The Impact of Spatial Segregation on the Employment Outcomes Amongst Bangladeshi Men and Women in England and Wales

by Nabil Khattab, Ron Johnston, Ibrahim Sirkeci and Tariq Modood
University of Bristol; University of Bristol; European Business School London; University of Bristol

Abstract

Studies of ethnic residential segregation and its impacts on labour market performance have reported both negative and positive outcomes for different groups in different geographies. We revisit the issue with a particular focus on the Bangladeshi minority in England and Wales using both quantitative and qualitative data to explore the impact of living in segregated areas upon their labour market outcomes. We analyse the 2001 UK Census Controlled Access Microdata Sample (CAMS) and a subset (34 Bangladeshis) of qualitative data collected through in-depth interviews with 73 men and women from Indian, Bangladeshi and Black Caribbean backgrounds in 2005. Our quantitative analysis does show a clear negative impact of living in segregated areas (i.e. Bangladeshi ethnic enclaves) on unemployment, economic inactivity and on the occupational returns on education. Qualitative material suggests that cultural and practical reasons very often lead Bangladeshis, including highly qualified persons, to live in enclaves or nearby. Also, ethnic businesses in enclaves appear to offer jobs to many Bangladeshi men and women, but these jobs are normally low-paid that does not require high qualifications increasing the risk of lower occupational returns further.

Introduction

1.1 In this paper we explore the impact of residential segregation on employment through analysing the experience of the Bangladeshi ethnic minority in England and Wales. We argue that living in ethnically highly segregated areas (like the Bangladeshis in the UK) does not have to result in a negative impact upon the employment prospects of men and women; especially if the specific groups under study benefits from an ethnically sheltered economy that offers immigrants (or members of the ethnic group) alternative channels of economic success (Portes 1987; Wilson and Portes 1980).

1.2 Some studies have revealed that formation of ethnic economy (enclaves) improves employment outcomes for co-ethnics. Portes and Manning (2001) concluded that concentration into ethnic enclaves promoted job opportunities and facilitated economic success in both US east coast Jewish and west coast Japanese enclaves, arguing that the conditions which support the creation of a prosperous enclave economy include protected access to labour and markets, informal sources of credit, and business information (Portes and Manning 2001: 572), all of which facilitate ethnic businesses established by enclave residents (Waldinger et al, 1990). Moreover, enclave concentration seems also to have promoted employment opportunities among Chinese in the USA (Zhou 2005) though some other studies suggest that was not the case for Blacks (Topa, 2001; Conley and Topa, 2002; Bayer et al., 2005). Similar findings have been reported for the UK (e.g. Barrett et al, 1996), although in the British case too one finds much more evidence of ethnic entrepreneurship in some communities, notably south Asian, than others, notably Black Caribbean and African (see also Dana, 2007). Perhaps one reason for the observed positive effects of an enclave economy is policies encouraging business migrants in some countries including Australia, Canada and New Zealand, where preparedness for investment in their country of destination is a prerequisite for admission in special immigration categories (Kloostermann and Rath, 2003: Hiebert and Ley, 2006). Such policies have attracted many East Asian migrants to those countries (Hiebert, 2002; Ley, 2003).

1.3 In this paper we combine quantitative data obtained from the 2001 UK census with qualitative data

generated from in-depth interviews with a sample of 34 Bangladeshis men and women. The combination of quantitative and qualitative data would provide a better understanding of the question and group under study by allowing us to examine the employment trajectories with insights from the community. In what follows we briefly describe the context of the study.

The Bangladeshi community in Britain

2.1 The majority of the Bangladeshi population originate from the Sylhet district in the north east of Bangladesh. The first generation of migrants began before the 1960s and early 1970s (before Bangladesh broke away from Pakistan) but increased significantly in the 1980s due to family unification (Eade 1994). In the 2001 census those claiming Bangladeshi ethnic identity accounted for 283,000 people, considerably smaller than the Indian and Pakistani populations.

2.2 Residentially, the Bangladeshi community is highly concentrated in four main regions – North East, North West, West Midlands and Greater London – with approximately 55 per cent of all Bangladeshis in England living in London, particularly the borough of Tower Hamlets (Eade 1994; Ansari 2002). A large number of community services and local centres have been established within Tower Hamlets (and other places) by and for the Bangladeshi community. These not only offer services and support for the local communities but also provide employment and job opportunities. Bangladeshis, overall, are concentrated in few economic niches, with over 40 per cent of those in the labour market employed in the local garment and food industries, either as restaurant owners, chefs and waiters or in ethnic retail and wholesale premises (Eade 1990; Eade 1994; Ghaill and Haywood 2005). Although many of the restaurants (commonly termed 'Indian') are located outside the traditional Bangladeshi areas, very often in areas where there are almost no Bangladeshis, these remain part of the unique Bangladeshi economy (enclave economy), but out with the Bangladeshi main residential area since they are operated by individuals recruited from within the Bangladeshi residential areas (community).

2.3 Within the Bangladeshi ethnic economy, the main economic sector, the garment industry, is male dominated and the jobs often require only relatively low levels of education. Thus the availability of such local jobs within this industry helps Bangladeshi men with low qualifications to avoid unemployment and any discrimination likely to be faced in the general labour market. However, highly-qualified males are more likely to seek jobs outside the enclave economy and outside the residential area, should they wish to increase the returns on their qualifications as well as avoid unemployment (Tackey, Casebourne et al. 2006).

2.4 Hence, we anticipate that living in the Bangladeshi segregated areas would have offered employment opportunities for co-ethnic women who 'traditionally' tend to work within the community, and for co-ethnic men with low levels of education. At the same time, for highly qualified men, seeking jobs inside the enclave might restrict their employment opportunities and subsequently diminish the returns on qualifications.

Data and Methods

3.1 We use both quantitative and qualitative data to explore the impact of living in an ethnic enclave upon labour market outcomes among Bangladeshi men and women. The quantitative analysis is based on a special 2001 UK Census dataset known as the Controlled Access Microdata Sample (CAMS). This has been prepared by the Office of National Statistics (ONS) and contains both full individual details on occupation and industry plus other variables such as country of birth, housing, education, health, ethnicity and religion and also information on the area in which the individuals live, down to the Super Output Area level (SOA), which we use to characterise the areas within which the individuals in the study lived.[1] There are 1,138 neighbourhoods or 'tracts', the name used by the study team who created these statistical areas, in England and Wales with average populations of about 45,000 (SSIRG, 2004). For each neighbourhood we have included two indicators of their characteristics; the multiple deprivation score (IMD) and an index of residential segregation for Bangladeshis measured by the modified index of isolation of Bangladeshis (BMII) (for details please see below).

3.2 The CAMS sample comprises 3 per cent, and is representative, of the total population of the UK. To avoid data incompatibility (SOAs were not defined for Scotland), we have restricted our analysis to England and Wales including individuals of working age (16 to 64 for men and 16 to 59 for women, excluding all those in full time education). Later on due to software restrictions, however, we had to further limit our analysis to a 25 per cent sub-sample.[2] The final working sample included 129,989 white British and 629 Bangladeshis (428 Bangladeshi men and 201 Bangladeshi women); members of other ethnic groups are excluded, thereby allowing a clear contrast between Bangladeshis and their 'host society'.

3.3 To analyse these data we use multilevel multinomial logistic regression modelling methods. This multilevel technique allows us to analyse the simultaneous impact of individual and neighbourhood factors without needing to aggregate the individual-level factors or disaggregate the neighbourhood-level factors as in ordinary least-squares regression models (Hox 2002). We have used the MLwiN software to run these multilevel models for unemployment and economic inactivity and for occupational returns to education (Rasbash, Steel et al. 2004). The multinomial logistic regression is used due to the categorical nature of the output variable (dependent). In cases where the output variable is categorical (more than 2 categories) rather than quantitative and continues such as *economic activity* the adequate regression technique to be used is the multinomial logistic model.

Variables used in the quantitative analysis

Dependent variables

3.4 *Economic activity:* We have used the question in the 2001 UK Census on economic activity to derive our first dependent variable which includes three categories (people in employment, unemployed people, and economically inactive people). We have recoded all categories of people in employment – i.e. full-time employees, part-time employees, self-employed and employers – into one category. Unemployed people (those who are temporarily out of work but actively seeking employment) have been recoded into a second category, and people who are out of work but do not actively seek employment have been recoded into a third category. Thus, economic activity has been coded as 1 for people in employment, 2 for unemployed people, and 3 for economically inactive. The first category (people in employment) has been used as the reference group.

3.5 *Occupational returns on qualifications:* In this paper we draw upon previous studies to measure the occupational returns on qualifications (Halaby 1994; C. Alpin and Walsh 1998). We measure the gap between achieved educational levels and the skill levels required for various occupations. This provides an index of the degree of matching/mis-matching between individuals' potential and employment by combining three variables obtained from the 2001 Census of England and Wales: level of *highest educational qualification*; *occupational level* (as defined by the International Standard Classification of Occupations – ISCO88); and *economic activity* (in the week preceding the census date in April 2001). In this measure the focus is on the relationship between the qualification level and the skill level required to fill a specific job rather than the job itself. In other words, we are interested in the occupational returns on education and to what extent people (Bangladeshis in this case) get jobs that match their qualifications, indicating the fairness/unfairness of the process of job allocation in the UK. This measure is not ideal (as suggested by Halaby 1994), but it is the best measure available that allows us to examine the outcome of the process through which people convert their educational achievement into occupational outcomes. Additionally, the measure helps to explore how the relationship between qualification and jobs is shaped by other independent factors such as residential segregation and deprivation levels at the area level and the ethnic background, age, gender and marital status at the individual level. In this measure, we have included only people in employment, whereas unemployed and economically inactive people have been excluded from the analysis.

3.6 We have grouped the nine occupational categories included in the ISCO88 one-digit classification of occupations (see Hoffmann and Scott, 1993) into 4 categories using skill levels as identified in ISCO88. The required educational levels for each have been identified using the Office of National Statistics (ONS 2004) classification of qualifications. We then have obtained a score indicating the occupational returns level for each individual by subtracting her/his qualification score from the occupational skills level.

Table 1. ISCO 88 Major occupational groups and skill levels required by qualification levels

Major occupational group	Skill level	Qualification level
Legislators, senior officials and managers; Professionals	Level 4	Level 4/5 (degree+)
Technicians and associate professionals	Level 3	Level 3 (A/AS level)
Clerks; Service workers, shop and market workers; Skilled agricultural and fishery workers; Craft and related trades workers; Plant and machine operators and assemblers	Level 2	Level 2 (O level, GCSE grade A-C)
Elementary occupations	Elementary (1)	Level 1 (GCSE grade D-G)

3.7 Using the two scales of skill levels in Table 1, we then use the formula

$$RL_i = LO_i - LQ_i \quad (1)$$

where RL_i is the level of occupational returns for individual $_i$ return level, LO_i is level of occupational skills and LQ_i is the skill level corresponding to qualification. The scores obtained can range from +4 to –3, where 0 indicates perfect match between the skill level required for the occupational category and skills obtained through education. In other words, the individual's skills gained in education match those required for the occupational category – e.g. a person with a degree who is in a professional post, or one with only minimal qualifications who is in an elementary occupation. A positive score indicates under-qualification, with somebody lacking the skills level required for the obtained occupation; a negative score indicates over-qualification (such as a graduate in an elementary occupation). As only a few individuals in our sample have scores of either +4 or -3, we have combined these with the +3 and -2 scores respectively to create a six-point scale for labour market outcomes (from +3 to -2). In the final analysis for the occupational returns on qualifications, we used a multinomial multilevel model contrasting the likelihood of being under-qualified with being in the match category. The third category includes all other categories within the scale; hence it is not reported here.

Independent variables (level-1)

3.8 *Marital status* coded 1 for married (or living with partner) and 0 for unmarried persons.

Age is a continuous variable from 16-64 for males and 16-59 for females.
Ethnicity is recoded into two categories with Bangladeshis coded 1 and White-British 0. Other ethnic groups have not been included into the analysis.
Place of birth is constructed on the country of birth variable provided in the 2001 UK Census data and resulted in two categories; those born in the UK (1), and those born outside the UK (0).
Qualifications are recoded into three categories with no qualifications as the lowest category and degree or beyond as the highest level. The levels in between these two have been recoded into the category of others including O-levels, GCSE and A/AS-levels.

Independent variables (level-2)

3.9 Two variables have been defined at the tract or neighbourhood level: Index of Multiple Deprivation (IMD) and the Modified Index of Isolation for Bangladeshis (BMII).

- *IMD:*this index ranks neighbourhoods (tracts) from the most deprived to the most affluent, with a high score indicating the most deprived areas. The IMD score for each tract (neighbourhood) is the average for all SOAs in the tract. (Full details on how the index of multiple deprivation has been calculated are in Office of the Deputy Prime Minister - ODPM 2004).
-
- *BMII:* This index ranks neighbourhoods (tracts) from the most segregated to the least segregated. It has been used as formulated by Johnston, Poulsen, and Forrest (2004). The BMII indicates a measure of the probability of a member of the Bangladeshi group being studied encountering another member of that ethnic group at random: the greater the concentration of the group's members into relatively exclusive residential areas, the greater the index, which is scaled to take into account the groups' relative size. For the equations used to calculate the BMII see Johnston et al. (2004: 556).

3.10 We have calculated the BMII scores at the neighbourhood (tract) level to reflect the level of segregation between Bangladeshis and the white majority. In other words, we have used the neighbourhood (tract) level to calculate the BMII which has been used as a level-1 factor because the model has not converged when the factor was included at level-2 due to producing too small cell sizes, especially for the Bangladeshi categories. Thus, in the interpretation of the variable we assume that the impact of this variable is the same for each neighbourhood (Rasbash, et al. 2004: 116). For measuring the impact of the Bangladeshi enclave, we introduce an interaction term to this effect, please see below.

Interaction terms

3.11 We have defined two interaction terms between ethnicity (Bangladeshis) and IMD on the one hand and between ethnicity (Bangladeshis) and BMII on the other. These interaction terms have been used in order to explore whether the impact of BMII and IMD on Bangladeshis is greater than on White-British living in the same area – i.e. whether Bangladeshis living inside Bangladeshi enclaves and inside more deprived areas were more likely to be unemployed than their White-British counterparts. They have been entered into the models as Level-1 factors. As above, in the interpretation of these interaction terms we have to assume that the impact (if we find one) of deprivation and segregation is not different across neighbourhoods (Rasbash, et al. 2004: 116). It is worth noting here that the interaction between being Bangladeshi and the BMII is a direct measure of the intensity of a Bangladeshi enclave.

Qualitative analysis

3.12 Our qualitative data were collected through November 2005 to March 2006 as part of a larger study of education and employment among members of ethnic minority groups, and involved in-depth interviews with 73 men and women from three ethnic backgrounds: Indians, Bangladeshis and Black Caribbeans. We use the thirty-four semi-structured interviews conducted with Bangladeshis in three main locations: Manchester, London and Bristol. The first two locations were selected on the basis of data showing high concentrations of minorities (including Bangladeshis) there; the third location was selected because Bristol is a city with few ethnic enclaves. The interview brief covered a range of issues such as education, employment experience and place of residence. The purpose of these interviews was to explore the employment experience of people living inside the enclave and reveal whether these enclaves restrict or facilitate the labour market outcomes of their residents. The transcribed data were analysed with special software for qualitative analysis (NVivo). Most of the Bangladeshi interviewees were in their 20s and early 30s. Almost 60% of the interviewees were women and most were economically active working mainly in non-manual jobs either within the Bangladeshi enclaves in London or in Bristol. To represent a variety of occupational profiles gathered among Bangladeshis, we have deliberately selected cases including unemployed, low skilled, and professionals to present in this paper. Most of the respondents were selected using local community organisations and a snowball method. We first contacted local community organisations in the target areas asking them to introduce us to potential respondents. These contacts have resulted in a number of interviews. At a later stage, we have used the first poll of interviewees to reach other respondents.

Employment of Bangladeshis in segregated areas: a multilevel model of occupational returns to education

4.1 Tables 2-4 provide descriptive analyses of the qualification and employment profiles of Bangladeshis compared to those for White British. The qualification profiles for the two groups show considerable differences, with the White British performance very different from the Bangladeshis'. While just under a quarter of all White British men and women have no formal qualifications, the equivalent percentages

among Bangladeshis are 41 for men and 49 for women. There are substantial differences at the other end of the scale too. About one-fifth of White British men and women hold higher qualifications, compared to 17 per cent of Bangladeshi men and just 11 per cent of Bangladeshi women. In comparison to the White British, Bangladeshis are disadvantaged in terms of qualifications, with Bangladeshi women being the most disadvantaged in the labour market.

Table 2. Educational qualifications by group and gender (%), 2001 England and Wales – (Age: 16-59)

Ethnic groups	No qualifications	level 1	level 2	level 3	level 4/5	N
W. British men	24	22	23	10	22	375386
W. British women	24	21	25	10	20	393987
Bangladeshi men	41	16	16	9	17	2300
Bangladeshi women	49	14	17	9	11	2378

4.2 Bangladeshis also differ from the White British in their employment profile (Table 3). An extremely high proportion of Bangladeshi women (68 per cent) reported being economically inactive. Previous studies have also shown that Bangladeshi women are much less likely to participate in the labour market than their White British counterparts, largely because of a lack of qualifications, poor language skills and family structure (Dale 2002). Table 3 shows that Bangladeshi men are also less likely to be economically active and tend to experience higher rates of unemployment than white British men: 23 per cent of all Bangladeshi men reported being economically inactive and 15 per cent unemployed, compared to 13 and 5 respectively among white British men.

Table 3. Employment status by group and gender (%), 2001 England and Wales – (Age: 16-59)

Ethnic groups	Unemployed	Employee	Self-employed	Economically inactive	N
W. British men	5	69	14	13	399542
W. British women	3	66	5	26	399346
Bangladeshi men	15	50	12	23	2251
Bangladeshi women	8	23	1	68	2106

4.3 Table 4 presents summary data on the occupational returns on education for men and women in both groups in three categories: over-qualified (i.e. skills gained by education out-score those required for occupational category), matched, and under-qualified. Bangladeshi men and women are over-represented within the over-qualified category relative to White British (differences of 5 and 11 percentage points respectively) suggesting that they are disadvantaged in converting their qualifications into employment outcomes relative to White British men and women. In terms of being in the under-qualified category, Bangladeshi women are clearly under-represented (36%) within this category relative to White British women (47%), whereas Bangladeshi men are over-represented within this category (60%) in comparison to White British men (54%).

Table 4. Returns to qualification among employed Bangladeshis and White British men and women aged 16-59 (%), 2001 England and Wales (employed only, the full sample)

Ethnic groups	Over-qualified	Match	Under-qualified	N
W. British men	14	31	54	208,929
W. British women	19	33	47	211,098
Bangladeshi men	19	21	60	1211
Bangladeshi women	30	35	36	447

4.4 This suggests that over half of the members of these groups have jobs that require a level of qualification that they do not have. The formal highest qualification used in measuring the occupational return on education does not take into account previous experience and on the job training, which is a common practice in many work places. It is quite possible that employers take previous experience in addition to the formal highest qualification to match jobs to applicants. Likewise, employers may use on the job training for a better match and in order to make sure that the applicant's skills and qualification are up to the level required by the job. Unfortunately, we could not control for previous experience and on the job training due to lack of data. The relatively high percentage of Bangladeshi men within the under-qualified category might also be explained by the nature of the employment sectors within Bangladeshi enclaves, many of the establishments created by Bangladeshis, i.e., the local garment industry, ethnic retail and wholesale shops, cafes and restaurants. It is quite possible that owners and operators of these

businesses have answered the question on employment in the census choosing titles of "manager" or "supervisor", while holding low levels of education. It is also possible that low and high status non-manual jobs available within the Bangladeshi residential areas (i.e., jobs in community centres) are filled by Bangladeshi workers who do not possess the required level of qualification. This pattern is supported by the qualitative data presented later on in this paper.

4.5 Table 5 presents results from the multilevel multinomial analyses of unemployment and economic inactivity. The coefficients there and in Table 6 are odds-ratios and not log-odds so the coefficients should be read as follows: a coefficient less than 1 shows that the relevant independent variable has a negative impact on the likelihood of being in the relevant category whereas a coefficient greater than 1 indicates a positive impact on the likelihood of being in that category. Thus, for example, the coefficient of 4.76 in the first column of Table 5 indicates that Bangladeshi men were much more likely to be unemployed than their White British counterparts (i.e. holding all other variables constant) whereas the coefficient of 0.31 indicates that married people are much less likely than the unmarried to be unemployed.

4.6 Two multinomial models are reported in Table 5 – one each for males and females. In both, the odds-ratio of being either unemployed (the first column for each model) or economically inactive (the second column) is contrasted with that of being in employment. Among the variables representing individual characteristics, the coefficients for marital status, age and education are statistically significant at the 0.05 level or better in all four of the comparisons. Among males, married people were less likely to be either unemployed or inactive compared to those who were unmarried whereas among females, the married were less likely to be unemployed but – not surprisingly – more likely to be economically inactive (i.e. not participating in the labour market). Older people of both sexes were also less likely to be unemployed, but also more likely to be economically inactive. Regarding education, the block of coefficients all below 1.0 indicate that (for both males and females) the better one's qualifications the smaller the probability of being either unemployed or economically inactive.

4.7 Holding these relationships constant, the coefficients for ethnicity are all above 1.0, indicating that Bangladeshis were more likely than White British to be both unemployed and economically inactive. All of the coefficients except one (economic inactivity among women) are statistically significant at the 0.05 level or better.

Table 5*. Multilevel Multinomial logistic regression (odds-ratios) contrasting the unemployment and economic inactivity with people in employment (men and women)

Independent variables	Men (N=64,033) Bangladeshis=428		Women (N=66,585) Bangladeshis=201	
	Unemployment	Inactivity	Unemployment	Inactivity
Level 1				
Constant	0.09	0.00	0.23	0.16
UK born	1.16	0.95	0.78	0.83*
Married	0.31*	0.57*	0.47*	1.30*
Age	0.99*	1.12*	0.97*	1.02*
Bangladeshi (base: White-British)	4.76*	3.03*	18.54*	2.12
Qualification (base: none)				
GCSE grade D-G up to A/AS level	0.52*	0.61*	0.46*	0.52*
Degree+	0.35*	0.53*	0.26*	0.34*
Interaction terms				
Bangladeshis X IMD**	0.98	0.97*	0.96*	1.00
Bangladeshis X BMII**	1.004	1.010*	1.002	1.004*
Level 2				
IMD	1.03*	1.03*	1.02*	1.02*
BMII	0.998	0.998	1.00	0.998
Level 2 variance	0.17 (0.07)	0.078 (0.03)	0.11 (0.08)	0.007 (0.01)

* $p<0.05$, Source: CAMS Individual data drawn from the 2001 UK Census. Census output is Crown copyright and is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland
** The factor was measured as a level-1 factor. The model did not converge when the factor used as a level-2.

4.8 Turning to the level-2, neighbourhood, variables we can see that the IMD is statistically significant whereas the BMII is not. These coefficients indicate the impact (odds-ratios) of IMD and BMII when the variable Bangladeshis equal 0. In other words, these are the odds-ratios for White-British for a one-unit increase in IMD or BMII. Since the four statistically significant coefficients (for IMD) exceed 1.0, this indicates a negative impact or a higher risk for unemployment and economic inactivity for White-British. Unlike IMD, BMII does not have the same impact upon White-British; in fact the odds-ratio is almost 1.0 and statistically insignificant indicating no impact of the levels of segregation among Bangladeshis within a given neighbourhood upon the unemployment and economic inactivity risks for White-British.

4.9 However, when ethnicity (Bangladeshis) is interacted with the IMD and BMII measures, a different, and more interesting, picture emerges. It is worth noting that these coefficients of the interaction terms are in fact the ratio of the odds-ratios of Bangladeshis and White-British (Bangladeshis over White-British). In other words, these coefficients indicate whether the chances of Bangladeshis are higher/lower than or similar to those of White-British of being unemployed or economically inactive for a one-unit increase in IMD or BMII.

4.10 In terms of the interaction between ethnicity and IMD, all the four coefficients are less than 1.0 with two of them being statistically significant at the 0.05 level or better (economic inactivity among men and unemployment among women). This suggests that although in general Bangladeshis are more likely than White-British to experience unemployment and economic inactivity, it seems that in deprived areas Bangladeshis are likely to face lower risks of becoming either unemployed or economically inactive rather than in employment relative to White-British. Thus, living in deprived neighbourhoods clearly has a negative impact on the chances of success in the labour market among White-British but less so among Bangladeshis. One may argue here that some Bangladeshis might live in deprived areas (most of the areas where Bangladeshis live in high percentage are deprived) not because they have no other choice, but due to practical and cultural reasons as suggested by the qualitative data presented in the next section of the paper. This, if true, would suggest that in some cases the level of deprivation of a neighbourhood does

not necessarily determine the employment outcome of individuals living there.

4.11 The interaction between ethnicity (Bangladeshis) and BMII yields four coefficients that are greater than 1.0 with two of them statistically significant (both for economic activity), suggesting that Bangladeshis have higher chances than White-British in facing unemployment and economic inactivity within the more segregated areas (i.e. the higher the MII for Bangladeshis). This indicates patterns entirely consistent with the hypotheses that Bangladeshis are more likely to be both unemployed and economically inactive the more segregated the neighbourhood in which they live.

4.12 Table 6 presents the results from the multilevel multinomial logistic regression analysis of occupational returns on education for Bangladeshi men; we tried to run the analysis for Bangladeshi men and women in separate models as in Table 5, however because of small numbers of Bangladeshi women who are economically active, the model did not converge. In these two models, we contrast those who had the highest and the lowest level of returns on their qualifications (i.e. were most under-qualified for the posts they occupied) with those whose qualifications matched those for their chosen occupation.

4.13 Turning to the first model in Table 6, the individual-level variables show that UK-born, married and older individuals were more likely to be substantially under-qualified for the jobs they held than were those born overseas, the young and the unmarried (who were more likely to be in jobs for which their qualifications matched the occupational skill requirements). Bangladeshis were less likely than White British to be in jobs for which they were under-qualified, but the difference was not statistically significant.

4.14 In terms of the neighbourhood variables, the coefficients at the bottom part of the table show that White-British residents of more deprived areas were more likely to be in jobs for which they were under-qualified, whereas those living in segregated areas were slightly less likely to be in jobs for which they were under-qualified (only the IMD coefficient is statistically significant). The two coefficients of the interaction terms are statistically insignificant although one of them (Bangladeshis X IMD) is greater than 1.0 indicating a slightly higher chances for Bangladeshi men living in deprived areas to be in jobs for which they are under-qualified than White-British men living in the same areas.

Table 6*. Multilevel logistic regression (odds-ratios) of occupational returns contrasting the most under/over-qualified with the match (0) (men, employed only)

Independent variables	(N=53,430 Whites – 313 Bangladeshis)	
	Most under-qualified vs. match Model	Most over-qualified vs. match Model
Level 1		
Constant	0.01	0.458
UK born	2.03*	1.507*
Married	1.17*	0.827*
Bangladeshi (base: White-British)	0.76	1.023*
Age	1.05*	2.014*
Interaction terms		
IMD x Bangladeshis	1.03	0.998
BMII x Bangladeshis	1.003	1.004*
Level 2		
IMD	1.010*	1.020*
BMII	0.998	0.997*
Level 2 variance	0.069 (0.03)	0.028 (0.01)

* p<0.05, Source: CAMS Individual data drawn from the 2001 UK Census. Census output is Crown copyright and is reproduced with the permission of the Controller of HMSO and the Queen's Printer for Scotland
** The reference group here is white British men
^ the factor was measured at level-1

4.15 The second model in Table 6 shows that all the individual factors are statistically significant with odds ratios that are greater than 1.0 for UK born, Bangladeshis and old people and below 1.0 for married people, indicating that the latter are less likely to get jobs for which they are over-qualified. This suggests that, while all other factors are constant, marriage has a positive impact on the level of the occupational returns

one might achieve.

4.16 The odds ratios of the level-2 (neighbourhood) variables tend to confirm patterns that have already been identified earlier on in relation to the impact of deprivation and segregation. For example, the IMD (odds-ratio of 1.02) is statistically significant and points out that White-British are more likely to be in jobs for which they are over-qualified the higher the deprivation level of the area they live in. As in the case of unemployment and economic inactivity, White-British do not seem to be negatively influenced by the level of Bangladeshi segregation within the neighbourhood in which they live. In fact, the odds-ratio (1.004) of the interaction term (Bangladeshis X BMII) is statistically significant and reveals higher chances for Bangladeshis to be in jobs for which they are over-qualified the higher the level of segregation within the area in which they live.

4.17 The above findings in relation to the impact of living in segregated areas for Bangladeshis upon their employment prospects are interesting and in line with the findings of previous studies (for example, Clark and Drinkwater 2002). Bangladeshi men living inside the Bangladeshis enclave (or an area with a high concentration level of Bangladeshis) appear to have lower occupational returns on qualifications relative to White British living in these areas. These findings clearly do not support the enclave hypothesis, not in terms of unemployment and economic inactivity nor in terms of the occupational returns to education. In order to explore these patterns further and perhaps shed some light on these issues, we turn to the qualitative data.

Employment narratives from the Bangladeshi enclave

5.1 The quantitative analyses summarised above suggest that the Bangladeshi enclave tends to impose a greater negative impact on the risk of unemployment and economic inactivity, and in particular upon the occupational returns to education among Bangladeshi men and women relative to White-British. The qualitative data reported below brings out the sense that some Bangladeshis living in enclaves have job opportunities in their areas that are highly restricted, especially in relation to quality, diversity of choice and pay, and tend to suit the unqualified or poorly qualified. However, they also highlight the positive experience of some Bangladeshis finding (good) jobs while living inside the enclave. For example, one London female respondent stated referring to Tower Hamlets that:

> *"I don't think there are decent job opportunities in this area, not really, not to be honest with you there aren't. Where does a young person go to find work and what kind of jobs will they be doing? I don't know"* (Bangladeshi, female, age 29, Teacher, lives in Tower Hamlets, London).

5.2 A Bangladeshi doctor pronounces on the lack of opportunities in Tower Hamlets and further elaborates the lack of qualifications among Bangladeshi youngsters which bars their chances and drives them to social problems:

> *"I think job opportunities in this area are quite terrible to be honest with you; if you're looking from private sector jobs to public sector jobs there are not that many… so I think the job sector is quite difficult because what the private sector will pay will not match up to the lifestyle needs of the youngsters to buy £70 trainers, you know they can't earn that in a month, so that's why drug crimes go up, so I think there's a huge significant link with that. Umm public sector jobs are again a huge problem because if you're not educated you cant get a job because there are educated people that cant get jobs… so I'm afraid I don't think it's good and this area's particularly bad"* (Bangladeshi, male, age 34, Doctor, lives in Tower Hamlets, London).

According to him, the private sector offers low paid jobs, while jobs in the public sector require higher qualifications than many youngsters possess. This forces many young people to accept low paid jobs within the local labour market (the local private sector).

5.3 Similar themes recurred in the interviews. Some interviewees reported educational trajectories and career progress while others were bitter about the enclave effect on job prospects. For example, Sheikh (pseudonym) is a 24 years old UK-born Bangladeshi living in Tower Hamlets. He is perhaps typical of the majority of Bangladeshi men with no or incomplete elementary qualifications (see Table 2). He has no formal qualifications as he dropped out of school to work as a chef in a Bengali restaurant at the age of fifteen. Since then, he has worked in Bengali restaurants in the local area. Sheikh states:

> *"…living in this area has helped me get jobs because there's a strong Bangladeshi community around here so I can get in contact with people quite easily and you know spread the word that I'm looking for work. Because it's such a close knit community in Tower Hamlets, everybody knows each other and that makes your chances of getting employed higher. I mean I've found most of my jobs through friends and family."*

5.4 While it shows the kinds of available jobs in private sector, the Sheikh case also illustrates a possible educational trajectory to be followed by co-ethnics in the enclave. The role of local networks of family and friends and intra-community mechanisms of job hunting should also be noted here as they are perhaps making the enclave employment market a favourable one. We have collected opposing views regarding the role of education and locality. An unemployed young Bangladeshi woman emphasised the lack of quality education in the enclave which by nature disadvantages those living in the enclave when they are out to find jobs:

> *"Well it depends more on education than area, so education does have some kind of connection with the area but that's not always true; I mean I live in Eastville but I went to a*

Private School in Cotham. But there are families that live in Easton that went to the local community schools and just managed to pass (their exams) and I think they would have a harder time getting some professional jobs" (Bangladeshi, female, age 19, lives in Eastville, Bristol).

5.5 Postcode effect (or penalty) was also evident for another Bangladeshi man pointing the role of education and the enclave effect and the common reaction to that by co-ethnics who can afford to move out of the enclave

"A lot of people are moving from Newham towards West Fleet or Essex because they think life is better over there. I'm sure it is better over there because we do associate bad things with this area (Newham) and this can have an indirect impact on people like when job applications ask you where you were educated and you put down what college you're from? all I'm saying is that people are moving out to the suburbs and way out of the city to what are regarded as better areas" (Bangladeshi, male, age 35, Police Officer, lives in Newham, London).

5.6 The respondents referred to possible reasons why a lot of people in their areas end up in low-skilled, poorly-paid jobs. One is the limited access to, or the lack of what they call, *good jobs* – most of those available in the enclave provide poor occupational and material returns for qualified people. Therefore living and seeking jobs within the enclave and in more general terms in areas with high levels of ethnic concentration may restrict the level of occupational and material returns one may achieve regardless of the level of one's qualifications. Tower Hamlets is such an area with very limited employment opportunities and largely comprising low-skilled occupations; as the Bangladeshis in the area are disproportionately among those with few if any qualifications, obtaining work is difficult but those who obtain it get an appropriate occupational return for their (lack of) qualifications. Also some respondents reiterated that there are jobs "for those who are keen to get a job".

5.7 Ethnic businesses are indeed the main source of jobs within the enclave. These jobs, or at least most of them, do not require higher qualifications or indeed special skills. Hence, these jobs are satisfactory to many non/low skilled workers inside the enclave (due to the lack of language skills and/or qualifications). While this is particularly true for men, women who are economically active prefer to work inside the enclave and tend to take on non-manual jobs more than men. From the qualitative data it appears that community and voluntary based organisations and centres offer some job opportunities to Bangladeshi women. However, this can also be interpreted as the role played by community networks so in another enclave it could be Black Africans or Pakistanis attracted to similar type of jobs. Many respondents told stories of how they found jobs after school through the help of family and friends. It seems such networks are playing a central role for Bangladeshis, particularly for those with low skills, to get jobs in and outside the enclave. Formal recruitment channels and processes are not frequently mentioned in the interviews. For example, one of female respondents stated:

The younger kind of girls, the ones that come out of university, they do mainly like voluntary work, ethnic community stuff and work for like Black or Asian community organisations in St Paul's and Easton. (Bangladeshi, female, age 19, Student, lives in Easton, Bristol)

5.8 Another London female respondent stated:

I think there are lots of opportunities for voluntary work here. Like if I had never spoken to that friend of mine, I would have never found this job. (Bangladeshi, female, age 24, Project Worker, lives in Newham, London)

5.9 The qualitative data highlight the lack of job opportunities available within the enclave, which provide a clear pattern to help us understand why Bangladeshi workers living inside the enclave are unable to achieve higher returns on their qualification than White-British workers who live in the same area (as revealed by the quantitative analysis). From the above quotation we understand that Bangladeshi men and more so women are likely to get jobs within community centres and organisations not because of their formal qualifications, but in many cases because of language skills (i.e. they speak Bengali). The requirement of knowing Bengali may indeed disadvantage other candidates and allow less qualified Bangladeshis to get jobs for which they are under-qualified, but in the same time it may also attract qualified Bangladeshis who failed to get a good job elsewhere (i.e. the general labour market). Private sector jobs available in Bangladeshi run businesses, in restaurants and shops, are mainly low paid jobs that might attract people with low qualifications and lack of language skills. This might help to reduce unemployment among this group of people, but do provide little opportunity, if at all, to highly qualified Bangladeshis who live inside the Bangladeshis residential enclave.

5.10 Bangladeshis (especially those with qualifications) seem to choose to live inside the enclave for cultural and practical reasons, but they seek adequate jobs outside the enclave. Professional occupations, such as those in medicine and higher education, are not generally available in these areas but some professionals choose to live in these areas for cultural and community reasons. Professionals we have interviewed said these residential areas are attractive for easy access to Bangladeshi goods, ethnic community services, mosques, and festivals but many have to work outside the enclave. For example, a Bangladeshi male who lives in Tower Hamlets but works as a doctor outside the Bangladeshi enclave of Tower Hamlets stated:

"There's a mosque very close by which is quite important…it's literally at the end of the road. There's all the facilities that as a Muslim I need; Halal meat shops umm there's an Islamic School in the mosque where I send my son to one hour in the evening to learn Arabic. These are the things that I actually feel are important"

5.11 Ease of accessing ethnic services and meeting religious needs, and perhaps also proximity to members of the family, seem to be the major reasons for highly qualified Bangladeshis living in the enclave despite the social and economic deprivation of such areas. It is worth noting that the ethnic services and businesses available there might serve as a channel through which some people are able to increase returns on qualifications, especially low qualifications. For example, it is possible that ethnic entrepreneurs inside the enclave such as owners of restaurants (and take away restaurants), *halal* and ethnic food shops who are, through self-employment, able to achieve the highest level of return (the most under-qualified; compared to the match level) relative to the majority ethnic group living in the same areas. However, this option is not open to all, and has no major impact on the overall trend of lower returns on education inside the Bangladeshi enclave.

5.12 The qualitative analysis and to a lesser extent the quantitative analysis also shows that the enclave tends to increase the risk of unemployment as there are relatively few jobs, especially those requiring qualifications, compared to the wider labour market. Lack of qualifications among men and women, on the other hand, limits the opportunities for Bangladeshis outside the enclave. It also seems that in relation to the occupational returns on qualifications, men living inside the enclave are likely to experience lower levels of returns on their qualifications. Job opportunities within the enclave are available largely through private restaurant and shop businesses and via public services addressing ethnic community needs. Private employers in this setting are often small ethnic entrepreneurs, who are self-employed and therefore scoring relatively high in the returns to education scale, but they are small in numbers and their impact does not outweigh the impact of the lack of job opportunities within the Bangladeshi enclave.

Conclusions

6.1 We conclude that in relation to the occupational returns to education, living in ethnically-segregated residential areas tends to have a negative impact upon the employment prospects and occupational returns to education among Bangladeshis in the UK. The ethnic businesses where Bangladeshis can hold managerial and similar positions (through self-employment) although possessing low levels of education are probably small in number and do not have the same effect as in the case of what Portes and Manning (2001) referred to as the ethnic enclave. In other words, there is no evidence that the Bangladeshi ethnic businesses form an ethnically sheltered economy that offers members of the Bangladeshi community alternative channels of economic success, nor that it promotes their labour market participation. It is quite the contrary; the findings of this study clearly show that Bangladeshis who live in segregated areas face a higher risk of unemployment and economic inactivity as well as lower returns on their qualification lending clear support to the conclusion reached by Clark and Drinkwater (2002) in relation to the negative impact of the enclave. It is possible that the Bangladeshi enclave economy in the UK has not yet reached a level of growth and expansion needed to operate in the same manner described by Portes and Manning (2001) in their reference to the Jewish enclave in the US east cost or by Zhou (2005) in her study on the Chinese enclave (China Town). It is also possible that the residential segregated areas of Bangladeshis are not developing as 'true' enclave economies due to the deprived nature of the areas in which Bangladeshis tend to cluster. For instance, Tower Hamlets which contains about 23% of the UK Bangladeshi population, is the third most deprived local authority in England. Newham is another example of a very deprived district with a high concentration of Bangladeshis. The high deprivation exists within the areas where Bangladeshis tend to cluster might place severe socio-economic restriction on these areas undermining any significant development of a strong local economy.

6.2 Under these conditions, it is expected that successful members of the community might prefer to move out towards the more affluent areas leaving behind the least successful. However, our data suggest quite the contrary; successful Bangladeshis, or at least some of them, prefer to stay within these areas due to cultural (close to mosque for example) and practical reasons (close to halal shops) while seeking jobs outside these areas. Some Bangladeshi men and women with low educational qualifications appeared to benefit from living and seeking jobs inside the segregated areas by avoiding unemployment and increasing their labour market participation, but most of the jobs available to them are low-paid and low-quality jobs. Those with higher qualifications who remain in the enclave and seek jobs there may experience low returns on their qualifications by accepting jobs for which they are over-qualified.

6.3 While living inside an ethnic enclave might restrict the occupational and other socio-economic opportunities for ethnic minorities such as Bangladeshis in the UK, it is worth noting though that this 'enclave effect' is not the sole factor and surely should not be seen as having a causal relationship with labour market outcomes for the residents of ethnic enclaves. There is a whole range of factors that would influence the occupational outcomes among ethnic minorities including intrinsic factors such as cultural values of the group, age structure, length of stay in the host society, language efficiency, proximity to labour markets, skills and experience, qualifications and class background. It is possible that the influences of these factors on the labour market outcomes of ethnic minorities are reinforced by living inside an ethnically segregated areas but are not created or determined by an 'enclave effect'. In order to examine the net effect of the enclave, one should be able to control for all of these factors, which most of the studies in this area, including this study, do not leaving us with probable explanations only.

Notes

[1] OAs were created by ONS to avoid the problems caused by the inconsistent (in size and socio-economic composition) and unstable electoral ward geography, and constrained to maximize between OA differences in housing type and tenure. Their consistent size and specified minimum population eliminate the risk of data disclosure (i.e. releasing data that could be traced to individuals). They are aggregated into Super Output Areas (SOAs), which will not be subject to frequent boundary change, so are more suitable for comparison over time. In England and Wales there are 175,434 OAs within the 2001 census with an average population of 297 persons (standard deviation 72). Lower Level SOAs – of which there are 34,378

in England and Wales – have an average population of 1,503 (standard deviation 203).

[2] We have chosen MLwiN to conduct multilevel analysis which was crucial to better understand neighbourhood effects, however, this software is found to have difficulties in handling large datasets. Therefore, we had to take this unfortunate measure reducing the sample size by three quarters.

References

ANSARI, H. 2002 'Muslims in Britain', London: Minority Rights Groiupd International.

BARRETT, G. A., Jones, T. P. and McEvoy, D. 1996: Ethnic minority business: theoretical discourse in Britain and North America. *Urban Studies* 33: 783-809. [doi:10.1080/00420989650011825]

BAYER, P., Ross, S. L. and Topa, G. 2005: *Place of work and place of residence: informal hiring networks and labor market outcomes*. Cambridge MA: National Bureau of Economic Research, Working Paper 11019.

C. ALPIN, J. R. S. and Walsh, S. 1998 'Over- and Underqualification in the UK Graduate Labour Market', *Studies in Higher Education* 23(1): 17-34. [doi:10.1080/03075079812331380462]

CLARK, K. and Drinkwater, S. 2002 'Enclaves, neighbourhoods effects and employment outcomes: Ethnic minorities in England and Wales', *Journal of Population Economics* 15: 5-29. [doi:10.1007/PL00003839]

CONLEY, T. and Topa, G. 2002: Socio-economic distance and spatial patterns in unemployment. *Journal of Applied Econometrics* 17: 303-327. [doi:10.1002/jae.670]

DALE, A. 2002 'Social Exclusion of Pakistani and Bangladeshi Women', *Sociological Research Online* (3).

DALE, A., Fieldhouse, E., Shaheen, N. and Kalra, V. 2002 'The Labour Market Prospects for Pakistani and Bangladeshi Women', *Work Employment & Society* 16(1): 5-25. [doi:10.1177/09500170222119227]

DANA, L. (editor) 2007: *Encyclopaedia of research on ethnic minority entrepreneurs*. London: Edward Elgar.

EADE, J. (1990). "Nationalism and the quest for authenticity: the Bangladeshis in. Tower Hamlets." New Community 16(4): 493-503.

EADE, J. (1994). "Identity, Nation and Religion: Educated young Bangladeshi Muslims in London's 'East End'." International Sociology 9(3): 377-94. [doi:10.1177/026858094009003006]

GHAILL, M. M. a. and Haywood, C. 2005 'Young Bangladeshi people's experience of transition to adulthood': Joseph Rowntree Foundation.

HALABY, C. N. 1994 'Overeducation and Skill Mismatch', *Sociology of Education* 67(1): 47-59. [doi:10.2307/2112749]

HIEBERT, D. 2002: The spatial limits of entrepreneurship: business immigrants in Canada. *Tijdschrift voor Economische en Sociale Geografie* 93: 173-190. [doi:10.1111/1467-9663.00193]

HIEBERT, D. and Ley, D. 2006: Introduction: the political economy of immigration. *Tijdschrift voor Economische en Sociale Geografie* 97: 3-6. [doi:10.1111/j.1467-9663.2006.00490.x]

HOFFMANN, Eivind and Mirjana Scott (1993) "The Revised international standard classification of Occupation (ISCO-88), a short presentation", Geneva: International Labour Office Bureau of Statistics. Available online: http://www2.ilo.org/public/english/bureau/stat/download/papers/short.pdf [Accessed 26/03/2008].

HOX, J. 2002 *Multilevel Analysis: Techniques and Applications*, London: Lawrence Erlbaum Association, Inc.

JOHNSTON, R., Poulsen, M. and Forrest, J. 2004 'The comparative study of ethnic residential segregation in the USA, 1980–2000', *Tijdschrift voor Economische en Sociale Geografie* 95(5): 550 –569. [doi:10.1111/j.0040-747X.2004.00339.x]

KHATTAB, N. (Forthcoming). "Ethno-religious Background as a Determinant of Educational and Occupational Attainment in Britain." Sociology.

KLOOSTERMANN, R. and Rath, J., editors, 2003: *Immigrant entrepreneurs: venturing abroad in the age of globalisation.* Oxford: Berg.

LEY, D. 2003: Seeking home economicus: the Canadian state and the strange story of the Business Immigration Program. *Annals of the Association of American Geographers* 93: 426-441. [doi:10.1111/1467-8306.9302010]

ODPM, O. o. t. D. P. M. 2004 'The English Indices of Deprivation 2004', London: Office of the Deputy Prime Minister.

ONS (Office of National Statistics) (2007) "Census Geography, Output Areas (OAs)" available online: <http://www.statistics.gov.uk/geography/census_geog.asp#oa> [accessed 15 March 2008].

PORTES, A. and R. D. Manning (2001). The immigrant enclaves: theory and Empirical Exaples. *Competitive Ethnic Relations.* S. Olzak and J. Nagel. New York, Academic Press **:** 47-68.

RASBASH, J., Steel, F., Browne, W. and Prosser, B. 2004 'A User's Guide to MLwiN, Version 2.0': Centre for Multilevel Modelling, Institute of Education, University of London.

SSIRG (Social and Spatial Inequalities Research Group) (2004) "Constructing tracts, 1981-2001", Social and Spatial Inequalities Research Group , Geography Department, University of Sheffield, Version 2 – 5th October 2004, available online: <http://asp.ccsr.ac.uk/dwp/info/Constructing_tracts.pdf > [accessed 15 March 2008].

TACKEY, N. D., Casebourne, J., Aston, J., Ritchie, H., Sinclair, A., Tyers, C., Hurstfield, J., Willison, R. and Page, R. 2006 'Barriers to employment for Pakistanis and Bangladeshis in Britain': Department for Work and Pensions, Research Report No 360. <http://www.dwp.gov.uk/asd/asd5/rports2005-2006/rrep360.pdf> (last visited 11th March 2008).

TOPA, G. 2001: Social interactions, local spillovers and unemployment. *Review of Economic Studies* 68: 261-295. [doi:10.1111/1467-937X.00169]

WALDINGER, R., Aldrich, H. and Ward, R., editors, 1990: *Ethnic entrepreneurs: immigrant business in industrial societies.* Newbury Park CA: Sage.

WILSON, K. L. and A. Portes (1980). "Immigrant Enclaves: An Analysis of the Labor Market Experiences of Cubans in Miami." American Journal of Sociology 86(2): 295-319. [doi:10.1086/227240]

ZHOU, M. 2005 'Ethnicity and social capital: community-based institutions and embodded networks of social relations', in G. C. Loury, T. Modood and S. M. Teles (eds) *Ethnicity, Social Mobility and Public Policy*, Cambridge: Cambridge University Press. [doi:10.1017/CBO9780511489228.006]