

UNHAPPINESS AND INVOLUNTARY UNEMPLOYMENT: THE CASE OF ETHNIC MINORITY MEN IN BRITAIN

Michael Shields* and Allan Waiho**

* Department of Economics, University of Leicester

** Trent Institute for Health Services Research, University of Leicester

ABSTRACT

Using data from the Policy Studies Institute's Fourth National Survey of Ethnic Minorities in 1994, we estimate the determinants of happiness for white, black Caribbean and South Asian men in Britain using ordered probit models. After controlling for personal characteristics, we find that for each group, unemployment is associated with a significantly lower level of happiness compared to employment. Following the methodology of Clark and Oswald (1994), our results suggest that for white and ethnic minority men, unemployment is predominantly involuntary in Britain. Furthermore, we show that having a job per se, rather than the type of job, is the more important determinant of happiness.

Keywords: Ethnic Minorities, Unemployment, Happiness, Ordered Probit

JEL Classification: I31, J15, J64

I. INTRODUCTION

Since the large inflow of immigrants in the 1960s and 1970s, high ethnic minority unemployment has been an important economic and social issue in Britain. This is to some extent reflected in Britain's restrictive immigration policy, which is based upon substantial fears about the economic impact of immigrant workers (Hatton and Heatley Price, 1998).

Whilst the existing literature has proposed a number of explanations for the high rates of unemployment among Britain's three million ethnic minority members, there has been little investigation into the nature of ethnic minority unemployment. The contribution of this paper is to address the central issue of whether the unemployment experienced by men from three different ethnic groups is predominantly voluntary or involuntary in nature. The answer to this question is crucial for designing effective policies aimed both at improving the economic welfare of ethnic minority groups and informing immigration policy, as well as addressing the root causes of unemployment more generally. Data is drawn from a large national survey of ethnic minorities carried out in 1994 by the Policy Studies Institute (PSI), which permits separate analysis to be undertaken for black Caribbean, South Asian, and white males. A similar methodology to that used by Clark and Oswald (1994) is adopted, whereby the self-reported responses to a number of questions relating to various elements of mental well-being, are combined to form an index of happiness. In such models of happiness, after controlling for appropriate personal and demographic characteristics, the employed should exhibit significantly greater happiness relative to the unemployed for unemployment to be considered predominantly involuntary. For unemployment to be classed as voluntary, the jobless should presumably be just as contented, other things being equal, as those who are working.

Our analysis of the nature of unemployment is extended by dividing the employed into two groups, those with 'good' jobs and those with 'bad' jobs. The need for such a distinction arises from the fact that for many of the unemployed, access to the labour market is likely to be restricted to its lower sections. Therefore, the comparisons of happiness required for identification of the voluntary/involuntary nature of unemployment are between the jobless and those in 'bad' jobs, rather than the employed, per se. Furthermore, after controlling for household income, differences in self-reported happiness between the two employed groups and the unemployed may provide tentative insights into the types of work-related activities that individuals value. Happiness gains which are shown to accrue to both of the employed groups imply that the most fundamental aspects of working, for example providing a structure

to the day and a sense of social worth, which are common to all jobs (even boring and repetitive ones), are those that individuals value. If the gains of employment are only evident amongst those in "good" jobs, work-related benefits may be deemed to consist of more palpable factors such as status or responsibility.

The structure of the paper is as follows. Section II reviews recent studies which have examined, firstly, the white-ethnic minority unemployment differential, and secondly, the effect of employment status on self-reported happiness. The dataset and our empirical methodology are described in Section III. Section IV discusses the empirical results whilst Section V concludes.

II. LITERATURE REVIEW

(i) Ethnic Minority Unemployment in Britain

Until recently, investigation into the incidence and determinants of unemployment for Britain's ethnic minorities has been hampered by a lack of adequate data. One exception has been the series of surveys undertaken by the Policy Studies Institute (PSI) each decade, beginning in 1966, which have shed considerable light on the labour market experiences of ethnic minorities in Britain (see, for example, Modood et al., 1997; Brown, 1984). In recent years, a number of studies have been able to use the larger samples of ethnic minorities made available by pooling consecutive Labour Force Surveys and General Household Surveys, or the 1991 Census of Population, to examine the determinants of the unemployment experiences of ethnic minorities relative to whites (see Blackaby et al., 1997, 1999; Jones, 1993). These studies have reinforced the findings from the PSI surveys and identified considerable unemployment differentials between whites and ethnic minorities which appear to have remained constant over the last two decades.

Using data from the Labour Force Survey over the decade 1981 to 1991, Blackaby et al. (1999) find that the unemployment rate for ethnic minority men in Britain was consistently double that of whites. Differentiating between ethnic groups, Blackaby et al. (1997), using data from the 1991 Census of Population, find evidence of a hierarchy of unemployment, with unemployment being highest for blacks (both Caribbean and African), followed in turn by Pakistanis and Bangladeshis, Indians, Other Asians and whites. In 1991, for example, 23% of black men, 21% of Pakistani and Bangladeshi men and 12% of Indian men were unemployed, compared to 9.5% of white men. A similar differential was found for females. Interestingly,

ethnic minority unemployment is considerably higher for British-born than foreign-born ethnic minorities, which is only partly explained by the younger age distribution of the former (Blackaby et al., 1997; Shields and Wheatley Price, 1998). For the latter group, unemployment has been found to vary considerably by country of birth and year of entry into the UK (Wheatley Price, 1998).

Many explanations have been proposed for the high ethnic minority unemployment rate in Britain. Following Becker (1971), it is often suggested that employers have a 'taste for discrimination' which is reflected in a lower demand for ethnic minority workers. This is the principal explanation favoured by Blackaby et al. (1997, 1999), after controlling for the effect of differences in work-related characteristics between white and ethnic groups. They also suggested that the degree of discrimination exercised by white employers is not uniform and varies between blacks and Asians. Other research, has pointed to the fact that the majority of ethnic minorities in Britain were born-abroad¹ and therefore differ in both observable and unobservable characteristics from their white counterparts (Shields and Wheatley Price, 1998). In particular, because immigrants may initially lack location-specific human capital, for example English language fluency, and their skills may not transfer perfectly into the host countries' labour market, they are unable to compete on an equal basis with native-born individuals in the years following migration (Chiswick, 1978, 1982; Chiswick and Hurst, 1998)². Each of these factors points to the involuntary nature of unemployment for ethnic minority groups.

On the supply-side of the employment decision, research has shown that Britain's ethnic minorities are concentrated in areas of economic disadvantage (Fieldhouse and Gould, 1998) and may have restricted regional mobility due to cultural and religious ties. In a similar vein, Thomas (1997)³ finds that about 20% of the white-ethnic minority unemployment differential can be explained by the restrictive job seeking activities of ethnic minorities, for

¹ In our sample, 57% of Black Caribbean men and 83% of South Asian men were born abroad.

² Moreover, because many immigrants undertook their education and early work experiences abroad, and may not be fluent in the English language, the relative risk to firms from hiring workers from ethnic minorities compared to native-born whites may be considered greater, leading to higher ethnic minority unemployment. Immigrants may also experience higher job turnover due to being disproportionately engaged in temporary and seasonal jobs or because they are more likely to have been newly recruited making them vulnerable in cyclical downturns (Wheatley Price, 1998).

³ Furthermore, those born and bred abroad are likely to have a limited knowledge of local labour markets and as such may be unaware of where the most profitable job opportunities lie. Thus immigrants might be expected to sacrifice more resources on the job search process in order to better understand the local labour market and find more profitable job opportunities. Since time is one of the most important resources for job

example a lower willingness to commute. Cultural models of behaviour (see Thomas, 1998) have emphasised the effects of unemployment hysteresis amongst ethnic minority groups whereby high unemployment rates become a causal factor of continued high unemployment, for example, by inducing a greater tolerance of joblessness and poorer attitudes towards working. The importance of supply-side responses to perceived and actual discrimination, in particular the role of religion, are discussed by Blackaby et al. (1997, 1999), although in an empirical analysis of this issue, Thomas (1998) finds no supporting evidence. However, in contrast to demand-side factors, these supply-side explanations suggest that part of the white-ethnic minority unemployment differential may be the result of voluntary choices by ethnic minorities.

(ii) Employment Status and Happiness

It is well-known that economists have been traditionally suspicious about the validity and usefulness of self-reported subjective measures of utility such as mental well-being, happiness and job satisfaction. As a result, despite the huge literature in the field of social psychology which examines the determinants and effects of these subjective variables on labour market behaviour, it is only in recent years that economists have started to more readily accept their use (see, Clark, 1996 and Oswald, 1997a, 1997b for comprehensive reviews).

A growing literature in this area concerns the effect of joblessness on self-reported measures of well-being and happiness. The basis for this work are the well-documented consequences of unemployment on well-being and happiness identified by social psychologists.⁴ The substantial literature in this field has shown that joblessness leads to a considerable deterioration in well-being and happiness but that work has different meanings for different people. For some it is a source of prestige and social recognition, a basis for self-respect and sense of worth. Work also provides a structure to the day, gives a sense of purpose and fosters networks of social interaction.⁵ As Oswald (1997) points out, these findings cast doubt on the proposition that individuals are effectively choosing to be unemployed and that observed unemployment is involuntary. However, it has been found that for others work is just a way of making a living. This suggests, *ceteris paribus*, that low-paid

search, immigrants will, on average, spend less time in employment and more time in job search and unemployment relative to those born in Britain (Chiswick, 1982).

⁴ Warr et al. (1988) and Dooley et al. (1987) provide reviews of psychology-based studies.

employment, given the existence of social security, might not be a more favourable state than joblessness, and one aim of this paper is to test this proposition for white and ethnic minority men.

In their 1994 paper, Clark and Oswald use cross-sectional data from the first wave of the British Household Panel Study (BHPS) collected in 1991, to examine the effect of unemployment on happiness. Using the responses to various questions on mental well-being, they form an index of happiness and develop a simple methodology to investigate whether unemployment in Britain is predominantly involuntary or voluntary in nature. They estimate ordered probit models of happiness controlling for employment status and a number of personal and demographic variables likely to be correlated with happiness. They find, using pooled data for men and women, that unemployment is associated with a significantly lower level of happiness than employment which suggests that unemployment in Britain is predominantly involuntary in nature. Other research also suggests that unemployment is a state to which individuals may partially adapt, since unhappiness is greatest for the recently unemployed. Interestingly, separate control variables for blacks and Asians included in the pooled models were found to have no significant impact on happiness. Theodossiou (1998) generally confirms Oswald and Clark's findings using data from the second wave of the BHPS in 1992. He finds joblessness to be associated with a marked rise in anxiety, depression and loss of confidence and self-esteem, but that these effects do not diminish with the length of unemployment spell. Furthermore, he distinguishes between low-paid and high-paid employment and finds that both states exhibit happiness (well-being in the paper) gains over unemployment, suggesting that individuals attach a high positive value to having a job per se.

Moreover, the deterioration in happiness as a result of unemployment appears not to be country-specific. Winkelmann and Winkelmann (1995, 1998) and Gerlach and Stephan (1996) examine the relationship between unemployment and happiness using data from the German Panel Study and find large negative effects of joblessness. Winkelmann and Winkelmann (1998) provide some evidence to suggest that the non-pecuniary effects of unemployment are more important than the income effects in determining happiness. Korpi (1997) confirms these results using data on Swedish youths in the early 1980s. One potential advantage of these studies, over the two British studies, is the panel nature of their data.⁶ This allows unobserved individual heterogeneity to be controlled for, which may be correlated with

⁵ Darity and Young (1996) provide a review of this literature.

⁶ Note that the two British studies do not utilise the panel element of the British Household Panel Study.

both happiness and employment status. An important result, however, is that both the size and sign of the estimates are generally indifferent to whether panel or cross-sectional data are used (Oswald, 1997).⁷

III. DATA AND EMPIRICAL METHODOLOGY

(i) Data source, sampling and salient features

The data we use is drawn from the Fourth Survey of Ethnic Minorities collected by the Policy Studies Institute (PSI) in 1994 (see Modood et al., 1997). As far as the authors are aware, this represents the only comprehensive source of data on the mental well-being of ethnic minorities in Britain which has a sample of both whites and ethnic minorities large enough to allow statistically reliable comparisons (see Nazroo, 1997).

The samples of ethnic minorities included in the survey were selected using the 1991 Census to divide all electoral wards in England and Wales into three bands (high, medium and low) according to the proportion of the population who reported being members of an ethnic minority. A random sample of wards were then selected and, within each ward, a sample of addresses (with an over-sampling from high ethnic minority wards). Following selection, interviewers visited the resulting 130,000 addresses to identify any members of the target minority groups living there who could then be interviewed. At each household containing adults from these groups, one or two were selected for interview (where there were more than two eligible adults, two were selected at random). Where two adults were selected, two different questionnaires were randomly assigned. Both questionnaires included the same core questions, but a different set of secondary questions. Interviews were successfully obtained in 3291 minority households, involving 5196 adults (the response rate was 61% for black Caribbeans and ranged between 74% and 83% from South Asian groups). Importantly, interviewees were interviewed by a member of their own ethnic group in order to minimise misunderstandings and maximise response rates. Uniquely, amongst the national sources of data available with large samples of ethnic minorities, interviews were able to be conducted, wholly or partly, in the interviewees' own language, thereby capturing a substantial proportion of ethnic minorities who are missed by surveys which interview only in English and eliminating a potential source of bias.

⁷ We discuss this issue again later, see footnote 16.

Importantly, the mental well-being questions we use to form our index of happiness were only asked in the second questionnaire thus our sample of ethnic minorities is considerably reduced. The advantage of this, however, is that our sample is more generally representative, because we use information from only one randomly selected member from each household. A similar procedure was used to select a random sample of wards and addresses containing white households (it was not necessary to conduct a preliminary screening exercise for this group). In contrast to ethnic minority households, only one adult was selected and interviewed, giving a sample of 3291 adults (response rate, 71%). The mental well-being questions were asked of all white interviewees. Further survey details, including exact questions, can be found in Smith and Prior (1996).

In this paper we focus on the effect of unemployment on the self-reported happiness of males of working age (i.e. 16-64).⁸ Ethnicity is as self-reported in the survey and we have used this to divide ethnic minorities into two broad groups: black Caribbean and South Asians. The South Asian sample consists of those from Indian, Pakistani, Bangladeshi or African Indian origins.⁹ This provides a working sample of 943 white, 239 black Caribbean and 851 South Asian men.

Previous studies of the effect of employment status on well-being and happiness have included only dummy variables to indicate ethnic minority groups in their happiness models. This approach, however, is inadequate if the structural determinants of happiness for ethnic minorities (due to different cultural and religious backgrounds) differ from that of whites, and the effect of unemployment relative to employment is quantitatively and/or qualitatively different. Consequently, throughout the following analysis, we present separate results for black Caribbean and South Asian males¹⁰, as well as for whites.

We begin by presenting the salient features of our samples. The mean values for the independent variables used in the analysis are shown in Table A1. Importantly, the high unemployment rates for ethnic minorities relative to whites discussed in Section II are

⁸ In this paper we do not examine females because of the smaller sample sizes available for analysis. It would be feasible in practice to estimate pooled happiness models for males and females in each group and include a gender dummy variable in the model specification, as in Clark and Oswald (1994). We believe, however, that the determinants of happiness and the effect of employment status on happiness are likely to differ significantly according to gender, which would lead to biased pooled estimates. Preliminary estimates appear to confirm this, so here we focus solely on males in the hope of providing a clearer and more reliable interpretation of the results.

⁹ Requirements are for groups to be relatively homogenous. For this reason we have not included the small number of men of Chinese origin in the analysis. Those still in full-time education were also excluded.

supported by the data with 12% of white men being unemployed compared to 26% of black Caribbean and 23% of South Asian men. Both ethnic minority groups are under-represented in 'good' jobs compared to whites¹¹ and South Asians are over-represented in self-employment. Both black Caribbean and South Asian men have higher labour market non-participation rates than whites. The average household income of black Caribbean and South Asian men is considerably lower than for whites, by about £90 and £110 per week, respectively. A far higher percentage of South Asian men are married and have a greater number of children than whites and black Caribbeans. Importantly, given the obvious relationship between physical and mental health, white and black Caribbean men report a significantly higher incidence of long-term illness than do South Asians. Over 40% of South Asian and 37% of black Caribbean men report having no formal qualifications, compared to 24% for whites. South Asian men, however, are relatively over-represented, and black Caribbean men under-represented, in the higher qualifications categories compared to whites. Britain's ethnic minorities are concentrated in Greater London (42% and 38% of black Caribbean and South Asians, respectively) and the Midlands (27% and 29%), with a relatively lower representation in the North and South. Within these broad geographical regions, 47% of black Caribbean and 54% of South Asian men reside in high unemployment wards, compared to only 12% of white men.¹² Of our black Caribbean and South Asian samples, 57% and 83% respectively, were born outside of the UK. South Asians consist of Indians (32%), Pakistanis (34%), Bangladeshis (15%) and African Asians (1%).

(ii) An index of unhappiness

The index of unhappiness which we use as our dependant variable is derived from the responses to the following seven questions on mental well-being (each evaluated over the month prior to interview, with possible 'yes' or 'no' answers):

1. During the past month, have you felt you've been getting tired and/or lacking in energy?

¹⁰ Ideally, for our empirical analysis we would like to separate the South Asian sample in Indians, Pakistani and Bangladeshis. However, are sample size permits this.

¹¹ We distinguish between 'good' and 'bad' jobs in terms of gross full-time weekly wages. The responses to the wage question in the PSI survey are banded rather than continuous and we have defined a 'bad' job as having a gross wage of less than £194 per week (or less than £5 per hour for a 40 hour week).

¹² The 1991 Census was used by the PSI to calculate unemployment rates by ward. These are reported in bands in the survey and as such we define a high unemployment ward as one which has an unemployment rate greater than 15%.

2. In the past month, have you been having problems with trying to get to sleep or with getting back to sleep if you were woken?
3. Have you had a spell of feeling sad, miserable or depressed in the past month?
4. During the past month, have you not been able to enjoy or take an interest in things as much as you usually do?
5. Have you been feeling anxious and nervous in the past month?
6. In the past month, did you ever find your muscles felt tense or that you could not relax?
7. Thinking about the last month, did your anxiety or tension ever get so bad that you got into a panic, for instance, making you feel that you might collapse or lose control unless you did something about it?

Summing the binary responses to these questions provides an index ranging between 0 and 7, with higher scores indicating greater levels of unhappiness.¹³ These questions were included in the PSI survey on the recommendation of a team of mental health professions (see Nazroo, 1997) and were selected in this paper on the basis that they combine general aspects of well-being, such as "feeling sad" or "anxious", with physiological symptoms of distress which capture particularly low levels of mental well-being. In this respect, the questions mirror many of the those included in the General Health Questionnaire (see Clark and Oswald, 1994) which is considered by many to be the most reliable indicator of well-being (Argyle, 1989).

(iii) The distribution of unhappiness by employment status, ethnicity and personal characteristics

Table 1 shows the distribution of responses to the unhappiness questions by ethnicity and employment status. The most striking feature is that the unemployed report considerably higher levels of unhappiness than the employed for each of the seven dimensions of unhappiness. This differential is statistically significant for five of the seven dimensions for white and black Caribbean men, and three of the seven for South Asian men, and is generally greater in absolute terms for white and black Caribbeans than for South Asians. For white men, the largest differentials between the employed and unemployed are found for the dimensions 'feeling miserable or depressed' and 'feeling tense or could not relax'; for black Caribbeans in 'feeling anxious and nervous' and having 'sleeping problems'; and for South Asians in 'sleeping problems' and being 'unable to enjoy or take an interest'.

¹³ In the psychological literature, such an index is known as 'Caseness scores'.

TABLE 1

Percentage of Men reporting Unhappiness by Dimension, Ethnicity and Employment Status

Dimension of Unhappiness (in the last month)	White			Black Caribbean			South Asian		
	EMP	UNEMP	T-stat	EMP	UNEMP	T-stat	EMP	UNEMP	T-stat
Tired and/or lacking energy	36.3 (1.8)	38.6 (4.6)	0.5	27.0 (3.8)	34.4 (6.1)	1.0	20.1 (1.8)	24.9 (3.1)	1.3
Sleeping problems	25.7 (1.7)	39.5 (4.6)	2.8** *	13.1 (2.9)	36.1 (6.2)	3.4** *	10.4 (1.4)	16.8 (2.7)	2.1**
Feeling miserable or depressed	33.2 (1.8)	57.0 (4.7)	4.8** *	42.3 (4.2)	55.7 (6.4)	1.7*	15.2 (1.6)	25.4 (3.1)	2.9** *
Unable to enjoy/take an interest	14.7 (1.3)	21.9 (3.9)	1.8*	18.3 (3.3)	32.8 (6.1)	2.1**	17.8 (1.7)	28.4 (3.1)	2.9** *
Feeling anxious or nervous	26.1 (1.7)	43.9 (4.7)	3.6** *	12.4 (2.8)	37.7 (6.3)	3.7** *	10.4 (1.4)	12.7 (2.4)	0.8
Feeling tense or could not relax	16.5 (1.4)	28.1 (4.2)	2.6** *	8.8 (2.4)	18.0 (5.0)	1.7*	8.9 (1.3)	10.7 (2.2)	0.7
Collapse or lose control	1.3 (0.4)	3.5 (1.7)	1.2	1.5 (1.0)	4.9 (2.8)	1.2	1.0 (0.5)	1.2 (0.7)	0.3
N	689	114		137	61		482	197	

Notes:

1. Standard errors in parenthesis.
2. EMP = employed (employee and self-employed), UNEMP = unemployed. The table excludes labour market non-participants.
3. '***' indicates a significant difference in reported unhappiness between the employed and unemployed at the 1% level; '**' indicates a significant difference at the 5% level; '*' indicates a significant difference at the 10% level.

The mean level of unhappiness, found by summing the responses to the seven questions, is provided for each group in Table 2. Overall, white males report the highest levels of unhappiness with the average male suffering from 1.7 dimensions of unhappiness. This compares to an average of 1.52 for black Caribbean and 1.07 for South Asian men. The possible reasons for the lower levels of unhappiness reported by South Asians are discussed in Nazroo (1997).

The results in this table confirm the powerful association between employment state and unhappiness, with the unemployed reporting significantly higher levels of unhappiness than the employed for both white and ethnic minority men. The unhappiness differential is particularly pronounced for white and black Caribbeans, with the unemployed having, on average, one more dimension of unhappiness than the employed. The differential for South Asians is smaller at about 0.4, but is still statistically significant at the 1% level.

In Table 3, we examine the effects of a number of demographic characteristics on happiness according to labour market status. To achieve this we define a state of

TABLE 2

Average Unhappiness by Ethnicity and Employment Status

	White			Black Caribbean			South Asian		
	N	Mean	T-stat	N	Mean	T-stat	N	Mean	T-stat
Employed	689	1.53 (.06)		137	1.23 (.13)		482	0.84 (.06)	
			4.2***			3.4***			2.9***
Unemployed	114	2.32 (.18)		61	2.20 (.25)		197	1.20 (.11)	
All	943	1.70 (.06)		239	1.52 (.11)		851	1.07 (.05)	

Notes:

1. Standard errors in parenthesis.
2. '***' indicates a significant difference in reported unhappiness between the employed and unemployed at the 1% level.
3. EMP = employed (employee and self-employed); UNEMP = unemployed. 'All' also includes labour market non-participants.

'considerable unhappiness' that occurs when a person reports suffering from two or more unhappiness dimensions. Dividing the three samples into two age cohorts, suggests that the adverse effect of unemployment on happiness is not confined to the younger (under 36) or older (over 35) generations. The impact of unemployment, however, appears to be particularly adverse for unemployed young black Caribbean men who report 'considerable unhappiness' levels over four times higher than the young employed. Moreover, being unemployed impacts on unhappiness to a far greater extent for single than for married white and black Caribbean men. Similarly, for these two groups, unemployment is a considerably worse state for the qualified than for the unqualified, whilst this does not appear to be true for South Asian men. There also appears to be a significant difference in the effect of living in a high unemployment ward on unhappiness for South Asian men, in comparison to whites and black Caribbeans. For the two latter groups, as might be expected a priori, being unemployed and residing in a high unemployment ward is more favourable than being unemployed in a ward with low unemployment. This might be due to a reduced stigma attached to unemployment in areas of high unemployment and the beneficial effect on well-being of being amongst people who are in the same situation. As with other demographic influences, the opposite appears to be true for South Asian men. One explanation is that unemployment acts as a proxy for South Asian density and that it is particularly stigmatised amongst Asian communities.

TABLE 3

Percentage of Men reporting more than Two Dimensions of Unhappiness by Employment Status, Ethnicity and Personal Characteristics

	White			Black Caribbean			South Asian		
	Mean	SE	T-stat	Mean	SE	T-stat	Mean	SE	T-stat
Employed	24.2	1.6	4.1***	16.1	3.1	3.7***	10.4	1.4	3.0** *
Unemployed	44.7	4.7		42.6	6.4		19.8	2.8	
Age < 36									
Employed	26.7	2.5	2.3**	11.9	3.9	4.2***	8.2	1.9	2.2**
Unemployed	43.4	6.9		53.1	9.0		17.5	3.8	
Age > 35									
Employed	22.2	2.2	3.5***	20.0	4.8	1.1	12.2	2.0	2.1**
Unemployed	45.9	6.4		31.0	8.7		22.0	4.2	
Married									
Employed	21.9	1.9	2.3**	22.0	4.4	1.4	10.5	1.5	2.9** *
Unemployed	38.0	6.9		38.1	10.9		20.8	3.2	
Single									
Employed	29.9	3.2	2.9***	4.3	3.0	4.8***	9.8	3.8	0.8
Unemployed	50.0	6.3		45.0	7.9		15.8	6.0	
Qualified									
Employed	26.0	1.9	4.4***	17.3	3.8	3.2***	10.8	1.7	1.8*
Unemployed	52.6	5.7		48.5	8.8		19.2	4.5	
Unqualified									
Employed	16.8	3.3	1.3	12.8	5.4	2.2**	9.6	2.3	2.4**
Unemployed	27.9	7.6		35.7	9.2		20.2	3.7	
High unemployment ward									
Employed	14.3	4.2	0.9	10.0	4.3	2.6**	8.3	1.8	3.8*
Unemployed	23.8	9.5		34.3	8.1		24.0	3.8	
Low unemployment ward									
Employed	25.4	1.8	4.4***	19.5	4.3	3.2***	12.3	2.1	0.1
Unemployed	49.5	5.2		53.8	9.9		11.8	3.9	

Notes:

1. '***' indicates a significant difference in reported unhappiness between the employed and unemployed at the 1% level; '**' indicates a significant difference at the 5% level; '*' indicates a significant difference at the 10% level.
2. A high unemployment ward is defined as having an unemployment rate of 15% or greater.

This initial analysis supports the hypothesis that unemployment is a significantly worse labour market state than employment both for white and ethnic minority men in Britain and

that, consequently, unemployment is predominantly involuntary regardless of ethnicity. If unemployment were voluntary, a rational individual would take-up employment to increase their welfare thereby eliminating the happiness differential between the employed and unemployed groups. These findings therefore suggest that the conclusions of Clark and Oswald (1994) are robust to the data source used, definition of unhappiness and ethnic group examined.

Before we present our econometric findings, however, it is important to address the issue of causality. The analysis in this paper makes the assumption that unemployment leads to changes in reported happiness rather than *visa versa*. This assumption is made because the cross sectional nature of our data inevitably means that issues of causality cannot be directly addressed. Our justification for the assumed causal path, as in Clark and Oswald (1994), must therefore rely on the wealth of existing evidence by psychologists concerning the adverse impact of unemployment on well-being and happiness, and the studies by economists which have been applied to longitudinal data.¹⁴

IV .EMPIRICAL RESULTS

For consistency with other studies we invert the unhappiness scale throughout this section so that higher values of the index represent increased happiness. Given the ordinal nature of the index we estimate separate ordered probit models of happiness¹⁵ for whites, black Caribbean and South Asian males, which determine the effect of unemployment on happiness whilst holding personal and demographic characteristics constant.¹⁶ Four models are estimated for each group. To get a baseline estimate of the impact of unemployment on happiness, the first model (Model 1) includes only an intercept and a dummy variable for employed and non-participation (the base group being unemployed). The second model (Model 2) extends this specification by including personal and demographic variables which have been found in previous studies to be important determinants of happiness. This model is essentially that estimated by Clark and Oswald and includes the continuous variables age and age square in order to capture the expected inverse U-shape relationship between age and happiness, as

¹⁴ See Watt, Jackson and Banks (1988) for a summary of longitudinal evidence collected by psychologists. Both Korpi (1997) and Winkelmann and Winkelmann (1998) find no systematic selection problem.

¹⁵ Due to the small number of observations of individuals reporting all seven dimensions of unhappiness, the values 6 and 7 are combined in the models.

well as a number of binary indicators; marital status and dependant children; long-term illness; highest qualification; region of residence variables and whether the individual resides in a high unemployment area.

Since unemployment may be expected to affect happiness for both monetary and non-monetary reasons, Model 3 adds the log of household income to the model, to abstract from the monetary effect of unemployment on happiness, and provide a clearer picture of the psychological costs of unemployment. Model 3 also includes three seasonal dummy variables in order to capture well-established seasonal variations in reported happiness. The final model, Model 4, divides employment into three categories: self-employment, employed in a 'good' job, or employed in a 'bad' job. This division has additional implications for identifying the nature of unemployment and allows us to address whether it is having a job per se that is the important determinant of increased happiness, or rather the type of job.

The results of the four models for white, black Caribbean and South Asian men are provided in Tables A 2-A 4, respectively. Overall, the χ^2 statistics suggest that the models are statistically significant. However, the models for white and South Asian men are clearly better determined than for black Caribbeans, with a larger number of significant explanatory variables.

Results in both Model 1 and Model 2 support the findings of Clark and Oswald (1994) that employment is a preferable state to unemployment even when a number of personal and demographic characteristics are controlled for.¹⁷ This finding is consistent across each of the three ethnic groups sampled and is significant at the 1% level. For the white sample, non-participation in the labour market is also preferable to unemployment but generates a significantly lower level of self-reported happiness than employment. This difference is also apparent in the black Caribbean sample but is not of a sufficient magnitude

¹⁶ The ordered probit model is a standard model in the labour economics literature and is not discussed here. For details see Greene (1993) or Davidson and MacKinnon (1993).

¹⁷ In cross-sectional models such as these there is always a potential bias which could be due to the endogeneity of some of the explanatory variables. For example, if there exists some unobservable individual characteristic which is correlated with, say, employment status, and happiness, then the estimates of the effect of unemployment, relative to employment, on happiness may be biased. To examine this further we used bivariate probit models, which simultaneously estimate the probability of currently working and being happy. Our two binary dependent variables were working or not, and being happy or not. As with the analysis of Winkelmann and Winkelmann (1998), we have split the happiness index into two components; in our case, we assume that an individual is happy if they experience less than three dimensions of unhappiness. The model then estimates the correlation between the error terms of the working and happiness equations. For all three groups of men, using a number of different model specifications and identification restrictions, we found no statistically significant correlation between the two error terms. This suggests that unobservable heterogeneity is not important in our estimates.

to be significant. However, the South Asian sample generates a negative coefficient which we take as evidence of a cultural stigma attached to those in this group and the predominantly involuntary nature of the position.

The positive effects of employment relative to unemployment are maintained in Models 3 and 4 which include the log of household income. This indicates that happiness generated by working is not derived solely from the pecuniary rewards of work, but that jobs have an inherent value, significant at the 5% level for South Asian males and the 1% level for all others. Furthermore, the relative effects of non-participation remain, although for whites and South Asians these results fail to achieve significance at the 10% level as they did in the base model.

Of particular relevance for the nature of male unemployment are the results in Model 4. This model differentiates between workers by categorising according to self-employment, poorly paid 'bad' employment, and well-paid 'good' employment and finds that for every group each of these states generates significantly higher levels of self-reported happiness relative to unemployment. We have suggested above that access to the labour market for many of those unemployed is likely to be restricted to the less desirable sectors at least in the first instance, yet there is no evidence to suggest that unemployment is a preferable state even to having a bad job. Indeed, for both the white and the South Asian sample there is no significant difference between the happiness generated in a good job relative to a bad job, whilst for Black Caribbean males there is a significantly higher level of happiness associated with a bad job compared to a good job. In addition to the fact that this model identifies the predominantly involuntary nature of unemployment across ethnic groups throughout Britain it is also interesting to note that the non-pecuniary benefits of working, identified in Model 3, are maintained in this specification. Examples of work falling into the 'bad job' category are textile workers, waiters and shelf-fillers, occupations one would expect to offer little scope for responsibility, creativity or flexibility. Rather, the results seem to indicate that working provides benefits at a more fundamental level, for example, in providing a network for social interaction and a sense of identity.

Age and age squared variables confirm a U-shaped relationship with happiness amongst the white and South Asian groups, with happiness lowest in the early forties, slightly later than Clark and Oswald (1994) found. Age does not determine happiness in any significant way for Black Caribbean men. The South Asian sample are the only group to display any significant sensitivity in happiness to either marital status or number of children

with marriage entering positively at the 10% level. A greater number of children also increases happiness levels, significant at the 5% level in all specifications except Model 4.

Not surprisingly, long-term illness has a large negative coefficient in each of the three models, significant to the 1% level. All remaining variables have ambiguous effects across ethnic groups. Amongst the white sample, increasing educational achievements are negatively correlated with happiness, culminating with the achievement of a degree or equivalent entering negatively at the 1% level of significance in Models 3 and 4. For black Caribbean and South Asian males the same negative coefficient is observed for the achievement of a degree or equivalent but this is not significant in any specification. The achievement of 'A' or 'O' levels however, is positively associated with self-reported happiness relative to having no qualifications. For South Asians this is significant at the 5% level.

Included in Model 4 is immigrant status for black Caribbean and South Asian males. Only for the latter of these groups does this variable achieve statistical significance indicating a higher happiness level for those born abroad. Within this group there is also evidence that those of Pakistani or Bangladeshi origin report higher happiness levels than their Indian equivalents (the former of these is significant to the 5% level).

We also find that white males are happier living in high unemployment wards and in the North of England rather than the South. The preference for living in a high unemployment area is repeated in the black Caribbean sample whilst some specifications indicate higher happiness levels for South Asians who live in the Midlands or Greater London. Whilst these results may in part be reflective of preferences to reside in areas with others of the same ethnicity there is also evidence that for some it is equally important to live close to a city centre, perhaps to benefit from a wider range of amenities. Seasonal variables were included in Models 3 and 4, suggest that, relative to the Spring months, blacks Caribbeans and whites are happier in the Summer and Autumn whilst, interestingly, South Asian males are relatively less happy in the Summer.

These findings have strong implications for employment policies at both macro and micro levels. Joblessness is predominantly involuntary in nature across all ethnic groups, suggesting that employment is already viewed as desirable by the unemployed. Efficient macro policy should therefore target labour demand rather than focussing on supply-side initiatives aimed at making unemployment even less attractive, as characterised by government policy throughout the 1980's and to a lesser extent in the 1990's.

Reducing the white-ethnic minority unemployment differential may require ethnic minority specific job creation and training. One example of such a policy would be to provide English language courses to ethnic minority groups in order to make them more attractive to potential employers. For example, only 35% of unemployed South Asian males in our sample speak English fluently, compared with 61% of those in employment.¹⁸

In addition to government initiatives aimed at making those from ethnic minority backgrounds more employable, these results also indicate a need for enforcement of equal opportunities legislation to prevent employer-led discrimination. Continued government support should be given to institutions such as the Commission for Racial Equity, which promotes the adoption of ethnic monitoring at the workplace, for example in employment, promotion opportunities and wages, under the auspices of the Race Relations Act of 1976.

V. CONCLUSION

We have used data from the Fourth National Survey of Ethnic Minorities collected by the PSI in 1994 to investigate whether the high unemployment experienced by ethnic minority men in Britain is predominantly voluntary or involuntary in nature. Using the approach of Clark and Oswald (1994), we use responses to questions on several dimensions of mental well-being to form an index of happiness. The estimates from separate ordered probit models of happiness for white, black Caribbean and South Asian men, suggest that unemployment, holding other characteristics constant, is associated with a significantly lower level of happiness than employment. Thus we are able to confirm the results of Clark and Oswald (1994) using a different data source, definition of happiness and across ethnic groups.

Moreover, we have extended the analysis by investigating whether it is employment *per se*, which is the important determinant of happiness, or rather whether it is the type of job which is the prime determinant. Our results suggest that for both white and ethnic minority groups, both 'good' and 'bad' jobs yield significant happiness benefits over unemployment even when household income is controlled for, indicating that there are non-pecuniary benefits associated with work which are not confined to the better elements of the labour market.

¹⁸ Interestingly, whereas poor English language ability significantly reduces the probability of working, it has no significant impact on reported happiness.

These results indicate that efficient employment policy must focus predominantly on the demand for labour and that this is true for all ethnic groups. Observed differences in rates of unemployment cannot be attributed to voluntary joblessness on the part of ethnic minorities and therefore, attempts to reduce these differences will require a combination of job creation and training schemes specifically aimed at these groups and the enforcement of existing equal opportunities policy.

APPENDIX

TABLE A1
Sample Characteristics

	White		Black Caribbean		South Asian	
	Mean	S.E.	Mean	S.E.	Mean	S.E.
Working	.731	.015	.573	.032	.566	.017
Self-employed	.143	.014	.092	.019	.156	.012
Good job	.487	.016	.377	.031	.244	.015
Bad job	.100	.009	.105	.019	.166	.013
Unemployed	.121	.011	.255	.028	.232	.015
Non-participant	.149	.016	.172	.024	.202	.014
Gross weekly household income	373.1	6.65	280.4	8.58	260.6	5.25
Age	39.03	.423	39.44	.884	37.03	.439
Single	.364	.016	.456	.032	.228	.014
Married/cohabiting	.636	.016	.544	.032	.772	.014
Number of children	.616	.034	.745	.073	1.80	.059
No long-term illness	.725	.015	.741	.028	.870	.009
Long-term illness	.275	.015	.259	.028	.176	.013
Degree or equivalent	.123	.011	.071	.017	.160	.013
'A'/'O' level	.189	.013	.126	.022	.268	.015
Vocational	.448	.016	.431	.032	.163	.013
No qualifications	.240	.014	.372	.019	.409	.020
Born in the UK	-	-	.435	.032	.167	.013
Born abroad	-	-	.565	.032	.833	.013
Indian	-	-	-	-	.317	.016
Pakistani	-	-	-	-	.338	.016
Bangladeshi	-	-	-	-	.154	.012
African Indian	-	-	-	-	.190	.013
North	.312	.015	.105	.019	.234	.015
Midlands	.162	.012	.268	.028	.293	.016
Greater London	.097	.009	.418	.032	.377	.016
South	.430	.016	.209	.026	.096	.010
High unemployment ward	.123	.011	.469	.032	.537	.017
Low unemployment ward	.877	.011	.531	.032	.463	.017
Winter	.883	.011	.423	.032	.642	.016
Spring	.073	.008	.247	.028	.170	.013
Summer	.013	.004	.243	.028	.108	.011
Autumn	.031	.006	.087	.016	.080	.009
Sample	943		239		851	

TABLE A 2
Ordered Probit Happiness Equations: White Males

	M odel1		M odel2		M odel3		M odel4	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Working	480	.106***	585	.110***	386	.123***	-	-
Self-employed	-	-	-	-	-	-	266	.146*
Good job	-	-	-	-	-	-	439	.132***
Bad job	-	-	-	-	-	-	418	.155***
Non-participant	230	.132*	166	.137	109	.139	110	.139
Log household income	-	-	-	-	266	.071***	260	.073***
Age	-	-	-.070	.020***	-.066	.020***	-.064	.021***
Age squared /100	-	-	.089	.025***	.086	.025***	.085	.026***
Married/cohabiting	-	-	.081	.087	.011	.089	.012	.090
Number of children	-	-	.066	.038*	.055	.038	.054	.038
Long-term illness	-	-	-.482	.081***	-.480	.081***	-.482	.081***
Degree or equivalent	-	-	-.312	.128**	-.470	.137***	-.470	.138***
'A' / 'O' level	-	-	-.089	.114	-.196	.117*	-.194	.117*
Vocational	-	-	-.282	.093***	-.331	.095***	-.329	.094***
North	-	-	.382	.086***	.388	.087***	.383	.067***
Midlands	-	-	.110	.102	.130	.103	.126	.103
Greater London	-	-	-.022	.134	-.085	.138	-.080	.138
High unemployment	-	-	.237	.119**	.301	.122**	.303	.122**
Winter	-	-	-	-	-.019	.134	-.021	.134
Summer	-	-	-	-	.203	.341	.204	.341
Autumn	-	-	-	-	.272	.238	.271	.239
Sample		943		943		943		943
Log Likelihood		-1613.6		-1571.0		-1562.7		-1561.5
C^2		24.7***		109.9***		126.7***		128.9***

Notes:

1. '***' significant at 1% level; '**' significant at 5% ; '*' significant at 10% .
2. '-' indicates that the variable is not included in the model. Six constant thresholds were also estimated.
3. The base categories are unemployed, not married, has long-term illness, no qualifications, living in the South of England in a low unemployment ward, interviewed in the spring.

TABLE A 3

Ordered Probit Happiness Equations: Black Caribbean Males

	M odel1		M odel2		M odel3		M odel4	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.
W orking	587	164***	581	198***	566	184***	-	-
Self-em ployed	-	-	-	-	-	-	538	294*
Good job	-	-	-	-	-	-	469	198**
Bad job	-	-	-	-	-	-	932	298***
Non-participant	448	216**	466	223**	489	244**	519	245**
Log household incom e	-	-	-	-	.175	.206	.305	.224
Age	-	-	-.010	.045	.001	.046	.011	.049
Age squared /100	-	-	.024	.055	.012	.056	.001	.058
M arried/cohabiting	-	-	-.114	.190	-.109	.191	-.133	.192
Num ber of children	-	-	.007	.077	.007	.078	.006	.079
Long-term illness	-	-	-.591	177***	-.578	178***	-.582	179***
Degree or equivalent	-	-	-.076	.305	-.099	.310	-.093	.310
'A' / 'O' level	-	-	.131	.271	.113	.272	.108	.273
Vocational	-	-	.049	.184	.056	.186	.073	.187
Born abroad	-	-	-	-	-	-	.011	.220
North	-	-	-.207	.308	-.329	.317	-.324	.318
M idlands	-	-	-.150	.224	-.094	.229	-.086	.230
Greater London	-	-	-.165	.210	-.167	.211	-.160	.212
H igh unem ploym ent	-	-	.336	180*	.353	181**	.310	182*
W inter	-	-	-	-	.135	.180	.088	.184
Sum mer	-	-	-	-	.361	216*	.363	218*
A utum n	-	-	-	-	.324	.283	.332	.285
Sam ple		239		239		239		239
Log Likelihood		-385.4		-376.6		-374.4		-373.1
c ²		12.7***		30.2***		34.7***		37.3**

Notes:

1. '***' significant at 1% level; '**' significant at 5% ; '*' significant at 10% .
2. '-' indicates that the variable is not included in the model. Six constant thresholds were also estimated.
3. The base categories are unemployed, not married, has a long-term illness, no qualifications, born in the UK, living in the South of England in a low unem ploym ent ward, interviewed in the spring.

TABLE A 4
Ordered Probit Happiness Equations: South Asian Males

	Model 1		Model 2		Model 3		Model 4	
	B	S.E.	B	S.E.	B	S.E.	B	S.E.
Working	.302	.095***	.224	.102**	.243	.107**	-	-
Self-employed	-	-	-	-	-	-	.274	.134**
Good job	-	-	-	-	-	-	.302	.138*
Bad job	-	-	-	-	-	-	.231	.133**
Non-participant	-.191	.113*	-.188	.131	-.178	.132	-.155	.134
Log household income	-	-	-	-	.002	.081	.014	.086
Age	-	-	-.089	.025***	-.087	.025***	-.096	.027***
Age squared / 100	-	-	.102	.030***	.099	.030***	.108	.032***
Married/cohabiting	-	-	.230	.136*	.227	.136*	.226	.137*
Number of children	-	-	.058	.025**	.057	.025**	.032	.029
Long-term illness	-	-	-.800	.112***	-.814	.112***	-.809	.113***
Degree or equivalent	-	-	-.063	.124	-.055	.126	-.023	.129
'A' / 'O' level	-	-	.225	.107**	.233	.107**	.229	.108**
Vocational	-	-	-.065	.119	-.068	.120	-.037	.122
Born abroad	-	-	-	-	-	-	.250	.141*
Pakistani	-	-	-	-	-	-	.236	.114**
Bangladeshi	-	-	-	-	-	-	.167	.148
African Indian	-	-	-	-	-	-	.025	.117
North	-	-	.062	.157	.012	.159	-.106	.167
Midlands	-	-	.325	.153**	.293	.159*	.191	.161
Greater London	-	-	.285	.142**	.228	.145	.205	.147
High unemployment	-	-	-.043	.088	-.039	.089	-.088	.094
Winter	-	-	-	-	.040	.109	.045	.109
Summer	-	-	-	-	-.131	.154	-.280	.157*
Autumn	-	-	-	-	.021	.169	-.004	.171
Sample		851		851		851		851
Log Likelihood		-1175.1		-1123.5		-1121.4		-116.0
c^2		28.1***		131.3***		135.6***		146.4***

Notes:

1. '***' significant at 1% level; '**' significant at 5% ; '*' significant at 10% .
2. '-' indicates that the variable is not included in the model. Six constant thresholds were also estimated.
3. The base categories are unemployed, not married, has a long-term illness, no qualifications, Indian born in the UK, living in the South of England in a low unemployment ward, interviewed in the spring.

ACKNOWLEDGEMENTS

We would like to thank the Policy Studies Institute and the Data Archive at Essex University for giving us access to the data analysed in this paper. We are grateful to Ziggy MacDonald, Steve Pudney, Steve Thompson and Stephen Wheatley Price for their valuable comments.

REFERENCES

- Argyle, M. (1989). *The Psychology of Happiness*. Routledge: London.
- Becker, G. (1971). *The Economic of Discrimination*. 2nd Edition, University of Chicago Press: Chicago, US.
- Blackaby, D., Drinkwater, S., Leslie, D. and Murphy, P. (1997). A picture of male and female unemployment among Britain's ethnic minorities. *Scottish Journal of Political Economy*, 44, pp. 182-197.
- Blackaby, D., Leslie, D., Murphy, P. and O'Leary, N. (1999). Explaining racial variations in unemployment rates in Britain. *Manchester School*, forthcoming.
- Brown, C. (1984). *Black and White Britain*. Heinemann.
- Chiswick, B. (1978). The effect of Americanisation on the earnings of foreign-born men. *Journal of Political Economy*, vol. 86, pp. 897-921.
- Chiswick, B. (1982). The employment of immigrants in the United States. In W. Fellner (ed.) *Contemporary Economic Problems*, American Enterprise Institute: Washington DC, pp. 1-37.
- Chiswick, B. and Hurst, M. (1998). The employment, unemployment and unemployment compensation benefits of immigrants. *Research in Employment Policy*, vol. 2, forthcoming.
- Clark, A. (1996). Job satisfaction in Britain. *British Journal of Industrial Relations*, vol. 34, pp. 189-217.
- Clark, A. and Oswald, A. (1994). Unhappiness and unemployment. *Economic Journal*, 104, pp. 648-59.
- Darity Jr., W. and Goldsmith, A. (1996). Social psychology, unemployment and macroeconomics. *Journal of Economic Perspectives*, 10, pp. 121-40.
- Davidson, R. and MacKinnon, J. (1993). *Estimation and Inference in Econometrics*. Oxford University Press: New York.
- Fieldhouse, E. and Gould, M. (1998). Ethnic minority unemployment and local labour markets in Great Britain. *Environment and Planning*, vol. 30, pp. 833-853.
- Gerlach, K. and Stephan, G. (1996). A paper on unhappiness and unemployment in Germany. *Economics Letters*, 52, pp. 325-330.
- Greene, W. (1993). *Econometric Analysis*. 2nd Edition, Macmillan: New York.
- Jones, T. (1993). *Britain's Ethnic Minorities: An Analysis of the Labour Force Survey*. Policy Studies Institute: London.
- Hatton, T. and Wheatley Price, S. (1998). Migration, migrants and policy in the United Kingdom. CEPR Discussion Paper, no. 1960, November.

- Korpi, Y. (1997). Is utility related to employment status? Employment, unemployment, labour market policies and subjective wellbeing among Swedish youth. *Labour Economics*, 4, pp.125-47.
- Moodood, T., Berthoud, R., Lakey, J., Nazroo, J., Smith, P., Virdee, S., and Beishon, S. (1997). *Diversity and Disadvantage: Ethnic Minorities in Britain*. Policy Studies Institute: London.
- Nazroo, J. (1997). *Ethnicity and Mental Health: Findings from a National Community Survey*. Policy Studies Institute, London.
- Oswald, A. J. (1997a). Happiness and economic performance. *Economic Journal*, 107, pp. 1815-1831.
- Oswald, A. J. (1997b). Happiness and economic performance. CEPR Discussion Paper, no. 18, September.
- Shields, M. and Wheatley Price, S. (1998). The earnings of male immigrants in England: evidence from the quarterly LFS. *Applied Economics*, 30, pp.1157-1168.
- Theodossiou, I. (1998). The effects of low pay and unemployment on psychological wellbeing: a logistic regression approach. *Journal of Health Economics*, 17, pp.85-104.
- Thomas, J. (1997). Ethnic variation in commuting propensity and unemployment spells. Discussion paper in *Economics*, University College London, no. 97-02.
- Thomas, J. (1998). Who feels it knows it: work attitudes and excess non-white unemployment in the UK. *Ethnic and Racial Studies*, vol. 21, pp.138-150.
- Watt, P.B., Jackson, P.R., and Banks, M. (1988). Unemployment and mental health: some British studies. *Journal of Social Issues*, 44, pp.47-68.
- Wheatley Price, S. (1998). The unemployment experience of male immigrants in England. Discussion Paper in *Public Sector Economics*, University of Leicester, no. 98/10, November.
- Winkelmann, L. and Winkelmann, R. (1995). Happiness and unemployment: a panel data analysis for Germany. *Konjunkturpolitik*, 41, pp.293-307.
- Winkelmann, L. and Winkelmann, R. (1998). Why are the unemployed so unhappy? Evidence from panel data. *Economica*, 65, pp.1-17.

