.39 (.10)	-.17 (.10)
Indian	-.42 (.04)	-.74 (.05)
Pakistani	-.97 (.06)	-.44 (.09)
Bangladeshi	-1.03 (.11)	-.40 (.16)
Chinese	-.43 (.10)	-.44 (.10)
British, white other	0	0
Age groups		
16-19	-1.49 (.03)	-2.02 (.04)
20-24	-.92 (.02)	-1.26 (.02)
25-29	-.25 (.02)	-.35 (.02)
45-59	.29 (.01)	.10 (.02)
60-64	.02 (.03)	–
30-44	0	0
Qualification		
Level 4/5	4.58 (.02)	4.50 (.03)
Level 3	3.15 (.02)	2.75 (.03)
Level 2	2.34 (.02)	2.03 (.02)
Level 1	1.50 (.02)	1.32 (.02)
Other qualification	1.11 (.02)	1.19 (.03)
No qualification	0	0
Generation		
First generation	-.23 (.02)	-.42 (.03)
Second generation	0	0
Marital status		
Married/cohabiting	.55 (.01)	.20 (.02)
Divorced/separated	.23 (.02)	-.01 (.02)
Single	0	0
		Continued

Table C.4   Continued

	Men	Women
Parameter estimates (contrast with semi routine or routine occupations)		
Region		
North East	-.35 (.03)	-.23 (.03)
North West	-.06 (.02)	-.02 (.02)
Yorkshire	-.13 (.02)	-.08 (.02)
Northern Ireland	-.31 (.03)	-.03 (.04)
East England	.41 (.02)	.24 (.02)
London	.66 (.02)	.52 (.02)
South East	.52 (.02)	.28 (.02)
South West	.03 (.02)	-.03 (.02)
Wales	-.27 (.03)	-.16 (.03)
Midlands	0	0
Part-time work		
Full-time	1.23 (.03)	1.76 (.02)
Part-time	0	0
Sector		
Private	-.80 (.02)	-.06 (.01)
Public	0	0
Size of establishment		
Small	-.15 (.02)	-.80 (.02)
Medium	-.34 (.01)	-.75 (.02)
Large	0	0
Chi-square (D.F.)	146,960.15 (99)	142,949.46 (96)
N	314,944	287,194

Source: SARs 2001.

Table C.5   Logged hourly earnings

	Men	Women
Intercept	1.77 (.01)	1.73 (.01)
Age	.11 (.00)	.08 (.00)
Age – squared	-.08 (.00)	-.07 (.00)
Ethnicity		
Black African	-.24 (.02)	-.17 (.02)
Black Caribbean	-.11 (.02)	-.05 (.02)
Black mixed	-.06 (.03)	.01 (.03)
Indian	-.06 (.02)	-.08 (.02)
Pakistani	-.14 (.02)	-.01 (.03)
Bangladeshi	-.32 (.04)	-.12 (.05)
Chinese	-.07 (.04)	-.05 (.03)
British, other whites	0	0

Continued

Table C.5   Continued

	Men	Women
Qualification		
Degree or equivalent	.72 (.01)	.72 (.01)
Higher education	.49 (.01)	.50 (.01)
GCE A level or equivalent	.30 (.01)	.30 (.01)
GCSE grades A-C or equivalent	.23 (.01)	.22 (.01)
Other qualification	.11 (.01)	.12 (.01)
No qualification	0	0
Generation		
First generation	-.08 (.02)	-.05 (.02)
Second generation	0	0
Marital status		
Married/cohabiting	.59 (.03)	.05 (.01)
Divorced/separated	.12 (.05)	.01 (.01)
Single	0	0
Year		
2001	-.10 (.01)	-.10 (.00)
2002	-.06 (.01)	-.06 (.00)
2003	-.03 (.00)	-.03 (.00)
2004	0	0
Part-time work		
Full-time	.21 (.01)	.17 (.00)
Part-time	0	0
Region		
North East	-.08 (.01)	-.04 (.00)
North West	-.02 (.01)	.01 (.01)
Yorkshire	-.04 (.01)	-.02 (.01)
Northern Ireland	-.09 (.01)	-.02 (.01)
East England	.12 (.01)	.08 (.01)
London	.27 (.01)	.29 (.01)
South East	.14 (.01)	.11 (.01)
South West	.01 (.01)	-.01 (.01)
Wales	-.04 (.01)	-.02 (.01)
Scotland	-.04 (.01)	-.01 (.01)
Midlands	0	0
Size of establishment		
Small and medium	-.15 (.00)	-.11 (.00)
Large	0	0
Adjusted R^2 (D.F.)	.413 (33)	.399 (38)
N (weighted)	74,979	69,203

Source: LFS, 2001-2004.

Table C.6   Sectoral choice – working in the private sector

	Men	Women
Parameter estimates (contrast with being in public sector)		
Constant	1.16 (.09)	.78 (.07)
Age	-.32 (.01)	-.43 (.01)
Age – squared	.09 (.01)	.11 (.01)
Ethnicity		
Ethnic minorities	-.17 (.07)	-.22 (.06)
British, other whites	0	0
Qualification		
Degree or equivalent	-1.35 (.04)	-1.84 (.03)
Higher education	-1.02 (.05)	-1.81 (.03)
GCE A level or equivalent	-.47 (.04)	-.91 (.03)
GCSE grades A-C or equivalent	-.59 (.04)	-.64 (.03)
Other qualification	-.17 (.05)	-.49 (.03)
No qualification	0	0
Generation		
First	-.02 (.08)	.06 (.07)
Second	0	0
Marital status		
Married/cohabiting	.07 (.03)	-.06 (.02)
Divorced/separated	.05 (.04)	.07 (.03)
Single	0	0
Year		
2001	.01 (.02)	.02 (.02)
2002	-.02 (.03)	.00 (.02)
2003	-.01 (.02)	.02 (.02)
2004	0	0
Part-time work		
Full-time	.58 (.04)	.26 (.02)
Part-time	0	0
		Continued

Table C.6   Continued

	Parameter estimates (contrast with being in public sector)	
	Men	**Women**
Region		
North East	-.38 (.05)	-.29 (.04)
North West	-.23 (.03)	-.14 (.03)
Yorkshire	-.18 (.04)	-.08 (.03)
Northern Ireland	-.82 (.05)	-.57 (.05)
East England	-.03 (.04)	.11 (.03)
London	-.08 (.04)	.22 (.03)
South East	-.02 (.03)	.28 (.03)
South West	-.28 (.04)	.08 (.03)
Wales	-.56 (.04)	-.41 (.04)
Scotland	-.42 (.04)	-.18 (.03)
Midlands	0	0
Size of establishment		
Small and medium	1.02 (.02)	.70 (.02)
Large	0	0
Chi-square (D.F.)	8,311 (26)	12,563 (26)
N (weighted)	*88,162*	*84,884*

Source: LFS 2001-2004

Table C.7   Sectoral choice – working in the private sector (SARs)

	Parameter estimates (contrast with being in public sector)	
	Men	**Women**
Constant	1.62 (.03)	.87 (.02)
Ethnicity		
Ethnic minorities	-.01 (.03)	-.16 (.02)
British, other whites	0	0
Qualification		
Level 4/5	-1.74 (.02)	-1.76 (.01)
Level 3	-1.13 (.02)	-.88 (.02)
Level 2	-.90 (.02)	-.57 (.01)
Level 1	-.63 (.02)	-.36 (.01)
Other qualification	-.37 (.03)	-.36 (.02)
No qualification	0	0
Generation		
First	.07 (.02)	.20 (.02)
Second	0	0
		Continued

Table C.7   Continued

	Parameter estimates (contrast with being in public sector)	
	Men	**Women**
Marital status		
Married/cohabiting	-.03 (.01)	-.29 (.01)
Divorced/separated	-.13 (.02)	-.22 (.02)
Single	0	0
Part-time work		
Full-time	.59 (.02)	.24 (.01)
Part-time	0	0
Region		
North East	-.34 (.03)	-.21 (.02)
North West	-.09 (.02)	-.12 (.02)
Yorkshire	-.16 (.02)	-.09 (.02)
Northern Ireland	-.76 (.03)	-.48 (.03)
East England	.06 (.02)	.12 (.02)
London	.12 (.02)	.34 (.02)
South East	-.01 (.02)	.14 (.01)
South West	-.29 (.02)	-.07 (.02)
Wales	-.31 (.03)	-.27 (.02)
Midlands	0	0
Age group		
16-19	.69 (.03)	1.00 (.03)
20-24	.53 (.02)	.61 (.02)
25-29	.37 (.02)	.48 (.01)
45-59	-.39 (.01)	-.42 (.01)
60-64	-.54 (.03)	–
30-44	0	0
Size of establishment		
Small and medium	.89 (.01)	.50 (.01)
Large	0	0
Chi-square (D.F.)	8,311 (26)	12,563 (26)
N	88,162	84,884

Source: SARs 2001.

Table C.8   Access to the salariat in the private and public sectors

| | Private sector | | Public sector | |
	Men	Women	Men	Women
Parameter estimates (contrast with semi routine or routine occupations)				
Intercept	-3.64 (.08)	-3.30 (.07)	-3.16 (.18)	-2.89 (.13)
Age	.25 (.01)	.34 (.01)	.12 (.03)	.32 (.02)
Age – squared	-.23 (.01)	-.33 (.01)	-.18 (.02)	-.11 (.02)
Ethnicity				
Ethnic minorities	-.30 (.09)	.06 (.10)	-.34 (.20)	-.09 (.15)
British, other whites	0	0	0	0
Qualification				
Degree or equivalent	4.65 (.06)	4.37 (.07)	5.60 (.14)	5.54 (.11)
Higher education	3.56 (.06)	3.39 (.07)	4.55 (.15)	4.77 (.11)
GCE A level or equivalent	1.90 (.04)	2.46 (.05)	2.69 (.12)	2.76 (.10)
GCSE grades A-C or equivalent	1.57 (.04)	1.87 (.05)	2.34 (.12)	2.19 (.10)
Other qualification	.43 (.04)	.98 (.05)	1.41 (.13)	1.38 (.11)
No qualification	0	0	0	0
Generation				
First generation	-.41 (.11)	-1.08 (.13)	-.26 (.25)	-.11 (.19)
Second generation	0	0	0	0
Marital status				
Married/cohabiting	.60 (.03)	.52 (.04)	.63 (.08)	.25 (.06)
Divorced/separated	.10 (.05)	.12 (.05)	.20 (.12)	-.05 (.08)
Single	0	0	0	0
Year				
2001	.00 (.03)	-.05 (.04)	-.25 (.07)	.08 (.05)
2002	.03 (.03)	-.05 (.04)	-.04 (.07)	.03 (.05)
2003	.05 (.03)	-.01 (.03)	.07 (.07)	.01 (.05)
2004	0	0	0	0
Part-time work				
Full-time	1.82 (.06)	2.02 (.03)	1.37 (.10)	1.68 (.04)
Part-time	0	0	0	0

Continued

Table C.8   Continued

	Parameter estimates (contrast with semi routine or routine occupations)			
	Private sector		**Public sector**	
	Men	**Women**	**Men**	**Women**
Region				
North East	-.35 (.06)	-.23 (.07)	-.13 (.14)	.05 (.10)
North West	.01 (.04)	.04 (.05)	-.03 (.10)	.00 (.07)
Yorkshire	-.14 (.04)	-.05 (.05)	-.08 (.11)	-.08 (.08)
Northern Ireland	-.40 (.07)	-.23 (.09)	-.22 (.15)	-.07 (.11)
East England	.52 (.04)	.34 (.05)	.28 (.11)	.17 (.08)
London	1.09 (.04)	.81 (.05)	.23 (.11)	.32 (.08)
South East	.70 (.04)	.45 (.05)	.39 (.10)	.15 (.07)
South West	.21 (.04)	.01 (.05)	.22 (.11)	.05 (.08)
Wales	-.14 (.06)	-.16 (.07)	.07 (.13)	.04 (.09)
Scotland	-.28 (.04)	-.08 (.05)	-.40 (.10)	-.19 (.08)
Midlands	0	0	0	0
Size of establishment				
Small and medium	.15 (.02)	-.05 (.03)	-.32 (.06)	-1.14 (.04)
Large	0	0	0	0
Chi-square (D.F.)	32,644 (78)	21,142 (78)	7,803 (78)	18,666 (78)
N (weighted)	*76,117*	*54,071*	*17,960*	*31,768*

Source: LFS 2001-2004.

Table C.9   Access to the salariat in the private and public sectors (SARs)

	Parameter estimates (contrast with semi routine or routine occupations)			
	Private sector		**Public sector**	
	Men	**Women**	**Men**	**Women**
Intercept	-3.24 (.08)	-2.99 (.04)	-2.25 (.10)	-2.12 (.06)
Ethnicity				
Ethnic minorities	-.74 (.03)	-.71 (.04)	-.27 (.09)	-.26 (.05)
British, other whites	0	0	0	0
Qualification				
Level 4/5	4.47 (.02)	3.91 (.03)	5.15 (.07)	4.97 (.04)
Level 3	3.14 (.03)	2.82 (.03)	3.23 (.08)	2.61 (.05)
Level 2	2.33 (.02)	2.10 (.03)	2.50 (.06)	1.85 (.04)
Level 1	1.46 (.02)	1.31 (.03)	1.87 (.06)	1.28 (.04)
Other qualification	1.07 (.02)	1.18 (.04)	1.53 (.08)	1.26 (.06)
No qualification	0	0	0	0

Table C.9   Continued

	Parameter estimates (contrast with semi routine or routine occupations)			
	Private sector		**Public sector**	
	Men	**Women**	**Men**	**Women**
Generation				
First generation	-.28 (.03)	-.55 (.03)	-.15 (.08)	-.28 (.04)
Second generation	0	0	0	0
Marital status				
Married/cohabiting	.56 (.02)	.24 (.02)	.55 (.05)	.07 (.03)
Divorced/separated	.23 (.02)	.03 (.03)	.22 (.06)	-.13 (.04)
Single	0	0	0	0
Part-time work				
Full-time	1.34 (.03)	2.08 (.02)	1.02 (.06)	1.40 (.02)
Part-time	0	0	0	0
Region				
North East	-.37 (.03)	-.26 (.04)	-.35 (.08)	-.17 (.05)
North West	-.06 (.02)	.03 (.03)	-.22 (.07)	-.09 (.04)
Yorkshire	-.15 (.02)	-.08 (.03)	-.10 (.07)	-.10 (.04)
Northern Ireland	-.39 (.04)	-.40 (.05)	-.14 (.10)	.42 (.06)
East England	.44 (.02)	.33 (.03)	.10 (.07)	.08 (.04)
London	.71 (.02)	.75 (.03)	.11 (.07)	.19 (.04)
South East	.57 (.02)	.46 (.03)	.02 (.06)	-.02 (.04)
South West	.04 (.02)	.04 (.03)	-.06 (.07)	-.14 (.04)
Wales	-.29 (.03)	-.21 (.04)	-.24 (.08)	-.09 (.05)
Midlands	0	0	0	0
Age groups				
16-19	-1.57 (.04)	-2.21 (.05)	-.74 (.11)	-1.67 (.10)
20-24	-.91 (.02)	-1.22 (.03)	-.80 (.08)	-1.29 (.05)
25-29	-.23 (.02)	-.29 (.02)	-.41 (.07)	-.42 (.04)
45-49	.28 (.02)	-.06 (.02)	.20 (.04)	.27 (.02)
60-64	.05 (.03)	–	-.25 (.08)	–
30-44	0	0	0	0
Size of establishment				
Small	-.11 (.02)	-.50 (.02)	-.82 (.05)	-1.27 (.03)
Medium	.33 (.02)	-.61 (.02)	-.37 (.04)	-.93 (.03)
Large	0	0	0	0
Chi-square (D.F.)	101,860 (78)	68,754 (75)	24,207 (78)	72,754 (75)
N	*264,581*	*174,414*	*50,363*	*112,780*

Source: SARs 2001.

Table C.10   Logged hourly earnings in the private and public sectors

	Private		Public	
	Men	**Women**	**Men**	**Women**
Constant/Intercept	1.783 (.013)	1.695 (.011)	1.78 (.02)	1.71 (.01)
Age	.11 (.00)	.07 (.00)	.14 (.00)	.09 (.00)
Age – squared	-.08 (.00)	-.08 (.00)	-.08 (.00)	-.04 (.00)
Ethnicity				
Ethnic minorities	-.115 (.015)	-.045 (.015)	-.06 (.03)	-.05 (.02)
British, other whites	0	0	0	0
Generation				
First	-.13 (.02)	-.12 (.02)	.00 (.03)	-.03 (.02)
Second	0	0	0	0
Qualification				
Degree or equivalent	.72 (.01)	.68 (.01)	.73 (.02)	.78 (.01)
Higher education	.49 (.01)	.40 (.01)	.51 (.02)	.60 (.01)
GCE A level or equivalent	.30 (.01)	.30 (.01)	.35 (.02)	.31 (.01)
GCSE grades A-C or equivalent	.21 (.01)	.21 (.01)	.31 (.02)	.23 (.01)
Other qualification	.09 (.01)	.11 (.01)	.20 (.02)	.13 (.01)
No qualification	0	0	0	0
Marital status				
Married/cohabiting	.14 (.01)	.05 (.01)	.11 (.01)	.03 (.01)
Divorced/separated	.07 (.01)	.02 (.01)	.08 (.02)	.01 (.01)
Single	0	0	0	0
Year				
2001	-.10 (.01)	-.10 (.01)	-.11 (.01)	-.09 (.01)
2002	-.06 (.01)	-.07 (.01)	-.06 (.01)	-.06 (.01)
2003	-.03 (.00)	-.03 (.01)	-.03 (.01)	-.03 (.01)
2004	0	0	0	0
Part-time work				
Full-time	.23 (.01)	.18 (.00)	.23 (.01)	.13 (.01)
Part-time	0	0	0	0
				Continued

Table C.10   Continued

	Private		Public	
	Men	**Women**	**Men**	**Women**
Region				
North East	**-.10 (.01)**	**-.05 (.01)**	-.03 (.02)	-.02 (.01)
North West	**-.02 (.01)**	**.02 (.01)**	.02 (.01)	-.02 (.01)
Yorkshire	**-.05 (.01)**	**-.02 (.01)**	-.02 (.01)	-.01 (.01)
Northern Ireland	**-.12 (.02)**	-.03 (.02)	-.02 (.02)	-.01 (.02)
East England	**.12 (.01)**	**.11 (.01)**	.10 (.01)	.02 (.01)
London	**.28 (.01)**	**.35 (.01)**	.20 (.01)	.19 (.01)
South East	**.15 (.01)**	**.14 (.01)**	.10 (.01)	.04 (.01)
South West	-.00 (.01)	.01 (.01)	**.05 (.02)**	-.03 (.01)
Wales	**-.06 (.01)**	**-.04 (.01)**	.00 (.01)	-.01 (.01)
Scotland	**-.05 (.01)**	-.00 (.01)	.00 (.01)	-.01 (.01)
Midlands	0	0	0	0
Size of establishment				
Small and medium	**-.16 (.00)**	**-.13 (.00)**	-.11 (.01)	-.06 (.01)
Large	0	0	0	0
Adjusted R^2 (D.F.)	.412 (26)	.361 (26)	.380 (26)	.414 (26)
N (weighted)	*60,227*	*43,408*	*14,751*	*25,794*

Source: LFS 2001-2004.

Table C.11 Access to the Salariat in Major Industries (SARs)

(Contrast with semi routine and routine occupations)

	Manufacturing		Distribution hotel and restaurants		Transport and communication		Banking finance insurance		Public administration, education, health	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Intercept	-3.16 (.10)	-3.35 (.10)	-3.66 (.08)	-3.34 (.07)	-3.41 (.13)	-2.95 (.16)	-2.50 (.11)	-2.20 (.09)	-2.25 (.10)	-2.12 (.06)
Ethnicity (ref group: British, other whites)										
Ethnic minorities	-.96 (.07)	-1.24 (.11)	-.68 (.06)	-.63 (.07)	-.90 (.08)	-.77 (.13)	-.78 (.07)	-.57 (.08)	-.27 (.09)	-.26 (.05)
Qualification (ref group: no qualification)										
Level 4/5	4.69 (.05)	4.75 (.08)	3.03 (.05)	2.72 (.05)	4.37 (.07)	3.70 (.14)	5.11 (.07)	4.52 (.08)	5.15 (.07)	4.97 (.04)
Level 3	3.00 (.05)	3.69 (.09)	2.46 (.05)	2.01 (.05)	3.23 (.08)	2.70 (.14)	4.00 (.07)	3.37 (.08)	3.23 (.08)	2.61 (.05)
Level 2	2.21 (.04)	2.61 (.07)	1.84 (.04)	1.43 (.04)	2.36 (.06)	2.10 (.11)	3.11 (.06)	2.72 (.06)	2.50 (.06)	1.85 (.04)
Level 1	1.42 (.03)	1.66 (.06)	1.15 (.03)	.87 (.04)	1.56 (.06)	1.29 (.11)	2.03 (.05)	1.85 (.06)	1.87 (.06)	1.28 (.04)
Other qualification	1.21 (.04)	1.51 (.10)	.76 (.05)	.89 (.06)	1.21 (.07)	.99 (.17)	1.42 (.07)	1.57 (.09)	1.53 (.08)	1.26 (.06)
Marital status (ref group: single)										
Married/cohabiting	.60 (.03)	.19 (.05)	.70 (.03)	.14 (.04)	.39 (.04)	.34 (.08)	.66 (.04)	.36 (.05)	.55 (.05)	.07 (.03)
Divorced/separated	.27 (.04)	.07 (.06)	.41 (.04)	-.02 (.04)	.07 (.06)	.16 (.10)	.28 (.06)	.12 (.06)	.22 (.06)	-.13 (.04)
Region (ref group: Midlands)										
North East	-.35 (.05)	-.22 (.10)	-.24 (.06)	-.26 (.07)	-.19 (.10)	-.10 (.15)	-.62 (.09)	-.30 (.10)	-.35 (.08)	-.17 (.05)
North West	.00 (.04)	.07 (.06)	-.14 (.04)	-.01 (.04)	-.03 (.06)	.18 (.11)	-.19 (.06)	-.03 (.06)	-.22 (.07)	-.09 (.04)
Yorkshire	-.12 (.04)	-.06 (.07)	-.14 (.04)	-.15 (.05)	-.13 (.07)	-.09 (.12)	-.21 (.07)	-.11 (.07)	-.10 (.07)	-.10 (.04)
Northern Ireland	-.38 (.07)	-.38 (.12)	-.24 (.07)	-.49 (.08)	-.17 (.12)	.04 (.23)	-.25 (.13)	-.33 (.13)	-.14 (.10)	.42 (.06)
E England	.40 (.04)	.57 (.07)	.21 (.04)	.13 (.05)	.57 (.06)	.27 (.11)	.57 (.06)	.34 (.06)	.10 (.07)	.08 (.04)
London	.92 (.05)	1.18 (.08)	.27 (.04)	.30 (.05)	.61 (.06)	.65 (.11)	.52 (.06)	.67 (.06)	.11 (.07)	.19 (.04)
South East	.68 (.04)	.78 (.06)	.24 (.04)	.16 (.04)	.82 (.06)	.61 (.10)	.48 (.06)	.40 (.06)	.02 (.06)	-.02 (.04)
South West	.12 (.04)	-.01 (.08)	-.09 (.04)	-.08 (.05)	.22 (.07)	.04 (.12)	-.09 (.07)	.06 (.07)	-.06 (.07)	-.14 (.04)
Wales	-.23 (.05)	-.30 (.09)	-.18 (.06)	-.24 (.06)	-.13 (.09)	-.06 (.17)	-.37 (.09)	-.20 (.10)	-.24 (.08)	-.09 (.05)

Table C.11   Continued

(Contrast with semi routine and routine occupations)

	Manufacturing		Distribution hotel and restaurants		Transport and communication		Banking finance insurance		Public administration, education, health	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Part time work (ref group: part-time)										
Full time	.73 (.09)	1.09 (.06)	2.04 (.06)	2.48 (.03)	1.03 (.10)	1.78 (.08)	1.48 (.07)	2.01 (.04)	1.02 (.06)	1.40 (.02)
Age groups (ref group: 30-44)										
16-19	-1.25 (.08)	-1.55 (.13)	-1.79 (.06)	-2.06 (.08)	-1.02 (.16)	-1.54 (.19)	-1.64 (.09)	-2.48 (.10)	-.74 (.11)	-1.67 (.10)
20-24	-.94 (.05)	-.83 (.08)	-1.03 (.04)	-1.03 (.05)	-.56 (.08)	-1.07 (.11)	-.86 (.06)	-1.33 (.07)	-.80 (.08)	-1.29 (.05)
25-29	-.36 (.04)	-.18 (.06)	-.20 (.04)	-.13 (.04)	-.15 (.06)	-.22 (.09)	-.12 (.06)	-.38 (.06)	-.41 (.07)	-.42 (.04)
45-49	.45 (.03)	.19 (.05)	.10 (.03)	-.09 (.03)	.26 (.04)	-.32 (.08)	-.11 (.04)	-.26 (.04)	.20 (.04)	.27 (.02)
60-64	.39 (.05)	–	-.20 (.06)	–	-.24 (.10)	–	-.61 (.08)	–	-.25 (.08)	–
Size of establishment (ref group: large establishment)										
Small	.08 (.03)	-.01 (.06)	.46 (.04)	-.01 (.04)	-.49 (.05)	.26 (.08)	-.51 (.05)	-.86 (.05)	-.82 (.05)	-1.27 (.03)
Medium	-.09 (.03)	-.27 (.05)	.01 (.04)	-.30 (.04)	-.89 (.04)	-.57 (.07)	-.48 (.05)	-.75 (.05)	-.37 (.04)	-.93 (.03)
Generation (ref group: second generation)										
First	-.29 (.06)	-.53 (.09)	-.43 (.05)	-.54 (.05)	.04 (.07)	-.41 (.11)	-.37 (.07)	-.58 (.07)	-.15 (.08)	-.28 (.04)
Chi-square (D.F.)	25,891 (78)	11,284 (75)	15,040 (78)	19,264 (75)	10,976 (78)	3,186 (75)	20,365 (78)	19,228 (75)	24,207 (78)	72,754 (75)
N	73,722	26,423	56,762	62,030	31,177	13,035	55,195	51,483	50,363	112,780

Source: SARs 2001.

Table C.12   Access to the Salariat in Major Industries – men with full ethnic groups (SARs)

Parameter estimates (contrast with semi routine or routine occupations)

	Manufacturing	Construction	Distribution hotel, restaurant	Transport and communication	Banking and finance	Public administration, education, health
Intercept	-3.16 (.10)	-2.74 (.18)	-3.66 (.08)	-3.43 (.13)	-2.53 (.11)	-2.27 (.10)
Ethnicity						
Black African	-1.59 (.22)	-.97 (.44)	-.98 (.15)	-2.13 (.19)	-2.50 (.14)	-1.30 (.16)
Black Caribbean	-.85 (.14)	-.59 (.25)	-.51 (.12)	-.56 (.15)	-.53 (.14)	.04 (.15)
Black mixed	-.43 (.23)	-.59 (.36)	-.31 (.20)	-.45 (.29)	-.40 (.27)	-.41 (.27)
Indian	-.79 (.10)	-.72 (.26)	-.39 (.09)	-.71 (.12)	-.10 (.14)	-.02 (.17)
Pakistani	-1.40 (.14)	.10 (.46)	-.80 (.12)	-1.47 (.19)	-1.21 (.17)	-.06 (.26)
Bangladeshi	-1.48 (.35)	.03 (.97)	-1.33 (.16)	-.81 (.45)	-.52 (.36)	.78 (.47)
Chinese	-.56 (.33)	-.12 (.98)	-1.09 (.16)	.29 (.41)	1.00 (.52)	.15 (.42)
British, white, other	0	0	0	0	0	0
Qualification						
Level 4/5	4.69 (.05)	4.74 (.09)	3.03 (.05)	4.40 (.07)	5.15 (.07)	5.17 (.07)
Level 3	2.99 (.05)	2.64 (.09)	2.45 (.05)	3.25 (.08)	4.03 (.07)	3.24 (.08)
Level 2	2.21 (.04)	2.33 (.06)	1.83 (.04)	2.36 (.06)	3.13 (.06)	2.51 (.06)
Level 1	1.42 (.03)	1.57 (.06)	1.14 (.03)	1.56 (.06)	2.04 (.05)	1.87 (.06)
Other qualification	1.21 (.04)	1.01 (.06)	.75 (.05)	1.21 (.07)	1.43 (.07)	1.54 (.07)
No qualification	0	0	0	0	0	0
Marital status						
Married/cohabiting	.60 (.03)	.77 (.05)	.71 (.03)	.41 (.04)	.67 (.04)	.55 (.05)
Divorced/separated	.28 (.04)	.38 (.08)	.42 (.04)	.09 (.06)	.30 (.06)	.23 (.06)
Single	0	0	0	0	0	0
Region						
North East	-.35 (.05)	-.61 (.09)	-.23 (.06)	-.18 (.10)	-.61 (.09)	-.34 (.08)
North West	.00 (.04)	-.15 (.07)	-.14 (.04)	-.02 (.06)	-.17 (.06)	-.21 (.07)
Yorkshire	-.11 (.04)	-.30 (.07)	-.14 (.04)	-.12 (.07)	-.19 (.07)	-.10 (.07)

Table C.12   Continued

Parameter estimates (contrast with semi routine or routine occupations)

	Manufacturing	Construction	Distribution hotel, restaurant	Transport and communication	Banking and finance	Public administration, education, health
Region (continued)						
Northern Ireland	-.38 (.07)	-.74 (.13)	-.24 (.07)	-.17 (.12)	-.23 (.13)	-.15 (.10)
East England	.41 (.04)	.32 (.07)	.22 (.04)	.58 (.06)	.58 (.06)	.12 (.07)
London	.92 (.05)	.43 (.08)	.27 (.04)	.63 (.06)	.57 (.06)	.15 (.07)
South East	.69 (.04)	.46 (.06)	.24 (.04)	.82 (.06)	.48 (.06)	.03 (.06)
South West	.12 (.04)	-.06 (.07)	-.09 (.04)	.22 (.07)	-.08 (.07)	-.05 (.07)
Wales	-.23 (.05)	-.64 (.10)	-.18 (.06)	-.12 (.09)	-.35 (.09)	-.23 (.08)
Midlands	0	0	0	0	0	0
Part-time work						
Full-time	.72 (.09)	.55 (.15)	2.02 (.06)	1.02 (.10)	1.46 (.07)	1.02 (.06)
Part-time	0	0	0	0	0	0
Age groups						
16-19	-1.25 (.08)	-1.83 (.12)	-1.78 (.06)	-1.01 (.16)	-1.65 (.09)	-.73 (.11)
20-24	-.93 (.05)	-1.05 (.08)	-1.03 (.04)	-.56 (.08)	-.88 (.06)	-.81 (.08)
25-29	-.35 (.04)	-.56 (.07)	-.19 (.04)	-.15 (.06)	-.13 (.06)	-.43 (.07)
45-59	.45 (.03)	.64 (.05)	.09 (.03)	.25 (.04)	-.11 (.04)	.20 (.04)
60-64	.38 (.05)	.46 (.09)	-.21 (.06)	-.25 (.10)	-.61 (.08)	-.26 (.08)
30-44	0	0	0	0	0	0
Size of establishment						
Small	.08 (.03)	-.77 (.06)	.46 (.04)	-.49 (.05)	-.50 (.05)	-.82 (.05)
Medium	-.09 (.03)	-.17 (.06)	.01 (.04)	-.89 (.04)	-.48 (.05)	-.37 (.04)
Large	0	0	0	0	0	0
Generation						
First	-.27 (.06)	-.38 (.10)	-.39 (.05)	.10 (.07)	-.30 (.07)	-.11 (.08)
Second	0	0	0	0	0	0
Chi-square (D.F.)	25,940 (96)	9,403 (96)	15,147 (96)	11,084 (96)	20,618 (96)	24,313 (96)
N	*81,152*	*30,872*	*70,305*	*34,921*	*61,877*	*50,363*

Source: SARs 2001.

Table C.13   Access to the Salariat in Major Industries – women with full ethnic groups (SARs)

		Parameter estimates (contrast with semi routine or routine occupations)			
	Manufacturing	**Distribution hotel, restaurant**	**Transport and communication**	**Banking and finance**	**Public admin, education, health**
Intercept	-3.37 (.10)	-3.35 (.07)	-2.97 (.16)	-2.20 (.09)	-2.12 (.06)
Ethnicity					
Black African	-1.81 (.34)	-.82 (.17)	-1.58 (.31)	-1.42 (.18)	-1.36 (.10)
Black Caribbean	-.65 (.24)	-.62 (.14)	-.48 (.24)	-.50 (.15)	.02 (.09)
Black mixed	-.02 (.33)	-.12 (.22)	-1.23 (.43)	-.58 (.23)	-.10 (.18
Indian	-1.66 (.15)	-.76 (.10)	-.67 (.19)	-.35 (.13)	-.05 (.09)
Pakistani	-1.09 (.35)	-.44 (.20)	-1.32 (.42)	-.55 (.24)	-.11 (.14)
Bangladeshi	-2.07 (.72)	-.66 (.39)	.24 (1.32)	-.55 (.41)	-.10 (.26)
Chinese	-.31 (.42)	-.59 (.17)	1.58 (1.08)	-.03 (.32)	-.24 (.22)
British, white other	0	0	0	0	0
Qualification					
Level 4/5	4.76 (.08)	2.72 (.05)	3.71 (.14)	4.52 (.08)	4.99 (.04)
Level 3	3.68 (.09)	2.01 (.05)	2.71 (.14)	3.38 (.08)	2.62 (.05)
Level 2	2.60 (.07)	1.43 (.04)	2.10 (.11)	2.72 (.06)	1.85 (.04)
Level 1	1.66 (.06)	.87 (.04)	1.29 (.11)	1.85 (.06)	1.28 (.04)
Other qualification	1.50 (.10)	.89 (.06)	.99 (.17)	1.57 (.09)	1.26 (.06)
No qualification	0	0	0	0	0
Marital status					
Married/cohabiting	.21 (.05)	.15 (.04)	.34 (.08)	.35 (.05)	.08 (.03)
Divorced/separated	.08 (.06)	-.02 (.04)	.17 (.10)	.12 (.06)	-.12 (.04)
Single	0	0	0	0	0
Region					
North East	-.22 (.10)	-.26 (.07)	-.09 (.15)	-.29 (.10)	-.16 (.05)
North West	.06 (.06)	-.01 (.05)	.18 (.11)	-.02 (.06)	-.08 (.04)
Yorkshire	-.07 (.07)	-.15 (.05)	-.09 (.12)	-.11 (.07)	-.10 (.04)
Northern Ireland	-.39 (.12)	-.49 (.08)	.04 (.23)	-.33 (.13)	.43 (.06)
East England	.56 (.07)	.13 (.05)	.27 (.11)	.35 (.06)	.09 (.04)
London	1.18 (.08)	.30 (.05)	.66 (.11)	.69 (.06)	.22 (.04)
South East	.78 (.06)	.16 (.04)	.62 (.10)	.41 (.06)	-.02 (.04)
South West	-.02 (.08)	-.08 (.05)	.05 (.12)	.07 (.07)	-.13 (.04)
Wales	-.30 (.09)	-.24 (.06)	-.06 (.17)	-.19 (.10)	-.08 (.05)
Midlands	0	0	0	0	0
Part-time work					
Full-time	1.10 (.06)	2.48 (.03)	1.78 (.08)	2.01 (.04)	1.41 (.02)
Part-time					

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Table C.13   Continued

Parameter estimates (contrast with semi routine or routine occupations)

	Manufacturing	Distribution hotel, restaurant	Transport and communication	Banking and finance	Public admin, education, health
Age groups					
16-19	-1.54 (.13)	-2.06 (.08)	-1.53 (.19)	-2.48 (.10)	-1.67 (.10)
20-24	-.82 (.08)	-1.04 (.05)	-1.07 (.11)	-1.33 (.07)	-1.30 (.05)
25-29	-.17 (.06)	-.13 (.04)	-.22 (.09)	-.39 (.06)	-.42 (.04)
45-59	.19 (.05)	.09 (.03)	-.32 (.08)	-.26 (.04)	.27 (.02)
30-44	0	0	0	0	0
Size of establishment					
Small	-.01 (.06)	-.01 (.04)	.26 (.08)	-.86 (.05)	-1.27 (.03)
Medium	-.27 (.05)	-.30 (.04)	-.57 (.07)	-.75 (.05)	-.93 (.03)
Large	0	0	0	0	0
Generation					
First	-.45 (.09)	-.53 (.06)	-.41 (.12)	-.57 (.07)	-.24 (.04)
Second	0	0	0	0	0
Chi-square (D.F.)	11,349 (93)	19,301 (93)	3,212 (93)	19,280 (93)	72,652 (93)
N	*29,780*	*79,164*	*14,817*	*58,604*	*112,780*

Source: SARs 2001.

Table C.14   Access to the Salariat by size of establishment

(Contrast with semi routine and routine occupations)

	Small		Medium		Large	
	Men	Women	Men	Women	Men	Women
Intercept	-2.73 (.10)	-3.12 (.10)	-3.10 (.11)	-3.44 (.10)	-3.16 (.22)	-2.55 (.19)
Age	.35 (.02)	.44 (.02)	.19 (.01)	.32 (.02)	.10 (.03)	.22 (.03)
Age – squared	-.24 (.01)	-.28 (.01)	-.21 (.01)	-.24 (.01)	-.22 (.02)	-.30 (.03)
Ethnicity						
Ethnic minorities	.20 (.14)	.18 (.14)	-.52 (.11)	-.04 (.12)	-.69 (.20)	-.52 (.21)
British, other whites	0	0	0	0	0	0
Qualification						
Degree or equivalent	4.10 (.08)	4.03 (.08)	4.99 (.08)	5.10 (.08)	5.78 (.17)	5.73 (.19)
Higher education	3.09 (.09)	3.11 (.08)	3.87 (.07)	4.18 (.08)	4.63 (.17)	5.30 (.18)
GCE A level or equivalent	1.65 (.06)	1.97 (.07)	2.11 (.05)	2.73 (.07)	2.71 (.13)	3.34 (.15)
GCSE grades A-C or equivalent	1.55 (.06)	1.54 (.06)	1.71 (.06)	2.10 (.07)	2.09 (.13)	2.50 (.14)
Other qualification	.43 (.07)	.75 (.07)	.54 (.06)	1.17 (.07)	1.21 (.14)	1.67 (.15)
No qualification	0	0	0	0	0	0

Table C.14   **Access to the Salariat by size of establishment**

(Contrast with semi routine and routine occupations)

	Small		Medium		Large	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Marital status						
Married/cohabiting	**.65 (.05)**	**.54 (.05)**	**.60 (.04)**	**.38 (.05)**	**.35 (.08)**	**.41 (.09)**
Divorced/separated	.13 (.08)	.11 (.07)	.12 (.07)	.05 (.06)	.00 (.13)	.09 (.13)
Single	0	0	0	0	0	0
Year						
2001	.05 (.05)	-.07 (.05)	-.05 (.04)	**.14 (.04)**	-.04 (.08)	-.05 (.10)
2002	-.04 (.05)	-.06 (.05)	**.09 (.04)**	-.02 (.04)	**-.15 (.07)**	-.16 (.08)
2003	07 (.04)	-.05 (.04)	.07 (.03)	.06 (.04)	-.09 (.07)	-.14 (.08)
2004	0	0	0	0	0	0
Region						
North East	**-.19 (.09)**	-.15 (.09)	**-.39 (.07)**	**-.19 (.08)**	-.15 (.13)	-.10 (.15)
North West	-.05 (.07)	.00 (.06)	-.03 (.05)	-.02 (.06)	**.35 (.10)**	**.27 (.12)**
Yorkshire	**-.16 (.07)**	.00 (.07)	**-.17 (.05)**	-.12 (.06)	.11 (.10)	-.05 (.12)
Northern Ireland	-.41 (.10)	-.14 (.10)	**-.36 (.09)**	-.07 (.10)	-.18 (.20)	-.34 (.23)
East England	**.33 (.07)**	**.21 (.07)**	**.48 (.05)**	**.31 (.06)**	**.89 (.11)**	**.54 (.13)**
London	**.68 (.07)**	**.47 (.07)**	**.97 (.05)**	**.71 (.06)**	**1.52 (.11)**	**.97 (.13)**
South East	**.43 (.06)**	**.30 (.06)**	**.67 (.05)**	**.37 (.05)**	**1.17 (.10)**	**.62 (.12)**
South West	.01 (.07)	.02 (.07)	**.21 (.06)**	-.02 (.06)	**.68 (.11)**	.12 (.13)
Wales	**-.23 (.08)**	**-.20 (.08)**	-.02 (.07)	-.10 (.08)	-.08 (.14)	.11 (.16)
Scotland	**-.42 (.07)**	**-.15 (.07)**	**-.34 (.05)**	-.11 (.06)	.16 (.11)	-.17 (.13)
Midlands	0	0	0	0	0	0
Part-time work						
Full-time	**1.62 (.07)**	**1.98 (.04)**	**1.73 (.07)**	**1.95 (.03)**	**1.55 (.16)**	**1.64 (.07)**
Part-time	0	0	0	0	0	0
Sector						
Private	**-.31 (.06)**	**.09 (.04)**	**-.69 (.04)**	**-.29 (.03)**	**-.76 (.06)**	**-.87 (.07)**
Public	0	0	0	0	0	0
Generation						
First	**-.62 (.17)**	**-.77 (.18)**	**-.27 (.14)**	**-.82 (.15)**	.11 (.24)	**-.59 (.26)**
Second	0	0	0	0	0	0
Chi-square (D.F.)	11,475 (78)	11,838 (78)	20,544 (78)	21,894 (78)	7,997 (78)	6,797 (78)
N (weighted)	*28,720*	*30,657*	*41,160*	*42,359*	*15,724*	*14,023*

Source: LFS 2001-2004.

Table C.15   Access to the Salariat by size of establishment (SARs)

(Contrast with semi routine and routine occupations)

	Small		Medium		Large	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Intercept	-2.73 (.06)	-3.27 (.05)	-2.57 (.06)	-3.35 (.05)	-2.44 (.10)	-2.44 (.08)
Ethnicity						
Ethnic minorities	-.54 (.05)	-.39 (.05)	-.73 (.04)	-.64 (.05)	-.77 (.06)	-.75 (.06)
British, other whites	0	0	0	0	0	0
Qualification						
Degree or equivalent	3.87 (.04)	3.85 (.04)	4.76 (.03)	4.81 (.04)	5.29 (.06)	5.17 (.07)
Higher education	2.70 (.04)	2.31 (.04)	3.30 (.04)	3.00 (.04)	3.74 (.06)	3.23 (.07)
GCE A level or equivalent	2.09 (.03)	1.74 (.03)	2.44 (.03)	2.21 (.03)	2.73 (.05)	2.36 (.05)
GCSE grades A-C or equivalent	1.36 (.03)	1.13 (.03)	1.56 (.03)	1.43 (.04)	1.79 (.04)	1.59 (.06)
Other qualification	.83 (.04)	1.02 (.05)	1.21 (.03)	1.29 (.05)	1.54 (.05)	1.42 (.08)
No qualification	0	0	0	0	0	0
Marital status						
Married/cohabiting	.62 (.03)	.27 (.03)	.54 (.02)	.10 (.03)	.44 (.03)	.10 (.04)
Divorced/separated	.28 (.03)	.06 (.03)	.20 (.03)	-.07 (.03)	.16 (.05)	-.12 (.05)
Single	0	0	0	0	0	0
Region						
North East	-.38 (.05)	-.22 (.05)	-.29 (.04)	-.17 (.05)	-.41 (.06)	-.26 (.07)
North West	-.11 (.03)	-.10 (.03)	-.04 (.03)	.03 (.03)	-.03 (.04)	.03 (.05)
Yorkshire	-.17 (.04)	-.14 (.04)	-.14 (.03)	-.05 (.04)	-.08 (.05)	-.04 (.06)
Northern Ireland	-.36 (.06)	-.14 (.06)	-.26 (.05)	-.01 (.06)	-.28 (.08)	.08 (.09)
East England	.26 (.03)	.16 (.04)	.41 (.03)	.27 (.03)	.61 (.05)	.34 (.06)
London	.50 (.04)	.35 (.04)	.64 (.03)	.62 (.04)	.87 (.05)	.63 (.05)
South East	.33 (.03)	.16 (.03)	.50 (.03)	.31 (.03)	.87 (.04)	.53 (.05)
South West	-.07 (.04)	-.08 (.04)	.01 (.03)	-.03 (.04)	.21 (.05)	.09 (.06)
Wales	-.28 (.05)	-.16 (.05)	-.24 (.04)	-.17 (.05)	-.30 (.06)	-.15 (.07)
Midlands	0	0	0	0	0	0
Part-time work						
Full-time	1.32 (.04)	1.94 (.02)	1.15 (.04)	1.71 (.02)	.98 (.08)	1.44 (.03)
Part-time	0	0	0	0	0	0
Age group						
16-19	-1.66 (.05)	-2.03 (.06)	-1.39 (.05)	-2.01 (.07)	-1.19 (.09)	-1.97 (.12)
20-24	-1.00 (.04)	-1.23 (.04)	-.88 (.03)	-1.24 (.04)	-.81 (.05)	-1.32 (.06)
25-29	-.31 (.03)	-.41 (.03)	-.24 (.03)	-.31 (.03)	-.23 (.04)	-.29 (.05)
45-59	.29 (.02)	.15 (.02)	.29 (.02)	.12 (.02)	.34 (.03)	-.06 (.04)
60-64	.10 (.04)	–	.00 (.04)	–	-.22 (.07)	–
30-44	0	0	0	0	0	0

Continued

Table C.15 Continued

	(Contrast with semi routine and routine occupations)					
	Small		Medium		Large	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Work sector						
Private	-.33 (.04)	.13 (.02)	-.93 (.03)	-.15 (.02)	-.96 (.03)	-.48 (.03)
Public	0	0	0	0	0	0
Generation						
First	-.33 (.04)	-.56 (.04)	-.25 (.04)	-.44 (.04)	-.20 (.05)	-.30 (.06)
Second	0	0	0	0	0	0
Chi-square (D.F.)	32,207 (75)	41,100 (72)	68,404 (75)	59,737 (72)	38,618 (75)	29,890 (72)
N	111,674	126,074	169,097	140,398	81,943	70,637

Source: SARs 2001

Table C.16 Logged hourly earnings by size of establishment

	Small		Medium		Large	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Intercept	1.68 (.02)	1.67 (.02)	1.72 (.02)	1.68 (.01)	1.76 (.03)	1.74 (.02)
Age	.10 (.00)	.08 (.00)	.12 (.00)	.08 (.00)	.13 (.00)	.09 (.00)
Age – squared	-.08 (.00)	-.06 (.00)	-.08 (.00)	-.06 (.00)	-.09 (.00)	-.08 (.00)
Ethnicity						
Ethnic minorities	-.04 (.03)	-.00 (.02)	-.12 (.02)	-.05 (.01)	-.05 (.02)	-.14 (.02)
British, other whites	0	0	0	0	0	0
Qualification						
Degree or equivalent	.64 (.01)	.65 (.01)	.73 (.01)	.74 (.01)	.77 (.02)	.76 (.02)
Higher education	.46 (.01)	.43 (.01)	.50 (.01)	.52 (.01)	.51 (.02)	.55 (.02)
GCE A level or equivalent	.28 (.01)	.26 (.01)	.31 (.01)	.31 (.01)	.33 (.02)	.36 (.02)
GCSE grades A-C or equivalent	.21 (.01)	.20 (.01)	.23 (.01)	.23 (.01)	.25 (.02)	.25 (.02)
Other qualification	.10 (.01)	.09 (.01)	.10 (.01)	.13 (.01)	.20 (.02)	.18 (.02)
No qualification	0	0	0	0	0	0
Marital status						
Married/cohabiting	.13 (.01)	.06 (.01)	.14 (.01)	.03 (.01)	.12 (.01)	.04 (.01)
Divorced/separated	.08 (.01)	.03 (.01)	.07 (.01)	.01 (.01)	.05 (.02)	-.01 (.01)
Single	0	0	0	0	0	0
Year						
2001	-.10 (.01)	-.11 (.01)	-.09 (.01)	-.09 (.01)	-.08 (.01)	-.06 (.01)
2002	-.05 (.01)	-.06 (.01)	-.06 (.01)	-.07 (.01)	-.08 (.01)	-.06 (.01)
2003	-.02 (.01)	-.03 (.01)	-.03 (.01)	-.02 (.01)	-.04 (.01)	-.03 (.01)
2004	0	0	0	0	0	0

Continued

Table C.16   Continued

	Small		Medium		Large	
	Men	Women	Men	Women	Men	Women
Region						
North East	-.08 (.02)	-.04 (.01)	-.08 (.01)	-.05 (.01)	-.08 (.02)	-.03 (.02)
North West	.01 (.01)	.02 (.01)	-.03 (.01)	.00 (.01)	-.01 (.01)	.00 (.01)
Yorkshire	-.03 (.01)	.00 (.01)	-.04 (.01)	-.03 (.01)	-.07 (.02)	-.02 (.01)
Northern Ireland	-.07 (.02)	.02 (.02)	-.10 (.02)	-.04 (.02)	-.09 (.03)	-.05 (.04)
East England	.12 (.01)	.07 (.01)	.12 (.01)	.07 (.01)	.13 (.02)	.10 (.01)
London	.24 (.01)	.27 (.01)	.28 (.01)	.28 (.01)	.29 (.01)	.31 (.01)
South East	.13 (.01)	.11 (.01)	.14 (.01)	.10 (.01)	.17 (.01)	.14 (.01)
South West	.01 (.01)	.00 (.01)	.00 (.01)	-.02 (.01)	.04 (.02)	.01 (.02)
Wales	-.06 (.02)	-.02 (.01)	-.03 (.01)	-.03 (.01)	-.05 (.02)	-.01 (.02)
Scotland	-.04 (.01)	.00 (.01)	-.03 (.01)	-.01 (.01)	-.04 (.02)	.00 (.01)
Midlands	0	0	0	0	0	0
Part-time work						
Full-time	.20 (.01)	.16 (.01)	.22 (.01)	.18 (.00)	.19 (.02)	.11 (.01)
Part-time	0	0	0	0	0	0
Sector						
Private	-.03 (.01)	-.11 (.01)	.02 (.01)	-.05 (.00)	.11 (.01)	.08 (.01)
Public	0	0	0	0	0	0
Generation						
First	-.21 (.03)	-.07 (.03)	-.08 (.02)	-.10 (.02)	-.08 (.03)	-.01 (.03)
Second	0	0	0	0	0	0
Chi-square (D.F.)	.336 (26)	.320 (26)	.397 (26)	.399 (.26)	.405 (26)	.386 (26)
N (weighted)	*21,879*	*24,181*	*40,468*	*33,714*	*13,504*	*12,016*

Source: LFS 2001-2004.

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