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## **Research Report**

# **Ethnic Differences in Post-Higher Education Employment: A Study of Differences in Perceived Difficulties in Obtaining Jobs, Occupational Values, and Influences on Job Choice**

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## Summary

This is the first of three research reports resulting from a project funded by the European Social Fund and the University of Bolton which sought to investigate some basic psychological differences between ethnic minority and White ethnic majority people leaving UK higher education. One aim of the project was to contribute to an understanding of why ethnic minority graduates find it more difficult to obtain employment. This report deals with the analysis of a large data set concerning differences in perceived difficulties in obtaining a job, occupational values and influences on type of job targeted. A second report concerns graduates' job-seeking behaviours and their outcomes and details how some of the factors considered in this report relate to these behaviours and outcomes. A third report is more qualitatively orientated than the first two and considers matters from the perspective of a small number of employers. This series of reports generally seeks to report data with a minimum of theory, as a strategy of disseminating a wide range of findings to interested researchers prior to submitting more theoretically orientated reports focussing upon selected aspects of the data to relevant journals at a later date.

The data considered in this report was obtained from a pool of 898 UK students graduating from 21 English and Welsh universities in 2004 and 2005 who, shortly before or after their graduation, completed questionnaires designed to elicit information about their demographic details, their perceptions of the extent to which people of their ethnicity would experience difficulties in obtaining jobs, their occupational values, and factors influencing the jobs that they were targeting or intended to target on finishing their courses.

Findings showed that, overall, irrespective of gender and socio-economic background, graduating students of both sexes perceived it as more difficult for females than males to acquire jobs, and those from ethnic minorities perceived greater difficulty than White students. However, more detailed analysis showed that graduating students from Black or from Pakistani or Bangladeshi ethnic backgrounds perceived it as more difficult to obtain jobs than graduating White students, but that this was not the case for Indian students. It is concluded that the perceptions of graduating ethnic minority students reflect the reality whereby members of such groups are likely to find obtaining suitable jobs more difficult than White graduates. This raises the possibility that some members of ethnic minority groups may restrict their job-seeking to within their own ethnic community, this possibly having important personal and societal consequences since many job opportunities that ethnic minority job-seekers access via their social networks may have a disproportionate tendency to be relatively low status. It was also found that gender stereotyping of jobs still exists, with professional mainly non-person-centred jobs being seen as more difficult to obtain by women and more person-centred jobs being seen as more difficult to obtain by men, it being concluded that this is likely to contribute to the continuation of job segregation by gender.

With respect to occupational values, females and, to a lesser extent, ethnic minorities are shown to attach greater value to equality in the workplace. This implies that if employers wish to select from the full pool of graduate talent they should ensure that they have robust equal opportunities policies and that these are publicised in recruitment literature and during the recruitment process. Various gender and ethnic differences involving a number of other occupational values centring upon social concerns, stressfulness, and status and control are also identified.

The data concerning influences on choice of job targeted showed that, as would be expected, ethnic minority graduates' choices are more influenced by the experience of, or possibility of, discrimination than is the case for White graduates. The same is also true for White female graduates when compared with White male graduates. These findings suggest that an important issue for employers who are seeking to redress ethnic or gender imbalances in

their workforce is to ensure that their recruitment policies and working practices are neither directly nor indirectly discriminatory and that this is signalled to potential ethnic minority and female job applicants both prior to and during the recruitment process. These points are likely to be particularly important for employers in fields of employment which might be widely assumed by ethnic minorities and women to be traditionally more prone to engage in discriminatory practices.

The influence of friends, family and community on choice of job targeted was seen to be greater for ethnic minority graduates, which supports the idea that the relatively more individualist and collectivist cultures from which White British and non-White ethnic minority graduates respectively tend to come may influence career choices. The same interpretation can also be put on the fact that geographical constraints had a greater influence on the job choices of ethnic minority graduates, although this finding may also be linked to the relatively less favourable financial position of UK ethnic minorities. The latter interpretation was supported by the observation that ethnic minority students rated financial considerations as being more important in their choices than White students. Thus, with respect to the finding on geographical constraints, it is possible that, as a group, ethnic minority graduates may, for example, be less able to afford a car to commute or may feel less able to take on the financial burdens of relocation. Therefore, in seeking to redress ethnic imbalances in their staff, employers might wish to take into account the notion that financial incentives may have a differential impact across ethnic minority and majority groups.

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## **Section One: General Introduction**

First destination statistics published by the UK Higher Education Statistics Agency (HESA, 2002) show more unemployment among ethnic minorities relative to the White majority (see Charlton, Taylor, Peterson, Taylor, Ranyard & Hewson, 2006). Furthermore, members of some ethnic minority groups may be less likely to obtain employment at a level that is commensurate with their education, and have more difficulty accessing graduate-level jobs (Battu & Sloane, 2004; Connor, La Valle, Tackey & Perryman, 1996). Part of the labour market disadvantage experienced by some ethnic minorities is attributable to educational factors such as institution, subject studied, entry qualifications and degree level. However, even when such factors are taken into account, socio-economic background, age and ethnicity affect employment prospects (Centre for Higher Education Research and Information, 2002). In this report we examine some possible psychological differences that might explain these ethnic differences.

While the main focus of the research was on ethnicity we also considered gender differences since from birth males and females are subjected to a large number of differences in the way they are treated by others (Fouad & Bingham, 1995). With respect to careers, people learn that different occupations are considered to be more or less appropriate for one gender or the other and for many people this is likely to restrict the range of occupations they will consider when entering the job market. Thus, job gendering may well incur disadvantage if women avoid applying for certain (possibly more lucrative) job areas, either because they themselves perceive these occupations as a male domain, or because they anticipate lack of success due to employer gender prejudice with regard to certain occupational areas.

In this report, we first consider differences in perceptions of difficulty in obtaining a job, since if it is found that ethnic minority and / or female graduates perceive greater difficulty this might lead them to be less active or less ambitious in the job market. A further consequence of such perceptions might be to restrict some members of ethnic minorities' job-seeking to employers from their own ethnic community. If found to exist, all these differences in behaviour might be detrimental to job-seeking outcomes for the groups involved. We then move on to assess whether there are ethnic differences in occupational values. In particular, because members of ethnic minorities and females might have first-hand or second-hand experience of discrimination it is useful to ask whether they attach greater importance to finding a post where workplace equality is a key value. We also ask whether there are ethnic differences in the factors which influence graduates' choices of jobs to target. Here, we consider whether the possibility of discrimination plays a role in the choices of ethnic minority graduates, and whether, because ethnic minority cultures often emphasise greater collectivism and less individualism, social influences have a greater influence upon their choices. Finally, given the generally less wealthy backgrounds from which ethnic minority graduates come, we ask whether geographical constraints (e.g. because of lack of personal transport) play a greater role in their choices relative to those of the White majority.

## **Section Two: The graduates participating**

Data was collected for cohorts of students graduating in both 2004 and 2005. Requirements for participation were that people had to be graduating (or recently graduated) full-time, final year students, and had to be seeking or intending to seek employment in the UK.

Although for the project as a whole data was collected in two phases, data collection for the second phase will not be recounted here since this data, much of which dealt with job-seeking behaviours and outcomes is not considered in this report. In the round of data

collection relevant to this report people were offered entry to a simple competition with a total of £350 in three cash prizes as an incentive to provide data.

For this report, data from a pool of 898 people graduating from 21 English and Welsh universities was analyzed. A breakdown of participants' gender, ethnicity and age on entering higher education is presented in Table 1. Missing data for some participants resulted in sample sizes for analyses reported deviating from the total numbers of participants in the pool. From the table it will be noted that while large numbers of White students were recruited, it proved more difficult to recruit reasonable numbers of ethnic minority students, and that this was particularly true for ethnic minority males.

Table 1: Statistics for gender, ethnicity and age on entering higher education for the pool of participants used.

Ethnic group	Gender								
	Male			Female			Total		
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>
White <sup>1</sup>	258	19.00	2.94	512	19.05	3.43	770	19.03	3.27
Indian	13	18.46	1.20	36	19.25	2.90	49	19.04	2.57
Pakistani / Bangladeshi	14	20.29	4.01	27	19.07	2.39	41	19.49	3.04
Black <sup>2</sup>	8	23.00	6.30	30	20.83	5.40	38	21.30	5.59
Total	293	19.14	3.14	605	19.15	3.49	898	19.15	3.38

Frequencies for socio-economic background across ethnic groups are shown in Table 2. The occupational classifications in this table are those defined by the tripartite classification of the UK Office for National Statistics based upon previous occupation for mature students or occupation of highest household earner for students under 21 on starting their course. From this table it can be seen that there were proportionately more people from the most advantaged socio-economic background (managerial and professional occupations) among the White and Black participants compared to the Indian and Pakistani / Bangladeshi participants and that the Pakistani / Bangladeshi group showed a greater skew towards lower socio-economic categories relative to the other groups.

<sup>1</sup> Age data was missing for 2 male and 4 female White participants.

<sup>2</sup> Age data was missing for 1 Black female participant.

Table 2: Frequency statistics for socio-economic background across ethnic groups (percentages within ethnic groups are given in parentheses under the ethnic group columns).

	Ethnic Group				Total
	White	Black	Indian	Pakistani/Bangladeshi	
Socio-economic background					
Managerial and professional occupations	505 (66%)	18 (47%)	18 (37%)	7 (17%)	548
Intermediate occupations	158 (21%)	10 (26%)	17 (35%)	22 (54%)	207
Routine and semi-routine occupations	107 (14%)	10 (26%)	14 (29%)	12 (29%)	143
Total	770 (100%)	38 (100%)	49 (100%)	41 (100%)	898

### Section Three: The questionnaires used and the data collection procedure

As mentioned previously, the research reported here was part of a project in which a large amount of data was collected from cohorts of students graduating in 2004 and 2005. For the 2004 cohort, a paper questionnaire booklet was used. The 2005 participants were given the choice of completing either a paper booklet or an Internet-based questionnaire. The contents of these materials differed across the two cohorts. To increase sample sizes, for the 2005 cohort there were only around half as many questions in an initial paper-based questionnaire booklet and an Internet-based questionnaire as there were in the 2004 version. For the 2005 cohort, people who volunteered to take part in the second phase of the project (not described here) were sent a further paper booklet containing the questions omitted from the initial booklet / Internet questionnaire so that the data sets for both cohorts were the same.

Since in this report we only consider data from the initial 2005 questionnaire, and that elicited by the corresponding items in the 2004 questionnaire, description of materials is limited to the 2005 initial questionnaire to conserve space. Details of additional items on other instruments can be found in Charlton *et al.* (2006).

The questionnaire consisted of six sections. The first section elicited demographic information: gender, nationality, socio-economic background (parental occupation if 21 years or below on entry; highest household earner occupation if above 21 on entry to higher education), age on commencement of course, higher education course details, and self-reported ethnic background. The second section consisted of two subsections. One subsection asked people to rate ten occupations according to how difficult people thought it was currently in the UK for suitably qualified *men* of their ethnic group to obtain each job. The second subsection asked exactly the same questions but this time for suitably qualified *women*. The ten occupations were selected from the National Statistics Socio-economic Classification Analytic 8-classes version (see e.g. Office for National Statistics, 2004). Six of the occupations (accountant, architect, doctor, psychologist, solicitor, and university lecturer) were drawn from Analytic Class 1, subdivision 1.2 (higher professional occupations) and four (air traffic controller, newspaper journalist, physiotherapist, and social worker) from Analytic Class 2 (lower managerial and professional occupations). These jobs were chosen because it was considered that participants would be familiar with them, would understand what they entail, and because suitably qualified graduates of either sex could reasonably aspire to them. The occupations from the two analytic classes were combined and presented in alphabetical order. Responses were on a 5-point rating scale (1 = *Not at all difficult*; 2 = *Not very difficult*; 3 = *Moderately difficult*; 4 = *Very difficult*; 5 = *Extremely difficult*). Summation of responses resulted in minimum and maximum possible job acquisition difficulty scores of 10 and 50 respectively.

Section Three elicited data on participants' occupational values by asking them to rate 20 characteristics of occupations according to their perceptions of these characteristics' importance. In order to ensure ecological validity many of the job characteristics were derived from structured interviews conducted with a small number of students who were asked to generate constructs relevant to the occupational domain using a triadic elicitation procedure. For each occupational value, ratings were on a seven-point scale with three verbal labels ranging from *Of No Importance*, through *Moderately Important*, to *Extremely Important* defining the lowest, middle and highest points of the scale.

The fourth section asked whether people had started to look for their target jobs and if so which jobs they were targeting (this data is not analysed in the present paper). Section Five asked people to rate the extent to which ten possible factors (careers advisor, family, personal interest in the job, transport limitations, advertisements / publicity, friends, community

networks, financial situation, experience of / possibility of discrimination, and choice of available jobs in the area they wished to live in) had influenced their choice of target job. Ratings were on a four-point scale with labels of *No influence*, *A little influence*, *A moderate influence*, and *A considerable influence*.

A final section asked people to indicate which of ten methods of job-seeking people had recently used or intended to use to look for their target job (further details are not given here since this data was not analysed).

As previously mentioned, participants were recruited over a two year period. In year 1 (2004) two universities, one pre-1992 university in the North of England and one post-1992 university in London, agreed to collaborate with the researching institution in the recruitment of their own graduating students. Potential participants received details about participation mailed by their universities, together with a request form for participation to be returned to the researching institution. The paper questionnaires were sent out by, and returned completed to, the researchers.

A second round of data collection was undertaken in 2005 to increase participant numbers. Here, two different universities from the previous year agreed to collaborate with paper questionnaire data collection. Both of these were post-1992 universities, one in the English Midlands and one in London. In these universities, questionnaires were distributed and collected by two paid data collectors per institution. These data collectors were instructed to target a purposive sample (equal numbers of males and females from the four ethnic categories under investigation). Students who expressed an interest in participating and were eligible were presented with the paper questionnaires. Information presented with the questionnaire gave brief details of the purpose of the research, and assurances of confidentiality and anonymity were offered. Those who met the criteria, and decided to participate were offered the option of being entered into a simple competition / prize draw for a cash prize. Also, an institution-wide sweep at the university hosting the research was done, researchers gaining permission to enter classes at the beginning of lectures to distribute and collect questionnaires. Finally, to further increase representative participation, an electronic version of the questionnaire was placed on the Internet. Universities and their careers centres across the UK were supplied with a flyer containing the Web address to pass to their final year students. Students who completed the Web questionnaire submitted their responses simply by clicking an appropriate button on completion.

## **Section Four: Findings**

### **4.1 Ethnicity and gender differences in perceived difficulty in obtaining jobs generally<sup>3</sup>**

The first set of analyses investigated the idea that ethnic minority and female graduates may perceive it more difficult for people of their ethnic and gender groups to obtain jobs than people in contrasting demographic groups because of expectations that they are likely to be discriminated against in the job market. With respect to ethnicity such an idea is supported by a meta-analytic review of the US literature showing that while ethnic minorities may be equipped to compete in the job market in terms of their skills and abilities, they perceive that there are barriers to them doing so (Fouad & Byars-Winston, 2005). As far as gender is concerned, people learn early on in life that different occupations are considered to be more or less appropriate for one sex or the other, and for many people this is likely to restrict the range of

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<sup>3</sup> Much of this section is taken from a paper published in the proceedings of the IAREP / SABE Conference held in Paris in July 2006.

occupations they will consider when entering the job market. (For more on these issues see Taylor, Ranyard & Charlton, 2006.)

While gender and ethnicity factors may both expose some job-seekers to more disadvantage than others, in the following analyses we also asked whether one of these variables supersedes the other, and whether these effects may be mitigated or amplified by socio-economic background. Specifically, we analysed data within a framework entertaining three hypotheses. The first two hypotheses are variants of the double jeopardy hypothesis (Beale, 1970). The additive variant of this hypothesis suggests that disadvantages experienced because (for example) one is female, are experienced in addition to those experienced because one has a minority ethnic background. However, the multiplicative or interactive variant of the hypothesis suggests that membership of more than one disadvantaged group results in amplification of effects rather than a simple summation (Rothman, 1999; Sidanius & Veniegas 2000; Vieregge, 2003). At some variance with the two variants of the double jeopardy hypotheses, the ethnic prominence hypothesis posits that high profiling of one cause may increase its weighting in perceptions of disadvantage (Levin, Sinclair, Veniegas & Taylor, 2002). For example, Levin *et al.* cite 1988 work by McGuire and McGuire as suggesting that the smaller the numerical size of a social group, the greater the likelihood that membership of that group will be a salient aspect of its members' self-perceptions. Therefore Levin *et al.* reason that ethnic minority group membership should loom larger in the self-perceptions of a member of such a group, and therefore be a factor weighing more heavily in perceptions of discrimination, than should being a female, since the total membership of any ethnic minority group is smaller than the total membership of the female gender group (around 50% of the population in most Western societies) in any particular country.

To summarise then, the analyses that follow assessed the evidence for the above three alternative hypotheses. Additionally the analyses considered whether differences in perceptions are moderated by socio-economic background, since this has been suggested as a possible influence in job-market disadvantage (e.g. Modood, 1998a).

*Analysis 1: Ethnicity, gender and socio-economic differences in perceived difficulty in obtaining jobs.*

The first analysis of the perceived difficulties data employed a four-way 2 x 2 x 3 x (2) mixed ANOVA with participant gender (male versus female), ethnicity (White ethnic majority versus combined ethnic minority) and socio-economic background (managerial / professional, intermediate and routine / semi-routine) as between groups factors and target gender (i.e. gender of job-seeker: male versus female) as a within groups factor. The dependent variable was perceived job acquisition difficulty score. Table 3 presents descriptive statistics for this analysis. Since, as will be seen, there were no effects involving socio-economic background, Figure 1 depicts the pattern of means collapsed across categories for this variable.

The analysis revealed a significant main effect for target gender (male versus female),  $F(1,788) = 39.89$ ;  $p < .01$ , partial  $\eta^2 = .048$ , indicating a moderate effect size. From Table 3 and Figure 1 it can be seen that this main effect was attributable to both male and female participants considering it more difficult for female job-seekers (target gender female) to get jobs. There was also a significant main effect for ethnicity,  $F(1,788) = 20.26$ ,  $p < .01$ , partial  $\eta^2 = .025$  representing a medium effect size. Here, Table 3 and Figure 1 show that members of the combined ethnic minorities group considered it harder for people of their own ethnicity to obtain jobs than did members of the White ethnic majority group irrespective of the gender of the job-seeker (target gender). There were no significant main effects for participant gender,  $F(1,788) = 2.01$ ,  $p = .16$ , partial  $\eta^2 = .003$ , and socio-economic background,  $F(2,788) = 0.19$ ;  $p$

= .83, partial  $\eta^2 < .001$ . Also, although one result was marginal, there were no significant two-way interactions. In the interests of brevity, since they were of little theoretical interest, the statistics for two-way interactions involving socio-economic background are omitted. Otherwise, statistics were as follows: target gender by participant gender,  $F(1,788) = 0.25$ ,  $p = .62$ , partial  $\eta^2 < .001$ ; target gender by ethnicity,  $F(1,788) = 0.41$ ,  $p = .52$ , partial  $\eta^2 = .001$ ; participant gender by ethnicity,  $F(1,788) = 3.72$ ,  $p = .05$ , partial  $\eta^2 = .005$ . The only significant three-way interaction found was between target gender, participant gender and ethnic background,  $F(1,788) = 7.36$ ,  $p = .01$ , partial  $\eta^2 = .009$ , indicating a very small effect size. Examination of Figure 1 reveals that this can be interpreted as showing that for White participants there was a greater difference for female participants in their perceptions of the extent to which (target) male and female job-seekers would find it difficult to get jobs, than there was for ethnic minority females. However, this pattern was reversed for male participants: there was a (slightly) larger difference for ethnic minority males in their perceptions of the extent to which (target) male and female job-seekers would find it difficult to get jobs, than there was for White males. Finally, also embedded in this result was an interaction whereby prospects for White (target) males were perceived as worse by White male participants than they were by White female participants, whereas prospects for ethnic minority (target) males were perceived as marginally better by ethnic minority male participants than they were by ethnic minority female participants.

In conclusion, with respect to the hypotheses under consideration, the pattern of results whereby there were significant main effects for target gender and ethnicity, but no significant two-way interaction for these factors, supports the additive variant of the double jeopardy hypothesis over the multiplicative variant and over the ethnic prominence hypothesis, with the effect size for target gender (partial  $\eta^2 = .048$ ) being greater than that for ethnicity (partial  $\eta^2 = .025$ ).

Figure 1. Mean difficulty ratings by target gender and ethnicity, ethnic majority (White) vs. ethnic minorities (combined) for Analysis 1.

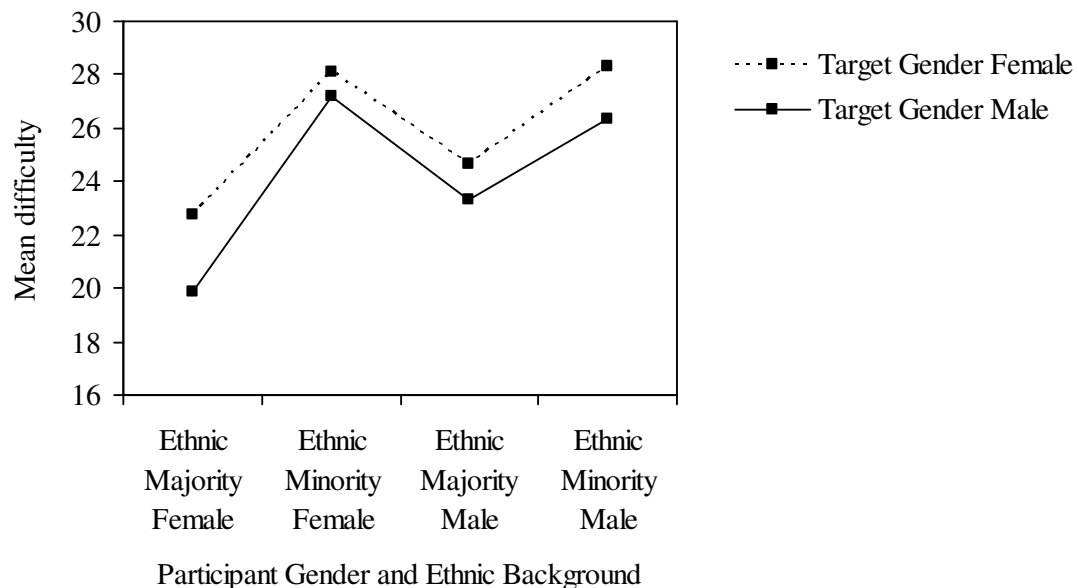


Table 3: Mean job acquisition difficulty perceived for male and female job-seekers (score totals) - by participant gender, ethnic category and socio-economic background.

Participant Gender	Socio-economic Background	Ethnic Group	Target Gender				
			Male		Female		
			<i>n/N</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Male	Managerial / Professional	White majority	154	22.27	9.06	23.94	8.44
		Minority	10	24.50	4.43	27.40	3.95
		<b>Total</b>	<b>164</b>	<b>22.40</b>	<b>8.86</b>	<b>24.15</b>	<b>8.25</b>
	Intermediate	White majority	50	25.66	9.28	26.34	8.04
		Minority	13	28.31	5.60	29.23	6.22
		<b>Total</b>	<b>63</b>	<b>26.21</b>	<b>8.68</b>	<b>26.94</b>	<b>7.74</b>
	Routine / Semi-routine	White majority	32	24.63	9.08	25.31	9.34
		Minority	7	25.29	5.96	27.86	3.98
		<b>Total</b>	<b>39</b>	<b>24.74</b>	<b>8.54</b>	<b>25.77</b>	<b>8.64</b>
	Total	White majority	236	23.31	9.19	24.63	8.51
		Minority	30	26.33	5.44	28.30	4.98
		<b>Total</b>	<b>266</b>	<b>23.65</b>	<b>8.89</b>	<b>25.05</b>	<b>8.26</b>
Female	Managerial / Professional	White majority	303	19.61	7.95	22.63	7.41
		Minority	28	29.61	7.89	28.89	7.24
		<b>Total</b>	<b>331</b>	<b>20.46</b>	<b>8.41</b>	<b>23.16</b>	<b>7.59</b>
	Intermediate	White majority	92	19.39	7.46	22.27	7.44
		Minority	26	25.31	9.74	27.19	8.61
		<b>Total</b>	<b>118</b>	<b>20.69</b>	<b>8.35</b>	<b>23.36</b>	<b>7.94</b>
	Routine / Semi-routine	White majority	63	21.56	8.51	23.90	7.89
		Minority	22	26.41	9.32	28.05	7.40
		<b>Total</b>	<b>85</b>	<b>22.81</b>	<b>8.93</b>	<b>24.98</b>	<b>7.94</b>
	Total	White majority	458	19.84	7.95	22.74	7.48
		Minority	76	27.21	9.06	28.07	7.71
		<b>Total</b>	<b>534</b>	<b>20.89</b>	<b>8.51</b>	<b>23.49</b>	<b>7.74</b>
Total	Managerial / Professional	White majority	457	20.51	8.43	23.07	7.79
		Minority	38	28.63	7.45	28.50	6.52
		<b>Total</b>	<b>495</b>	<b>21.10</b>	<b>8.60</b>	<b>23.49</b>	<b>7.83</b>
	Intermediate	White majority	142	21.60	8.65	23.70	7.87
		Minority	39	26.31	8.63	27.87	7.87
		<b>Total</b>	<b>181</b>	<b>22.61</b>	<b>8.84</b>	<b>24.60</b>	<b>8.04</b>
	Routine / Semi-routine	White majority	95	22.59	8.78	24.38	8.38
		Minority	29	26.14	8.55	28.00	6.67
		<b>Total</b>	<b>124</b>	<b>23.42</b>	<b>8.82</b>	<b>25.23</b>	<b>8.14</b>
	Total	White majority	694	21.02	8.54	23.38	7.89
		Minority	106	26.96	8.18	28.13	7.02
		<b>Total</b>	<b>800</b>	<b>21.80</b>	<b>8.73</b>	<b>24.01</b>	<b>7.94</b>

*Analysis 2: A more detailed look at ethnicity and gender differences in perceived difficulty in obtaining jobs.*

In the analysis above possible effects of socio-economic background were considered. Because of this, the need to maintain reasonable cell sizes necessitated having a simple ethnic majority / ethnic minority dichotomy for the ethnicity variable. However, since the analysis did not detect any socio-economic background effects a second analysis was conducted in which socio-economic groups were combined, allowing finer exploration of ethnicity issues. This second analysis consisted of a three-way 2 x 4 x (2) mixed ANOVA, with participant gender (male versus female) and ethnicity (Black, White, Indian, and Pakistani / Bangladeshi) as between groups factors, gender of job-seeker (male versus female) as a within groups factor, and perceived job acquisition difficulty as the dependent variable. The descriptive statistics relating to this analysis are presented in Table 4.

Reflecting the same effect as in the first analysis, this ANOVA again showed a highly significant main effect for target gender,  $F(1, 792) = 18.58, p < .01$ ; partial  $\eta^2 = .023$ , indicating a moderate effect size, and Table 4 and Figures 2 and 3 again show that (apart from Black females – see below) both genders held the belief that female job-seekers find it more difficult to get jobs. There was also a significant main effect for ethnicity,  $F(3, 792) = 10.67, p < .01$ , partial  $\eta^2 = .039$ , indicating a medium effect size. *Post hoc* Scheffé tests revealed that perceptions of difficulties among White participants were significantly lower than among those from both Black and Pakistani / Bangladeshi backgrounds,  $p < .01$ . The scores of Indian participants were not significantly different from any of the other ethnic groups; Indian and White,  $p = .17$ ; Indian and Black,  $p = .24$ ; Indian and Pakistani / Bangladeshi,  $p = .27$ ; Black and Pakistani / Bangladeshi score differences were negligible,  $p \approx 1.00$ . There was no significant main effect for participant gender  $F(1, 792) = 0.10, p = .75$ , partial  $\eta^2 < .001$ .

Apart from a two-way interaction between target gender and ethnicity (see below), none of the other two-way interactions were significant: target gender by participant gender,  $F(1,792) = 0.24, p = .63$ , partial  $\eta^2 < .001$ ; participant gender by ethnicity,  $F(3,792) = 1.13, p = .34$ , partial  $\eta^2 = .004$ . As with the first analysis, there was a significant three-way interaction between target gender, participant gender and ethnic background,  $F(3, 792) = 2.96, p = .03$ , partial  $\eta^2 = .011$ , representing a small effect size. Figures 2 and 3 show that one aspect of this interaction was that Black female participants were an exception to the pattern reflected in the main effect for target gender. Whereas male and female participants from the other ethnic groups perceived greater job acquisition difficulty for female job-seekers, Black female participants perceived it to be more difficult for Black males to get jobs than it was for Black females. This aspect of the three-way interaction explains the significant two-way interaction between target gender and ethnicity,  $F(3, 792) = 2.74, p = .04$ , partial  $\eta^2 = .010$ , which represents a small effect size. Overall group means (not tabulated) showed that the Black group perceived it as marginally harder for males to obtain jobs whereas the other groups perceived it as harder for females.

Table 4: Mean job acquisition difficulty perceived for male and female job-seekers (score totals) - by participant gender and ethnic group only.

Participant Gender	Ethnic Group	<i>n/N</i>	Target Gender			
			Male		Female	
			<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Male	White	236	23.31	9.19	24.63	8.51
	Black	8	26.75	6.76	27.86	3.94
	Indian	11	24.45	4.48	27.91	4.32
	Pakistani / Bangladeshi	11	27.91	5.20	29.00	6.45
	Total	266	23.65	8.89	25.05	8.26
Female	White	458	19.84	7.95	22.74	7.48
	Black	26	30.31	7.94	28.50	6.47
	Indian	26	23.65	7.65	25.77	8.19
	Pakistani / Bangladeshi	24	27.71	10.49	30.08	8.06
	Total	534	20.89	8.51	23.49	7.74
Total	White	694	21.02	8.54	23.38	7.89
	Black	34	29.47	7.73	28.35	5.92
	Indian	37	23.89	6.81	26.41	7.26
	Pakistani / Bangladeshi	35	27.77	9.08	29.74	7.52
	Total	800	21.80	8.73	24.01	7.94

Since, with respect to ethnicity, Analysis 2 only differed from Analysis 1 in that it used four categories of ethnicity instead of two, the conclusions that can be drawn from it are similar. Again there was support for the additive rather than the multiplicative variant of the double jeopardy hypothesis or the ethnic prominence hypothesis: there were significant main effects for target gender and ethnicity, and although for this analysis there was a two-way interaction between these factors, and there was also a three-way participant gender by target gender by ethnicity interaction, neither of these showed that it was perceived as disproportionately more difficult for ethnic minority females to obtain a job than it was for ethnic minority males. However, the observation that Black female participants saw it as harder for Black males to get jobs than it was for their own group, suggests that the double jeopardy hypothesis does not apply to Black females.

Summarising the analyses up to this point as a whole, the data showed ethnic group membership and gender of job-seeker to be salient variables in accounting for graduates' and final year students' perceptions of job acquisition difficulty. Overall, it was perceived as more difficult for females than males to acquire jobs, and ethnic minority participants perceived greater difficulty than the White majority. Participant gender and socio-economic background appeared to have little effect. When specific differences were examined, compared to the White group, Pakistani / Bangladeshi and Black participants perceived greater difficulty, but Indians did not. Although each of the two analyses identified a three-way interaction, the most interesting of these interactions was the one whereby although for members of all other ethnic groups male and female participants perceived greater job acquisition difficulty for female job-seekers, for the Black group female participants perceived it to be more difficult for Black males to get jobs than it was for themselves.

The results for Black females ran contrary to the double jeopardy hypothesis, since they perceived it as easier for themselves than for Black males to obtain jobs. This aside, the results provided support for the additive variant of the double jeopardy hypothesis over the multiplicative variant in that while it was perceived as more difficult for females in general and ethnic minorities in general to obtain jobs, there seemed to be no negative synergistic effects involving these two factors whereby it was seen as disproportionately more difficult for ethnic minority females to get jobs. The above results also supported the additive variant of the double jeopardy hypothesis over the ethnic prominence hypothesis.

#### **4.2 Ethnicity and gender differences in perceived difficulty in obtaining specific types of job**

In the above analyses we did not differentiate between different types of job. However, different patterns of ethnic and gender differences in perceptions of the difficulty of obtaining jobs may occur for different types of job.

In order to investigate this Principal Axis Factoring was performed on the own gender data for the different jobs (since an initial analysis showed that the Newspaper journalist item was factorially complex, this variable was excluded from the analysis reported. For the remaining nine variables an obliquely rotated analysis (Direct Oblimin), using Kaiser's criterion extracted two factors. The first explained around 59% of item variance and the second explained around 13%, resulting in a total of around 72% of the variance being explained by the two factors. The two factors had a correlation of .60 which justified the oblique rotation. Interpretation of factors by considering high loading items (see Table 5) led to the conclusions that Factor 1 loaded highly on jobs which were largely quite high status professional jobs involving analytical or technical expertise and which in the main do not involve working with people on a personal level, while Factor 2 loaded highly on jobs which

involve working closely with people, often on a ‘one-to-one’ basis. Thus, the first factor was labelled Professional Jobs (for the most part these tended to be more stereotypically male jobs) and the second was labelled Socially Orientated Jobs (for the most part these tended to be less stereotypically male jobs). For more on occupational stereotyping see the section on ethnicity and gender differences in occupational values. In the analyses that follow, factor scores (computed using the regression method) from this factor analysis were used as dependent variables.

Table 5: Factor pattern matrix loadings for the analysis of own gender responses for perceived difficulties in obtaining nine jobs.

	Factor 1 Professional Jobs	Factor 2 Socially Orientated Jobs	Extraction $h^2$
Architect	.94	-.11	.78
Air traffic controller	.81	-.11	.57
Accountant	.75	.04	.60
Solicitor	.63	.27	.66
Doctor	.62	.19	.56
University lecturer	.57	.27	.58
Social worker	-.10	.79	.54
Psychologist	.20	.75	.78
Physiotherapist	.21	.73	.74

A first analysis took the form of a 2 x 2 x (2) mixed ANOVA with ethnicity (White vs. Combined ethnic minorities) and gender (male vs. female) as between participants factors, and job type (professional jobs vs. socially orientated jobs) as a within participants factor. Table 6 shows the descriptive statistics associated with this analysis, with more positive factor scores indicating greater perceived difficulty.

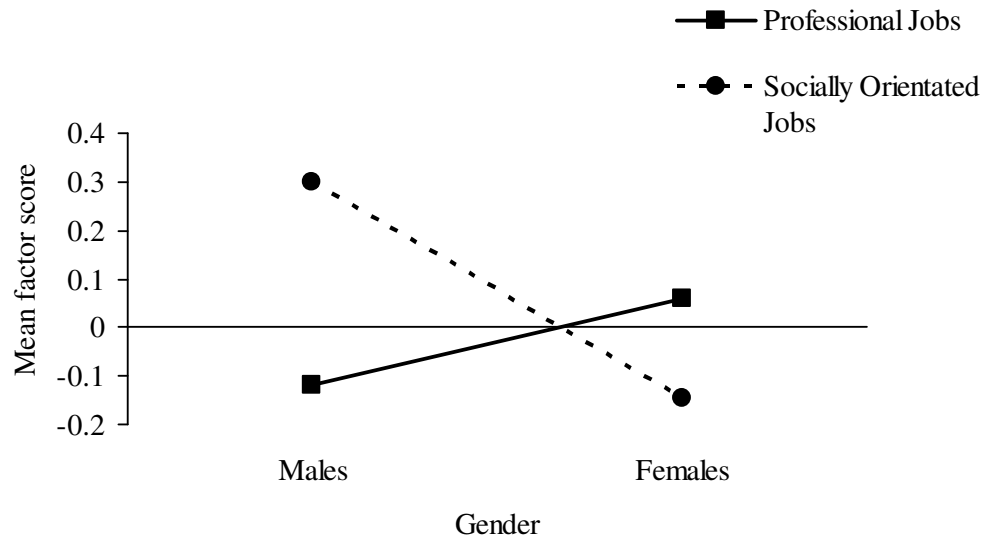
The ANOVA showed a highly significant main effect for ethnicity,  $F_{(1, 869)} = 24.77$ ,  $p < .001$ , partial  $\eta^2 = .028$ , representing a small to medium effect size. The only other significant result was a highly significant job type by gender interaction,  $F_{(1, 869)} = 66.79$ ,  $p < .001$ , partial  $\eta^2 = .071$ . Other results indicated no significant main effect for participant gender,  $F_{(1, 869)} = .527$ ,  $p = .468$ , partial  $\eta^2 = .001$ , and a marginally non-significant main effect for job type,  $F_{(1, 869)} = 5.10$ ,  $p = .051$ , with a very small effect size (partial  $\eta^2 = .007$ ), a non-significant gender by ethnicity interaction,  $F_{(1, 869)} = 1.760$ ,  $p = .490$ , partial  $\eta^2 = .002$ , a non-significant job type by ethnicity interaction,  $F_{(1, 869)} = .248$ ,  $p = .618$ , partial  $\eta^2 < .001$ , and finally a non-significant three-way interaction,  $F_{(1, 869)} = .045$ ,  $p = .832$ , partial  $\eta^2 = .001$ .

Table 6: Descriptive statistics for the ANOVA examining difference in factor scores across job type, gender and the two broad ethnic categories.

		Job Type				
		Professional		Socially Orientated		
		<i>n/N</i>	<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>
Participant Gender	Ethnic Group					
Male	White majority	249	-0.16	1.09	0.26	0.98
	Minority	35	0.19	0.81	0.59	0.83
	Total	284	-0.12	1.06	0.30	0.96
Female	White majority	501	-0.03	0.88	-0.22	0.84
	Minority	88	0.56	0.81	0.31	0.98
	Total	589	0.06	0.90	-0.15	0.89
Total	White majority	750	-0.07	0.96	-0.06	0.92
	Minority	123	0.45	0.82	0.39	0.95
	Total	873	0.00	0.96	0.00	0.94

The means in Table 6 revealed that the main effect for ethnicity was interpretable in terms of ethnic minority graduates perceiving it more difficult to obtain jobs than White graduates, as was shown in the earlier analyses. Note that the lack of a job type by ethnicity interaction showed that this finding is generalizable to both professional and socially orientated jobs. From Table 6 and Figure 2 it can be seen that the job type by gender interaction resulted from females perceiving it to be less difficult than males to obtain socially orientated jobs but more difficult than males to obtain professional jobs.

Figure 2: The gender by job type interaction.



Given that the aforementioned analysis revealed that ethnic minority graduates perceived it more difficult to obtain both types of job than did White graduates, it was useful to test whether this was true across all ethnic minority groups. Therefore a second analysis was conducted to examine perceived difficulty across job type, gender and the four separate ethnic categories under examination in the project. This analysis consisted of a three factor 4 x 2 x (2) mixed ANOVA with ethnicity (White vs. Black vs. Indian vs. Pakistani / Bangladeshi) and gender (male vs. female) as between participants factors, and job type (professional jobs vs. socially orientated jobs) as a within participants factor. The descriptive statistics for this analysis are presented in Table 7.

The ANOVA revealed two significant effects: a main effect for ethnicity,  $F_{(3, 865)} = 9.252$ ,  $p < .001$ , partial  $\eta^2 = .031$  representing a medium effect size, and a highly significant interaction between job type and gender,  $F_{(1, 865)} = 32.64$ ,  $p < .001$ , partial  $\eta^2 = .035$ . Statistics for the non-significant effects were as follows: job type main effect,  $F_{(1, 865)} = 2.06$ ,  $p = .151$ , partial  $\eta^2 = .002$ , gender main effect,  $F_{(1, 865)} = .003$ ,  $p = .953$ , partial  $\eta^2 < .001$ , gender by ethnicity interaction,  $F_{(3, 865)} = .760$ ,  $p = .517$ , partial  $\eta^2 = .003$ , job type by ethnicity interaction,  $F_{(3, 865)} = 1.495$ ,  $p = .214$ , partial  $\eta^2 = .005$ , and the three-way interaction,  $F_{(3, 865)} = .169$ ,  $p = .917$ , partial  $\eta^2 = .001$ .

*Post hoc* Scheffé tests to locate sources of the significant main effect for ethnicity revealed significant differences between White and Black participants ( $p = .004$ ), and White and Pakistani / Bangladeshi participants ( $p < .001$ ). Other ethnicity comparisons were non-significant: Indian vs. Pakistani / Bangladeshi ( $p = .201$ ); Black vs. Indian ( $p = .590$ ); White vs. Indian ( $p = .193$ ); Black vs. Pakistani / Bangladeshi ( $p = .915$ ). Figure 3 gives a visual representation of the means for the four ethnic groups across the two different job types. From this it is clear that both the Black and the Pakistani / Bangladeshi graduates perceived greater difficulty in obtaining both types of job than the White graduates did.

No comment is necessary on the job type by gender interaction since the interpretation of this was the same as that for the previous analysis.

Figure 3: Ethnicity differences across the two types of job.

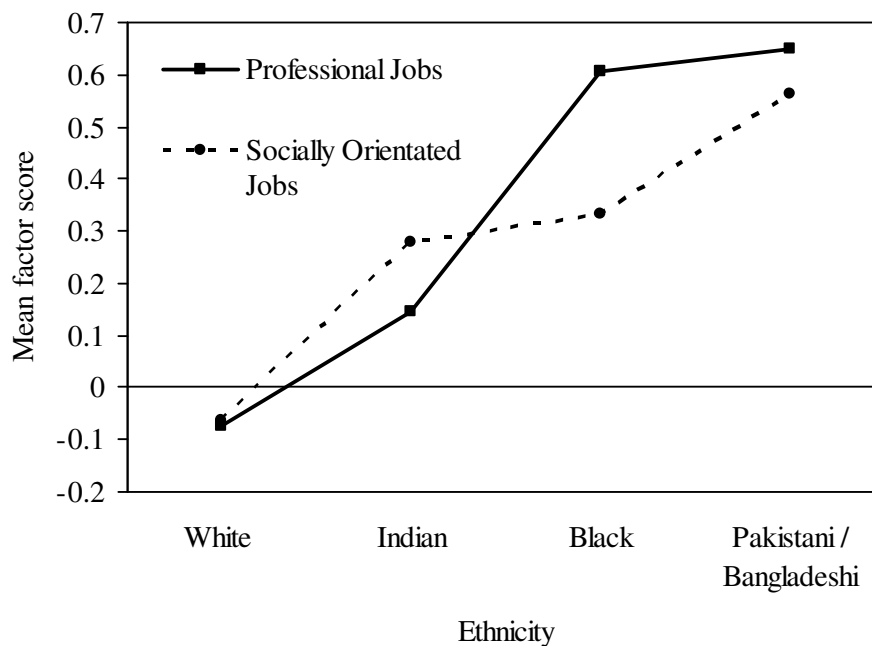


Table 7: Descriptive statistics for the ANOVA examining differences in factor scores across job type, gender and the four ethnic categories.

		<i>n/N</i>	Job Type					
			Professional		Socially Orientated			
			<i>Mean</i>	<i>SD</i>	<i>Mean</i>	<i>SD</i>		
Participant Gender	Ethnic Group							
		Male	White	249	-0.16	1.09	0.26	0.98
			Black	8	0.20	1.19	0.50	0.53
			Indian	13	-0.02	0.72	0.61	1.07
			Pakistani / Bangladeshi	14	0.38	0.62	0.62	0.75
	Total	284	-0.12	1.06	0.30	0.96		
Female	White	501	-0.03	0.88	-0.22	0.84		
	Black	30	0.71	0.68	0.29	0.95		
	Indian	32	0.22	0.84	0.14	0.92		
	Pakistani / Bangladeshi	26	0.79	0.79	0.53	1.09		
	Total	589	-0.06	0.90	-0.15	0.89		
Total	White	750	-0.07	0.96	-0.06	0.92		
	Black	38	0.61	0.82	0.33	0.88		
	Indian	45	0.15	0.81	0.28	0.98		
	Pakistani / Bangladeshi	40	0.65	0.76	0.56	0.98		
	Total	873	0.00	0.96	0.00	0.94		

Summarising, the above analyses showed two main things. First, ethnic minority graduates perceived greater difficulty in obtaining both professional jobs and socially orientated jobs than did White graduates, and further it was shown that these differences were particularly relevant as far as Black and Pakistani / Bangladeshi, but not Indian graduates were concerned. Second, differing gender perceptions about the accessibility of different job types were apparent, with females perceiving human contact jobs as easier to obtain for their gender and males perceiving these jobs as more difficult to obtain for people of their gender. On the other hand, males perceived jobs involving less personal contact and greater technical / analytical components as easier for people of their gender to obtain, with females perceiving these types of jobs as more difficult to obtain for people of their gender. While the results relating to gender are not surprising since we previously commented that the two types of job emerging from the factor analysis tended to involve stereotypically male jobs and non-stereotypically male jobs, they do show that graduate gender stereotyping of jobs exists. One caveat to be borne in mind when considering the implications of the results concerning ethnicity is that the statistical tests employed were low in power because of the generally low sample sizes.

### **4.3 Ethnicity and gender differences in occupational values**

In addition to perceptions of difficulties that might be encountered in the job market, we also assessed whether there were ethnic and gender differences in occupational values, since the existence of any such differences might provide a further explanation of demographic differences in graduate employment patterns. For example, values are important in that they are likely to influence the types of job applied for and influence people's career goals. However, before any hypotheses were forwarded we factor analysed the occupational values data to enable us to consider a manageable number of broad categories of values.

After initial Principal Axis Factoring (PAF) runs on the data for 786 participants in which certain variables were excluded for various reasons, the original 20 occupational values were reduced to 17 in a final analysis. Both Kaiser's criterion and a scree plot for this obliquely rotated (Direct Oblimin) analysis indicated the presence of four factors. The factor correlations are shown in Table 8. From the loadings in Table 9, Factor 1 (which accounted for around 19.23 % of variance) was interpreted as workplace equality, Factor 2 (around 9.13 % of variance) as status and control, Factor 3 (around 6.07 % of variance) as low stress, and Factor 4 (around 4.16 % of variance) as social concerns. Although Table 9 shows that some complex items were present, this was not considered a major problem since, rather than summing scores for variables, the data for the dependent variables in the following analyses examining gender and ethnic differences in occupational values consisted of factor scores derived using the regression method from the factor analysis. In these analyses more positive factor scores indicate that a greater degree of importance is attached to the occupational value concerned.

The substantive analyses took the form of 2 x 4 between participants ANOVAs in which gender (male vs. female) was one factor and ethnicity (White vs. Indian vs. Black vs. Pakistani / Bangladeshi) was the other factor. Four analyses were performed, one each for the factors scores resulting from each factor in the factor analysis.

Table 8: Factor correlations for the final factor analysis of the occupational values data.

	Workplace equality	Status and control	Low stress
Status and control	.08		
Low stress	.27	.21	
Social concerns	.19	.17	.31

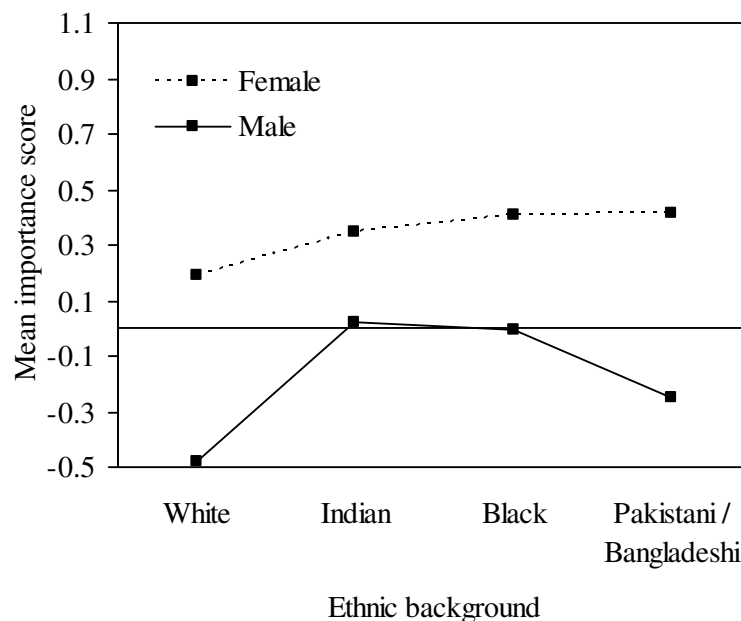
Two obvious hypotheses involving the workplace equality factor were that, given socialization processes and possible first-hand experience which would lead them to expect workplace discrimination, both females and ethnic minorities would attach greater value to workplace equality than would males and members of the White ethnic majority respectively. Other hypotheses that were forwarded all involved gender differences. These hypotheses were derived with reference to a summary of the literature on sex roles by Hartnett and Bradley (1986). Briefly, these authors argue that occupational gender differences result from the internalization of sex-role stereotypes which put pressure on people to make certain choices and behave in certain ways. For example, since dominance is a stereotypical masculine characteristic this leads to greater pressure on males to seek high status powerful positions. On the other hand, since expressiveness and warmth are stereotypically feminine characteristics this can result in females seeking socially orientated posts and posts which emphasise inter-personal communication. There is also a stereotype whereby males are expected to be full-time earners and build careers irrespective of the stresses involved, whereas females are expected to be unpaid caregivers and to value their careers less. On the assumption that, while such stereotypes are becoming increasingly detached from reality, their internalization is still influential with respect to people's occupational values, these observations led to three hypotheses. First, given that dominance is a stereotypically masculine characteristic (and that this is likely to be the case across all of the ethnic groups considered), it was hypothesised that males would be more concerned with having high status and control. Also, given that males have historically been viewed as breadwinners, and therefore might be more accepting of the idea that they may have to perform job roles which involve a certain degree of stress, it was tentatively hypothesised that males may put less premium on having a low stress job (this hypothesis was tentative since such reasoning may be thought unlikely to apply with respect to the graduate population, where females might be particularly likely to be willing to accept jobs which involve the same amount of stress as males). Finally, given the stereotype that females should value inter-personal communication more than males, it was hypothesised that females would set greater store by having jobs which involved social concerns.

Table 9: Factor pattern matrix loadings for the PAF of occupational values.

	Factor 1 Workplace equality	Factor 2 Status and control	Factor 3 Low stress	Factor 4 Social concerns	Extraction $h^2$
A low level of sexism in the workplace	.83	-.08	.03	.09	.74
A low level of racism	.76	-.07	-.03	.13	.60
A safe working environment	.65	.03	.15	-.03	.49
Top positions accessible to all	.44	.18	.06	.05	.28
High status	-.01	.78	-.13	.02	.59
High income	.04	.74	.15	-.23	.60
Managing others	.01	.45	-.16	.35	.34
Having high control over your workload	.15	.30	.24	.01	.23
A job that is easy to obtain	-.02	-.06	.64	.09	.43
Flexible working hours	.02	.06	.56	.05	.35
Low stress	.08	-.12	.53	.05	.32
High job security	.18	.09	.41	-.10	.24
A fashionable job	-.19	.32	.32	.19	.32
A job in which you are part of the community	.17	-.08	.07	.61	.47
The opportunity to work with family members or friends	-.24	.02	.25	.45	.32
A mixture of people from different ethnic groups in the occupation	.23	.03	.01	.44	.30
Socially useful	.25	-.01	.11	.43	.34

The first ANOVA was for the workplace equality factor (see Table 10 for descriptive statistics). This revealed significant main effects for both gender,  $F_{(1, 780)} = 10.39, p = .001$ , partial  $\eta^2 = .013$ , and ethnicity,  $F_{(3, 780)} = 2.71, p = .044$ , partial  $\eta^2 = .010$ , but a non-significant gender by ethnicity interaction  $F_{(3, 780)} = 0.50, p = .685$ , partial  $\eta^2 = .002$ . From Table 10 and Figure 4 it can be seen that females of all ethnic groups attached more importance to workplace equality than did males from any of the groups, this supporting the hypothesis. With respect to ethnicity the Black group valued workplace equality the most, followed by the Indian group, the Pakistani / Bangladeshi group, and finally the White group. However *post hoc* Scheffé tests for all comparisons between ethnic groups were non-significant. Although this was in conflict with the finding of a main effect for ethnicity, it should be borne in mind that the significance of this effect in the ANOVA was only marginal. It therefore appears that there was little support for the hypothesis that ethnic minority graduates would place a greater value on workplace equality than would White graduates.

Figure 4: Mean importance scores by gender and ethnicity for workplace equality.



The second ANOVA involved the status and control factor. Descriptive statistics for this analysis are shown in Table 11 and the means are depicted in Figure 5. Here, while there was no significant main effect for gender,  $F_{(1, 780)} = 0.31, p = .580$ , partial  $\eta^2 < .001$ , again there was a significant main effect for ethnicity,  $F_{(3, 780)} = 6.58, p < .001$ , partial  $\eta^2 = .025$ , and again there was a non-significant gender by ethnicity interaction,  $F_{(3, 780)} = 1.31, p = .270$ , partial  $\eta^2 = .005$ . The non-significant gender difference, then, did not support the hypothesis that males would attach greater importance to having a post which gave them high status and control (although the difference in factor scores for Black males and females was particularly consistent with such a hypothesis, the low power of the statistical test resulting from the very

low sample sizes for this group meant that the current evidence was not strong enough to conclude that this situation pertains among Black graduates). *Post hoc* Scheffé tests carried out to identify where differences between ethnic groups lay showed that the only significant difference was that between graduates from White and Pakistani / Bangladeshi backgrounds ( $p = .009$ ), with the Pakistani / Bangladeshi graduates attaching more importance to status and control. Nevertheless, for both genders the difference in scores between the White and all ethnic minority groups was in the same direction, with the ethnic minority groups attaching greater importance to status and control.

Figure 5: Mean importance scores by gender and ethnicity for status and control.

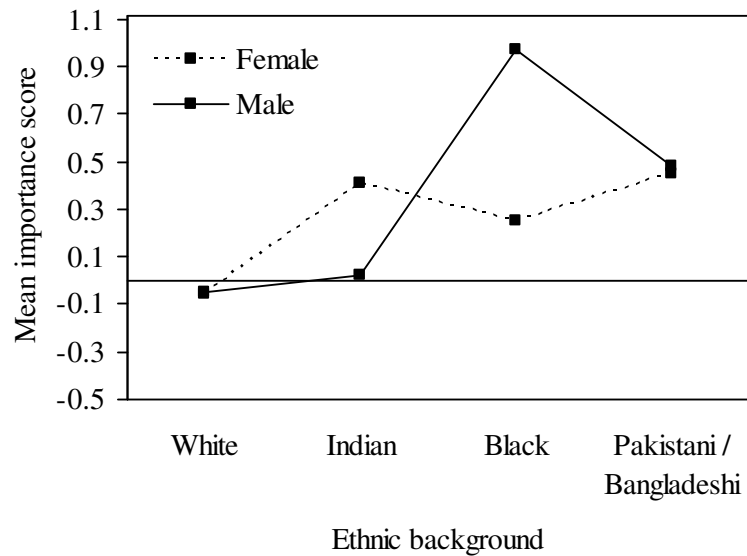


Table 10: Descriptive statistics (for factor scores) for the ANOVA examining differences in importance of workplace equality as an occupational value across gender and ethnicity.

	Gender						Totals		
	Male			Female					
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>
Ethnic Group									
White	234	-0.48	1.05	452	0.19	0.78	686	-0.04	0.94
Black	4	0.00	0.75	22	0.41	0.77	26	0.34	0.76
Indian	11	0.02	0.78	30	0.35	0.67	41	0.26	0.71
Pakistani / Bangladeshi	12	-0.25	1.00	23	0.41	0.48	35	0.19	0.76
Totals	261	-0.44	1.04	527	0.22	0.77	788	0.00	0.92

Table 11: Descriptive statistics (for factor scores) for the ANOVA examining differences in importance of status and control as an occupational value across gender and ethnicity.

	Gender						Totals		
	Male			Female					
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>
Ethnic Group									
White	234	-0.05	0.87	452	-0.06	0.88	686	-0.06	0.88
Black	4	0.97	0.84	22	0.25	0.75	26	0.36	0.79
Indian	11	0.02	0.90	30	0.41	0.78	41	0.31	0.82
Pakistani / Bangladeshi	12	0.48	0.83	23	0.45	0.95	35	0.46	0.90
Totals	261	0.01	0.88	527	0.00	0.89	788	0.00	0.89

The next analysis considered gender and ethnic differences in the importance of having a low stress job. This ANOVA revealed significant main effects for both gender,  $F_{(1, 780)} = 11.97, p = .001$ , partial  $\eta^2 = .015$ , and ethnicity,  $F_{(3, 780)} = 7.21, p < .001$ , partial  $\eta^2 = .027$ , and also a significant gender by ethnicity interaction,  $F_{(3, 780)} = 4.64, p = .003$ , partial  $\eta^2 = .018$ .

Given the significant gender by ethnicity interaction, between groups univariate ANOVAs were conducted for the two levels of the gender factor for each ethnic group separately. These analyses showed that there were significant differences between males and females for the White,  $F_{(1,684)} = 7.63, p = .006$ , partial  $\eta^2 = .011$ , and Pakistani / Bangladeshi groups,  $F_{(1,33)} = 21.24, p < .001$ , partial  $\eta^2 = .392$ , but not the Black,  $F_{(1,24)} = 0.94, p = .761$ , partial  $\eta^2 = .004$ , and Indian groups,  $F_{(1,39)} = 3.96, p = .093$ , partial  $\eta^2 = .071$ . Thus, although Table 12 and Figure 6 show that, as had been tentatively hypothesised, across all ethnic groups females attached greater importance to having a low stress occupation than males did, these differences were only significant for the White and Pakistani / Bangladeshi groups. However, it is clear from Figure 6 that part of the pattern of differences in significance across these univariate tests is as much a function of sample size as anything else, since, for example the statistics above show that the effect size for the cross-gender difference for the White sample was smaller than that for the Indian sample.

*Post hoc* Scheffé tests for ethnicity differences showed significant differences between graduates from White and Black backgrounds ( $p = .021$ ), White and Pakistani / Bangladeshi backgrounds ( $p < .001$ ), and White and Indian backgrounds ( $p = .003$ ), with the White group attaching less importance to having a low stress job in all cases.

Figure 6: Mean importance scores by gender and ethnicity for low stress as an occupational value.

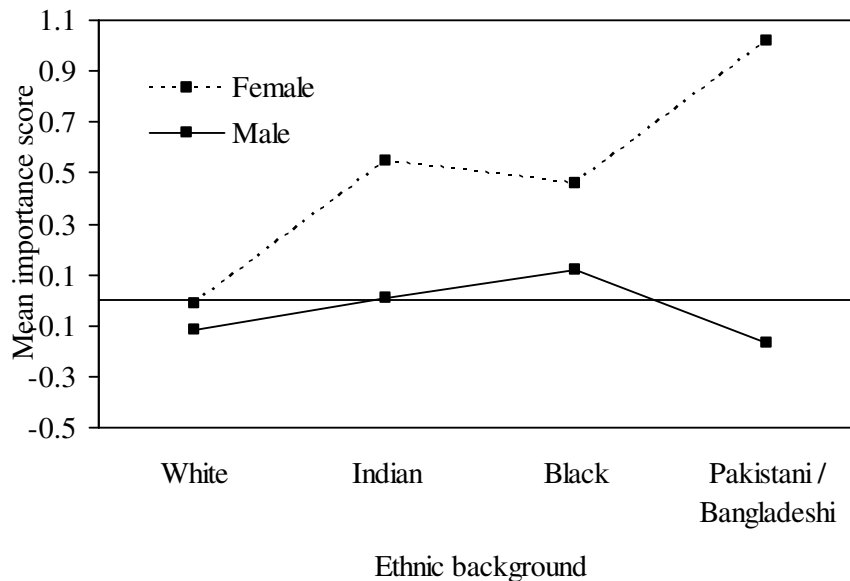


Table 12: Descriptive statistics (for factor scores) for the ANOVA examining differences in importance of the occupational value of a job having low stress across gender and ethnicity.

	Gender						Totals		
	Male			Female					
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>
Ethnic									
White Group	234	-0.19	0.81	452	-0.01	0.81	686	-0.07	0.81
Black	4	0.29	0.80	22	0.46	1.05	26	0.44	1.00
Indian	11	0.06	0.75	30	0.55	0.82	41	0.42	0.82
Pakistani / Bangladeshi	12	-0.24	0.72	23	1.02	0.79	35	0.59	0.97
Totals	261	-0.17	0.81	527	0.09	0.86	788	0.00	0.85

The final occupational values analysis involved social concerns. Here again there were significant main effects for both gender,  $F_{(1, 780)} = 6.49$ ,  $p = .011$ , partial  $\eta^2 = .008$ , and ethnicity,  $F_{(3, 780)} = 4.86$ ,  $p = .002$ , partial  $\eta^2 = .018$ , and a significant gender by ethnicity interaction,  $F_{(3, 780)} = 2.83$ ,  $p = .038$ , partial  $\eta^2 = .011$ .

Since there was a significant interaction, between groups univariate ANOVAs were again performed with gender as the independent variable for each ethnic group separately. These analyses showed that there were significant differences between males and females for the White,  $F_{(1,684)} = 15.80$ ,  $p < .001$ , partial  $\eta^2 = .023$ , and Pakistani / Bangladeshi groups,  $F_{(1,33)} = 14.44$ ,  $p = .001$ , partial  $\eta^2 = .304$ , but not the Black,  $F_{(1,24)} = 0.00$ ,  $p = .906$ , partial  $\eta^2 < .001$ , and Indian groups,  $F_{(1,39)} = 0.39$ ,  $p = .534$ , partial  $\eta^2 = .010$ . As can be seen from the means in Table 13 and Figure 7 in both instances where there was a significant difference (and indeed for the other two ethnic groups too), females attached greater value to social concerns than males did, as was hypothesised. For ethnicity, Scheffé tests showed that the main effect was attributable to the existence of significant differences between the White and Pakistani / Bangladeshi groups ( $p = .022$ ) and the White and Indian groups ( $p = .021$ ). Reference to the means shows that in both cases the occupational values of the ethnic minority groups were characterised by greater social concerns than those of the White group.

Figure 7: Mean importance score by gender and ethnicity for social concerns.

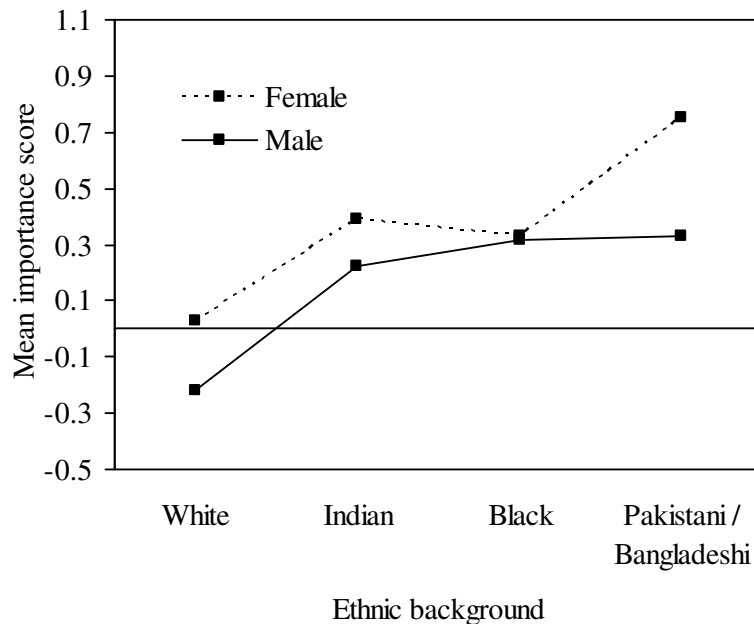


Table 13: Descriptive statistics (for factor scores) for the ANOVA examining differences in importance of social concerns as an occupational value across gender and ethnicity.

	Gender						Totals		
	Male			Female					
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>
Ethnic Group									
White	234	-0.22	0.86	452	0.03	0.77	686	-0.05	0.81
Black	4	0.32	0.36	22	0.33	0.87	26	0.33	0.81
Indian	11	0.22	0.95	30	0.39	0.73	41	0.35	0.78
Pakistani / Bangladeshi	12	-0.33	0.93	23	0.75	0.72	35	0.38	0.94
Totals	261	-0.20	0.86	527	0.10	0.78	788	0.00	0.82

Drawing together the above findings relating to occupational values, irrespective of ethnicity, there was support for the idea that females would attach greater value to equality in the workplace. There was also support for the hypothesis that females in general would attach greater importance to having a low stress occupation than males, although there was only statistically reliable evidence for such gender differences within the White and Pakistani / Bangladeshi groups, perhaps because of low power associated with small sample sizes for the tests of gender differences in some of the other ethnic groups. The hypothesis that males would attach greater importance to having a job characterised by high status and control was not supported. A final gender-related hypothesis suggesting that females would attach greater importance to jobs with a social component was upheld for the White and Pakistani / Bangladeshi groups but not the Black and Indian groups.

With respect to ethnicity, the only difference in occupational values that was hypothesised was that ethnic minorities would attach greater value to workplace equality than the White group. Although, there was a marginally significant effect of ethnicity, with the White group attaching the least importance to this occupational value as would be expected, with lower powered tests because of small ethnic minority sample sizes all *post hoc* comparisons proved non-significant. Therefore, there was no statistically reliable evidence in support of the hypothesis.

Although no such ethnic differences were hypothesised, it was found that Pakistani / Bangladeshi graduates attached greater importance to status and control than did members of the White group, and that the White group attached less importance to having a low stress occupation than members of all the other groups (although the previously mentioned differential results for gender across ethnic groups, have to be borne in mind here). Finally, the occupational values of the Pakistani / Bangladeshi and Indian groups were characterised by greater social concerns than those of the White group, although here again gender differences within ethnic groups accounted for these to some extent.

#### **4.4 Ethnicity, gender and influences on choice of job targeted**

It was useful to consider influences on choice of job targeted within the framework of the part of Fouad and Bingham's (1995) Culturally Appropriate Counselling Model (CACM) which sets out the possible cultural influences on vocationally-related behaviour. Within this part of the model family expectations are an important sphere of influence. These expectations are likely to have a lesser or greater influences depending upon whether the culture to which the job seeker's family belongs places an emphasis upon collectivism (paying attention to the values and requirements of significant others) or individualism (paying attention to one's own desires and values). Cultures of countries in Northern Europe, Scandinavia and North America, together with Australia, New Zealand and South Africa generally have an individualist orientation, while those in East and West Africa, Southern Europe (apart from Italy), South Asia and Central and South America generally have a collectivist orientation (Hofstede, e.g. 1991). Greater wealth among westernized societies, resulting in greater social and geographical mobility, is said to explain the greater individualism of these cultures since people are not as tied to family or local community in-groups. The lower mobility which exists in less wealthy societies results in greater homogeneity of behavioural norms, which are policed by the in-group (Triandis, 1994). For people from a collectivist culture, families are likely to

play an important role in influencing which career a person follows, with the person within the family who has the greatest influence being determined by the family's hierarchical structure (Brown, 2002). Thus, although Hofstede's work did not consider Caribbean countries, the career decisions of people in the UK who are of Black African, Pakistani, Bangladeshi and Indian extraction are likely to be influenced by the fact that they belong to a collectivist culture. Also, in Muslim families (e.g. the majority of Pakistani and Bangladeshi families), which are patriarchal in nature, the male head of the household is likely to have a large influence on a person's career decisions.

Before mentioning the hypotheses forwarded with respect to choice of job targeted, it is useful to consider the results of a factor analysis performed on the relevant data, since the results of this analysis determined the precise nature of the hypotheses advanced.

*A priori* reasoning suggested that five of the possible influences included on the questionnaire may fall into two groups: a first group consisting of social influences (friends, community networks and family) and a second pair consisting of geographical constraints ('choice of available jobs in the area you wish to live' and transport limitations). As can be seen from Table 14, Principal Components Analysis on data for 947<sup>4</sup> of the graduating participants on the five items confirmed these groupings, with magnitudes of influences' loadings descending in the order in which the influences were listed in the parentheses above (a component correlation of -.23 during an obliquely rotated run showed that orthogonal rotation was warranted). Altogether the analysis accounted for around 62% of item variance, with the social influences component accounting for around 32% of item variance and the geographical constraints factor for around 30%. In the analyses that follow, data for these two variable groupings took the form of component scores for each group derived from SPSS using the regression method. In addition to these scores, analyses were performed on data for the following individual influences: Careers Advisor, Personal Interest in Job, Advertisements / Publicity, Financial Situation, and Experience of / Possibility of Discrimination.

For this data, preliminary analyses of differences between the ethnic minority groups showed that there were no significant differences on any of the dependent variables<sup>5</sup>. Therefore it was possible to have a simple two level Ethnicity variable contrasting the White group with an Ethnic Minority group as one between groups variable and Gender as another between groups variable in a 2 x 2 between groups multivariate analysis of variance (MANOVA) with each of the seven possible influences as dependent variables.

While no specific hypotheses were forwarded with respect to gender, it was hypothesized that because the ethnic minority groups focused upon came from cultures emphasizing greater collectivism, then social influences and geographical constraints would loom larger in the career choices of graduating ethnic minority students than would be the case for the graduating White students who come from a more individualistic cultural background. It was also hypothesized that the graduating student's financial situation would be more important for ethnic minority graduates

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<sup>4</sup> This analysis was conducted on a larger sample of graduating students of which the current pool of students was a part. This larger sample of graduating students contained students from numerically small ethnic categories (e.g. White European, Mixed ethnicity) who were eliminated from the pool eventually considered to allow reasonably parsimonious analysis of data.

<sup>5</sup> For the tests used to integrate groups in this section, a critical level of  $p < .01$  was used given the large number of tests performed

given the generally less wealthy backgrounds of ethnic minorities in the UK (it was also reasoned that lesser wealth would constitute a second reason for ethnic minorities being under greater geographical constraints in that they would be less likely to be mobile because of financial considerations). Finally, for obvious reasons it was hypothesized that experience of discrimination or the possibility of discrimination would have greater influences on job targeted for the ethnic minority group than for the White group. No specific hypotheses were forwarded concerning ethnicity and the influences of careers advisors, personal interest in the job and advertisements/publicity. For convenience of presentation the descriptive statistics associated with the MANOVA are shown in two tables: tables 15a and 15b.

Table 14: Rotated component matrix loadings for the analysis of the data for five of the variables measuring influence on choice of job targeted.

	Factor 1	Factor 2	Extraction $h^2$
	Social influences	Geographical constraints	
Friends	.81	.02	.66
Community networks	.69	.20	.51
Family	.66	.05	.43
Choice of jobs where you want to live	.08	.86	.74
Transport limitations	.13	.85	.73

The MANOVA revealed a significant multivariate effect for Ethnicity,  $F(7,833) = 32.02$ ,  $p < .01$ , partial  $\eta^2 = .212$ , no significant main effect for Gender,  $F(8,833) = 0.959$ ,  $p = .460$ , partial  $\eta^2 = .01$ , and a significant Gender by Ethnicity interaction,  $F(7,833) = 2.50$ ,  $p = .015$ , partial  $\eta^2 = .02$ . The multivariate effect signalled univariate effects of Ethnicity upon all seven dependent variables. These are shown in Table 16 along with the other MANOVA results. The means in tables 15a and 15b show that the MANOVA results supported the hypotheses that social influences, geographical constraints, people's financial situation, and experience of / possibility of discrimination had greater influences on job targeted for the ethnic minority group than for the White group. Although no such hypotheses had been forwarded, the results also showed that careers advisors and advertisements and other publicity had a greater influence for the ethnic minority group, but that personal interest in the job had a greater influence for the White group.

Table 15a: Descriptive statistics (for factor scores or raw scores) for the MANOVA considering various factors influencing choice of target job.

	Gender of respondent								
	Male			Female			Total		
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>
<i>Social Influences</i>									
White majority	230	-.10	.93	449	.00	1.03	679	-.04	1.00
Ethnic minority	64	.26	.93	100	.17	1.05	164	.20	1.00
Total	294	-.02	.94	549	.03	1.03	843	.01	1.00
<i>Geographical Constraints</i>									
White majority	230	-.22	.93	449	.01	1.02	679	-.07	.99
Ethnic minority	64	.15	.89	100	.25	1.01	164	.21	.96
Total	294	-.14	.93	549	.05	1.02	843	-.01	.99
<i>Careers Advisor</i>									
White majority	230	1.57	.78	449	1.62	.83	679	1.60	.81
Ethnic minority	64	2.09	.97	100	1.92	.89	164	1.99	.93
Total	294	1.68	.85	549	1.68	.85	843	1.68	.85
<i>Personal Interest</i>									
White majority	230	3.81	.45	449	3.82	.47	679	3.82	.46
Ethnic minority	64	3.70	.55	100	3.69	.60	164	3.70	.58
Total	294	3.79	.48	549	3.80	.49	843	3.80	.49

Table 15b: Continuation of descriptive statistics (raw scores) for the MANOVA considering various factors influencing choice of target job.

	Gender of respondent								
	Male			Female			Total		
	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>	<i>n</i>	Mean	<i>SD</i>
<i>Advert/Publicity</i>									
White majority	230	1.89	.82	449	2.18	.93	679	2.08	.90
Ethnic minority	64	2.53	.82	100	2.27	.94	164	2.37	.90
Total	294	2.03	.86	549	2.20	.93	843	2.14	.91
<i>Financial Situation</i>									
White majority	230	2.31	1.03	449	2.52	1.00	679	2.45	1.02
Ethnic minority	64	2.86	1.02	100	2.78	.98	164	2.81	.99
Total	294	2.43	1.05	549	2.57	1.00	843	2.52	1.02
<i>Exp / Poss Discrimination</i>									
White majority	230	1.30	.65	449	1.44	.76	679	1.39	.72
Ethnic minority	64	2.55	1.04	100	2.29	1.10	164	2.39	1.08
Total	294	1.57	.91	549	1.59	.89	843	1.59	.90

Table 16 shows that it is necessary to qualify the above statements involving experience of / possibility of discrimination, and advertisements and other publicity, since the significant multivariate interaction reflected significant gender by ethnicity interactions for these two dependent variables. Independent samples *t*-tests performed to verify the nature of these interactions showed that, with respect to discrimination, there were significant differences for females across ethnicity,  $t(561) = 9.03$ ,  $p < .001$  two-tailed, and males across ethnicity,  $t(300) = 11.83$ ,  $p < .001$  two-tailed. with the ethnic minority graduates' target jobs being more influenced by discrimination as would be expected. There was also a significant gender difference for the White group,  $t(688) = 2.07$ ,  $p = .038$  two-tailed, with experience / possibility of discrimination having a greater influence for females, but the difference in means in the reverse direction for the ethnic minority group whereby experience / possibility of

discrimination was a greater influence for males was marginally non-significant,  $t(173) = 1.85, p = .066$  two-tailed.

Turning to the influence of advertisements and other publicity, the  $t$ -tests showed that there was no significant gender difference within the ethnic minority group  $t(174) = 1.87, p = .064$  two-tailed, and there was no significant difference between females differing in ethnicity,  $t(560) = 0.88, p = .380$  two-tailed. However, there were significant differences between White males and females  $t(687) = 3.74, p < .0005$  two-tailed, with advertisements having a greater influence for females, and between White males and ethnic minority males  $t(301) = 5.41, p < .001$  two-tailed, with advertisements having a greater influence for the ethnic minority males.

In a MANOVA where SES was introduced as a covariate, the results with respect to multivariate effects remained the same. However, the univariate effect of Ethnicity upon geographical constraints became non-significant,  $F(1,631) = 0.13, p = .720$ , partial  $\eta^2 < .01$ , but this appeared to be a function of the sample of respondents involved (which was diminished) rather than SES since an analysis on the same sample excluding SES yielded a similar result. The MANOVA including SES revealed a significant multivariate effect for SES,  $F(7,625) = 4.83, p < .001$ , partial  $\eta^2 = .05$ , with univariate effects existing for social influences,  $F(1,631) = 20.51, p < .001$ , partial  $\eta^2 = .03$ , geographical constraints,  $F(1,631) = 3.93, p = .048$ , partial  $\eta^2 < .01$ , and personal interest,  $F(1,631) = 8.58, p = .004$ , partial  $\eta^2 = .01$ . A one-way ANOVA on the geographical constraints variable proved to be marginally non-significant,  $F(2,633) = 2.65, p = .071$ , partial  $\eta^2 = .01$ , and therefore the Scheffé test results (none of which were significant) are not reported. Noting that the univariate result in the MANOVA for this variable was only marginally significant, this result can be attributed to the change in statistical context across the analyses employed. Subsequent to one-way ANOVAs on the other two variables, Scheffé tests showed that social influences were more prominent for the highest social class group (Managerial & Professional Occupations) compared to both the middle group (Intermediate Occupations), Mean difference = 0.24,  $p = .048$ , and the lowest group (Routine, Semi-Routine, Unemployed & Never-Worked), Mean difference = 0.41,  $p = .001$ . However, there was no significant difference between the middle and lowest groups (Mean difference = 0.17,  $p = .378$ ). This pattern of results was repeated in Scheffé tests for personal interest: this variable had more influence for the highest class group compared to both the middle group, Mean difference = 0.18,  $p = .001$ , and the lowest group, Mean difference = 0.15,  $p = .018$ . But there was no significant difference between the middle and the lowest group, Mean difference = 0.03,  $p = .898$ .

While, when SES was included, the Gender by Ethnicity interactions for experience of / possibility of discrimination,  $F(1,631) = 3.84, p = .051$ , partial  $\eta^2 = .01$ , and advertisements and other publicity,  $F(1,631) = 3.08, p = .080$ , partial  $\eta^2 = .01$ , both became marginally non-significant, the interaction for the financial situation of the respondent became marginally significant,  $F(1,631) = 4.12, p = .043$ , partial  $\eta^2 = .01$ . Follow-up  $t$ -tests showed that while there was no significant gender difference within the ethnic minority group  $t(96) = 1.15, p = .254$  two-tailed, there was a significant gender difference within the White group,  $t(536) = 2.61, p = .009$  two-tailed, with the financial situation having a greater influence for females. Also, while there was no significant difference between the White females and ethnic minority females,  $t(431) = 1.65, p = .100$  two-tailed, there was significant difference between the White males and ethnic minority males,  $t(201) = 3.48, p = .001$  two-tailed, with the financial situation having a greater influence for ethnic minority males.

Overall then, the data concerning influences on choice of job targeted showed a large number of ethnic differences in the extent to which different factors influenced choice of job targeted. As was expected, for graduating ethnic minority students, social influences, geographical constraints, people's financial situation, and experience of / possibility of discrimination had a greater influence. For this latter variable while discrimination had a greater influence for White females than for White males, the same gender difference did not apply for the ethnic minority group. Unexpectedly, personal interest in the job had a greater influence on graduating White students' choices, but careers advisors and advertisements and other publicity had a greater influence on the choices of ethnic minorities, although the findings for advertisements and other publicity were rather complex with these having a greater influence for White females than White males, and a greater influence for ethnic minority males than for White males.

Table 16: MANOVA statistics for the analysis of factors influencing choice of target job.

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	Gender			Ethnicity			Gender x Ethnicity		
	<i>F</i> (1,839)	<i>p</i>	Partial $\eta^2$	<i>F</i> (1,839)	<i>p</i>	Partial $\eta^2$	<i>F</i> (1,839)	<i>p</i>	Partial $\eta^2$
Social Influences	0.01	.936	<.001	8.74	.003	.010	1.12	.291	.001
Geographical Constraints	3.51	.061	.004	11.74	.001	.014	0.50	.482	.001
Careers Advisor	0.59	.441	.001	30.33	<.001	.035	2.40	.122	.003
Personal Interest in Job	0.01	.941	<.001	8.11	.005	.010	0.05	.821	<.001
Advertisements / Publicity	0.03	.862	<.001	20.63	<.001	.024	11.74	.001	.014
Financial Situation	0.54	.462	.001	19.99	<.001	.023	2.60	.107	.003
Experience of / Possibility of Discrimination	0.75	.387	.001	211.36	.001	.201	7.28	.007	.009

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## Section Five: General Conclusions

### 5.1 Ethnicity and gender differences in perceptions of difficulty in obtaining jobs

From the analyses presented in this report it can be concluded that, overall, graduating students perceive it as more difficult for females than males to acquire jobs, and that graduating members of ethnic minorities perceive greater difficulty than members of the White majority. These perceptions seem to hold irrespective of the gender or socio-economic background of the graduating students whose responses are obtained. However, there appear to be some differences among ethnic minorities, with the extent of differences whereby Pakistani / Bangladeshi and Black graduates perceive greater difficulty than White graduates, being greater than the extent to which Indian graduates perceive greater difficulty. Apart from Black females, who perceived it as easier for themselves than for Black males to obtain jobs and for whom the double jeopardy hypothesis did not apply at all, there was general support for the additive rather than the multiplicative variant of the Double Jeopardy Hypothesis since although it was perceived as more difficult for females in general and ethnic minorities in general to obtain jobs, it was not seen as disproportionately more difficult for ethnic minority females to obtain jobs. Overall, there appeared to be little support for the ethnic prominence hypothesis, which contends that perceptions of discrimination on the basis of ethnicity are more salient than perceptions of discrimination on the basis of gender.

From an applied perspective, the present results suggest that the perceptions of graduating members of ethnic minorities reflect the reality whereby members of such groups are likely to find obtaining suitable jobs more difficult than the White majority. It is possible that some of the coping strategies used by people who perceive discrimination may have negative personal and societal implications. For example, the rejection identification model proposes that disadvantaged group members respond to discriminatory rejection by increasing identification with their group (Schmitt & Branscombe, 2002). If this were true, this might lead people to restrict their job-seeking to within their own ethnic community, thereby restricting the range of jobs targeted. This possibility is particularly important since, although towards the turn of the millennium there had been some alleviation of the situation whereby members of the Caribbean and South Asian communities which first came to Britain after the second world war were largely employed in low status manual jobs, in general, members of these communities still occupy a disproportionate number of lower status jobs (Modood, 1998b). Therefore job opportunities that ethnic minority job-seekers access via their social networks will also have a disproportionate tendency to be low status. Hence, if ethnic minorities have a greater tendency to use social networks as a means of job-seeking this may result in a cycle which locks some of these members of society into lower status jobs. Also, at a societal level, any such behaviour can only have negative effects for the degree to which ethnic majority and ethnic minority communities become integrated. We consider whether data gathered by the present project provides evidence that such a situation exists in our companion report (Charlton *et al.*, 2006).

When jobs were split into two different types on the basis of a factor analysis, it was shown that gender stereotyping of jobs existed among the graduates, with a factor loading highly upon professional mainly non-person-centred (and generally stereotypically male) jobs such as architect, air traffic controller, accountant, solicitor,

doctor, and university lecturer being seen to be representative of jobs that were more difficult to obtain by females and a factor loading highly upon more person-centred (and generally stereotypically female) jobs such as social worker, psychologist, and physiotherapist being seen to be representative of jobs that were more difficult to obtain by males. If people tend to apply for the types of job that they perceive to be more easily obtainable, this suggests that job segregation by gender is likely to continue.

## **5.2 Ethnicity and gender differences in occupational values.**

The study revealed a number of differences in occupational values. Thus, there was support for the idea that females would attach greater value to equality in the workplace because socialization processes and possible first-hand experience leads them to expect workplace discrimination. This implies that if employers want to be able to select from as wide as possible pool of female graduate talent they should ensure that equal opportunities policies are implemented, that potentially discriminatory practices within their organisation are eliminated, and that the fact that both of these things are characteristics of their organisation are made clear in recruitment literature and during the recruitment process.

Analysis of variance provided some marginally significant evidence favourable to the idea that, similar to females, because socialization processes and personal experience can lead to expectations of workplace discrimination, graduating ethnic minority students attach greater value to workplace equality than graduating White students. However, follow-up analyses (which were low in power) were unable to detect any significant differences between the different ethnic groups, and therefore it must be concluded that there is only weak evidence that ethnic minority graduates attach particular importance to equality in the workplace. More detailed research into the perceptions of ethnic minorities in this area would be useful, one possibility being that ethnic minority graduates enjoy greater self-efficacy than members of the wider UK ethnic minority population and that this greater self-efficacy results in a belief that they can, to some extent, overcome workplace discrimination.

The notion that females in general would attach greater importance to having a low stress occupation than males was also supported, although here the evidence for such a gender difference was only reliable for the White and Pakistani / Bangladeshi groups. There was also a main effect for ethnicity whereby the White group as a whole attached less importance to having a low stress occupation than members of all the other groups. This implies that avoidance of higher stress occupations might be one reason for problems experienced in obtaining employment on leaving higher education on the part of some members of ethnic minority groups.

While the hypothesis relating to the above observation that females attached greater value to having a low stress job was founded on the historical stereotype of males being the household breadwinner in all the cultural groups under examination, such an interpretation would be at odds with the finding of a non-significant gender difference with respect to the value of status and control: the hypothesis that males would attach greater importance to this occupational value was not supported. A final gender-related hypothesis was that, because they value inter-personal communication more highly, females would attach greater importance to jobs with a social component. This idea was upheld for two of the ethnic groups (the White and

Pakistani / Bangladeshi groups) but not the others (the Black and Indian groups). It therefore seems as though, at least with respect to occupational values, the stereotype whereby females are generally considered to be more socially orientated than males does not apply across all ethnic groups.

The above gender by ethnicity interaction did not fully explain ethnic differences in the extent to which importance was attached to social issues: the occupational values of both male and female members of the Pakistani / Bangladeshi and Indian groups were characterised by greater social concerns than those of the White group. These observations may be related to differences in the extent to which members of the former two ethnic groups come from collectivist cultures, valuing social interaction more, and members of the latter group come from individualist cultures which place less value on social interaction.

Finally, although no ethnic differences in the importance attached to status and control were hypothesised, it was found that Pakistani / Bangladeshi graduates attached greater importance to this occupational value than did the White group. One possible interpretation of this result is that it reflects the desire of graduates from this ethnic minority group to rise from the generally low socio-economic status position occupied by their ethnic group in the UK. Future research on this issue would be useful. In particular, if the present result was found to be replicable and the foregoing explanation was found to be tenable, it would be important to consider the reasons why desire for self-advancement is particularly strong for Pakistani / Bangladeshi graduates.

### **5.3 Differential influences on choice of job targeted across ethnicity and gender.**

There were a large number of ethnic differences in the extent to which different factors influenced choice of job targeted. The fact that social influences were more influential for ethnic minority graduates supported the idea that the relatively more individualist and collectivist cultures from which White and ethnic minority graduates respectively come may have influenced the career choices made by members of these groups, with the choices of ethnic minority graduates being more likely to be influenced by familial considerations.

The fact that geographical constraints had a greater influence on the job choices of ethnic minority graduates was also consistent with the idea that the more collectivist nature of these groups' cultures had an influence upon their job choices. But the fact that they were subject to greater geographical constraints may also be linked to the generally less favourable financial position of UK ethnic minorities relative to the White majority, in that ethnic minority graduates may be less able to afford a car to commute or may feel less able to take on the financial burdens of relocation. Indeed, as expected, there was a difference whereby graduating ethnic minority students rated financial considerations as being more important in their choices than White students. Thus, in seeking to redress ethnic imbalances in their staff, employers might wish to take into account the notion that financial incentives may have a differential impact across ethnic minority and majority groups.

A final set of observations worth commenting upon are those concerning the influence of possible discrimination on choice of job targeted. Here, as expected, ethnic minority graduates' choices of jobs to target were more influenced by the experience of, or possibility of, discrimination than was the case for the White group. Therefore an important issue for employers who are seeking to redress ethnic

imbalances in their workforce is to ensure that their recruitment policies and working practices are neither directly nor indirectly discriminatory and that this is signalled to potential ethnic minority job applicants. The same also applies with respect to sex discrimination since the possibility of discrimination was shown to be more influential in job choice for White females than for males of this group. These points are likely to be particularly important for employers in fields of employment which might be widely assumed by ethnic minorities and women to be traditionally more prone to engage in discriminatory practices.

#### **5.4 Ethnicity and gender differences in job-seeking behaviours and outcomes.**

In ending, it is useful to point out that, as mentioned previously, having considered ethnic and gender differences with respect to a number of employment related factors in this report, in a companion report we go on to consider the influence that some of these factors may have upon graduate job-seeking behaviours and outcomes (Charlton *et al.*, 2006).

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