

Racial and Economic Factors in Attitudes to Immigration^α

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Abstract

Hostility towards minorities may sometimes have economic rather than racial motives. Labour market fears, or concerns about the welfare system, may manifest themselves in hostile remarks and actions against population groups that are considered to be competitors for these resources, as well as political radicalisation. The question of what are the components of (often hostile) attitudes of majority populations towards minority related questions, like attitudes towards further immigration, are of great importance for implementing appropriate policies, and to identify the sources of hostility seems crucial for understanding the efficacy of political actions. We try to isolate the components of such attitudes. Our analysis is based on the British Social Attitudes Survey, which includes questions on attitudes towards immigration from different minority groups, as well as attitudes towards related concerns, like job security and benefit expenditures. This information allows us to explore the components of attitudes towards immigration. We specify and estimate a multifactor model. The correlation between answers to questions on immigration and on related issues help us separate different aspects to attitudes.

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1 Introduction

Over the last 4 decades, Europe has experienced large scale immigration. The ratio of the foreign born population approaches 10 percent in many European countries, and the percentage of ethnic minorities in first, second and third generation are even higher. In some regions, national minorities may even be locally majority populations. Immigrating populations (in particular, those in the second half of the 20th century) often differ quite substantially in terms of cultural, religious, and ethnic background from the indigenous population.

Attitudes of the majority population towards minorities, or towards further immigration, are often hostile, and can lead to outbreaks of social unrest. Politicians and the public are often puzzled by the strong, and sometimes violent, reactions of large groups of the indigenous population towards minorities, or minority related questions. The reasons and motives for these reactions are unclear. There are speculations that they may be related to deeper racist views as well as to economic fears concerning the labour market or the welfare state.

Despite its importance, there is little empirical research contributing to our understanding about the true nature of attitudes towards minority related issues. Hostility towards minorities may sometimes have economic rather than racial motives. Labour market fears, or concerns about the welfare system, may manifest themselves in hostile remarks and actions against population groups which are considered to be competitors for these resources, as well as political radicalisation. To identify the sources of hostility seems crucial for understanding the efficacy of political responses. Furthermore, identification of the sources of hostility may help to identify groups in the native population whose concerns need to be addressed most urgently. For

instance, if hostility is related to poor economic conditions (like unemployment), improving these conditions has effects over and above those of immediate interest.

One important issue relating to minorities is that of policy towards immigration. Opposition to ethnic minority immigration may be motivated by racial prejudice but can also stem, for instance, from fears among particular skill groups that immigrants will compete with them in the labour market or from fears that high levels of unemployment among likely immigrants will impose high fiscal costs on the indigenous population (see Borjas (1999) or Simon (1989) for a discussion of the effects of immigration).

In this paper, we attempt to separate racial components of attitudes towards immigration from other sources of hostility to immigration, including labour market fears and concerns about welfare system use. We base our analysis on various waves of the British Social Attitude Survey, which asks questions about attitudes towards immigration from different minority groups, including some more and some less ethnically similar to the indigenous population. They also ask about attitudes towards related concerns, like job security and benefit expenditures. This information allows us to explore the components of attitudes towards immigration. For this purpose, we specify and estimate a multiple factor model which imposes some structure on our problem. Correlations between answers to questions on immigration and on related issues will help separate different aspects to attitudes. Comparison of answers regarding immigration from different sources will help establish the plausibility of interpretation of remaining factors as involving racial attitudes.

2 Some Theoretical Consideration

Attitudes towards immigration are strongly related to the way individuals from the majority population perceive the effects of immigration on the economy.

There exists a large literature which analyses the effects of immigration on the welfare of the native population. The structure of these equilibrium models can be quite simple, and they may mirror the way individuals from the majority population assess the effects of immigration. Immigration from different source countries may be associated with different consequences by the host country population. Furthermore, these consequences may be of different relevance to natives in different segments of the labour market, and different regions of the country.

To be more specific, the impact of immigration will depend crucially on the ways in which the immigrant population differs from the native population. Suppose that immigrants are identical to natives in all characteristics, including their capital endowment, demographic and racial composition, and their skill mix. Even in this case, immigration will increase population density, which may have consequences for natives, for instance, in increasing pressure on the housing market. Also, if land is an input to production, it could potentially change input prices.

Suppose now that immigrants have different capital endowments to natives. Then immigration changes the capital-labour ratio, which ought, depending upon the nature of the wage setting mechanism, to affect either or both returns to labour, or the level of unemployment. This will affect individuals differently, depending upon their position in the labour market, particularly their perceived job security. Increases in unemployment will also

affect those in work through tax payments if it results in higher costs in the benefit system. In so far as immigrants from different sources are expected to carry different capital endowments this could give reason for different native attitudes to immigration from different origins.

Immigrants may also differ from natives in their human capital. If the skill mix among immigrants differs from that of natives then one would also expect immigration to lead to changes in the relative returns to different skill groups or to changes in the relative rates of unemployment. The details here are theoretically far from straightforward, depending upon patterns of complementarity and substitutability between different skills in production. However, there are clear reasons for individuals in different skill groups to have different concerns. For instance, it seems natural to expect the uneducated to be more fearful of the effects of low skill immigration.

A further dimension of difference may be the demographic composition. Borjas (1997), for example, has drawn attention to the possible impact of immigration on dependency ratios, and the consequent effects on cost of the benefit and social security systems. It may also have effects on the financing of the educational or health system.

Finally, immigrant populations are often culturally and racially different from the native population. The impact on ethnic and cultural diversity may be either welcomed or not, depending on the attitudes of the native individual concerned.

Most of these perceived effects can be seen as operating through one or other of three main dimensions: racial composition of the population, the person's own economic position, and the cost of the welfare system.

3 Data and Descriptives

Our attitudinal data is drawn from 8 years of the British Social Attitudes Survey (1983, 1984, 1985, 1986, 1987, 1989, 1990, 1991). We use the data for England and concentrate on white respondents only.¹

The survey has extensive socioeconomic information on respondents, including education, income, age, religion, and labour market status. In Table 1 we report summary statistics. We use two variables describing the characteristics of the locality of residence: the unemployment rate, and the concentration of ethnic minorities. In both cases, we measure these variables at the county level to minimise endogeneity issues arising from location choice (see Dustmann and Preston (1999)).²

The individual's own characteristics include their income situation, labour market characteristics, education, age, sex, and religious beliefs. The household income variable is reported in banded form in the data. Rather than calculating a continuous measure in units of income, we have computed the average percentage point of households in that band in the income distribution, for the specific year in which the individual is interviewed. When thinking about the effect of income on attitudes, we have in mind the effect of the relative position of the individual in the income distribution, rather than some absolute income measure. Our definition of household income seems therefore quite natural in this context.

¹Attitudes of ethnic minority individuals towards their own communities, or towards other ethnic minorities, are likely to be driven by different mechanisms. While it might be interesting to investigate their attitudes, the sample sizes within the BSA become very small when considering attitudes of minorities only.

²County is an administrative unit, covering on average 1.27 m people.

Variables	Mean	StdD
Unemployment rate, County level	0.0437	0.0203
Ethnic minority concentration, county	0.0262	0.0285
Rank in Income Distribution	0.5008	0.2877
Manual worker	0.4555	0.4980
Ever unemployed	0.1687	0.3745
Ever long term unemployed	0.0609	0.2392
Female	0.5368	0.4986
High Education Level	0.1017	0.3022
Low Education Level	0.4991	0.5000
Age	45.936	17.706
Catholic	0.1005	0.3007
No religion	0.3462	0.4757

The average age of individuals in the sample is about 46 years. Age is likely to affect attitudes for several reasons. First, it is a direct measure of life experience, which bears a strong effect on attitudes. Second, it marks the position of the individual in their economic cycle. At some stages of this cycle, individuals' attitudes may be more strongly affected by economic considerations. Finally, the age variable captures cohort effects.

We also include dummy variables indicating whether the individual is a manual worker, has ever been in unemployment, either short or long term, and is female.

We have generated two dummy variables which allocate individuals to a high education category depending upon whether they remained in education beyond age 18 and to a low education category depending upon whether they left school before age 16. Education is likely to affect attitudes for several reasons. Higher education may shape attitudes by exposing the individual

to a wider range of views. Education is also likely to pick up aspects of peoples' long term economic prospects which are not captured by the before mentioned variables. Finally, we have added two variables on religious beliefs.

Our ultimate interest is in understanding the factors which affect the attitudes towards immigration. The BSA survey asks for several years questions concerning opinions about immigration from different origin countries. Specifically, distinctions are drawn between immigration from the West Indies, from India and Pakistan, from other countries in the European common market, and from New Zealand and Australia.³ We create binary variables for all these responses. In the appendix, we report the full wording of the original questions and some summary statistics. Hostility towards immigration from the former two sources is clearly stronger. We hypothesise that racial factors are more prominent in influencing attitudes towards ethnically different immigrants.

To decompose these attitudes into the three factors we have discussed above, we use an array of questions which are specific to the suggested underlying concerns of respondents. In particular, questions related to race comprise opinions on inter ethnic marriage, acceptability of an ethnic minority superior at work, and self rated prejudice against minorities. Questions related to labour market concerns include fear of job loss, perception of job security, perceived ease of finding a new job, and expectations of wage growth. Finally, questions related to welfare concerns cover opinions on generosity of benefits, needs of welfare recipients, and preparedness to pay higher taxes to expand welfare provision. Again, the exact wording of the questions and

³The wording of these questions changed in 1991. Therefore, we restrict our analysis to the surveys before 1991.

summary statistics are given in the appendix.

Variables	83	84	85	86	87	89	90	Total
Less West Indian	1140	1051		757		883	804	4635
Less Asian	1156	1060		756		885	804	4661
Less European	1151	1056		756		883	803	4649
Less Australian	1155	1058		754		882	806	4655
Marriage	1186	1113		833		1015		4147
Boss	1199	1117		850		1022		4188
Prejudice	1218	1118	1185	1615	1945	2085	897	10063
Job Loss	1221	1132	1193	1631		2094	1793	9064
Find Job						652		652
Wage Exp	596	578	600	846	976	1058	918	5572
Job Security						590		590
Benefts	1149	1052	1121	1545	1849	1943	1641	10300
Need					923	1820		2743
More spending					924	1825		2749

Not all of these questions were asked in every year. The number of usable responses to each question in each year is summarised in table 2, where usability is determined by availability of data on both regressors and dependent variables. In our estimation procedures, we make maximum use of the available data. All observations covered in table 2 are used.

4 Econometric Specification

4.1 Model Specification

Our data sources contain, besides attitudes towards immigration by different minority groups, attitudes towards related concerns, like job security, benefit

expenditures and exclusively racial questions.

The model we specify is a multifactor model. We intend to relate the attitudes towards immigration by various ethnic groups (including West Indians, Asians, Europeans, and Australians) to three factors: a racial factor, a factor concerning labour market fears, and a factor regarding welfare concerns. We also allow these attitudes to vary across individuals according to other observed characteristics.

We observe only discrete responses to the immigration questions y_i and we assume corresponding latent variables y_i^* .

$$y^* = f \alpha + X A + u; \quad (1)$$

where y^* is an $n \times m$ matrix of latent attitudinal responses to m immigration questions for n individuals, and A is a $k \times m$ matrix of conditional responses of attitudes to k other observed characteristics X . The matrix f is an $n \times p$ matrix of factor scores capturing the p underlying dimensions to attitudes towards immigration, and α is a $p \times m$ matrix of factor loadings, which map the factor scores into the attitudinal responses. We assume that the error terms in the $n \times m$ matrix u are normally distributed, with $u \gg N(0; S_u)$, and uncorrelated with either X or f .

The factors are themselves assumed to be influenced by the regressors X :

$$f = X B + v; \quad (2)$$

where B is a $k \times p$ matrix of coefficients in the underlying lower dimensional model. We assume that $v \gg N(0; S_v)$. The assumption that u is uncorrelated with X or f implies that u and v are not correlated.

We can not directly observe these factors; instead, we observe an array of responses to questions on issues which are each strongly related to one or other of these factors. These include three sets of questions. First, there is a set of questions indicating racial attitudes: specifically, attitudes towards inter ethnic marriage, having a minority boss, and self admitted prejudice against minorities. Secondly, there are question regarding labour market security: specifically questions on fear of job loss, ease of finding a job and expected future wage paths. Thirdly, there is a set of questions indicating welfare concerns, including a question on adequacy of benefit levels, perception of recipients' need, and willingness to pay for increased public social spending. Again, only discrete outcomes on these variables are observed. The latent indices relate to the factors as follows:

$$z^{\pi} = f M + X C + w; \quad (3)$$

where z^{π} is a $n \times q$ matrix of latent responses, M is a $p \times q$ matrix of factor loadings, C is a matrix of conditional responses to X , and w is an $n \times q$ matrix of error terms, which are distributed normally, with $w \sim N(0; S_w)$. As with u , w is assumed uncorrelated with X and f and therefore also with v . The assumption of block diagonality on M will prove crucial to identification.

This structure implies an estimable reduced form, which can easily be obtained by substitution. Let Y^{π} denote the stacked vector of latent responses,

$$Y^{\pi} = \begin{pmatrix} z^{\pi} \\ Y^{\pi} \end{pmatrix} = \begin{pmatrix} B \\ A \end{pmatrix} \begin{pmatrix} y^{\pi} \\ X \end{pmatrix} + \begin{pmatrix} w \\ \epsilon \end{pmatrix}. \quad \text{We then obtain}$$

$$Y^{\pi} = X \beta + \epsilon; \quad (4)$$

where

$$i = B \begin{matrix} 0 & 1 & 0 & 1 & 0 & 1 \\ \otimes & & & & & \\ M & & & & & \end{matrix} \alpha \begin{matrix} C \\ A \end{matrix} + \begin{matrix} B \\ \otimes \\ C \end{matrix} \begin{matrix} A \\ C \end{matrix} - \begin{matrix} B \\ \otimes \\ i_1 \end{matrix} \begin{matrix} C \\ A \end{matrix} \quad (5)$$

is the $(m + q) \times k$ matrix of reduced form coefficients and

$$z = v \begin{matrix} 0 & 1 & 0 & 1 \\ \otimes & & & \\ M & & & \end{matrix} \alpha \begin{matrix} C \\ A \end{matrix} + \begin{matrix} B \\ \otimes \\ w \end{matrix} \begin{matrix} u \\ C \end{matrix} :$$

Then $z \gg N(0; S_2)$, where

$$S_2 = \begin{matrix} 0 & & & 1 & 0 & & 1 \\ \otimes & S_u + \alpha S_v \alpha^0 & S_{uw} + M S_v \alpha^0 & C & - \otimes & S_{11} & S_{12} \\ & S_{uw}^0 + \alpha S_v M^0 & S_w + M S_v M^0 & & & S_{12}^0 & S_{22} \end{matrix} \begin{matrix} C \\ A \end{matrix} \quad (6)$$

is the $(m + q) \times (m + q)$ variance-covariance matrix of the reduced form residuals and S_{uw} denotes $E(uw^0)$.

4.2 Estimation

We estimate the reduced form in a two stage procedure to obtain estimates of i and S_2 . We estimate i by a series of independent (ordered) probits. We then estimate the components of S_2 by pairwise bivariate Maximum Likelihood, conditional upon the estimated probit coefficients. Not all of the questions used are asked in every year of our sample but there is sufficient overlap to identify all reduced form parameters.

This estimation procedure is similar to that suggested by Muthén (1984) or by Browne and Arminger (1995). Our derivation of the variance covariance matrix for the estimates draws on the arguments of Muthén and Satorra (1995).

Let μ_1 denote the vector of parameters estimated by independent ordered probits in the first stage (which is to say the vector of the elements of β_j) and let μ_2 denote the vector of parameters estimated by pairwise bivariate likelihood maximisation at the second stage (which is to say the vector of all generically distinct off-diagonal elements of Σ_2). Let $\mu = (\mu_1^0; \mu_2^0)^0$ denote the vector of all reduced form parameters.

Let $l^i(\mu)$ denote a vector of the same dimensions as μ the elements of which are the log likelihood contributions of the i th respondent to estimation of the corresponding elements of μ . Note that different likelihoods are used to estimate parameters at different stages and in different equations. Furthermore let

$$l^i(\mu) = (l_1^i(\mu_1); l_2^i(\mu_1; \mu_2))^0;$$

define a partition of $l^i(\mu)$ into elements corresponding to first and second stage estimations.

The estimates $\hat{\mu} = (\hat{\mu}_1^0; \hat{\mu}_2^0)^0$ solve the score equations

$$\begin{aligned} \sum_i q_1^i(\hat{\mu}_1) &= \sum_i \frac{\partial}{\partial \mu_1} l_1^i(\hat{\mu}_1) = 0 \\ \sum_i q_2^i(\hat{\mu}_1; \hat{\mu}_2) &= \sum_i \frac{\partial}{\partial \mu_2} l_2^i(\hat{\mu}_1; \hat{\mu}_2) = 0: \end{aligned}$$

Denote by $q^i(\hat{\mu}) = (q_1^i(\hat{\mu}_1); q_2^i(\hat{\mu}_1; \hat{\mu}_2))^0$ the vector of stacked score contributions for the i th respondent and by $q(\hat{\mu}) = \sum_i q^i(\hat{\mu}) = 0$ the score vector.

By the Mean Value Theorem

$$0 = q(\hat{\mu}) = q(\mu) + Q(\rho)(\hat{\mu} - \mu)$$

for some ρ between $\hat{\mu}$ and μ , where $Q(\mu) = \frac{\partial}{\partial \mu} q(\mu)$. Therefore

$$P_{\hat{\mu}}^{-1}(\hat{\mu} - \mu) = \left(\frac{1}{n} Q(\rho) \right)^{-1} \frac{1}{n} q(\mu);$$

Since

$$\frac{1}{n} q(\mu) \stackrel{d}{\rightarrow} N(0; V);$$

where $V = \text{plim} \frac{1}{n} \sum_i q^i(\mu) q^i(\mu)^0$, and $\hat{\mu} \rightarrow \mu$, we have

$$P_{\hat{\mu}}^{-1}(\hat{\mu} - \mu) \stackrel{d}{\rightarrow} N(0; A^{-1} V A^{0-1});$$

where $A = \frac{1}{n} Q(\mu)$.

Note that under standard regularity conditions

$$\hat{V} = \frac{1}{n} \sum_i q^i(\hat{\mu}) q^i(\hat{\mu})^0 \rightarrow V$$

$$\hat{A} = \frac{1}{n} \sum_i \frac{\partial}{\partial \mu} q^i(\hat{\mu}) \frac{\partial}{\partial \mu} q^i(\hat{\mu})^0 \rightarrow A$$

so that we can consistently estimate V and the block lower triangular matrix A by taking the outer products of gradients indicated. We can thereby consistently estimate the asymptotic variance covariance matrix of the estimates by $\hat{\Delta} = \hat{A}^{-1} \hat{V} \hat{A}^{0-1}$.

We then impose the restrictions in (5) and (6) in a second step by minimum distance. The estimation procedure outlined above does not, however, guarantee positive semi-definiteness of $\hat{\Delta}$ which cannot therefore be used as the weighting matrix⁴. We chose as an alternative weighting matrix⁵ the

⁴In practice we find $\hat{\Delta}$ to have a few small negative eigenvalues

⁵Another idea would be to use the positive semi-definite matrix obtained from $\hat{\Delta}$ by replacing the negative eigenvalues by zeros in the spectral decomposition. We found this to give very unstable results.

diagonal matrix $\text{dg}(\hat{\Lambda})$ containing the diagonal elements of $\hat{\Lambda}$. Since this is not the optimal weighting matrix the minimised value of the criterion does not give the standard \hat{A}^2 test of the restrictions so we use the formula in Newey (1985).

4.3 Identification

Identification is poorly understood in these types of models (see Maddala (1983) and Muthén (1979)). We provide a heuristic discussion which establishes identification in our case.

Note that because of the discrete nature of the dependent variables we can estimate only the ratios of the elements of β_j to the standard deviations of the associated components of Σ . Likewise we can estimate only the matrix of correlations associated with Σ_z . We adopt the identifying normalisation that the diagonal elements in Σ_u and in Σ_w are such as to make the diagonal elements of Σ_z equal to unity.

Consider firstly identification of M and Σ_v . This is achieved through the imposition of structure on the M , Σ_v and Σ_w matrices. Specifically, we assume that M is a block diagonal matrix, with only one non-zero element in each row. That is to say, we assume that each response in z^a is indicative of one and only one factor. Furthermore, we assume diagonality of the Σ_w matrix, so that all correlation between these responses is accounted for by the factor structure. Finally, we set the diagonal elements of Σ_v to unity. These parameters are then identified by the restriction $\Sigma_{22} = \Sigma_w + M \Sigma_v M^0$. Remembering the particular block diagonal structure of M , suppose that the i th block has q_i elements. Then there are $q_i(q_i - 1)/2$ off-diagonal elements in the corresponding block of Σ_{22} from which to identify them. This is sufficient

only if $q_i \geq 3$. This is so for each block in our case. Having identified M , the off-diagonal elements of S_v are then identified without further restriction from the remaining elements of S_{22} , that is to say from the correlations between elements in different blocks. Notice that we allow for correlation between the factors since S_v is not required to be diagonal.

Now consider identification of the main parameters of interest, α . There is more than one possibility here. Our favoured approach is to assume $S_{uw} = 0$ and use $S_{12} = M S_v \alpha^0$. That is to say, we assume that all conditional correlation between responses to the immigration questions and the indicator questions is accounted for by the factors of interest. With M and S_v identified elsewhere, this is sufficient to identify α if $p \cdot q$, which is to say that there are fewer factors than indicator questions - a basic assumption.

It would also be possible to use an assumption of diagonality of S_u and the restriction $S_{11} = S_u + \alpha S_v \alpha^0$. This alone, however, gives only $m(m+1)/2$ reduced form parameters from which to identify the mp parameters in α and is therefore sufficient only if $p \cdot (m+1)/2$. This is not so in our example. Besides, this seems to us a less desirable restriction to impose. We do not wish to exclude the existence of other sources of correlation between immigration responses, provided they are orthogonal to the factors of interest.

To identify B we can either assume $C = 0$ and use $\beta_2 = MB$ or $A = 0$ and use $\beta_1 = \alpha B$. If we use the first to identify B then A is plainly estimable.

5 Results

In the first step, we estimate independent probits on each of the attitude questions. This provides estimates of β_j in (4). The coefficients of the four-

teen independent probits, estimated for the sample of all respondents, are reported in Tables 1-4. They are grouped according to their relevance either to attitudes regarding immigration or to the three hypothesised underlying factors. The residual correlation matrix estimated at the second stage through pairwise bivariate maximum likelihood techniques, which corresponds to \mathcal{S}_2 in (6), is shown in Table 5.

After having obtained estimates of β_j and \mathcal{S}_2 , we impose restrictions in a final minimum distance stage. As we have discussed above, there are various strategies to identify the model. The identifiable parameters depend on the restrictions we are willing to impose at this stage. Tables 6-8 report the results of imposing increasingly more restrictions on the coefficients in tables 1-5 so as to estimate successively larger sets of underlying parameters.

5.1 The full sample

In Table 6 we impose only the substantive assumptions of block diagonality on M and diagonality on \mathcal{S}_w to identify the indicator loadings in M and the correlations between factors in \mathcal{S}_v . As can be seen the restrictions are comfortably accepted according to the Newey \hat{A}^2 test. The common signs of the factor loadings within blocks in the matrix M are consistent with the desired interpretation. The coefficients which reflect the conditional correlation between the three factors are displayed in the matrix \mathcal{S}_v . Note the significant conditional correlations between antipathy to welfare spending and both racial hostility and low job insecurity.

In Table 7 we add the restriction $\mathcal{S}_{uw} = 0$ and use $\mathcal{S}_{12} = M \mathcal{S}_v \alpha^0$ to identify the main parameters of interest α . The over identifying restrictions are again accepted at usual significance levels suggesting that it may not be

inappropriate to think that the conditional correlations between the immigration responses and responses to the indicator questions can be accounted for through the supposed factor structure.

The most striking result is the strength, both quantitatively and statistically, of the impact of racial attitudes on hostility to immigration from the West Indies or from Asia. There is some evidence of a similar component to attitudes towards European immigration but not to immigration from Australia and New Zealand. This pattern of responses clearly fits very well with the proposed interpretation.

Estimated effects from job insecurity are weaker but there do appear to be significant positive effects on attitudes to immigration from the West Indies and Asia though much less as regards immigration from Europe or the antipodes. Hostility to welfare spending seems similarly correlated.

Overall none of the factors seem to have any obvious bearing on attitudes to immigration from Australia or New Zealand. The figures in the last column can be interpreted as the proportion of the residual variance which is not associated with the factors. For immigration from the more ethnically distinct sources, from one half to two thirds of the residual variance remains unaccounted for in terms of the factor model. For immigration from Australia and New Zealand, almost all remains unaccounted for.

In Table 8, the additional restriction $C = 0$ in (3) is used to identify B . The Newey test indicates that this restriction is very strongly rejected. It is nonetheless interesting to note that the estimates of M and α are fairly stable. It may still be worth considering the estimates of B which may be indicative of the main forces driving the three aspects to attitudes. We have displayed the results in the matrix B in table 8. Racial hostility is positively

associated with ethnic concentration at county level and also perhaps with low local unemployment rates. At the individual level hostility appears to be lower for the highly educated, the young, Catholics, those on low incomes and men. These results are compatible with the broad picture suggested in Dustmann and Preston (1999).

Perceptions of job insecurity are strongest amongst poorer, older, female, manual workers with low education and experience of unemployment. All of these seem obviously sensible findings. Antipathy to welfare on the other hand is strongest among richer, older, Protestant, and female respondents living in areas of low unemployment. Again this seems reasonable.

5.2 Selected Subsamples

Our discussion above suggested that individuals in different sectors of the labour market, or of different skill levels, may have reason to view immigration differently. In particular, it is often been argued that manual workers, as well as less skilled workers, are more vulnerable to low skilled immigration (Borjas 1999). If so, then one might expect that this may show up in a difference in the factors driving attitudes of workers in distinct labour market segments.

Although our analysis above takes account of variables describing these segments by incorporating them as regressors, we now estimate separate systems for the different groups, implicitly allowing all coefficients to vary with labour market sector.

Tables 9-13 report results for selected subsamples. In each case we show the results imposing $S_{22} = S_w + M S_v M^0$ and $S_{12} = M S_v \alpha^0$. These are typically the strongest restrictions accepted and allow identification of α but

not B. Restricting the sample to the employed has almost no effect on results and we do not provide a separate table for these.

Tables 9 and 10 distinguish between manual and non manual employed respondents. The impact of racial attitudes remain strong amongst manual workers but the influence of the other two components is lost. Amongst non manual workers these influences remain strong but this is the one group in which the restrictions are rejected. This is contrary to what we would expect, given the common perception that labour market and welfare considerations are of more concern to manual workers than non manual workers.

Tables 11-13 show education groups separately. Here we see the strongest effects among the group with medium education. For neither the highly nor the poorly educated is there much evidence of influence from the job insecurity or welfare antipathy components. For the highly educated - the most tolerant group - there is not even any identifiable influence from racial hostility. To an extent this may simply reflect the considerable reduction in sample size.

6 Discussion and Conclusion

It is commonly argued that immigrants may be a burden on welfare and public services, and that immigration may lead to job displacement of native workers (see Borjas 1999 for an example of such arguments or Simon 1989 for a more skeptical view). If such views are shared by large numbers of the public then (independently of whether they are justified) such concerns may be an important component of aversion towards further immigration. If such considerations contribute towards opinions on migration issues, then

policies related to labour market security and welfare spending may have important secondary effects on public opinion about and resistance towards further immigration. By way of contrast, if hostility towards immigration is rooted in racial hostility then it may be less responsive to more economic interventions.

In this paper, we attempt to understand the importance of welfare and labour market concerns, as well as racially inclined considerations for the formation of opinions towards further immigration. We use data on attitudes of the majority ethnic community in England to decompose attitudes towards further immigration into a racial component, a welfare component, and a component which reflects labour market concerns. Based on several years of data from the British Attitude Survey, we estimate a multi-stage factor model, where we use opinions on welfare, racial, and labour market issues as a means to separate attitudes towards further immigration into these three components.

Our results are interesting in several aspects. First, we do find evidence that both welfare and labour market concerns matter for the opinion towards further immigration. However, by far the most important factor is racially motivated opposition.

Second, we find that attitudes towards immigration, and the relative importance of the three factors, differs according to the ethnic origin of the immigrant population concerned. Our data allows us to distinguish between attitudes towards four different origin groups. Our results indicate that a negative attitude towards further immigration is strongly related to all the three factors for Asians and West Indians, while it is less strongly explained for Europeans. The factors we have defined hardly explain at all the atti-

tudes towards Australians and New Zealanders, which suggests that opposition towards immigration from such sources is scarcely linked to any of our systematic factors. The dominant racial factor is particularly strong for the Asian and West Indian population.

Third, we do not find strong evidence that the greater labour market concerns sometimes believed to exist among unskilled and manual workers are reflected in a higher loading of the labour market factor in opposition towards further immigration. On the contrary, we find that welfare and labour market concerns are more closely linked to opinions towards further immigration for non-manual workers than for manual workers. Again, as above, there are for all subgroups distinct differences according to origin country, with racial factors being stronger for ethnically more different populations.

Table 1: Immigration Probits

Variable	Less West Indian		Less Asian		Less Euro		Less Australian	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Unemployment rate	-2.49	-2.08	-3.38	-2.77	-1.08	-0.94	-1.29	-1.08
Ethnic minor. conc.	-0.05	-2.06	-0.03	-1.36	-0.05	-1.86	-0.04	-1.51
Income Rank	0.32	3.33	0.25	2.54	0.21	2.28	0.43	4.42
Manual worker	0.07	1.27	0.12	2.23	0.14	2.50	0.05	0.94
Ever unemployed	-0.04	-0.59	-0.01	-0.07	-0.04	-0.60	0.02	0.28
Ever long term unemp.	0.01	0.05	-0.10	-0.82	0.06	0.54	-0.06	-0.51
Female	0.01	0.22	0.00	0.02	0.05	0.97	0.06	1.26
High Education Level	-0.42	-5.10	-0.48	-5.77	-0.34	-4.22	-0.23	-2.66
Low Education Level	0.06	1.04	0.09	1.55	0.13	2.32	0.15	2.77
Age	0.93	5.67	0.74	4.23	0.56	3.57	-0.28	-1.62
Catholic	-0.16	-2.01	-0.18	-2.20	-0.05	-0.57	-0.07	-0.91
No religion	0.05	0.86	0.02	0.30	0.08	1.55	0.12	2.13

Table 2: Racial Attitude Probits

Variable	Marriage		Boss		Prejudice	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Unemployment rate,	-1.41	-1.18	-2.72	-2.00	-1.71	-2.15
Ethnic minor. conc.	0.04	1.40	0.04	1.44	0.04	2.07
Income Rank	0.30	2.82	-0.12	-1.04	0.46	5.48
Manual worker	0.06	1.12	0.05	0.81	-0.09	-2.26
Ever unemployed	0.02	0.23	0.07	0.76	0.07	1.11
Ever long term unemp.	0.01	0.05	0.03	0.22	-0.06	-0.63
Female	0.03	0.56	-0.11	-1.89	-0.16	-4.34
High Education Level	-0.32	-3.45	-0.25	-2.09	-0.32	-4.97
Low Education Level	0.06	1.01	-0.05	-0.77	0.04	0.89
Age	1.34	7.82	0.67	3.50	0.12	1.03
Catholic	-0.13	-1.61	-0.19	-1.80	-0.27	-4.31
No religion	-0.15	-2.62	0.10	1.53	0.04	1.00

Table 3: Job Attitudes Probits

Variable	Job Loss		Find Job		Wage		Job Security	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Unemployment rate,	0.61	0.73	14.17	5.31	0.49	0.55	-1.09	-0.32
Ethnic minor. conc.	0.01	0.52	-0.08	-1.67	-0.04	-1.77	-0.06	-1.07
Income Rank	-1.81	-19.41	-0.54	-2.70	-0.86	-9.40	0.06	0.21
Manual worker	0.01	0.27	0.17	1.59	0.25	4.76	0.31	2.48
Ever unemployed	0.15	2.64	0.15	0.97	-0.01	-0.21	0.68	4.16
Ever long term unemp.	-0.16	-1.47	0.25	1.00	0.18	2.20	-0.51	-1.80
Female	0.25	5.97	-0.13	-1.31	0.32	7.06	-0.06	-0.48
High Education Level	0.16	2.44	0.10	0.62	-0.02	-0.25	0.07	0.44
Low Education Level	-0.19	-3.92	-0.05	-0.44	0.03	0.65	0.12	0.97
Age	1.90	11.87	2.80	7.13	0.73	3.94	1.25	2.62
Catholic	-0.03	-0.43	-0.06	-0.35	0.07	1.12	-0.05	-0.27
No religion	-0.04	-0.90	0.08	0.85	0.01	0.32	0.05	0.44

Table 4: Welfare Attitude Probits

Variable	Benefits		Need		More Spending	
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio
Unemployment rate,	-3.32	-3.90	-7.54	-5.81	-3.28	-2.49
Ethnic minor. conc.	0.02	0.85	0.06	2.09	-0.00	-0.13
Income Rank	0.43	4.94	0.12	1.05	0.56	4.94
Manual worker	-0.15	-3.20	0.15	2.49	-0.13	-2.21
Ever unemployed	-0.22	-3.12	-0.09	-1.05	-0.06	-0.63
Ever long term unemp.	-0.20	-1.58	-0.10	-0.81	-0.01	-0.08
Female	0.07	1.46	0.10	1.87	0.05	0.83
High Education Level	-0.42	-5.81	-0.39	-3.71	-0.18	-1.88
Low Education Level	-0.01	-0.22	0.22	3.32	0.07	1.09
Age	1.11	8.21	0.84	4.33	-0.73	-3.77
Catholic	-0.28	-3.81	-0.04	-0.51	-0.23	-2.54
No religion	-0.13	-2.67	-0.04	-0.62	-0.11	-1.95

Table 5: Correlation of Attitudes

LESSWIND	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LESSASIA	0.98	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LESSEURO	0.85 [□]	0.83 [□]	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LESSAUST	0.84 [□]	0.81 [□]	0.89 [□]	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
ANTIMETH	0.43 [□]	0.48 [□]	0.15 [□]	0.04	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
ANTIBETH	0.40 [□]	0.46 [□]	0.07	-0.04	0.65 [□]	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PREJETH	0.46 [□]	0.50 [□]	0.18 [□]	0.07 [□]	0.58 [□]	0.63 [□]	1.00	.	.	.	.	.	.	.	.	.	.	.	.	.
LOSEFEAR	-0.00	-0.01	-0.01	-0.01	-0.04	0.00	-0.01	1.00	.	.	.	.	.	.	.	.	.	.	.	.
FINDEAS	0.06	0.10	0.09	0.04	0.00	0.08	0.03	0.12 [□]	1.00	.	.	.	.	.	.	.	.	.	.	.
WAGEXPCT	0.00	-0.01	-0.00	-0.02	-0.02	-0.03	-0.01	0.09 [□]	0.04	1.00	.	.	.	.	.	.	.	.	.	.
JOBSEC	0.13	0.17 [□]	0.09	0.09	0.01	0.04	-0.00	0.24 [□]	0.24 [□]	0.15	1.00	.	.	.	.	.	.	.	.	.
BENHIGH	0.18 [□]	0.23 [□]	0.10 [□]	0.07	0.14 [□]	0.14 [□]	0.14 [□]	-0.06 [□]	-0.20 [□]	-0.03	-0.17 [□]	1.00	.	.	.	.	.	.	.	.
SOHELP	0.23 [□]	0.27 [□]	0.13 [□]	0.04	0.16 [□]	0.22 [□]	0.22 [□]	-0.08 [□]	-0.13 [□]	-0.07	-0.09	0.51 [□]	1.00	.	.	.	.	.	.	.
MOREWE	0.14 [□]	0.19 [□]	0.07	0.01	0.15 [□]	0.13 [□]	0.16 [□]	-0.02	-0.05	-0.09	-0.01	0.37 [□]	0.35 [□]	1.00	.	.	.	.	.	.

Eigenvalues: 0.008, 0.031, 0.116, 0.322, 0.407, 0.480, 0.599, 0.667, 0.854, 0.983, 1.259, 1.766, 2.200, 4.308

Table 6: All respondents, Minimum distance: $S_{22} = S_w + M S_v M^0$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]
Marriage	0.760	16.27	0.000	0.00	0.000	0.00	0.423
Boss	0.832	15.18	0.000	0.00	0.000	0.00	0.307
Prejudice	0.771	17.43	0.000	0.00	0.000	0.00	0.406
Job Loss	0.000	0.00	0.424	6.37	0.000	0.00	0.820
Find Job	0.000	0.00	0.359	4.70	0.000	0.00	0.871
Wage	0.000	0.00	0.210	3.03	0.000	0.00	0.956
Job security	0.000	0.00	0.762	7.50	0.000	0.00	0.419
Bene ^{ts}	0.000	0.00	0.000	0.00	0.678	14.79	0.541
Need	0.000	0.00	0.000	0.00	0.734	16.78	0.461
More Spending	0.000	0.00	0.000	0.00	0.500	13.24	0.750

S_v

Variable	Race		Jobs		Welfare	
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio
Race	1.000	1.00	-0.011	-0.16	0.313	6.54
Jobs	-0.011	-0.16	1.000	1.00	-0.281	-4.01
Welfare	0.313	6.54	-0.281	-4.01	1.000	1.00

Newey $\hat{A}_{32}^2 = 33.819$ P-value = 0.380

Table 7: All respondents, Minimum distance: $S_{22} = S_w + M S_v M^0$, $S_{12} = M S_v \alpha^0$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]
Marriage	0.768	19.09	0.000	0.00	0.000	0.00	0.410
Boss	0.771	16.28	0.000	0.00	0.000	0.00	0.406
Prejudice	0.807	19.76	0.000	0.00	0.000	0.00	0.349
Job Loss	0.000	0.00	0.386	5.86	0.000	0.00	0.851
Find Job	0.000	0.00	0.365	4.82	0.000	0.00	0.867
Wage	0.000	0.00	0.206	2.93	0.000	0.00	0.957
Job security	0.000	0.00	0.815	7.76	0.000	0.00	0.336
Bene ^{ts}	0.000	0.00	0.000	0.00	0.669	14.17	0.552
Need	0.000	0.00	0.000	0.00	0.742	16.00	0.449
More Spending	0.000	0.00	0.000	0.00	0.498	12.92	0.752

α

Variable	Race		Jobs		Welfare		diag(S_u)
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]
West Indian	0.497	11.56	0.135	2.03	0.171	2.86	0.667
Asian	0.551	12.12	0.152	2.35	0.221	3.62	0.569
European	0.136	3.39	0.102	1.45	0.138	2.35	0.949
Australian	0.013	0.32	0.070	0.96	0.095	1.54	0.989

S_v

Variable	Race		Jobs		Welfare	
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio
Race	1.000	1.00	-0.009	-0.13	0.312	6.63
Jobs	-0.009	-0.13	1.000	1.00	-0.282	-4.02
Welfare	0.312	6.63	-0.282	-4.02	1.000	1.00

Newey $\hat{A}_{60}^2 = 72.694$ P-value = 0.126

Table 8: All respondents, Minimum distance: $S_{22} = S_w + M S_v M^0$, $S_{12} = M S_v \alpha^0$,
 $i_2 = MB$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
Marriage	0.783	20.58	0.000	0.00	0.000	0.00	0.387
Boss	0.756	16.85	0.000	0.00	0.000	0.00	0.428
Prejudice	0.802	20.90	0.000	0.00	0.000	0.00	0.356
Job Loss	0.000	0.00	0.537	12.81	0.000	0.00	0.711
Find Job	0.000	0.00	0.339	7.60	0.000	0.00	0.885
Wage	0.000	0.00	0.263	9.27	0.000	0.00	0.931
Job security	0.000	0.00	0.464	8.89	0.000	0.00	0.784
Benefts	0.000	0.00	0.000	0.00	0.719	18.06	0.483
Need	0.000	0.00	0.000	0.00	0.732	19.30	0.465
More Spending	0.000	0.00	0.000	0.00	0.480	14.45	0.770

α

Variable	Race		Jobs		Welfare		diag(S_u)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
West Indian	0.506	12.19	0.097	1.63	0.151	2.71	0.675
Asian	0.562	12.78	0.105	1.81	0.196	3.46	0.582
European	0.144	3.74	0.066	1.06	0.120	2.20	0.955
Australian	0.019	0.47	0.033	0.51	0.081	1.40	0.993

B

Variable	Race		Jobs		Welfare	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Unemployment rate	-2.261	-2.13	2.423	1.27	-6.335	-4.84
Ethnic concentration	0.056	2.54	-0.017	-0.44	0.036	1.40
Income	0.372	3.73	-3.037	-10.57	0.531	4.51
Manual	-0.012	-0.26	0.261	2.78	-0.084	-1.41
Ever unemployed	0.077	1.11	0.418	3.12	-0.226	-2.33
Ever long term	-0.045	-0.40	0.235	0.95	-0.197	-1.40
Female	-0.131	-2.84	0.493	5.49	0.113	1.97
High education	-0.401	-4.87	0.214	1.74	-0.567	-5.30
Low education	0.012	0.22	-0.234	-2.11	0.094	1.47
Age	0.695	4.52	3.733	7.56	1.081	5.54
Catholic	-0.288	-3.84	0.014	0.10	-0.294	-3.23
No religion	-0.015	-0.31	-0.012	-0.13	-0.139	-2.26

Sv

Variable	Race		Jobs		Welfare	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Race	1.000	1.00	0.025	0.39	0.301	6.60
Jobs	0.025	0.39	1.000	1.00	0.263	3.84
Welfare	0.301	6.60	0.263	3.84	1.000	1.00

Newey $\hat{A}_{144}^2 = 3498.227$ P-value = 0.000

Table 9: Manual employed, Minimum distance: $S_{22} = S_w + M S_v M^0$, $S_{12} = M S_v \alpha^0$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]
Marriage	0.761	11.09	0.000	0.00	0.000	0.00	0.421
Boss	0.770	10.23	0.000	0.00	0.000	0.00	0.407
Prejudice	0.784	11.18	0.000	0.00	0.000	0.00	0.386
Job Loss	0.000	0.00	0.436	3.02	0.000	0.00	0.810
Find Job	0.000	0.00	0.412	2.43	0.000	0.00	0.830
Wage	0.000	0.00	0.146	1.17	0.000	0.00	0.979
Job security	0.000	0.00	0.491	2.79	0.000	0.00	0.759
Bene ^{ts}	0.000	0.00	0.000	0.00	0.688	6.92	0.527
Need	0.000	0.00	0.000	0.00	0.738	7.29	0.455
More Spending	0.000	0.00	0.000	0.00	0.406	5.46	0.835

α

Variable	Race		Jobs		Welfare		diag(S_u)
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]
West Indian	0.536	7.43	0.108	0.89	0.113	1.10	0.672
Asian	0.596	7.51	0.106	0.80	0.125	1.18	0.596
European	0.183	3.12	0.010	0.08	0.108	1.12	0.947
Australian	0.018	0.29	-0.086	-0.64	0.097	0.95	0.977

S_v

Variable	Race		Jobs		Welfare	
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio
Race	1.000	1.00	-0.036	-0.31	0.224	3.10
Jobs	-0.036	-0.31	1.000	1.00	-0.266	-1.91
Welfare	0.224	3.10	-0.266	-1.91	1.000	1.00

Newey $\hat{A}_{60}^2 = 47.266$ P-value = 0.884

Table 10: Non manual employed, Minimum distance: $S_{22} = S_w + M S_v M^0$, $S_{12} = M S_v \alpha^0$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]
Marriage	0.774	13.45	0.000	0.00	0.000	0.00	0.401
Boss	0.782	11.57	0.000	0.00	0.000	0.00	0.388
Prejudice	0.800	14.45	0.000	0.00	0.000	0.00	0.360
Job Loss	0.000	0.00	0.228	2.70	0.000	0.00	0.948
Find Job	0.000	0.00	0.309	2.93	0.000	0.00	0.904
Wage	0.000	0.00	0.284	2.72	0.000	0.00	0.919
Job security	0.000	0.00	0.829	4.24	0.000	0.00	0.313
Bene ^ˆ ts	0.000	0.00	0.000	0.00	0.651	10.22	0.577
Need	0.000	0.00	0.000	0.00	0.743	11.88	0.448
More Spending	0.000	0.00	0.000	0.00	0.573	9.62	0.671

α

Variable	Race		Jobs		Welfare		diag(S_u)
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]
West Indian	0.436	5.68	0.199	1.77	0.279	2.95	0.634
Asian	0.457	5.84	0.277	2.67	0.391	3.96	0.495
European	0.050	0.66	0.200	1.78	0.226	2.46	0.928
Australian	-0.047	-0.57	0.205	1.72	0.145	1.53	0.960

S_v

Variable	Race		Jobs		Welfare	
	Coe [®]	t-ratio	Coe [®]	t-ratio	Coe [®]	t-ratio
Race	1.000	1.00	-0.010	-0.09	0.400	6.05
Jobs	-0.010	-0.09	1.000	1.00	-0.337	-3.18
Welfare	0.400	6.05	-0.337	-3.18	1.000	1.00

Newey $\hat{A}_{60}^2 = 90.531$ P-value = 0.007

Table 11: High education, employed, Minimum distance: $S_{22} = S_w + M S_v M^0$, $S_{12} = M S_v \alpha^0$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
Marriage	0.813	5.10	0.000	0.00	0.000	0.00	0.339
Boss	0.900	5.52	0.000	0.00	0.000	0.00	0.191
Prejudice	0.687	5.32	0.000	0.00	0.000	0.00	0.528
Job Loss	0.000	0.00	0.189	1.13	0.000	0.00	0.964
Find Job	0.000	0.00	0.267	0.87	0.000	0.00	0.929
Wage	0.000	0.00	-0.242	-1.18	0.000	0.00	0.941
Job security	0.000	0.00	0.631	1.44	0.000	0.00	0.601
Bene ^{ts}	0.000	0.00	0.000	0.00	0.800	3.36	0.361
Need	0.000	0.00	0.000	0.00	0.775	4.07	0.399
More Spending	0.000	0.00	0.000	0.00	0.673	3.77	0.546

α

Variable	Race		Jobs		Welfare		diag(S_u)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
West Indian	0.421	1.26	0.480	1.24	0.263	0.91	0.313
Asian	0.429	1.34	0.499	1.42	0.310	1.03	0.227
European	-0.064	-0.24	0.426	1.32	0.259	0.91	0.756
Australian	-0.137	-0.49	0.472	1.32	0.235	0.85	0.742

S_v

Variable	Race		Jobs		Welfare	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Race	1.000	1.00	0.166	0.52	0.555	3.51
Jobs	0.166	0.52	1.000	1.00	0.084	0.31
Welfare	0.555	3.51	0.084	0.31	1.000	1.00

Newey $\hat{A}_{60}^2 = 37.434$ P-value = 0.990

Table 12: Medium education, employed, Minimum distance: $S_{22} = S_w + M S_v M^0$,
 $S_{12} = M S_v \alpha^0$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
Marriage	0.791	11.04	0.000	0.00	0.000	0.00	0.374
Boss	0.778	9.31	0.000	0.00	0.000	0.00	0.394
Prejudice	0.802	11.30	0.000	0.00	0.000	0.00	0.357
Job Loss	0.000	0.00	0.308	3.01	0.000	0.00	0.905
Find Job	0.000	0.00	0.459	3.85	0.000	0.00	0.789
Wage	0.000	0.00	0.234	1.86	0.000	0.00	0.945
Job security	0.000	0.00	0.750	4.50	0.000	0.00	0.437
Benefts	0.000	0.00	0.000	0.00	0.642	7.07	0.588
Need	0.000	0.00	0.000	0.00	0.752	7.89	0.435
More Spending	0.000	0.00	0.000	0.00	0.444	6.16	0.803

α

Variable	Race		Jobs		Welfare		diag(S_u)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
West Indian	0.475	5.99	0.191	1.50	0.220	2.07	0.644
Asian	0.514	6.37	0.223	1.92	0.316	3.17	0.516
European	0.129	1.76	0.192	1.45	0.146	1.46	0.928
Australian	0.009	0.13	0.061	0.51	0.014	0.15	0.996

S_v

Variable	Race		Jobs		Welfare	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Race	1.000	1.00	-0.002	-0.02	0.333	4.12
Jobs	-0.002	-0.02	1.000	1.00	-0.273	-2.50
Welfare	0.333	4.12	-0.273	-2.50	1.000	1.00

Newey $\hat{A}_{60}^2 = 67.537$ P-value = 0.235

Table 13: Low education, employed, Minimum distance: $S_{22} = S_w + M S_v M^0$, $S_{12} = M S_v \alpha^0$

M

Variable	Race		Jobs		Welfare		diag(S_w)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
Marriage	0.742	11.43	0.000	0.00	0.000	0.00	0.450
Boss	0.751	10.15	0.000	0.00	0.000	0.00	0.437
Prejudice	0.811	11.30	0.000	0.00	0.000	0.00	0.343
Job Loss	0.000	0.00	0.234	2.06	0.000	0.00	0.945
Find Job	0.000	0.00	0.654	2.33	0.000	0.00	0.572
Wage	0.000	0.00	0.151	1.19	0.000	0.00	0.977
Job security	0.000	0.00	0.173	1.07	0.000	0.00	0.970
Benefts	0.000	0.00	0.000	0.00	0.669	7.80	0.552
Need	0.000	0.00	0.000	0.00	0.750	7.95	0.438
More Spending	0.000	0.00	0.000	0.00	0.455	6.81	0.793

α

Variable	Race		Jobs		Welfare		diag(S_u)
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio	Coe®
West Indian	0.522	7.73	-0.008	-0.05	0.068	0.50	0.706
Asian	0.576	7.69	0.010	0.06	0.113	0.79	0.625
European	0.120	1.86	0.077	0.41	0.154	1.13	0.959
Australian	-0.010	-0.14	0.013	0.06	0.121	0.80	0.987

S_v

Variable	Race		Jobs		Welfare	
	Coe®	t-ratio	Coe®	t-ratio	Coe®	t-ratio
Race	1.000	1.00	-0.004	-0.03	0.242	3.34
Jobs	-0.004	-0.03	1.000	1.00	-0.485	-2.33
Welfare	0.242	3.34	-0.485	-2.33	1.000	1.00

Newey $\hat{A}_{60}^2 = 42.861$ P-value = 0.954

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7 Appendix: Wording of the Questions

Response	West Indians	Indians and Pakistanis	Common Market Countries (Europe)	Australians and New Zealanders
more settlement, about the same	34.79	31.06	55.29	68.01
less settlement	65.21	68.94	44.71	31.99
	100.00	100.00	100.00	100.00

Wording of Question: Britain controls the number of people from abroad that are allowed to settle in this country. Please say for each of the groups below whether you think Britain should allow more settlement, less settlement, or about the same as now.

Response	Opposition to Marriage	Opposition to Boss
Not mind	48.09	81.11
Mind	51.91	18.89
	100.00	100.00

Wording of Question: Do you think most people in Britain would mind (or not mind) if one of their close relatives were to marry a person of Asian / West Indian origin? ... and you personally? Would you mind or not mind? Do you think most people in Britain would mind (or not mind) if a suitably qualified person of Asian / West Indian origin were appointed as their boss? ... and you personally? Would you mind or not mind?

Response	
Not prejudiced at all	63.73
Very or a little prejudiced	36.27
	100.00

Wording of Question: How would you describe yourself? As very prejudiced against people of other races, a little prejudiced, or not prejudiced at all?

Table A 4: Fear of Job Loss	
unlikely	94.29
likely	5.71
	100.00

Wording of Question: If employed: Thinking now about your own job, how likely (or unlikely) is it that you will leave this employer over the next year for any reason? ... Why do you think you will leave?

People recorded as likely are those who answered very likely or quite likely to the first question and gave as reason firm will close down, I will be declared redundant, or my contract of employment will expire.

Table A 5: Ease of Finding Job	
very easy	6.90
fairly easy	29.04
neither	16.07
fairly difficult	27.60
very difficult	20.39
	100.00

Wording of Question: If in paid job for 10 or more hours a week: If you lost your job for any reason, and were looking actively for another one, how easy, or difficult, do you think it would be for you to find an acceptable job? If in paid job for less than 10 hours a week or no paid job: If you were looking actively, how easy, or difficult, do you think it would be for you to find an acceptable job?

Table A 6: Wage Expectations	
rise by more than cost of living	16.86
rise by same as cost of living	48.15
rise by less than cost of living	26.60
not rise at all	8.39
	100.00

Wording of Question: If employee: If you stay in this job, would you expect your wages or salary over the coming year to ...

Table A 7: Job Security	
strongly agree	18.37
agree	42.18
neither	18.66
disagree	16.13
strongly disagree	4.66
	100.00

Wording of Question: If in paid work for 10 or more hours a week, please tick one box to show how much you agree or disagree that [this statement] applies to your job: My job is secure.

Table A 8: Level of Benefts	
too low or neither	65.97
too high	34.03
	100.00

Wording of Question: Opinions differ about the level of benefits for the unemployed. Which of these ... statements comes closest to your own: Benefits for the unemployed are too low and cause hardship or Benefits for the unemployed are too high and discourage people from finding jobs.

In later years, people are allowed to agree to both - in all years we categorise according to whether people accept only the second statement.

Table A 9: Attitudes to Welfare		
Responses	Need	More spending
strongly agree	9.93	16.76
agree	35.52	42.93
neither	25.95	23.00
disagree	22.67	15.58
strongly disagree	5.93	1.73
	100.00	100.00

Wording of Question: Please tick one box for each statement below to show how much you agree or disagree with it.
Many people who get social security do not really deserve any help.
The government should spend more money on welfare benefits for the poor, even if it leads to higher taxes.
We reverse the answers to the first statement.