

‘White flight’?: Opposition to Diversity and Mobility Decisions in Britain, 1991-2012

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Abstract

Tests of the white flight hypothesis have employed subjective surveys or objective mobility data, but not both. British work has yet to distinguish between the material and cultural aspects of neighbourhoods which are associated with white outflow and avoidance. This study combines data from the British Household Panel and Understanding Society surveys with UK census data and findings from a specially commissioned survey of retrospective mobility. It assesses the impact of ethnic diversity and change on white British mobility decisions at ward level between 1991-2012. This is arguably the first study to link individuals' subjective attitudes with mobility data at several points in time, permitting a fuller assessment of the white flight hypothesis than has hitherto been possible. We find that white ethnocentrism and xenophobia matter, but exert only an indirect and marginal effect on white British residential mobility.

White Flight?: The Study of Majority Group Residential Behaviour

The domestic migration behaviour of members of the ethnic majority group is a critical part of the segregation equation (Crowder et al. 2011). In the United States, there is established work on white outmigration from minority neighbourhoods, or 'white flight'. This has its roots in studies of localised white outmigration in response to African-American urbanization during the Great Migration of the mid-twentieth century (Duncan and Duncan 1957; Schelling 1969; Frey 1979). Important work has examined white practices such as the 'redlining' of neighbourhoods which reinforced the economic and ethnic segregation of African-Americans (Massey and Denton 1993). In addition to white flight, researchers have also considered the possibility that whites may avoid as well as flee minority neighbourhoods, exacerbating ethnic segregation (Clark 1992; Quillian 2002).

More recently, scholars have begun to pay attention to the contextual effect of the fast-growing Latino and Asian populations on American white mobility. Metro-level data initially showed that American immigration gateway cities like Los Angeles were haemorrhaging native-born whites and blacks. This led to warnings of ethno-geographic balkanization. In the 2000s, however, white outmigration from these gateways stabilised while minorities - notably Hispanics - dispersed widely into regions like the Southeast where they had traditionally been scarce (Frey 1996; Frey 2006). On the one hand, researchers find that Latino and Asian segregation, as measured by the index of dissimilarity, has remained relatively constant despite sharply rising Latino and Asian populations (Iceland 2009). All told, aggregate patterns are inconclusive when assessing the existence of 'white flight' and silent on the motivations behind the pattern of residential mobility.

The same indeterminacy applies to ecological studies of census tract data. Card et al. (2008) find a strong relationship between the racial composition of a census tract in 1970 and the growth rate of its white population between 1970 and 2000. Effectively the white population declined after 1970 in census tracts that had white minorities. It seems to matter little for whites whether the majority of minorities they share a neighbourhood with are black, Hispanic or Asian (Denton and Massey 1993). This finding has been corroborated by work on school segregation in metropolitan America (Clotfelter 2001). Against this interpretation, Easterly (2009), using the same data as Card et al, finds that the white *share* of the population has declined most in the most uniformly white tracts (as measured in 1970) and least in minority-dominated tracts. Essentially, an area that was 90 percent nonwhite in 1970 may have become 92 percent nonwhite and lost white population but fast-growing areas with rising white populations that were all-white are now 80-90 percent white.

Even so, against a high baseline of national minority growth, and bearing in mind that heavily minority (typically low-income inner-city black) neighbourhoods in 1970 have grown

more slowly than formerly white suburbs, the fact that so many metropolitan neighbourhoods remain more than 80 percent white reflects large scale white shifts. An integrationist interpretation is that minorities have been moving into the same fast-growing integrated suburbs as whites. These just happen to be tracts that were very white in 1970. Those who uphold the white flight or avoidance hypotheses would, by contrast, suggest that whites are seeking out comparatively white areas even as mobile minorities follow for amenity-driven reasons. Such a theory would predict that minority upward mobility could lead to suburban segregation as whites leave or avoid prosperous diverse suburbs (i.e. Cupertino, CA) in favour of whiter alternatives (i.e. Palo Alto) while prosperous minorities make decisions purely on the basis of material considerations. At the low-income end of the spectrum, this may explain the growing number of all-minority neighbourhoods in America's most diverse metropolitan areas where whites are the only major group electing not to enter (Logan and Zhang 2011).

To address the limitations of aggregate analyses, there have been a growing number of studies using individual-level mobility data. These were initially confined to large geographical contexts. Kritz and Gurak (2001), for example, use state-level identifiers. They uncover only a weak relationship between Latin American immigration to a state and native-born white individuals' propensity to leave. Frey and Liaw (2005), using restricted access census records attached to state identifiers, offer a comprehensive model of inter-state migration behaviour. They find that even at this high level of geography, ethnoracial drivers are important: second only to geographic distance in predicting individuals' interstate migration patterns. Others point to broad socioeconomic drivers as more central than race, and suggest a pattern of spatial assimilation. American-born, English-speaking Hispanics and Asians are better integrated with whites than their immigrant co-ethnics, for instance, suggesting that integration increases with ethnic groups' level of establishment in the country

Iceland (2009). Massey et al. (2009) add that income and education have displaced ethnicity as the principal axes of segregation in the United States.

A growing number of tests of the white flight and avoidance hypotheses combine individual data with a neighbourhood level of analysis. Closest in scope to our work is that of Kyle Crowder and Scott South. These researchers have been pioneers in using the longitudinal Panel Study of Income Dynamics (PSID) to study inter-tract migration by race and nativity. Their work, which pays important attention to white outmigration, finds that whites are more likely to leave a neighbourhood with a large minority population. Counterintuitively, whites seem most averse to remaining in diverse neighbourhoods with multiple minority groups. Controlling for a tract's share of minorities, whites are significantly more likely to leave those with strong representation from all three major American minority groups. On the other hand, *increases* in black population are more salient for white mobility decisions than Asian and Latino growth (Crowder 2000: 245-6). Further studies using the PSID confirm the white flight thesis, but note that whites' likelihood of moving is modulated by the characteristics of adjacent neighbourhoods. Since moves tend to be short-distance, a paucity of whiter surrounding neighbourhoods tends to dampen white flight (Crowder and South 2008; Crowder et al. 2011). Though most studies seem to confirm the white hypothesis, authors are careful to note that even for whites, ethnic preference exerts a weaker effect on mobility than age, marital status, home ownership and other material constraints.

An important drawback of the PSID is its lack of data on the subjective motivations of individuals. Therefore studies of residential mobility have been complemented by attitude surveys and experiments. Scholarship based on the Multi-City Study of Urban Inequality (MCSUI) using neighbourhood composition cue cards find that whites are the ethnoracial group with the strongest own-group residential preferences. African-Americans are most integration-minded, while Hispanics and Asians fall in between, but are generally opposed to

having a large share of black neighbours. Most white respondents prefer neighbourhoods that are at least two-thirds white. Few would avoid a neighbourhood that is entirely white. This contrasts markedly with minorities, who express a desire to integrate with whites and are generally willing to enter strongly white locales (Clark 2002; Charles 2005; Krysan 2002). In addition, whites appear unwilling, in surveys and in practice, to enter minority-dominated areas, even if comprised of two or more distinct minority groups (Logan 2011). Yet this finding may be conditioned by 'race proxies': the more plentiful amenities and economic properties of white neighbourhoods (Harris 1999, 2001; Ellen 2000). What is missing in the current literature, as Krysan notes, is work which connects subjective attitudes to objective mobility behaviour. This omission is driven by a paucity of large-scale longitudinal data on attitudes. Yet only such studies can begin to distinguish between race-proxy and white flight effects. This is where this paper makes its principal contribution to knowledge.

The European Context

Majority ethnic groups in Europe are generally more preponderant in their nation-states than non-Hispanic whites in the United States¹. Both ethnic status systems and myths of indigenous national ethnicity operate strongly. White neighbourhoods tend to have a wider range of amenities than more diverse ones. One would thereby expect - despite the absence of a tradition of nonwhite segregation - whites from Europe's majority ethnic groups to exhibit residential proclivities as pronounced as those held by American whites toward Latinos and Asians. Work on ethnic segregation in Europe has primarily concerned itself with aggregate patterns, paying close attention to the movements of minority groups and the structural barriers which constrain their choice of neighbourhood. It has generally been assumed that patterns of segregation reflect structural constraints and minority preferences rather than

majority behaviour (Musterd and De Winter 1998; Arbaci 2007; Andersson 2009). Yet recent data suggests that while immigrants tend to locate near co-ethnics, those in the second generation are more mobile than ethnic majority Europeans (Vidal and Windzio 2011; de Valk and Willaert 2011). This raises the possibility that patterns of segregation are being generated not by minority concentration and white stasis, but, at least in part, by white flight and avoidance.

Work on white residential responses to diversity in Europe using individual data at neighbourhood level is beginning to develop despite the limitations of census questions which ask only about birthplace rather than ethnicity.² A pioneering study in this regard is that of Bråmås (2006) which uses Swedish register data to specify individuals' migration patterns in diverse locales, using place of birth as a proxy for ethnic origin. This work demonstrates that ethnic Swedes are tending to avoid diverse satellite high-rise communities such as Husby, on the periphery of Stockholm. At the same time, Bråmås found scant evidence of disproportionate ethnic Swedish outmigration from Husby, leading her to conclude that much of the shift in the ethnic composition of formerly Swedish-dominated neighbourhoods could be attributed to majority avoidance, minority preference and higher *in situ* rates of minority natural increase. Subsequent research adds that ethnic residential segregation 'is a result of decisions taken by the Swedish majority, who tend to cluster in Swedish-dense neighborhoods and avoid immigrant-dense housing estates' (Andersson 2009: 85).

Holland's roughly 10.5 percent minority population (as of 2006) is strongly concentrated in four cities: Utrecht, Amsterdam, Rotterdam and the Hague where they make up roughly a third of the population. An in-depth study of mobility patterns for whiter Dutch and minority groups found powerful evidence that white Dutch people are avoiding areas with large shares of minority residents. Thus over 2002-2006, 22 percent of white Dutch left

high-minority areas. However, the proportion of black Caribbeans (22%), Turks and Moroccans (18%) and other minorities (23%) leaving these areas was comparable. The big difference is in white avoidance rather than flight. Thus of those leaving high-minority zones, 72% of white Dutch chose whiter areas whereas just 40% of minorities did so - with the remaining 60% opting for other high-minority areas. Minorities also avoided white areas. Of minorities leaving whiter neighbourhood of these cities, 25% of Caribbeans and almost 40% of Muslims chose to move to nonwhite zones as opposed to a mere 7.6% of whites (Bolt et al. 2008).

Other studies find that ethnic groups tend to display own-group residential preferences. Semyonov and Glikman (2009) find that ethnic majority Europeans strongly prefer more homogeneous neighbourhoods, and that ethnocentrism, social conservatism and xenophobia are associated with a preference for more homogeneous areas. For the Netherlands, van Londen (2012), using the same experimental showcard technique as the MCSUI in the US, finds whites to have the most exclusive neighbourhood preferences: as in the US, they are the least willing to live as a minority and tend to prefer white majority areas. White residents of more diverse tracts evince higher comfort thresholds while those who express overtly negative racial attitudes, as in American work, display lower comfort thresholds for minority group share. The work also shows that whites who express sentiments of ethnic threat are more likely to say they would leave such a neighbourhood. Both Semyonov et. al and van Londen reinforce the finding that Europeans are not distinct from Americans in preferring relatively homogeneous neighbourhoods, especially among those with conservative or ethnocentric attitudes.

When it comes to actual mobility, there is further evidence for the white flight hypothesis, though the effects are difficult to prise apart from those of minority clustering. Rathelot and Safi (2013) find that in France, native whites are much less likely to move to

heavily immigrant municipalities. Among immigrants, increasing the share of co-ethnics by 1 standard deviation reduces outmigration of co-ethnics by 21 percent. In the Netherlands, white Dutch are distinct insofar as the proportion of whites who are dissatisfied with their neighbourhood is 52% in areas that are 'majority minority' whereas minorities in those (often poor) areas only express 35% dissatisfaction. Minorities who live in white areas are more likely to be satisfied with those areas than with minority areas, which suggests that these are better areas. However, tellingly, white Dutch express an 87% satisfaction with very white areas while Muslims living in the same areas are only 75% satisfied (Bolt et. al. 2008: 1372-80).

Similar results, fingering the prevalence of white avoidance and flight behaviour, have been found in Oslo and Helsinki (Hedman and Holmqvist 2012). Another Swedish study finds that nearly 30 per cent of native Swedish movers from Stockholm's most diverse neighbourhoods claimed that "too many immigrants" was an important reason for them to move. When asked whether they enjoyed living in their previous neighbourhood, just 19 percent of Swedes who left high-minority areas claimed to have liked their former neighbourhood. This contrasts with the 60 percent of Swedes who left whiter areas who expressed approval of their former tract of residence. While just 15 percent of those leaving white areas cited the neighbourhood as a reason for moving, this was true of fully 40 percent of those departing high-minority areas (Hedman and Holmqvist 2012).

Of course, it may be the case that neighborhood factors associated with immigrants, rather than raw ethnic preferences, account for the negative sentiments of white Swedish movers about their former areas. White Swedes who leave minority-dense areas also tend to be more critical of their former neighbourhoods' social problems than is true of those moving from whiter Stockholm neighborhoods. Does this indicate that neighborhood reputation and amenities count rather than ethnic composition? This is the argument of Harris and Ellen in

the US. Some European work favours materialist or race-proxy explanations for apparent ethnic significance. A Dutch survey of intentions to leave one's neighbourhood in Utrecht found that neighbourhood ethnic composition was not a significant predictor of white intentions once neighbourhood reputation, length of residence and other factors were taken into account (Permentier et al. 2009; Feijten and van Ham 2009) find that an increase in immigrant share is associated with white Dutch desires to leave a neighbourhood whereas socioeconomic shifts do not alter perceptions. However, taking subjective neighbourhood evaluations into account, they discovered that increasing immigrant share washes out of the equation.

Against this, Hedman and Holmqvist (2012) find that even when controlling for other neighbourhood characteristics, those who left high-immigrant neighbourhoods were significantly more likely to cite 'too many immigrants' as a reason for departure. Dutch white neighbourhood comfort thresholds are reduced only somewhat when respondents are told that the minorities in their neighbourhood are well-educated: which suggests race-proxy effects do not largely account for white aversion (van Londen 2012: 101). Likewise, Bolt et. al. 2008: 1380) argue that ethnic differences in neighbourhood choices 'can only to a very limited extent be attributed to differences in socioeconomic status. The reluctance of many native Dutch to live in a neighbourhood with a substantial proportion of members of minority ethnic groups forms a major obstacle for urban policy aimed at countering segregation.'

White Flight in Britain?

There has also been research on this question in Britain, one of only three west European countries that collects census data on ethnicity. In the wake of the Cantle Report into the Mill Town race riots in the summer of 2001 and with rising security concerns

following 9/11 and the July 7, 2005 suicide bombing attacks in London, Commission for Racial Equality Chairman Trevor Phillips alleged that Britain was 'sleepwalking into segregation'. Segregation of Pakistani and Bangladeshi Muslims was held to be incubating Muslim alienation and radicalisation (Peach 2009). Phillips' statement was based to some extent on an academic paper which charted rising levels of ethnic segregation - especially of Muslims - in Britain (Poulsen 2005). While few could dispute that several concentrations of British Muslim settlement were becoming increasingly Muslim over time, some claim that this is largely the result of endogenous population growth rather than minority self-segregation. From this perspective, minorities, far from clustering in enclaves, actively seek upward mobility by moving out of high-minority neighbourhoods, resulting in falling indices of dissimilarity despite a growing index of isolation caused by natural increase (Simpson 2007; Finney and Simpson 2009).

Behind these 'index wars', the question of white flight in Britain was gradually emerging from the shadows. Simpson and Finney (Simpson and Finney 2010), using aggregate analysis, demonstrate that both whites and minorities are leaving areas of minority concentration, however they do not evaluate the relative weight of socioeconomic and ethnocultural characteristics of wards in accounting for majority and minority migration decisions. (Simon 2010), who cites a paucity of work on the white majority in Britain, takes this analysis further, using specially-commissioned Office of National Statistics' (ONS) aggregate tables. She finds that white British are the only major ethnic group that is moving toward, rather than away, from areas where they are most concentrated. However, whites are concentrated in desirable, lower density wards which are attractive to all. Simon therefore explains ethnic majority patterns as stemming from broader counter-urbanisation rather than ethnic preferences, but again, her data could not parse structural from cultural ward

characteristics to answer this question definitively and she remarked upon the need for further research.

Work by Catney and Simpson (2010), also using specially-commissioned aggregate census tables, calculates the log odds of whites moving out of areas of minority concentration. While their findings broadly confirmed the counter-urbanisation thesis, lower-class whites living in diverse wards were more likely than lower-class minorities to depart for whiter areas. This effect was especially marked in London (Catney and Simpson 2010: 579-80). As with American research, material considerations played a more important part than ethnicity in explaining white residential flows while white preference effects appeared to be weaker than in the American case.

Two important elements are missing from the British literature on white flight and avoidance, one of which is also absent from US scholarship in this area. First, in contrast to American and European work, British studies have yet to concentrate on the individual as the unit of analysis, nor have they examined white mobility behaviour in a manner that simultaneously accounts for both the ethnic composition *and* socioeconomic character of wards. This article fills this lacuna in our understanding. Second, while American and European studies have probed white respondents' attitudes to integration and modelled actual residential behaviour, no study has brought subjective attitudes and objective longitudinal behaviour together. This work does so while employing a longitudinal approach which tests for reverse causation.

Data

The British Household Panel Survey (BHPS) is an annual longitudinal study of some 5,500 households containing 10,300 individuals in England and Wales which began in 1991. The sample is a stratified clustered design drawn from the Postcode Address File and all residents present at those addresses at the first wave of the survey were designated as panel members. These same individuals are re-interviewed each successive year and, if they split-off from original households to form new households, they are followed and all adult members of these households are also interviewed. Similarly, new members joining sample households become eligible for interview and children are interviewed as they reach the age of 16.³ Attrition of cases reached 11 percent in the transition from waves 1 to 2, but since then recontact rates have remained high, generally well above 95 percent. In 2009, the survey merged into the Understanding Society longitudinal survey (UKHLS) which builds on the BHPS sample and contains 40,000 respondents per wave, including a minority oversample of 5,000 individuals drawn from the five most prevalent nonwhite groups in Britain. We use linearly interpolated 1991, 2001 and 2011 ward-level census data from the Office of National Statistics which is attached to individual survey records in the BHPS and UKHLS. To resolve the problem of boundary changes between the decennial censuses, we use Geoconvert⁴ software to match 1991 wards to a common 2001 geography. 2011 wards were aligned to 2001 boundaries by building up from Lower Super Output Areas⁵.

While similar to the Panel Study of Income Dynamics (PSID) in the United States, the BHPS contains modules covering a wider array of subjective measures. Party vote, political participation, political attitudes, reasons for moving, perceptions of neighbourhood, national identity and newspaper readership are included in at least some survey waves. This permits a fuller examination of the cultural and political subjectivity of whites who leave, enter and remain in diverse areas, enabling us to generate a twenty-year profile of white incomers to,

outmigrants from, and stayers in, diverse wards. Our BHPS-UKHLS sample consists of 192,347 person-years of data for 1991-2012 across twenty survey waves. Wave size varies between 6684 and 10,218 for the 18 waves of the BHPS, and the first wave of the UKHLS, which contains a subsample of 7,000 individuals linked to the BHPS. Wave 20 contains a sample of 34,015 and the first two waves of UKHLS. This permits a fuller examination of the cultural and political subjectivity of whites who leave and enter diverse areas, enabling the researcher to link subjective motivations with objective mobility decisions. To maintain comparability with contextual data derived from the 1991, 2001 and 2011 censuses, the sample is restricted to those subjects living in England and Wales⁶.

Figure 1 traces the set of potential predictors available in the data that impinge on mobility decisions. In addition to contextual variables from the census and demographic parameters at individual level, which have been deployed in the PSID, we include attitudinal measures, which add a new dimension to this kind of analysis.

[figure 1 here]

Given the annual sample size of approximately 10,000 individuals in the Citizenship Surveys and BHPS-UKHLS (even as person-years exceeds 192,000), many of the over 8800 wards of England and Wales have little or no representation in these surveys. Therefore we group wards by diversity, building on the strategy of Simpson (2007) and Simpson and Finney (2010), in which wards in England and Wales are allocated to five quintiles, each containing a fifth of the minority population (see table 1). These are arrayed from the quintile

with the highest minority-share (102 of 8850 wards in 2001, 166 of 8571 wards in 2011) to the lowest minority-share quintile (7554 of 8850 wards in 2001, 6722 wards in 2011).⁷

Quintile scores are recalculated for each year based on interpolated census data to attach a quintile score to each person-year in the data (see table 1). Those who move wards within a diversity quintile are deemed to be non-movers for the purposes of this study. Those who move from low quintiles to higher ones are treated as movers toward diversity, and those who move the other way are considered movers from diversity - as shown by the arrows in table 1. Area change, in which wards change quintile due to ethnic population shifts, do not affect our results as we restrict our inter-quintile analysis to movers only.

[table 1 here]

The combined BHPS-UKHLS for 1991-2012 yields a total of 192,171 person-years of data, as shown in table 2.

[Table 2 here]

From table 2, we see that 175,403 person-years, 91.3 percent of the sample, did not move in the previous year. Even among the 16,768 moves, 9163 (67 percent) took place within ward. This means only 7.1 percent of the sample involved a move between wards. Note that this figure is in person-years, therefore the share of individuals in the survey who moved at least

once would be considerably higher - especially among individuals who survived the nineteen waves of the survey (thereby leaving a nineteen person-year footprint each in the data). Our BHPS-UKHLS figure compares well to census figures. The 2001 census finds that 40,614 individuals in a 1% sample of the census (526,458 persons) moved into their ward during the year 2000-2001 from another ward (ONS LS 2001). This represents 7.7 percent of the population, analogous to our 7.1 percent annual inter-ward move figure.

A further question concerns the diversity of wards. The typical move is between two homogeneous wards in quintile 1. Our focus therefore falls on the 2436 white UK-born moves away from diverse wards and the 2051 white UK-born moves toward them. These 4487 person-years represent about 2 percent of the BHPS-UKHLS sample. Notice that this dataset - among the longest running longitudinal surveys in the world - underpins our contribution to knowledge: without a longitudinal structure to the data, we could not determine moves to and from diversity. In the absence of a large enough sample we could not amass sufficient cases for meaningful analysis of the ethnicity of movers in diverse wards. Note as well that among stayers, some found themselves in wards that shifted quintile in a given year due to *in situ* ethnic shifts.

Table 2. Aggregate Population Flows from BHPS-Understanding Society, 1991-2012
(person-years)

[Table 2 here]

The BHPS-UKHLS permits us to observe the demographic, socioeconomic and attitudinal characteristics of movers. In an ideal world, the dataset would ask a question on attitudes to race or immigration. The survey does not do so, but records a series of items that are well-known predictors of such attitudes (Fetzer 2000) - some in each wave, some only occasionally. These include modules on political and moral issues, voting behaviour, national identity, newspaper readership, age, education and class.

Methodology

Dependent Variable. We use logistic regression to estimate the likelihood that an individual will move wards away from (1) or toward (0) diversity, with diversity expressed as quintiles 1 through 5. A subsequent formulation employs an ordered logit strategy with the dependent variable running from +4 (move from quintile 1 to 5) to -4 (shift from 5 to 1) as in table 1. Finally we use an OLS model with a continuous dependent variable for change in percent minorities in ward. While these modelling strategies result in only a partial picture of the motivations driving residential choice, they have the virtue of screening out the myriad factors associated with residential moves in general, such as age, education and income. We control for the clustering of individuals within the same census wards by using robust standard errors in Stata 13.0.

Independent variables. Contextual parameters, from the 1991, 2001 and 2011 census interpolated to the current year, include the proportion of the ward of residence comprised of ethnic minorities, the Carstairs index of multiple deprivation⁸ - a measure of the poverty or

affluence of an area - and population density. Current and lagged variants of both are included to control for the material properties of individuals' origin and destination ward.

We test a variety of individual-level parameters. Demographic and economic variables include age, marital status, sex, income, education, occupational class - manager/professional, middle, lower supervisory, working, unemployed/never worked; employed or not, tenure (renter, owner, council tenant) and the presence of dependent children.

In addition, we add more subjective variables from the panel surveys to explore motivations for moving. Voting, social conservatism and national identity have been found to be associated with white opposition to diversity and immigration in Britain (Ford and Goodwin 2010; Ford 2008). We include a dummy variable for party support, which carries the value of 1 for the Conservative party, 2 for Labour and 3 for Liberal and 4 for non-voters. Another important attitudinal question asks whether respondents identify as English, also associated with English nationalism and opposition to immigration. This takes the value of 1 for those who identify as English, and 0 for other responses. 52.8 percent of white UK-born respondents identified as English, in line with the 40-50 percent recorded in most surveys or 60 percent in the 2011 census.⁹ We also test for tabloid versus broadsheet readership, often linked to opinions on immigration.

Occasional questions in the BHPS-UKHLS probe broader feelings towards British nationalism and patriotism: whether the respondent considered British Citizenship as the world's best, or if Britain had reasons to be ashamed of its history and foreign policy. Other items examine attitudes to homosexuals and cohabitation, levels of interpersonal trust, and position on a left-right scale. The left-right scale is composed of six questions, which asked for views on economic redistribution, trade union strength, state intervention in the economy

and state ownership of public services¹⁰. In addition, there are a series of questions asked in alternate waves of the BHPS and UKHLS which tap respondents' views on family values and gender relations, and are associated with openness to diversity in other work (e.g. Inglehart 1990)¹¹. These have an inter-item correlation of 0.73 and are therefore combined into a single index of social conservatism. On attitudinal items that were asked intermittently in the BHPS, between-respondent variation was overwhelmingly dominant over within-variation thus we felt we could safely interpolate attitudes within individuals across all waves of the survey based on answers recorded in available years.¹² This technique allows us to minimize listwise deletion while generating a wider array of applicable proxy questions for attitudes to immigration. Variables that have been interpolated in this way are identified in table 4.

Results

Results are shown in table 3, with the sample restricted to inter-ward movers. A number of striking findings emerge. First of all, the lagged share of minorities predicts a move away from diversity in the logit model (1a) of a move away from diversity vs. moving toward it. This is not surprising because the greater the share of minorities in one's previous ward, the fewer the options for moving to higher minority wards, and vice-versa. Movers residing in London have generally moved to a more diverse ward as any movement into the city from the rest of the UK tends to bring in people from less diverse places. This is an extremely robust finding, and suggests long-distance moves have an important bearing on the nature of shorter-range residential choices. Other contextual characteristics have an important effect on whether an individual moved to a more or less diverse ward. Lagged and current Carstairs deprivation scores show that individuals moving from better off, low density wards to poorer,

built-up ones move toward diversity while those moving away from diversity originate in denser, poorer wards and wind up in wealthier, less urban ones.

Among individual-level predictors, white/nonwhite predicts a move toward or away from diversity when controlling for other variables. In addition, the interaction between race and lagged minority share is significant in model 1b, suggesting whites who originated in diverse wards are more likely than minorities from such wards to move in the direction of less diversity. The strongest association, however, is between private renting and moves toward diversity. This reflects both the single skew of the white population in diverse urban wards (an interaction term for white singles is significant in some models) and the high proportion of the immigrant/minority population who are private renters.

The dependent variable in models 1a and 1b is only able to discriminate between a move toward and away from diversity. Yet there is arguably a difference between an individual who moves from the most diverse quintile (5) to the least (1) as compared to the many individuals who shift between quintiles 2 and 1. Quintile change is a more nuanced measure of change than a simple away/toward binary.

Model 2a presents results for an ordered logit of the same parameters regressed on quintile change. This brings the ethnic variables out more strongly: white/nonwhite is a significant individual-level predictor. Interacting with share of minorities in ward (model 2b) reverses the sign of race as a predictor, which reinforces the finding that race is significant in interaction with ethnic context, with whites in diverse wards and/or minorities in whiter wards relatively attracted to wards with higher own-group concentrations. Models 3a and 3b repeat the analysis with an even finer-grained measure, namely change in the percentage share of minorities recorded between previous and current ward of residence. Patterns are the same: white is a significant predictor of a move away from diversity. The negative cross-level

interaction coefficient for whites originating in diverse wards and/or minorities originating in white wards has strengthened, indicating important race-ethnocontextual interactions. In these later, more fine-grained models, class and education become significant predictors of a move from diversity: working class respondents (defined by occupational structure) compared to managerial and professional groups; and those with no qualifications compared to degree holders, are more likely to move in the direction of less diversity. When working class is run as an interaction with white this is also significant in predicting a move away from diversity.¹³ This reflects the oft-noted association in the ethnic majority population between higher education/ socioeconomic status and more cosmopolitan/tolerant attitudes (Inglehart 1990; Ford 2008).

[Table 3 here]

Attitudinal Variables

The foregoing shows that the interaction between race and racial context is a significant predictor of a move toward, or away from, diversity. How much of this stems from white racial attitudes and preferences? To test this we interact white identity with a range of attitudinal predictors which are associated with attitudes toward race and immigration in the public opinion and voting literature (i.e. Ford and Goodwin 2010; McLaren and Johnson 2007). Table 4 shows immediately that attitudes and partisanship are not significant: only trust levels enter the model. Yet even here, interactions with race show that these attitudinal effects are trans-racial rather than specific to whites. Though conservative whites express a preference for whiter neighbourhoods in survey work, they do not appear to act on these

preferences. Indeed, their residential choices appear indistinguishable from those of liberal whites. This is in line with American research with voter registration data which suggests partisan motivations exert a limited influence on residential behaviour (Cho et al. 2013).

[Table 4 here]

Though we have 4487 person-years of moves toward or away from diversity, just 529 consisting of minority person-years. Though affording ample degrees of freedom, it is important to triangulate against a larger sample of unique individuals. As a robustness check, we examined the ONS Longitudinal Study, a 1% sample of the population of England and Wales. With a sample of over 500,000 individuals per year linked between 2001 and 2011, the number of unique minority inter-quintile movers over this decade exceeds 3,000, with over 28,000 white British inter-quintile movers. As in the BHPS-UKHLS, race is an important predictor, with race and ethnic context interacting in the expected direction. English national identity and religion (Christian or none) are the only attitudinal predictors in the census.¹⁴ Among white British movers, neither is associated with having chosen a less diverse ward. It is however the case that white British people who were intermarried or living in mixed-ethnicity households in 2001 are significantly less likely than other white Britons to have left diverse wards/more likely to have moved into them during 2001-2011, echoing the findings of previous American research (Iceland 2009: 124-40; Ellis et. al 2007; Clark & Maas 2009). Yet being intermarried or living in a diverse household is an indicator of trans-racial social networks and cultural tastes as well as a high ethnic comfort threshold. It is therefore not possible to use this measure to discriminate between attitudinal and network explanations for the power of ethnicity in residential behaviour.¹⁵ This reinforces our

conclusion that white British opposition to diversity motivates an avoidance of integration in the abstract but has little *de facto* impact on segregation.

Longitudinal analyses show that conservative British whites are no more likely to seek out white spaces than liberal whites. Yet the questions asked on the BHPS-UKHLS and census are indirect measures of racial conservatism - as such they may be viewed as imperfect measures of racial attitudes. In order to more directly address the constructs of interest, we commissioned a Yougov survey of 1,869 nationally-representative British adults in August 2013. Respondents included 1,638 white British individuals. This tool was used to bring respondents' racial attitudes together with their perceived mobility history.

Accordingly, after being told that council wards contain approximately 10,000 - 30,000 people, respondents were asked if they had moved ward in the past ten years. 384 white British individuals answered yes. These individuals were prompted, 'as far as you know, did the last local council ward in which you lived have a) more people from an ethnic minority background, b) fewer people from an ethnic minority background or c) about the same?' Those in the first category are treated as having moved away from diversity, those in the second towards it, and those in the third group have remained in wards of the same diversity (See Appendix 2 for further details).¹⁶

Attitudinal questions examined respondents' comfort levels with minorities across a range of roles including spouse, friend, boss, and even Prime Minister. 20-33 percent of white British respondents expressed discomfort with minorities in these roles, depending on the question. We also asked about respondents' views of immigration, using a standard module on the subject deployed in the Department of Communities and Local Government's Citizenship surveys. Responses are in line with those in other datasets and surveys, with 75 percent of white British respondents in favour of reducing immigration, and 57 percent desiring that immigration be reduced 'a lot.'

Finally, we asked a question on individuals' ethnic comfort threshold for their neighbourhood. Respondents were initially queried as to whether they were comfortable with the current level of minorities in their neighbourhood. If they answered in the affirmative, they were next asked whether they might become uncomfortable if the proportion of minorities increased or decreased beyond a certain point. 737 (58.5%) of white British respondents who gave a response said they would become uncomfortable if the share of minorities exceeded a certain limit. The other 524 white British respondents (41.5%) either said there would be no point at which they might become uncomfortable or said they would become uncomfortable if the share of minorities decreased. Such respondents were grouped together for the purposes of analysis.

Those that said they would become uncomfortable at some point were then asked, 'at which point would you become uncomfortable about the number of ethnic minorities.' Responses broadly follow the strategy of the MCSUI, beginning with minority shares of over 75% and moving through to less than 1%, an 11-item scale. Responses have been aggregated into six categories in table 5 for ease of interpretation. Results of a crosstabulation between the question on whether an individual had moved away or toward a diverse ward, and the question on ethnic comfort threshold, is presented in table 5. For interpretive purposes, those moving away from diversity are labelled 'white flight', those moving toward it 'gentrifiers', and those moving to a similarly diverse area as 'same diversity.'

[Table 5 here]

Source: Yougov survey 2013. N= 384 white British movers out of total sample of 1,638 white British respondents.

What is striking is how tightly the three lines cluster through most of the ethnic comfort distribution. This signifies that individuals' prospective ethnic comfort thresholds for their ward had no effect on whether they moved toward, away from, or within identical levels of ward diversity. Lines begin to move in the predicted direction after the 50 percent threshold is breached and start to diverge only beyond the one-quarter mark for minority share in ward. Approximately 15 percent of white British respondents who reported they moved to less diverse areas over the past decade indicated they would be uncomfortable in neighbourhoods with a quarter or fewer minority residents. Notice, however, that the lines increasingly spread as one moves from the 17-25 percent comfort threshold to 10 percent or below. 11 percent of white British movers simultaneously left diverse wards and expressed a comfort threshold of ten percent minorities or less. Here, then, we find concrete evidence for a white flight effect, albeit in a limited sample using self-reported retrospective mobility data.¹⁷

Graphed trends are reflected in the models in table 6. The first two models attempt to predict whether a white respondent has moved toward or away from a diverse ward. When we take a quadratic of ward ethnic comfort threshold (cubing or fourth power), the coefficients strengthen, reflecting the non-monotonic nature of the relationship between comfort threshold and mobility behaviour. The first includes those who said there was no point at which they would become uncomfortable with the share of minorities in their ward. The second excludes these individuals because question wording makes it possible to interpret this as a 'don't know' or because social desirability may be coming more strongly into play with this question. Coefficients are markedly stronger in the second model than in the first. Model 4 compares white British respondents who moved to wards of similar diversity with those who moved to more diverse wards and finds those moving toward diversity to have significantly higher ethnic comfort thresholds. Finally, model 4 compares movers to diverse wards from stayers, which produces a much larger sample and shows that

stayers - even more so than those leaving diverse wards - have much lower ethnic comfort thresholds than movers to diversity.

[Table 6 here]

How important is the white flight effect for segregation? It is worth bearing in mind that the effects of ethnic discomfort are associated with actual 'flight' from diversity among just 3.5 percent of white British movers in the sample (2.5 percent if we consider only those at the 10 percent threshold or below). Moreover, attitudes to race and immigration explain only part of the variation in ethnic comfort thresholds.¹⁸ The path from conservatism to racial attitudes to actual mobility is therefore indirect: running from ideology to race-specific attitudes to racial comfort thresholds, and thence to mobility.

To bridge the longitudinal and cross-sectional analyses, our survey asked a series of attitudinal questions to match the BHPS-UKHLS. Of these only Conservative party identity is (barely) significantly associated with ethnic comfort threshold. English national identity, tabloid newspaper readership and education level predict attitudes to immigration but do not predict ethnic comfort threshold. This is why, within our longitudinal studies, we see no significant association between our measures of conservative/liberal attitudes and actual moves away/toward diverse wards. From the foregoing we expect that if an ethnic threshold question was asked in the UKHLS or census it would likely predict quintile change (i.e. move to/away from diversity). Having said this, we expect the effect would be marginal, not nearly enough to account for the substantial ethnic differences in mobility behaviour we discovered in the longitudinal models in tables 3 and 4.

How, then, to explain the importance of ethnicity and ethnic context for individual mobility? Material constraints are not the answer, as these have already been accounted for.

Minority ethnic preference, or discrimination against minorities, could be driving the model. Yet a network explanation is also plausible. Namely, that ethnicity correlates with micro-level social networks - ties to family and friends, as well as differences in residential preferences. 'If the church bulletin board is where people advertise rooms for rent,' explained Thomas Schelling (1978: 137), 'blacks will rent rooms from blacks and whites from whites because of a communication system...correlated with color.' Indeed (Hedman 2013) shows that family networks are an extremely robust predictor of destination choice, with the odds of moving to a neighbourhood increasing four times if family members are present. Though the effect is greater for ethnic minorities than whites, the presence of family members exerts a substantial effect for all groups.

This does not eliminate the independent predictive power of ethnic composition for mobility, but Hedman notes that for immigrants in Uppsala, Sweden, the share of immigrants in a prospective neighbourhood would need be 2.5 times the mean to equal the attractive effect of a family member (Hedman 2013: 42). One might add that even if society was colour-blind and free of ethnic boundaries, if British Pakistanis value proximity to mosques, halal butchers and ethnic restaurants while white Britons value pubs, country walks and tea rooms, the correlation between such amenities and neighbourhood ethnic composition will produce an apparent correlation between ethnicity and mobility. In other words, culture rather than identity may be driving residential choice. It is always possible that latent comfort thresholds exist which are masked by socially desirable survey responses - geocoded survey experiments combined with self-reported mobility histories would be needed to explore this avenue further.

Discussion

We show that, contrary to much British literature but in line with American and European research, ethnicity matters for residential mobility in Britain. Do white flight or race-proxy explanations best account for the role of ethnic majority behaviour in shaping patterns of segregation? Our research shows that white British ethnocentrism or xenophobia have only a limited effect on white mobility.

The white flight/avoidance literature in Europe and the United States has relied on separate studies of subjective attitudes and objective mobility behaviour, but has not demonstrated a connection between the two. A principal aim of this paper was to bring these two perspectives together by harnessing the power of longitudinal British datasets. Our results show that conservative whites are no more likely than liberal whites to move to homogeneous wards. Our longitudinal survey questions only obliquely measure racial attitudes, so we commissioned a survey of retrospective mobility behaviour with a rich sample of racial attitude items. Here we find evidence of racially-motivated self-reported residential behaviour among whites, but only at the margins. We therefore argue that white ethnocentrism and xenophobia exert a limited, indirect effect on mobility decisions and are therefore not a major driver of segregation in Britain. Instead, we suggest social networks and cultural preferences correlated with ethnicity may be generating ethnically distinct patterns of mobility and settlement. Further research on residential mobility should focus, as far as data allow, on isolating the independent effect of small-scale networks and preferences from those of ethnic identity.

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Figure 1: Flow Diagram of Mobility Decisions, BHPS-UKHLS

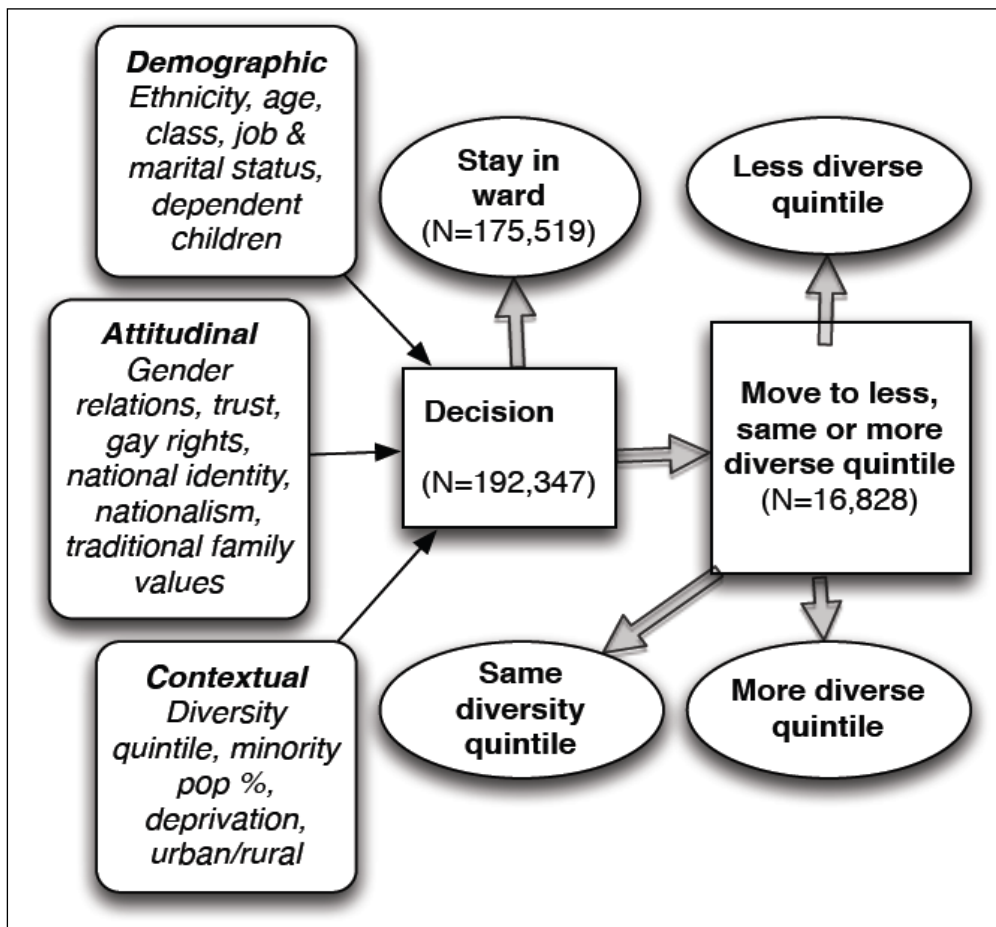


Table 1. Wards by Diversity Quintile for 2001 and 2011 Census

	Wards 2001	% White 2001	Wards 2011	% White 2011
Whitest Quintile 1	7554	98	6722	94
Quintile 2	726	87	1029	79
Quintile 3	288	73	406	58
Quintile 4	180	57	248	40
Least White Quintile 5	102	33	166	21
Total	8850	88	8771	82

Source: Simpson 2007; ONS Census 2011.

Note: To allow comparison the 2011 census data has been converted to 2001 frozen ward boundaries, 79 wards were lost in the process.

Table 2. Mover Classification from BHPS-UKHLS Data

Mover status	Change in diversity			Total	Share
	Same	Less	More		
Stayer	171430	1949	2042	175403	91.3%
Inter-ward mover	9163	2436	2051	13650	7.1%
Intra-ward mover	3083	38	42	3118	1.6%
Total	183631	4423	4117	192171	10.0%

Source: BHPS 1991-2008; Understanding Society 2009-12. N.B.: A number of wards changed diversity quintile hence stayers or intra-ward movers can experience change in their diversity.

Table 3. Predictors of Inter-Ward Mobility, 1991-2012. Material Factors Only.

	Model 1a <i>Away v Toward Diversity</i>	Model 1b <i>Away v Toward Diversity</i>	Model 2a <i>Toward Diversity (Quintile Change)</i>	Model 2b <i>Toward Diversity (Quintile Change)</i>	Model 3a <i>Toward Diversity (change in minority %)</i>	Model 3b <i>Toward Diversity (change in minority %)</i>
White x minority pop.		0.07 (0.01)***		-0.05 (0.01)***		-0.17 (0.03)***
Lagged minority pop. (ward)	0.10 (0.01)***	0.06 (0.01)***	-0.09 (0.00)***	-0.06 (0.01)***	-0.60 (0.02)***	-0.48 (0.03)***
White (versus nonwhite individual)	0.60 (0.21)***	-0.95 (0.27)***	-0.71 (0.13)***	0.47 (0.16)***	-4.51 (0.54)***	-0.50 (0.60)
Income	0.04 (0.04)	0.02 (0.05)	0.00 (0.02)	0.01 (0.02)	-0.14 (0.08)	-0.07 (0.08)
Female	-0.02 (0.09)	-0.01 (0.09)	0.00 (0.04)	0.02 (0.04)	0.01 (0.16)	-0.03 (0.16)
London	-0.76 (0.22)***	-0.78 (0.22)***	1.25 (0.14)***	1.28 (0.14)***	8.97 (0.62)***	8.95 (0.61)***
Lagged Carstairs Deprivation (ward)	0.17 (0.02)***	0.17 (0.02)***	-0.10 (0.01)***	-0.10 (0.01)***	-0.47 (0.05)***	-0.45 (0.05)***
Lagged pop. density (ward)	0.03 (0.00)***	0.03 (0.00)***	-0.01 (0.00)***	-0.01 (0.00)***	-0.03 (0.01)***	-0.03 (0.01)***
Current Carstairs Deprivation	-0.32 (0.03)***	-0.32 (0.03)***	0.22 (0.01)***	0.21 (0.01)***	1.30 (0.06)***	1.26 (0.07)***
Current pop. density	-0.04 (0.00)***	-0.04 (0.00)***	0.03 (0.00)***	0.03 (0.00)***	0.12 (0.01) ***	0.12 (0.01)***
No qualifications (degree ref.)	0.27 (0.21)	0.32 (0.21)	-0.15 (0.09)	-0.19 (0.09) *	-1.27 (0.35)***	-1.45 (0.35)***
Age	-0.01 (0.00)	-0.01 (0.13)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.01)
Working class (Upper ref.)	0.23 (0.16)	0.31 (0.16)	-0.19 (0.07)***	-0.20 (0.07)***	-1.11 (0.24)***	-1.15 (0.24)***
Middle class (Upper ref.)	0.31 (0.13)**	0.33 (0.13)**	-0.12 (0.06)*	-0.11 (0.06)	-0.56 (0.21)**	-0.51 (0.21)***
Employed (not employed ref.)	-0.15 (0.13)	-0.16 (0.13)	0.01 (0.06)	0.00 (0.06)	0.28 (0.23)	0.25 (0.23)
Has children (None ref.)	0.06 (0.14)	0.04 (0.14)	0.01 (0.06)	-0.02 (0.06)	-0.16 (0.21)	-0.25 (0.20)
Single (couple ref.)	-0.17 (0.13)	-0.24 (0.13)	0.17 (0.06)***	0.21 (0.06)***	0.73 (0.22)***	0.88 (0.22)***
Social housing (Owner ref.)	0.16 (0.20)	0.13 (0.20)	0.06 (0.08)	0.07 (0.08)	0.10 (0.33)	0.14 (0.32)
Private renter	-0.60 (0.14)***	-0.63 (0.14)***	0.43 (0.06)***	0.44 (0.06)***	2.06 (0.76)***	2.11 (0.21)***
Pseudo R ²	0.46	0.47	0.20	0.21		
Adjusted R ²					0.56	0.57
N	3498	3498	10828	10828	10828	10828

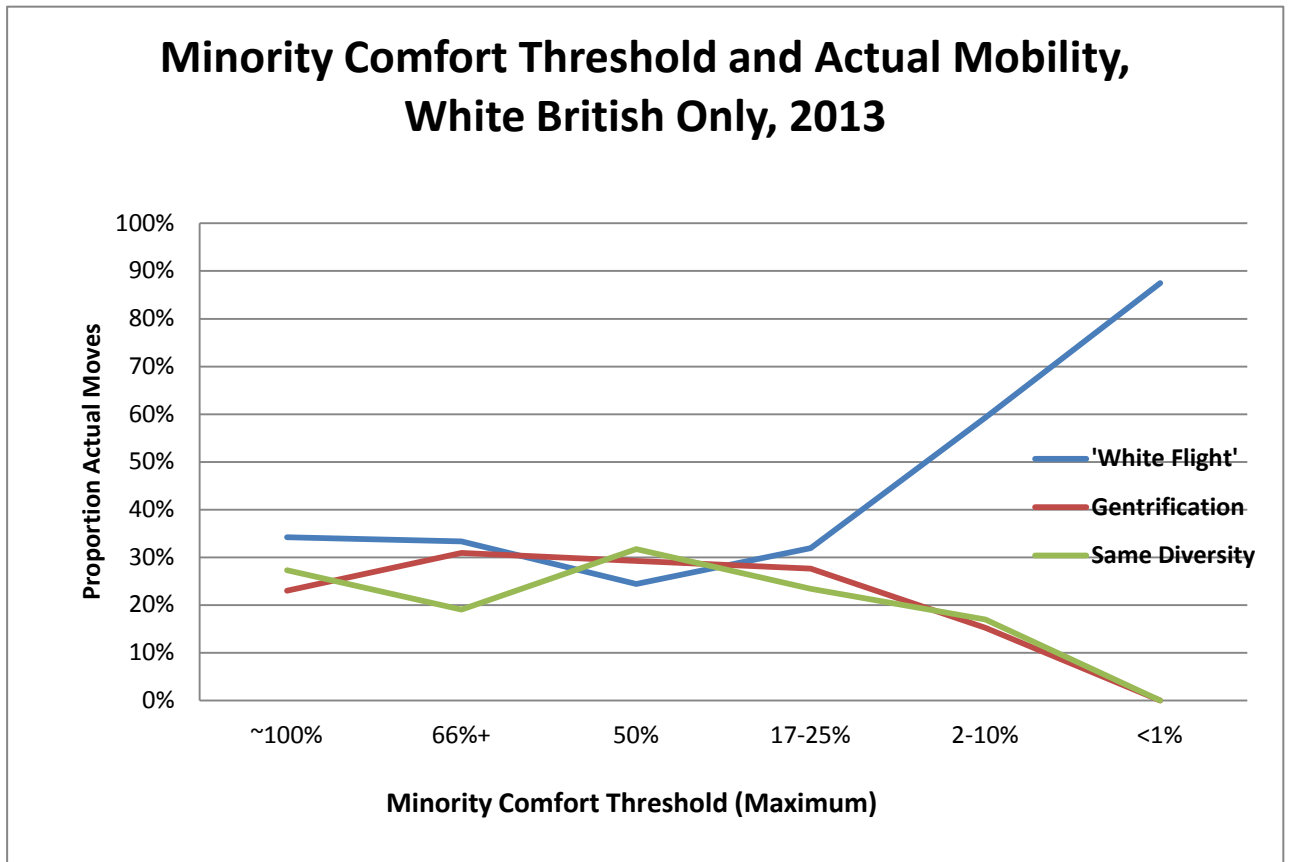
*p<.05, **p<.01, ***p<.001. Source: BHPS 1991-2008; Understanding Society 2009-12.

Table 4. Predictors of Inter-Ward Mobility, 1991-2012. Material and Attitudinal Factors.

	Model 1 <i>Away v Toward Diversity</i>	Model 2 <i>Toward Diversity (Quintile Change)</i>	Model 3 <i>Toward Diversity (change in minority %)</i>
Lagged % minority pop.	0.08 (0.02)***	-0.07 (0.01)***	-0.43 (0.05)***
White (individual)	-0.88 (0.49)	0.44 (0.22)**	1.01 (0.74)
White x minority % pop.	0.07 (0.02)**	-0.05 (0.01)***	-0.21 (0.05)***
Religious (non-religious ref.)	-0.07 (0.16)	-0.03 (0.07)	0.13 (0.23)
Labour voter (Conservative ref.)	0.36 (0.20)	0.17 (0.08)*	-0.38 (0.29)
Liberal voter	0.09 (0.24)	0.03 (0.09)	0.13 (0.32)
Non-voter	-0.23 (0.24)	-0.02 (0.09)	-0.15 (0.31)
Gay rights wrong (disagree ref.)	-0.11 (0.18)	0.00 (0.07)	0.16 (0.24)
Cohabitation wrong (disagree ref.)	0.08 (0.29)	0.08 (0.10)	0.26 (0.33)
British citizenship best (agree ref.)	-0.06 (0.28)	-0.11 (0.08)	-0.33 (0.46)
Britain history shame (agree ref.)	0.17 (0.27)	-0.01 (0.10)	-0.48 (0.26)
English identifier	0.15 (0.14)	-0.04 (0.06)	-0.27 (0.20)
British identifier	0.17 (0.15)	-0.05 (0.07)	-0.17 (0.23)
Low trust (high trust ref.)	0.20 (0.16)	-0.17 (0.06)**	-0.67 (0.20)***
Traditional family values	0.28 (0.19)	-0.06 (0.07)	-0.14 (0.24)
Left/right scale	-0.06 (0.16)	0.07 (0.07)	0.26 (0.23)
Class is not important to identity	-0.19 (0.15)	0.09 (0.06)	0.34 (0.19)
Pseudo R ²	0.55	0.25	
Adjusted R ²			0.60
N	2253	7041	7041

*p<.05, **p<.01, ***p<.001. Source: BHPS 1991-2008; Understanding Society 2009-12.

Table 5.



Source: Yougov Survey, August 2013

Table 6. Models Predicting Mobility (White British only), by Ward Ethnic Properties, 2013

	More Diverse (1) vs. Less Diverse (0)	More Diverse vs. Less Diverse (Limited Dataset)	More (1) vs. Same Diversity (0)	More Diverse (1) vs. Stay (0)
Ward Ethnic Comfort Threshold (4th power)	-.003 (.002)*		-.005 (.002)**	-.138 (.062)*
Ward Ethnic Comfort Threshold (cubed)		-.025 (.009)**		
% Singles in Ward	.073 (.016)***	.073 (.024)**	-.012 (.015)	.027 (.007)***
Age	.001 (.012)	.010 (.016)	-.006 (.011)	-.014 (.012)
University	-.226 (.340)	-.046 (.445)	.336 (.313)	.811 (.232)***
_cons	-2.811 (.897)**	2.636 (1.249)	-.980 (.855)	-.493 (.590)
Pseudo R²	.139	.174	.056	.063
N	198	113	212	1126

†p<.1; *p<.05; **p<.01; ***p<.001

Source: Yougov Survey, August 2013

Appendix 1

Descriptive statistics for key variables

	Mean	Standard deviation	Minimum	Maximum
Minority % population	9.94	15.55	.11	95.5
Carstairs Index of deprivation	.71	3.32	-5.25	21.24
Population density per hectare	25.55	26.77	.03	261.23
Age	47.50	18.02	18	103
Family values	2.76	.48	1	4.75
Left Right scale	2.68	.50	1	4.67

Appendix 2. Selection of Relevant Yougov Survey Questions, August 2013

[EK1]{single}Do you think the number of immigrants coming to Britain nowadays should be increased, reduced or should it remain the same?

- <1> Increased a lot
- <2> Increased a little
- <3> Remain the same
- <4> Reduced a little
- <5> Reduced a lot
- <6> Don't know

[EK2a]Local Council Wards in the UK have a population of about 10,000 to 30,000 people. Have you moved Local Council Ward to live somewhere new at any time in the past ten years?

- <1> No
- <2> Yes
- <3> Don't know

[EK2b if EK2a ==2]As far as you know, did the last Local Council Ward in which you lived have...?

- <1> More people from an ethnic minority background than the ward I live in now
- <2> Fewer people from an ethnic minority background than the ward I live in now
- <3> About the same number of people from an ethnic minority background than the ward I live in now
- <4> Don't know

[EK3a]Thinking about YOUR NEIGHBOURHOOD, how comfortable or uncomfortable do you feel about the number of people from ethnic minorities who live there?

- <1> Very comfortable
- <2> Fairly comfortable
- <3> Neither comfortable nor uncomfortable
- <4> Fairly uncomfortable
- <5> Very uncomfortable
- <6> Don't know

[EK3b if not EK3a in [4,5]]{single order=randomize} Which of the following statements best describes your views about the number of people from ethnic minorities living in YOUR NEIGHBOURHOOD?

- <1 fixed> I will always be comfortable with the number of people from ethnic minorities living in my neighbourhood
- <2> If the number of people from ethnic minorities increases I might feel uncomfortable at some point
- <3> If the number of people from ethnic minorities decreases I might feel uncomfortable at some point
- <4 fixed> Don't know

[EK3d if EK3b == 2]When do you think you would start to feel uncomfortable about the number of people from ethnic minorities living in your neighbourhood? Would it be when people from ethnic minorities made up roughly . . . ?

- <1> More than three quarters (over 75%) of all people in your neighbourhood
- <2> Three quarters of all people (75%) in your neighbourhood
- <3> Two thirds of all people (66%) in your neighbourhood
- <4> Half of all people (50%) in your neighbourhood
- <5> One in every four people (25%) in your neighbourhood

- <6> One in every six people (17%) in your neighbourhood
- <7> One in every ten people (10%) in your neighbourhood
- <8> One in every twenty people (5%) in your neighbourhood
- <9> One in every fifty people (2%) in your neighbourhood
- <10> One in every hundred people (1%) in your neighbourhood
- <11> Fewer than one in every hundred people (less than 1%) in your neighbourhood
- <12> I am uncomfortable with any people from ethnic minorities living in my neighbourhood
- <13> Don't know

How comfortable or uncomfortable do you think you would feel if the following people you may come into contact with were from an ethnic minority?

- [EK6_g1 if not 1 in EK5] Next door neighbour
- [EK6_g2 if not 2 in EK5] Boss at work
- [EK6_g3 if not 3 in EK5] Doctor
- [EK6_g4 if not 4 in EK5] Friend
- [EK6_g5 if not 5 in EK5] Work colleague
- [EK6_g6 if not 6 in EK5] spouse/partner
- [EK6_g7 if not 7 in EK5] House cleaner
- [EK6_g8 if not 8 in EK5] Child's teacher
- [EK6_g9 if not 9 in EK5] Babysitter
- [EK6_g10] The Prime Minister

- <1> Very comfortable
- <2> Fairly comfortable
- <3> Neither comfortable nor uncomfortable
- <4> Fairly uncomfortable
- <5> Very uncomfortable

<6> Don't know

¹ Even where this is not the case, native ethnic groups tend to dominate in their home regions, such as Flanders in Belgium, Catalonia in Spain or Scotland in Britain.

² Austria and Switzerland ask a question about religion, but only Britain collects ethnic data.

³ See BHPS website for details: <https://www.iser.essex.ac.uk/bhps/about/sample>.

⁴ Geoconvert is a geographical conversion tool that allows the conversion of data between different historical and geographical boundaries administered by the UK Data Census Services Support. See <http://geoconvert.mimas.ac.uk/> (accessed on 25/09/2013)

⁵ Output Areas are the lowest building blocks of census geography used since 2001, by using data counts at Lower Super Output Areas (LSOA) we were able to match 2011 census data to frozen 2001 ward boundaries. For further information, see (ONS 2012)

⁶ Separate censuses are collected for Scotland and Northern Ireland.

⁷ Note that a marked increase in ethnic minority population from 4.5 million in 2001 to 10.1 million in 2011 as well as its diffusion accounts for the notable difference in white share within each quintile between the two years.

⁸ The Carstairs index of multiple deprivation, developed by Paul Norman, is an index of four components from the census. Namely, share of: residents without cars, male unemployed, low status occupational groups, overcrowded households. For methodology of Carstairs Index, see <http://cdu.mimas.ac.uk/related/deprivation.htm> (accessed March 17, 2013).

⁹ The most common alternative among white respondents is British, but could also include Scottish, Welsh, Irish or 'Other'.

¹⁰ The left right scale reported a Cronbach's Alpha of 0.7, and ranged from one to six, with six the most politically conservative.

¹¹ Questions include: a) 'Pre-school child suffers if mother works' ; b) 'Family suffers if mother works full-time' ; c) 'Husband and wife should both contribute' ; d) 'Woman and family happier if she works' ; e) 'Full-time job makes woman independent' ; f) 'Single parents are as good as couples'.

¹² The analysis was repeated on the un-interpolated variables and the significant differences ran with the same magnitude and direction.

¹³ The coefficients for white x working class interactions are: In model 2b, -2.42 (1.02); in model 3b, -2.32 (1.03).

¹⁴ National identity was only asked in 2011. Religion was asked in 2001, but this is not significant either.

¹⁵ See <http://www.sneps.net/white-flight> for census models.

¹⁶ Assessments are subjective and we lack longitudinal data on respondents' actual mobility history. Nonetheless, geocoding of respondents' wards shows that those who claimed they currently lived in diverse wards did in fact do so. Those who said they had moved away from diversity lived in less diverse wards than those who indicated they had moved to more diverse wards. It is of course possible that respondents incorrectly estimated the share of minorities in their ward, but losses in fidelity to actual census demography are offset by the fact *perceived* boundaries and ethnic mixture is often more important for behaviour than actual ethnic morphology.

¹⁷ Full question wording is available in Appendix 2.

¹⁸ Bivariate R^2 for regression of ethnic comfort threshold on immigration and racism questions ranges from .07 to .08.