The Social Capital Impact of Immigration *

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Abstract

Does immigration undermine social cohesion? We study this question using the large inflow of migrants to the United Kingdom following the 2004 and 2007 European Union enlargements. Combining individual-level panel data from 2000 to 2016 with a difference-in-differences design and an enclave-based instrument, we estimate the causal impact of immigration on multiple dimensions of social capital. We find no evidence that immigration eroded social capital. Instead, it increased neighbourhood cohesion and generalised trust. These effects are highly heterogeneous: they are concentrated among highly educated, mobile, and socially liberal individuals, and are weaker or negative in initially homogeneous communities. Using the panel structure of the data, we show that both residential sorting and within-individual behavioural responses contribute to these patterns, with the latter playing a central role. We provide suggestive evidence on two mechanisms. First, migrants disproportionately sort into occupations with high labor demand, consistent with labor market complementarity. Second, comparing EU migration to refugee inflows, we show that positive effects are specific to contexts with lower cultural distance. Overall, the results suggest that the social impact of immigration depends critically on local economic conditions and cultural proximity, and can be positive when migrants are economically complementary and socially integrated.

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1 Introduction

Migration debates often center on labor market effects—wages, employment, or fiscal impacts. However, public concerns about immigration often extend beyond purely economic considerations to encompass broader societal changes, including shifts in compositional amenities—that is, the demographic and cultural makeup of neighborhoods, schools, and workplaces (Card et al., 2012; Alesina and Tabellini, 2024). In fact, immigration transforms much more than the labor force, it alters the character of neighborhoods, schools, and civic life, affecting the networks, norms, and trust that underpin cooperation within communities—what we refer to as social capital. Social capital constitutes a crucial but often invisible infrastructure of community life. A rapid increase in immigration can, however, place this social infrastructure under stress. Robert Putnam (2007) famously argued that increased diversity can sometimes enrich social capital, but may also erode it—at least in the short run—by weakening interpersonal trust and social cohesion.

This paper investigates whether immigration weakens or reinforces social capital. We do so by exploiting the large and sudden inflows of migrants to the United Kingdom that followed the 2004 and 2007 enlargements of the European Union. These enlargements—by far the largest in the EU's history—triggered an unprecedented wave of migration from Central and Eastern Europe to the UK, providing a natural setting to study how communities adapt to demographic change. We combine this quasi-experimental setting with unique longitudinal data from the British Household Panel Survey (BHPS) spanning from 2000 to 2016 that capture a wide range of attitudes and behaviors commonly used in the literature as proxies of social capital.

Our empirical strategy to estimate the impact of immigration on social capital leverages variation in migration inflows before and after the EU enlargements and across locations in the UK within a difference-in-differences framework. To this end, we match local migration shares with individual social capital outcomes, which we construct from the PCA analysis at the Local Authority District (LAD) level. This is made possible by a "special license" version of the BHPS data.[1] To address the potential endogeneity of immigrant location choices with respect to social capital outcomes, we employ a *enclave* instrument based on the pre-EU enlargement distribution of NMS migrants across districts. We validate the causal interpretation derived from our baseline empirical strategy using a dynamic event-study framework, which helps us ruling out that differential pre-trends could be driving our results. Further, we complement the analysis with an alternative instrument based on the historical distribution of post–World War II Polish resettlement camps.

We do not find empirical evidence supporting the conjecture that immigration erodes

[1]For this paper, we were granted access to a special license version of the study containing the residence of each respondent at the Local Authority District level, rather than the public version, which only discloses Government Office Regions (GOR).

social capital. On the contrary, our findings suggest that migration has a positive impact on several dimensions of social capital: neighborhood cohesion, generalized trust, and trust in institutions.

These effects, however, are highly heterogeneous and depend on both community and individual characteristics. We implement a causal forest analysis (Athey, Tibshirani, and Wager, 2019) to uncover heterogeneous treatment effects. We find that for both neighbourhood cohesion and generalised trust, the causal forest highlights that demographic composition and local economic conditions as the main sources of heterogeneity. The share of UK-born residents emerges as the single most influential variable and immigration exerts a negative effects on both cohesion and generalised trust in highly homogeneous areas—those with the highest concentration of native-born individuals. In such contexts, immigration represents a relatively large demographic shock, and residents have less prior exposure to diversity, potentially triggering identity-based concerns or perceived threats to local norms. These findings suggest that the initial social and ethnic composition of a locality plays an important role in shaping how immigration affects trust and cohesion. At the individual level, we find that the positive effects on social capital are mainly driven by individuals who are more educated, have more progressive views in politics, and are more geographically mobile. These results also suggest that the effects of immigration on social capital and labor markets are interconnected. More educated individuals are less exposed to direct competition from immigrants in the labor market and are more likely to benefit from potential complementarities between low- and high-skilled workers (Dustmann et al., 2013).

We next examine the mechanisms that may explain the general increase in social capital. First, we rule out the possibility that our results are driven by compositional effects due to newly arrived immigrants exhibiting systematically lower or higher levels of social capital. Second, we assess the extent to which these effects are explained by compositional changes driven by native residential responses through internal mobility, as opposed to within-individual changes in social capital among non-movers. We find that both channels contribute to the observed effects. However, the positive effects persist even when we focus exclusively on within-individual changes in social capital, employing individual fixed-effects models. This suggests that exposure to immigration can alter natives' social attitudes directly, rather than simply reshaping who lives where.

To shed light on the mechanisms underlying these findings, we provide suggestive evidence along two complementary dimensions. First, we show that migrants from the new EU member states disproportionately sorted into occupations characterised by high labor demand at the time of the enlargement, consistent with a pattern of labor market complementarity rather than direct competition with native workers. Second, we examine the role of cultural proximity by contrasting the effects of EU migration with those of refugee inflows allocated through the UK dispersal policy. While EU immigration—characterised

by relatively low cultural distance—leads to increases in neighbourhood cohesion and generalised trust, we find no comparable effects for refugee inflows. Taken together, these results suggest that the positive social impact of immigration in this setting reflects a combination of favourable economic conditions and relatively high cultural proximity between migrants and natives.

Finally, given that most migrants arriving from Eastern Europe were white and Christian, they were ethnically and religiously similar to many natives. We conjecture that a combination of their positive economic contributions and their cultural and religious proximity to the native population may explain the—perhaps unexpected—positive impact of this specific immigration shock on social capital and social cohesion.

The paper makes three main contributions. First, it provides causal evidence on how immigration shocks affect social capital and generalized trust—an area largely overlooked in the migration literature, which has focused mainly on labor market and political outcomes. Second, by tracking individuals over more than fifteen years, we identify contemporaneous adjustments in social capital in response to immigration-driven diversity, rather than relying on long-run cross-sectional correlations. Third, we explore heterogeneity and mechanisms, separating the effects of geographical sorting from within-individual behavioral changes, thereby clarifying how immigration reshapes social cohesion at both the community and individual level.

This paper relates to several strands of research. First, our main finding about immigration having a positive effect on social outcomes speaks to the growing literature on the relationship between immigration, attitudes toward immigrants and voting behavior. Bursztyn et al. (2024) for instance find that the long-term exposure to certain immigrant groups induces more positive behavior and attitudes toward those groups, in particular increases natives' generosity toward that group, lower prejudice against that group, and increases personal contact with and knowledge about that group. Achard et al. (2025) find that individuals living close to refugee facilities develop a more positive attitude toward ethnic minorities and become less-supportive of anti-immigration parties compared to individuals living farther away, mostly due to contact between residents and refugees. Turning to voting outcomes, Steinmayr (2021) finds that different forms of exposure to refugee migrants affect voting for far right parties differently, while exposure to refugees passing through the municipalities increases far right vote shares, prolonged contact and sustained interactions between natives and migrants decreases far right vote shares, in line with intergroup contact theory.

First, they speak to the economics of migration literature by examining a relevant yet underexplored dimension the impact on social capital. Previous literature has extensively focused on the impact of immigration on labor market outcomes, yet, there is little evidence on how immigration directly affects social capital. Within the immigration literature, we also complement the research that has been looking at the impact of im-

migration on voting outcomes (Barone et al., 2016; Halla et al., 2017; Dustmann et al., 2019; Steinmayr, 2021; Mayda et al., 2022) and on the determinants of attitudes toward immigration (Mayda, 2006; Lebow et al., 2024). For instance Campo et al. (2025) look at the impact of refugee migration in Italy and find highly heterogeneous effects, like we do. They find that the political backlash toward immigration is related to the underlying level of social capital. A perspective that is related but different from the one we have. Studying the impact of immigration on social capital can help unpack the relationship between immigration, polarization, and the populist vote that has been uncovered in the recent literature.

Second, we contribute to the literature on the determinants of social capital. While most of the literature has often considered social capital to be highly persistent over time and has thus focused mainly on uncovering the historical roots of geographical heterogeneity in social capital, more recently, we have been gathering increasing evidence that salient shocks can affect trust and social cohesion (Attanasio et al., 2015; Agneman et al., 2023; Sequeira et al., 2024). We provide evidence of another determinant of social capital: the change in the composition of the population.

Third, the paper contributes to the literature on ethnic diversity. Most of the previous literature interested in social cohesion or neighborhood satisfaction has focused on their relationship with ethnic diversity in the local area, often finding a negative relationship between the two.[2] In particular, for the case of the UK, our paper is closely related to Langella and Manning (2019), which finds that an increase in the non-white share lowers overall neighborhood satisfaction. Our contribution stems from the fact that, because immigrants from NMS are white, we claim that we are able to disentangle the impact of immigration from that of ethnicity.

The remainder of the paper is organised as follows. Section 2 provides an overview of the last EU enlargements. Section 3 presents the data and the PCA used to measure social capital. Section 4 describes our empirical methodology and identification strategy. The main results are presented in Section 5, while heterogeneity analysis and mechanisms are discussed in Section 6. Section 7 concludes.

2 Background: EU Enlargement

On May 1st 2004 the European Union (EU) underwent its most significant expansion since it was created in 1957 as the European Economic Community (EEC). Known as the fifth enlargement, it constituted the largest EU expansion not only in terms of the number of countries but also in the number of people that joined.[3] At the time, 10

[2] See, for example, (Putnam, 2007; Dinesen and Sønderskov, 2012) on trust, (Knack and Keefer, 1997) on social cohesion, and (Alesina and La Ferrara, 2000; Costa and Kahn, 2003) on participation in organisations.

[3] https://european-union.europa.eu/principles-countries-history/eu-enlargement_en

countries became EU member states. Eight of these new accession nations (EU8) were former Soviet countries located in Central and Eastern Europe, namely: Czech Republic, Estonia Latvia, Lithuania, Hungary, Poland, Slovakia and Slovenia. In addition, the two Mediterranean island nations of Cyprus and Malta were granted membership. The expansion towards the East of Europe continued in the following years with Bulgaria and Romania joining the EU in 2007 (sixth enlargement) and Croatia in 2013 (seventh EU enlargement).

For the UK, the accession of New Member States translated into one of its most dynamic migration episodes of the past 20 years.[4] Between 2000 and 2015, the number of Eastern European immigrants living in the country experienced a five-fold increase. These inflows reflected one of the most fundamental EU principles: free movement of people.[5] While most old Member States implemented transitional arrangements of up to seven years which imposed limitations on mobility,[6] the UK along with Sweden and Ireland was one of the few countries that allowed immediate access to their labor markets during the fifth enlargement.[7] The absence of transitory policies may explain why the first years of these enlargements –between 2004 and 2008– marked a period of remarkable immigration growth in the UK, with annual growth rates peaking at nearly 25% by mid-period (Figure 1).

By 2015, the new accession countries became the largest origin group surpassing other traditionally important origins such as India, Pakistan, and other South Asian countries. In fact, the rapid rate at which people from Central and East Europe arrived was considerably higher than that of South Asia overall, the second-largest migration group until 2019 (Appendix Figure A.1.1).[8] Furthermore, essential for our empirical design the inflows were heterogeneous across Local Authority Districts, as shown in Figure 2. In this paper, we exploit the EU enlargement leveraging temporal and regional variation from the period of highest inflows' growth which took place between 2004-2008, the first years of expansion.

[4]See Appendix Figure A.1.2

[5]Article 39 of the Treaty establishing the European Community (TEC) European Community establishing Treaty / Article 48 of the Treaty of Rome. Currently Article 45 of the Treaty on the Functioning of the European Union.

[6]The aim of these measures was to prevent labor market disruptions from sudden worker inflows following EU membership by enabling Member States to gradually implement free movement. The 2003 transitional arrangements were divided into three phases (2+3+2 years), with progressively stronger guidelines for the conditions in which old Member States could limit access to the labor market. Nonetheless, Member States were free to expand their labor markets whenever they wanted. In most cases, countries implemented work permit schemes (European Commission, 2011).

[7]With no transitional measures at work, the UK only required immigrants from the EU8 to register in the Home Office Worker Registration Scheme if they were employed for a month or more (Kahanec and Zimmermann, 2010).

[8]See also Appendix Figure A.1.2 for a comparison of European inflows with all origin groups.

3 Data

3.1 Immigration

We measure immigration inflows at the Local Authority District (LAD) level using data from the *Annual Population Survey* (APS).[9] The APS comprises 12 months of survey data constructed from two waves of the labor Force Survey (LFS) collected on a local sample boost. With a sample size of approximately 320,000 respondents, it aims to provide estimates between censuses of the main social and labor market variables at a local area level covering information on employment, housing, ethnicity, religion, health and education.

We define immigrants as foreign-born individuals. We exploit the 5th and 6th EU enlargements that took place in the 2000's by measuring the inflow of European immigrants that were *not* part of the European Union as of 2001 which we denote Non-EU14 henceforth following the APS classification.[10] Additionally, we exploit the *2001 Census* to recover the initial distribution of migrants from the 2004 and 2007 accession countries across LADs. Using publicly available information from NOMIS we use census data from 4 key origin groups to build our instrumental variable as explained in section 4.1: Poland, Czech Republic, Baltic Countries (Estonia, Latvia and Lithuania) and Romania.[11] Altogether, these countries account for about 86% of the share of the EU accession countries, excluding Malta and Cyprus, as shown in Table B.1.3. Finally, we homologate Local Authority Districts for each year of the APS and the census using the 2021 Office of National Statistics (ONS) classification.

3.2 Social Capital

We measure several dimensions of social capital at the individual level leveraging information from the British Household Panel Survey (BHPS) and Understanding Society, also known as the UK Household Longitudinal Study (UKHLS). Covering a representative sample of British Households, these surveys contain individual information on several aspects of UK's households' life including a rich battery of questions on beliefs, opinions and attitudes; along with detailed demographic information for each participant. The studies cover the periods of 1991-2008 (BHPS) and 2009-2023 (UKHLS). The BHPS ran for 18 waves with a sample of nearly 5,500 households and around 10,000 individuals. Its successor, the UKHLS, started in 2009 with a new sample and incorporated around 8,000 individuals of the BHPS –around 80%–, from its second wave onwards. It currently

[9] We exploit information from England and Wales, from nearly 200 LADs.

[10] Exluding the UK, EU-14 members by 2001 include Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Republic of Ireland, Spain and Sweden.

[11] The census also provides information of former Yugoslavia of which Slovenia was part of. However, the inflows of this country are relatively small compared to other accession countries. Hungary, Slovakia and Bulgaria are not identified separately.

counts with a sample of nearly 40,000 households and is still ongoing.

In addition to attitudes and behaviours, we observe a rich set of demographic characteristics at the individual level in all waves of the BHPS-UKHLS. These include age, gender, education, occupational status and country of birth. At the household level, we observe aggregate income, household tenure and household size. Moreover, given that we can track individuals locations over time we are able to tell which individuals have lived in the same LAD over the period studied, who has moved and when. We exploit this information later on in our empirical implementation. Descriptive statistics for demographic variables are provided in Appendix Tables B.1.2.

To match individual attitudes with data on immigrant inflows, we were granted access to a Special Licence version which contains LADs for each household over time.[12] Combining both surveys we focus on the period 2000-2014. We omit the first wave of the UKHLS (2009) since the BHPS sample had not been yet incorporated, as previously mentioned. We choose 2015 as the final year to avoid confounding the effects of the Brexit referendum and subsequent decision of the UK to leave the European Union.[13]

The survey runs every year following the same individuals over time. However, not all questions are asked in each wave. To analyse the impact of the recent EU expansions, we restrict the analysis to those that appeared for the first time in the BHPS before the 5th enlargement took place (2004) and at least once after the enlargement. In total, we select 34 questions that cover several aspects of individual's social life, membership or activity in different organisations and attitudes towards the government and their peers. We provide a list of these variables and years when they are asked in Appendix B.6.1.

First, we consider a set of activities that report the frequency of attending cultural and social events such as attending public spectacles, going out, doing voluntary, work among others. The surveys also report information of more routine-type of activities and direct social interactions on a higher frequency. These include how often respondents meet with people or talk to their neighbours. Furthermore, the BHPS reports a series of attitudes related to the perception and interactions in the neighbourhood. Individuals are asked about whether they like their neighbourhood, or not. In addition, they are provided with a list of statements about their relationship with their neighbours. For instance, whether *local friends mean a lot*, whether they *are similar*, *can borrow things*, among others. The answers to such statements are presented in a 5 point scale ranging from *strongly disagree, disagree ... to strongly agree*. Using the same scale, individuals are asked about their opinion towards the government and public institutions. We select three questions. First, if the government reflects the will of people. Second, if ordinary

[12] University of Essex, Institute for Social and Economic Research (2014). Special Licence Access, Local Authority Districts. UK Data Service. SN: 6666. We combine this dataset with the UHKLS waves 1-13 and harmonised BHPS Waves 1-18. UK Data Service SN: SN6614

[13] After several negotiation rounds, the UK formally left the European Union on February 2020.

people can influence government.[14] Third, if the government puts nation before party.

In addition, the BHPS and UKHLS report separately whether a person is member or active in a wide range of organisations. The former does not imply the latter and vice-versa. We thus consider either membership or participation as an affirmative response which we code with indicator variables. Finally, individuals are asked about their trustworthiness of others.

3.2.1 Principal Component Analysis

Acknowledging the inherent multidimensionality of social capital (Engbers et al., 2017; Durante et al., 2024), we implement a Principal Component Analysis (PCA) to discipline the selection of social capital indexes. The exercise allows us to identify the key dimensions of social capital by grouping together the above-mentioned attitudes and behaviours into a few components. We employ an orthogonal varimax rotation which, as we will describe shortly, delivers a meaningful classification of the different features that integrate each component. Given that not all questions are asked in every year, we pool together information from 2002 and 2003. The latter has the largest overlap of questions before the 5th Enlargement. The former allows us to complete the remaining questions that were not covered in 2003.[15] To conduct the PCA we rescale all variables to a common 0 to 1 range. For originally dichotomous variables that can be reduced to a *yes/no* type of question such as membership or activity in an organisation we take a value of one for an affirmative answer. For those variables that have a different nature, we rescale the options to a 0-1 range with equidistant values for each response, preserving the relative intensity of each answer. For instance those that are answered in a 5 point scale reflecting whether a person *strongly disagrees, disagrees, [...] strongly agrees* with a statement would take values of 0, 0.25 [...] and 1. Based on the PCA outcome, we identify 5 components of social capital.

Table 1 summarises the PCA results. We present the factor loadings of each variable within components, highlighting those that are close to 0.15 or above. Given that *within* components questions are asked in different years, rather than employing a PCA-score we use the results for classification purposes. Specifically, we categorise each question based on the highest factor loading across components. As shown in Table 1, we identify arguably well-defined 5 dimensions: Neighbourhood Cohesion (NC), Community Service (CS), Social Life (SL), Trust & Collective Action (CA) and Institutional Trust (IT).

Neighbourhood Cohesion integrates both attitudes toward and interactions with neighbors, the frequency of these interactions, levels of satisfaction, and willingness to improve the neighborhood, among other factors. Community Service refers to participation in

[14] Individuals are asked if ordinary people *can't* influence the government, we code this variable reversely for comparative purposes.

[15] If a question is asked both in 2002 and 2003, we take the response with the largest associated value for each individual.

voluntary organizations or similar community groups—often altruistic in nature—as well as the frequency of attending such groups. Social Life captures the frequency of participation in social activities, along with satisfaction with this aspect of life. Collective Action and Generalised Trust pertains to the propensity to participate in professional organizations, trade unions, and parents' associations, among other groups that typically involve collective action for both mutual and individual benefits (Olson Jr, 1971). This dimension also includes measures of generalized trust toward other individuals. Finally, Institutional Trust integrates beliefs about government institutions and perceptions of democratic values. Descriptive statistics for all variables are provided in Tables B.1.1. Notice that the rate of missing responses among eligible individuals is very low, with the estimation sample representing around 98%-99% of all relevant observations for the purpose of this study. Section B.2 provides further details on the sample composition in this regard and the way we deal with missing observations. While the PCA retains the intensity of each set of responses, after conducting it, we recover dichotomous responses to evaluate the impact of immigration. This allows for i) a more intuitive interpretation of the effect of immigration on social capital and ii) a straightforward method to build general indices within category via averages.

4 Empirical Strategy

To assess the causal effect of the EU enlargement on social capital, we propose a difference-in-differences strategy. We exploit differences in local exposure to immigrants inflows from Europe across LADs over time. Taking advantage of the longitudinal dimension of the BHPS-UKHLS, we restrict our attention to those outcomes stemming from questions that were introduced *before* the 5th enlargement took place, and that were asked again at least once *after* the enlargement. Since we measure our outcomes with binary variables, we estimate linear probability models using the following baseline specification:

$$SC_{idt} = \alpha + \beta D_{04} \cdot \Delta M_{d(i,2004)} + \Gamma X_{it} + \lambda_t + \theta_d + e_{idt}, \tag{1}$$

where SC_{idt} denotes each dimension of social capital that we listed before as well as averages among categories for each individual i, in year t living in a LAD d. $\Delta M_{d(i,2004)}$ denotes the change in the number of immigrants I in each LAD, as share of the total population Pop in the baseline period, 2004.[16] Specifically:

$$\Delta M_d = \frac{I_{d,2008} - I_{d,2004}}{Pop_{d,2004}}$$

ΔM_d thus, measures the largest immigrant growth rate during the enlargement. The shock is matched to each individual based on their residence in 2004 regardless of their

[16] Descriptive statistics for the shock are available in Appendix Table B.1.4.

district of residence at the moment of the interview. Furthermore, we interact this variable with a *post* dummy variable D_{04} which takes a value of 0 before the 5th enlargement took place (*pre-period*) and a value of 1 from the first enlargement onward (*post-period*). Intuitively, we compare the evolution of social capital among individuals who have been exposed to different dosage of the EU-enlargement immigration shock, before and after such shock occurred. Our empirical strategy has therefore the flavor of a difference in difference with continuous treatment.

All regressions include controls for age, gender, education and occupational status (employed, retired, student). Moreover, we control for the log of household income, household tenure (owned/mortgage or not) and household size. In some specifications we also control for time-varying district characteristics such as: jobs seekers' allowance rate, LAD gross value added (GVA), jobs density and the median price of purchased houses. [17] In the main analysis we focus on individuals, either native or foreign-born, who have been residing in the UK since before the immigration shock, e.g. before year 2004. In all regressions errors are clustered at the LAD level.

4.1 Instrument and Identification

The main identification challenge of our analysis is related to the potential endogeneity of the immigration shock. Namely, the change in immigrants' shares derived from the EU enlargements is likely not to be randomly distributed across districts. The direction of a potential selection bias in this setting is not straightforward. For instance, we could expect OLS estimates to be upward biased if migrants were to choose places were social capital is higher since these places are likely to be more attractive.However, it could also be the case that these places, which are also more demanded by natives, are less attractive to newly arrived immigrants due to housing availability constraints or financial constraints associated with the former (higher rent prices). Under this scenario, OLS could be biased downwards. To address potential endogeneity issues stemming from migrants' location choices, we apply a *enclave* instrumental variable approach. Exploiting information on the past distribution of the key origin groups from the Accession countries we employ the following past-settlement (Card, 2001) type of instrument:

$$\tilde{M}_d = \sum_o \frac{I_{odt_0}}{I_{ot_0}} \frac{I_{o2008} - I_{o2004}}{Pop_{d2004}} \tag{2}$$

Where o denotes origin group, d denotes district, I migrant stocks and Pop total native and migrant population. We leverage information from the 2001 census to recover the initial distribution of each immigrant origin group (at t_0) across LADs. The 2001 census contains detailed information for the following EU-2004 accession countries or group of

[17] Specifically, we recover from NOMIS information on jobs seekers' allowance rate as proxy for unemployment at the LAD level, LAD gross value added (GVA), jobs density and the median price of purchased houses. They are obtained from ONS House Price Statistics for Small Areas.

countries: Poland, Czechia, Baltic countries (Estonia, Latvia, Lithuania) and former Yugoslavia (of which Slovenia was part of). Hungary and Slovakia cannot be identified separately. In addition, it has detailed information for Romania, which entered the EU in 2007, jointly with Bulgaria. The latter however, cannot be identified individually.

We construct our instrument using the information from Poland, Czechia, Baltic countries and Romania. We could also match the shares of former Yugoslavia with the national shift from Slovenia, however the aggregate inflows of this country between 2004-2008 are close to zero, as shown in Appendix Table B.1.3. Figure 3 shows that our instrument does a good job at predicting the actual migration shock at the distrct level, even more so when including controls (right figure). Detailed estimates from first-stage regressions are reported in Appendix Table B.3.1. [18]

As it is common in shift-share instruments, causal interpretation may stem either from the exogeneity of initial shares, as suggested by Goldsmith-Pinkham, Sorkin, and Swift (2020) or, as in Borusyak, Hull, and Jaravel (2022), from the aggregate origin-specific inflows that constitute the shift component. Because the 2004 EU enlargement was an external policy shock that abruptly opened the UK labor market to accession-country workers, these inflows can be considered plausibly exogenous to local dynamics, satisfying the exclusion restriction of the instrument.

Furthermore, we corroborate the causal interpretation derived from our baseline identification strategy in a dynamic event-study type of framework. Since we observe each outcome for several years before the enlargement, we implement a set of placebo test on the lagged-outcomes i.e., outcomes *before* the enlargements took place, which allows us to evaluate whether previous ongoing trends are driving our results. Such falsification test support the exogeneity assumption of our instrument. Section 5.2 provides the details and main findings of this approach.

5 Results

5.1 Baseline Estimates

We begin by analysing the effect of the EU enlargements by looking at the results from model (1) on the 5 key dimensions of social capital obtained from the PCA. Figure 4 summarises OLS and IV estimates for each category: neighbourhood cohesion (NC), community service (CS), social life (SL), collective action (CA) and the two levels of trust: generalised (GT) and and institutional trust (IT). The first observation is that we do not find evidence of negative impacts of the immigration shock on social capital, a perhaps unexpected result. In fact, IV estimates highlight a positive impact on some of

[18] In Appendix B.3 we assess two instruments: the first one, (IV-A) exploits the information from Poland, Czechia and Baltic countries. In a second one, which we use in our main analysis incorporates Romania (IV-B).

the social capital dimensions: *neighbourhood cohesion*, *collective action*, *generalised trust* and *institutional trust*. The most robust results being those on neighbourhood cohesion and generalised trust, two outcomes on which we will focus most of the attention. While some of these positive effects might be considered surprising, they are not unique in the literature. For instance, Langella and Manning (2019) find in one of their specifications a suggestive positive response of immigration on the prevalence of respondents that *like the neighbourhood*. Although their estimated effect is not statistically significant, as mentioned in Section 1 the scope of their analysis is different from ours which also means that they use a different empirical strategy compared to our quasi-experimental based design. As noticed by the authors, albeit Brexit revealed strong negative attitudes towards migrants, most of these were concentrated in *low* migration areas. Moreover, the results are consistent with Akay et al. (2017) who finds a positive effect of higher immigrant exposure on subjective well-being in Germany. In contrast, we do not find a significant response in the likelihood of participating in *community service* organisations, nor a significant change in *social life activities*. Certainly, it is possible that the inflow of European immigrants following the EU enlargement did not affect these dimensions. However, there could also be counteracting forces in each subcomponent that explain these results. In the Appendix we explore this possibility by unpacking the effects on each social capital dimension.

Table 2 reports estimates from model (1) across different specifications. Column (1) reports OLS estimates based on model 1. Column (2) reports our baseline difference-in-differences specification where we estimate model 1 instrumenting the immigrant shock via the shift-share approach described in Section 4.1. In column (3) we restrict the sample to native individuals. When we do that the coefficients on NC and GT increase slightly, suggesting that immigrant composition in terms of social capital works against finding a positive effect. Finally, in column (4) we augment the specification with district level time-varying controls such as: time varying area controls including job seekers' allowance rate, gross value added, jobs density and the median price of purchased houses. While the last specification has a richer set of district covariates, some of these could be considered potential *bad controls*, (Angrist and Pischke, 2009)[19] thus we use the second specification (column (2)) as our preferred baseline for assessing magnitude and for the remainder of the paper.

The estimated effects are both statistically and economically significant. A one–percentage-point increase in the share of immigrants from the NMS the neighbourhood cohesion index by about 0.026 units on a 0–1 scale, corresponding to an improvement of roughly 3.9 percent relative to the pre-enlargement mean. Moving a district from the 25th to the 75th percentile of the immigration shock distribution implies a gain in local cohesion of around 6 percent. For generalised trust, the estimated coefficient of 0.03 indicates an increase of about 8 percent relative to its pre-shock average. Moving from the 25th to the 75th

[19]House prices and local economic conditions might be directly impacted by immigrants inflows.

percentile of the immigration shock distribution would raise trust by approximately 13 percent. These magnitudes show that immigration had a quantitatively nontrivial and positive impact on key dimensions of social capital.

5.2 Dynamic Framework

To corroborate the causal interpretation of the previous findings, in this section we analyse the effect of immigration on social capital in a dynamic framework. Focusing on the dimensions for which we found a meaningful non-zero response, we estimate the following regression:

$$SC_{idt} = \alpha + \sum_{s \neq -1} \beta_s \Delta M_{d(i,2004)} \cdot \mathbb{1}\{s = t\} + \Gamma X_{it} + \lambda_t + \theta_d + e_{idt}, \tag{3}$$

for individual i from district d at year t. The exercise serves two purposes. First, as placebo tests. If our estimates were recovering the effects of the migration due to EU enlargement we would expect $\beta_s = 0$ for $s < 2004$. Second, a visual inspection allows us to determine whether we are recovering pre-existing trends. For each outcome, we use the last available year of data before the 5th enlargement as reference period. As mentioned earlier, while all selected questions are asked before and after the enlargement, they are not asked all nor the same years. Some questions are asked less frequently than others and the gaps between waves when the questions are asked also vary. This is also one of the reasons why we do not use the dynamic framework as our baseline strategy. Still, we are able to recover some valuable insights.

Figure 5 summarises the results. In general, our findings suggest that the effects that we observed employing model 1 are not reflecting *past* ongoing dynamics. The change in pattern *post* enlargement seems quite robust for: *neighbourhood cohesion* (panel a), *collective action organisations* (panel b) and *institutional trust* (panel f). Furthermore, for the *community service* dimension, rather than looking at the aggregate index for which we found no effect, we focus on the two types of organisations with significant responses, namely, *voluntary* (panel c) and *other community groups* (panel d). We seem a similar behaviour as with the other dimensions: No evident pattern *before* the enlargement and responses triggering *after*. We take this as reassuring evidence for a causal interpretation of our previous findings. Finally, we also observe a positive association between immigration and *generalised trust* (panel e) towards other individuals. The former set of results however are the most robust to our dynamic framework. We interpret this as suggestive evidence of a positive response to immigration on the other dimensions being subject to baseline levels of trust.

5.3 Alternative Instrument: Post-WWII Polish Resettlement Camps

To assess the robustness of our results, we construct an alternative source of exogenous variation in post-2004 immigration patterns based on the historical location of Polish War Resettlement Camps established in the United Kingdom after World War II. Following the end of the war, a large number of Polish servicemen who had fought alongside British forces—particularly officers in the Royal Air Force and general infantry—were allowed to settle in the UK with their families. The British government allocated them to temporary resettlement camps across the country, accommodating roughly 200,000 individuals. These sites were distributed largely according to the availability of unused military facilities, rather than any socioeconomic or social capital characteristics of the surrounding areas.

Because these settlements were intended as temporary accommodation, and because the Polish population in the UK remained relatively small and stable until the 2004 EU enlargement, the distance from each local authority to the nearest historical camp can be considered orthogonal to current local determinants of social capital. The instrument therefore captures historical exposure to early Polish communities, which became relevant again once the UK opened its labor market to Central and Eastern European migrants following EU accession. The intuition is that, after 2004, new migrants from Poland and other accession countries were more likely to locate near areas with pre-existing cultural or informational networks linked to these historical sites.

Formally, we use the inverse of the distance to the closest resettlement camp as an instrument for the local change in immigrant shares between 2004 and 2008. Areas closer to former camps experienced larger inflows of migrants from the new member states, consistent with network effects in migration decisions (see Appendix Figure A.3.4). Panel A of Figure 6 confirms a negative relationship between the distance to historical camps and subsequent immigration intensity, validating the relevance of the instrument. Panel B of Figure 6 compares two-stage least squares estimates from our main shift-share instrument with those from the camp-based instrument. The estimated effects of immigration on neighbourhood cohesion and generalized trust remain positive and of comparable magnitude, albeit with larger standard errors due to reduced first-stage strength (not surprisingly given that the camp-based instrument hinges mainly on Polish immigration). This convergence across identification strategies strengthens the interpretation that the observed effects are causal rather than driven by endogenous location choices or unobserved local trends.

6 Heterogeneity and Mechanisms

6.1 Causal Forest Analysis and Heterogeneous Effects

The average positive effects of immigration on some social capital dimension might mask important heterogeneity. Different communities might differ in the way they react to immigration, and we intend to study such heterogeneity in this section. In order to guide and discipline the analysis, we implement a causal forest analysis (Athey, Tibshirani, and Wager, 2019). This machine-learning approach allows us to uncover heterogeneous treatment effects without imposing a priori parametric restrictions. Specifically, we estimate reduced-form relationships without additional controls beyond fixed effects, use the algorithm to detect key moderators of the immigration shock, and subsequently validate the identified patterns using conventional subset regressions that include the full set of covariates from the main specification.

Figure 7 shows that for both neighbourhood cohesion and generalised trust, the causal forest highlights that demographic composition and local economic conditions as the main sources of heterogeneity. The share of UK-born residents emerges as the single most influential variable, followed by median house prices, population density, and the share of white residents. Individual-level characteristics seem to play a less important role in driving heterogeneous responses.

When we stratify local authorities by their share of UK-born residents, Figure 8 shows treatment effects by quantiles of the share of UK-born residents distribution and suggests that immigration exerts a negative effects on both cohesion and generalised trust in highly homogeneous areas—those with the highest concentration of native-born individuals. In such contexts, immigration represents a relatively large demographic shock, and residents have less prior exposure to diversity, potentially triggering identity-based concerns or perceived threats to local norms. In contrast, more diverse and urban areas display positive effects of immigration on cohesion. These findings suggest that the initial social and ethnic composition of a locality plays an important role in shaping how immigration affects trust and cohesion. In contexts already accustomed to diversity, additional immigration may be more easily integrated into existing social structures. In contrast, in more homogeneous areas, immigration may be perceived as more disruptive, particularly in terms of local social cohesion.

In the Appendix we report heterogeneity results by other characteristics that the causal forest analysis has underlined as important: house prices, population density, and share of white population. Figure A.3.3 shows that the effect on NC is also stronger in lower-density areas, where immigrants are more visible in daily life and repeated interactions—at schools, workplaces, and in neighbourhoods—may foster contact and mutual understanding. The pattern by median house prices indicates slightly stronger positive responses in

more affluent areas, consistent with higher economic complementarity and fewer perceived distributional threats.

Overall, the heterogeneity analysis indicates that the average positive effect of immigration on social capital masks substantial variation across places. Immigration strengthens cohesion and trust primarily in diverse, economically vibrant, and moderately dense areas, while its effects are muted or negative in homogeneous and isolated communities. These results are consistent with the "contact hypothesis" (Allport, 1954), according to which intergroup contact under favorable conditions promotes understanding and trust, but also align with the idea that rapid demographic change can generate backlash in communities unaccustomed to diversity.

6.2 The Role of Rootedness, Political Alignment, and Education

We now explore how responses to immigration differ depending on individuals' characteristics. In particular, we build on the framework developed by Goodhart (2017), who distinguishes between two broad identity types in modern liberal societies: *Somewheres* and *Anywheres*. These categories reflect different levels of rootedness. *Somewheres* are individuals who feel deeply rooted in a specific locality. They tend to emphasize tradition, stability, and national identity. They are often less geographically mobile, less educated, and more culturally conservative. *Anywheres*, by contrast, have more fluid identities that are less anchored to place. They are typically more educated, socially liberal, professionally mobile, and comfortable with diversity and globalization.

Rootedness. We operationalize this typology using information about migration history of respondents, classifying as *Anywheres* those individuals who have moved across LADs more than once between 1991 and 2003, and as *Somewheres* those who have lived in the same LAD during the same period. Panel (a) of Figure 9 shows that immigration has differential effects across these groups. Among *Anywheres*, we find a more positive effect of increased local immigration on neighborhood cohesion (although not on generalized trust), possibly reflecting their stronger predisposition toward bridging across social and cultural boundaries. Among *Somewheres*, by contrast, the effect of immigration on neighborhood cohesion is close to zero. While one might expect that individuals with strong local attachments would react defensively to demographic change, our findings do not support the hypothesis of a backlash in social capital. Rather, *Somewheres* appear largely insulated from the effects of immigration — neither adopting a more positive nor a more negative social orientation.

Political Alignment. We also examine heterogeneity by pre-existing political preferences, using self-reported vote choice before the immigration shock. Specifically, we compare individuals who reported voting for the Conservative Party and those who voted for the labor Party in elections pre-dating the year 2004. These political groups often correlate with broader social attitudes: labor voters tend to favor redistributive policies

and are more likely to support immigration and diversity; Conservative voters more often emphasize national identity, order, and cultural stability. Panel (b) of Figure 9 reveals that immigration has a positive and significant effect on the social capital of labor voters, echoing the pattern observed among Anywheres. Among Conservative voters, we find no statistically significant effect. Once again, we do not observe a decline in trust or civic attitudes among the more culturally conservative group; rather, they remain unaffected on average.

Education. Finally, in Panel (c) we find that individuals with tertiary education tend to respond more positively to immigration both along the neighborhood cohesion and the generalized trust margin. In Fact almost the entire effect seems to be explained by more educated individuals.

Together, these findings underscore the importance of identity-based filters in shaping how people experience immigration and suggest that immigration interacts with individual predispositions in important ways. For groups already inclined toward openness and civic engagement, greater diversity appears to reinforce pro-social attitudes. For others, it is met with neutrality rather than a decline.

6.3 Channels of Social Capital Adjustment

In this section we take advantage of the longitudinal dimension of our dataset to explore further to what extent the responses that we measured earlier may vary across people based on i) mobility dynamics and ii) inherent individual heterogeneity. In Table 3 we estimate model 1 imposing different sample restrictions related to mobility patterns. For reference, column (1) presents the baseline estimates including all individuals regardless of mobility dynamics. Column (2) restricts the sample to those that live in the same LAD as in 2004. Comparing estimates from the two columns, we can observe that the impact of immigration on the *neighbourhood cohesion* index and *generalised trust* remains positive and statistically significant when we restrict the sample to those who never moved (column (2)). However, we do observe a decline in the point estimates of non-movers for neighbourhood cohesion, suggesting that mobility in response to the immigration shock plays some role. Turning to generalised trust, the coefficients are almost identical in the two sample, suggesting that sorting plays almost no role there.

We can also include individual fixed effects and study how the social capital of individuals exposed to high immigration has evolved compared to that of others, regardless of whether they have moved subsequently across districts or not,while exploiting only within individual changes. In Table 4 column (1) includes area fixed-effects (based on 2004 residence) whereas column (2) includes individual fixed-effects. Looking at the individual fixed-effects specification, we can notice that estimates for NC drop by about 40% when moving to individual FE specifications, suggesting that mobility responses and compositional changes play an important role. Differently, estimates for Trust drop only by 3-10%

when moving to individual FE specifications, suggesting that most of the impact is driven by behavioral changes within-individuals.

$$SC_{idt} = \alpha + \beta M_{dt(i,2004)} + \Gamma X_{it} + \lambda_t + \phi_i + e_{idt}, \tag{4}$$

In order to improve the power we also estimate models allowing Year-to-Year variation (col. 3-4) instead of the baseline DiD, as proposed in equation 4 above. Allowing the share of new EU migrants to vary year-by-year, thus we do not account explicitly for the legal timing of the enlargement as we do in model 1. We denote the annual migrant share in the LAD by $M_{dt(i,2004)}$, and incorporate individual fixed-effects ϕ_i. When we exploit all available changes in migration shocks and social capital improves the power of the IV and delivers significant coefficients for both neighborhood cohesion and generalised trust, also also when including individual FE.

6.4 Labor Market Complementarity

A natural interpretation of the positive effects of immigration on social capital documented in the previous sections is that the inflow of migrants following the 2004 EU enlargement generated economically complementary adjustments in local labor markets. In this subsection, we provide suggestive evidence in support of this mechanism by documenting both the strong labor market performance of migrants from the New Member States (NMS) and their systematic sorting into occupations characterised by high labor demand at the onset of the immigration shock.

A key feature of the NMS migration episode is that it occurred during a period of sustained economic expansion in the United Kingdom, with relatively tight labor markets and strong job creation. In this context, immigrants are more likely to be absorbed into employment without displacing native workers. Indeed, descriptive evidence indicates that NMS migrants exhibited high employment rates, low inactivity, and relatively low unemployment compared to other migrant groups arriving over the same period. Moreover, existing work shows that these migrants were net contributors to public finances and that their arrival had, if anything, small positive effects on native wages across much of the wage distribution. Taken together, these findings suggest that NMS migrants were not perceived as a source of economic competition, but rather as contributing to local economic dynamism.

From a conceptual standpoint, these features are consistent with a setting in which immigration alleviates labor shortages and enhances complementarities between different types of workers. In such environments, the economic "threat" component of immigration—often emphasized in the literature on social capital and intergroup relations—is likely to be attenuated. Reduced perceptions of labor market competition may in turn facilitate more positive interactions between natives and immigrants, contributing to higher levels of trust and neighbourhood cohesion.

To provide more direct evidence on this mechanism, we examine whether NMS migrants disproportionately sort into occupations with high labor demand at the time of the enlargement. Specifically, we merge individual-level data from the UK labor Force Survey with occupation-level vacancy data measured in April 2004, prior to the immigration shock. The use of pre-determined vacancy measures allows us to capture exogenous variation in labor demand across occupations, mitigating concerns that observed sorting patterns simply reflect endogenous responses to immigrant inflows.

Our analysis focuses on employed individuals aged 16–64 and distinguishes between three groups: UK-born natives, NMS migrants who arrived between 2004 and 2008, and other immigrants arriving over the same period. We first provide graphical evidence of sorting patterns by plotting the relationship between the probability of working in a given occupation and the corresponding level of labor market tightness, measured as vacancies per worker.

Figure 10 shows that while all groups are more likely to work in occupations with higher vacancy rates, the relationship is substantially steeper for NMS migrants. This implies that, conditional on observable characteristics, NMS migrants are disproportionately represented in occupations where labor demand was relatively high at the onset of the immigration wave. This pattern is consistent with migrants responding elastically to labor demand conditions and filling existing gaps in the labor market.

To quantify these differences more formally, we estimate the following specification:

$$y_{ij} = \alpha + \sum_{k} \beta_k \left(Vac_j \times \mathbf{1}\{MigStatus_i = k\} \right) + \delta X_j + \theta_i + \varepsilon_{ij}, \tag{5}$$

where y_{ij} is an indicator for whether individual i is employed in occupation j, Vac_j denotes the number of vacancies in occupation j measured prior to the enlargement, X_j captures occupation size, and θ_i are individual fixed effects. The coefficients β_k capture the differential responsiveness of each group to labor market tightness.

The estimates, reported in Figure 11, confirm that NMS migrants display a significantly higher elasticity of occupational choice with respect to labor demand compared to both natives and other immigrant groups. Quantitatively, an increase of 10,000 vacancies in a given occupation is associated with approximately a 1.5 percentage point higher probability that an NMS migrant is employed in that occupation. Given that this change corresponds to less than half a standard deviation of the vacancy distribution at the national level, the magnitude of the effect is economically meaningful.

Importantly, these patterns are difficult to reconcile with a narrative of displacement or crowding-out of native workers. Instead, they point towards a reallocation process in which immigrants disproportionately enter segments of the labor market characterised by excess demand. This type of adjustment is precisely what one would expect in a setting with complementarities between immigrant and native labor inputs.

Taken together, the evidence presented in this subsection supports the interpretation that labor market complementarity played an important role in shaping the social consequences of immigration during this period. By filling labor shortages and contributing to local economic performance, NMS migrants may have reduced perceived economic threats and facilitated more positive intergroup interactions. More broadly, these findings highlight that the social impact of immigration critically depends on the economic environment in which it takes place. In periods of strong labor demand, immigration may reinforce, rather than undermine, the social fabric of receiving communities.

6.5 Cultural Proximity

While economic conditions are likely to play a central role in mediating the impact of immigration on social capital, they are unlikely to be the sole determinant. A complementary mechanism emphasized in both the theoretical and empirical literature is the role of cultural proximity between immigrants and natives. In this subsection, we provide evidence consistent with the idea that the relatively small cultural distance between NMS migrants and the native population contributed to the positive social effects documented in our baseline analysis.

Migrants from the Central and Eastern European countries that joined the European Union in 2004 share several salient characteristics with UK natives. In particular, they are predominantly of European origin, largely Christian, and often exhibit cultural norms and institutional familiarity that are closer to those prevailing in the host country compared to migrants from more distant regions. This relative cultural proximity may facilitate communication, reduce social frictions, and increase the likelihood of meaningful intergroup interactions. In turn, these factors may strengthen the mechanisms highlighted by the contact hypothesis, whereby exposure to diversity under favourable conditions leads to increased trust and cooperation.

To investigate the importance of cultural proximity more directly, we contrast the effects of NMS immigration with those of a different migration episode characterised by greater cultural distance: the inflow of asylum seekers to the United Kingdom under the dispersal policy introduced in 1999. This policy allocated asylum seekers across local authorities according to administrative criteria, primarily the availability of low-cost housing, with the explicit aim of reducing pressure on London and the South East. As a result, the geographic distribution of refugees is plausibly exogenous to local economic conditions and pre-existing trends in social capital.

The main countries of origin of asylum seekers during this period include Afghanistan, Iraq, and Somalia, populations that differ more markedly from UK natives along cultural, linguistic, and religious dimensions. This setting therefore provides a useful counterfactual to assess whether the positive effects observed for NMS migrants generalise to migration flows characterised by greater cultural distance.

Figure 12 documents the evolution of asylum applications and dispersed applicants over time, highlighting the scale of the refugee inflow and the timing of the dispersal policy. The figure illustrates a substantial increase in asylum inflows in the early 2000s, followed by a gradual decline, consistent with broader trends in international migration.

We then estimate the impact of refugee inflows on social capital outcomes using the same empirical framework as in our baseline analysis. The results, summarised in Figure 13, reveal a markedly different pattern compared to that observed for NMS immigration. While the latter is associated with statistically significant increases in neighbourhood cohesion and generalised trust, the estimated effects of refugee inflows are generally close to zero and, in some cases, slightly negative.

These findings provide suggestive evidence that cultural proximity plays an important role in mediating the social impact of immigration. When migrants are perceived as culturally similar and economically integrated—as in the case of NMS workers—immigration can strengthen social cohesion and foster trust. By contrast, when cultural distance is larger and integration may be more challenging, these positive effects appear to be attenuated or absent.

Importantly, this comparison should not be interpreted as evidence of inherently different "effects" of different migrant groups, but rather as highlighting the importance of context. Refugee inflows differ from labor migration not only in terms of cultural distance, but also in terms of labor market attachment, legal status, and the conditions under which migrants are received. Nevertheless, the stark contrast between the two cases is consistent with the broader interpretation that both economic complementarity and cultural proximity jointly shape the social consequences of immigration.

Taken together, the evidence from this subsection and the previous one suggests that the positive impact of immigration on social capital observed in the UK during the 2000s reflects a combination of favourable economic conditions and relatively low cultural distance between migrants and natives. These conditions may not hold in other settings, particularly during periods of economic downturn or in the context of refugee inflows. As such, our findings underscore the importance of considering both economic and cultural factors when evaluating the broader societal effects of immigration.

7 Conclusions

This paper examines the causal impact of immigration on social capital, exploiting the large and sudden inflow of migrants following the 2004 and 2007 European Union enlargements as a natural experiment. Using detailed individual-level panel data from the United Kingdom, we estimate how immigration-induced changes in local population composition affected multiple dimensions of social capital between 2000 and 2016. Our identification strategy combines an enclave-type shift–share instrument with an event-study design,

and we complement it with an alternative instrument based on the historical location of post-WWII Polish resettlement camps.

The results indicate that immigration from the new EU member states did not weaken social capital. On the contrary, we find statistically and economically significant increases in neighbourhood cohesion and generalized trust. These findings stand in contrast to the commonly held view that migration and diversity necessarily erode social cohesion. The evidence also points to heterogeneous effects across localities. Immigration has the strongest positive effects in areas that were already diverse, urban, and relatively affluent. In contrast, highly homogeneous districts—those with a high share of UK-born or white residents—show smaller or even negative responses. These spatial patterns are consistent with a contact-based mechanism: where intergroup contact is more likely, exposure to migrants appears to foster integration and mutual trust; where contact opportunities are limited, immigration may instead trigger defensive attitudes. We find little evidence that the results are driven by compositional changes or selective residential mobility. The increase in generalized trust, in particular, appears to arise mainly from within-individual behavioural adjustments, rather than from sorting or changes in population structure. This suggests that exposure to immigration can alter natives' social attitudes directly, rather than simply reshaping who lives where.

Taken together, our findings indicate that the social effects of immigration are context-dependent and can be positive when economic conditions are strong and cultural distance is limited. The UK experience during the 2000s—with high labor demand and migrants from relatively proximate European cultures—provides an example of such a setting. However, these results should not be extrapolated mechanically to different migration episodes, such as refugee inflows or periods of economic distress, where adjustment costs and perceived threats may be larger. From a broader perspective, the evidence highlights that immigration can contribute to, rather than undermine, the accumulation of social capital in host societies—provided that integration occurs in an environment that supports interaction and economic complementarity.

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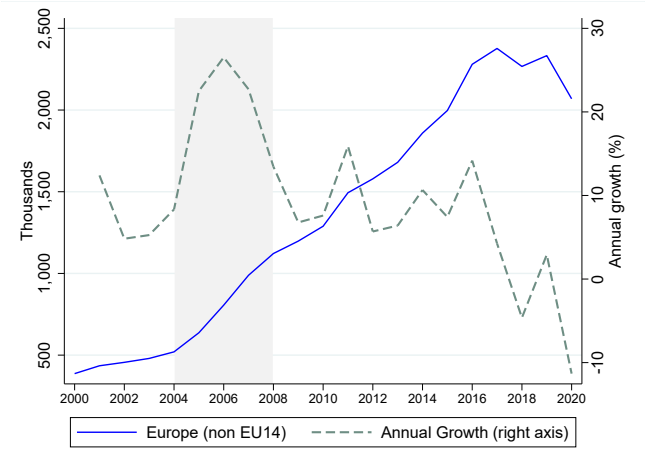
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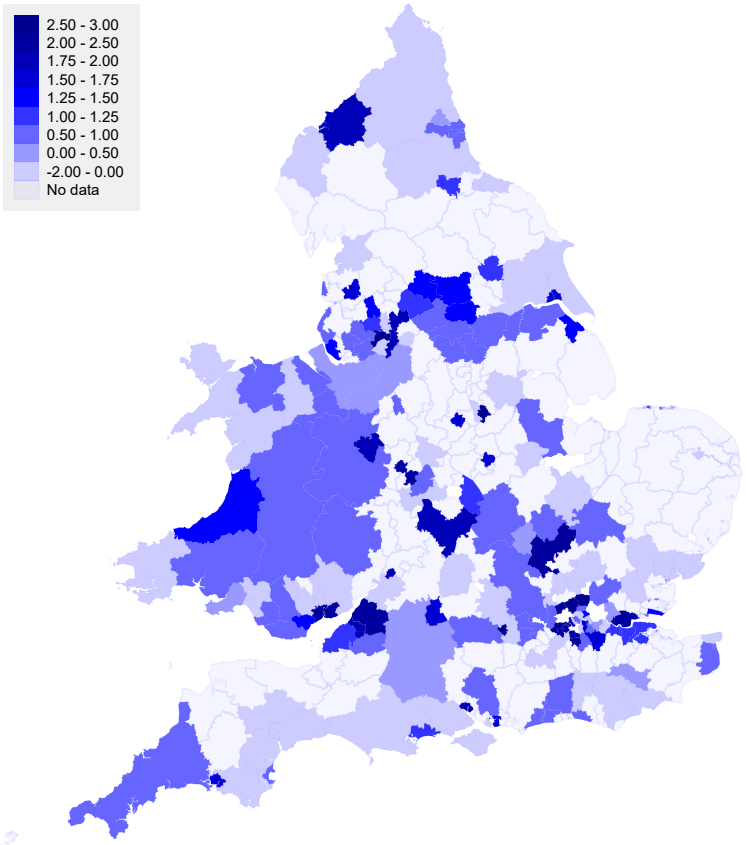
Figures

Figure 1: Immigration from New Member States in the UK



Note: EU14 refers to the countries that were part of the EU as of 1995 up to the 5th enlargement: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Republic of Ireland, Spain and Sweden. Source: Annual Population Survey.

Figure 2: Immigration from New Member States between 2004-2008



Note: Map for England and Wales. Distribution of the inflows of Central and Eastern European migrants between 2004 and 2008 normalised by population in 2004. Source: Annual Population Survey.

Figure 3: Visual evidence of first stage

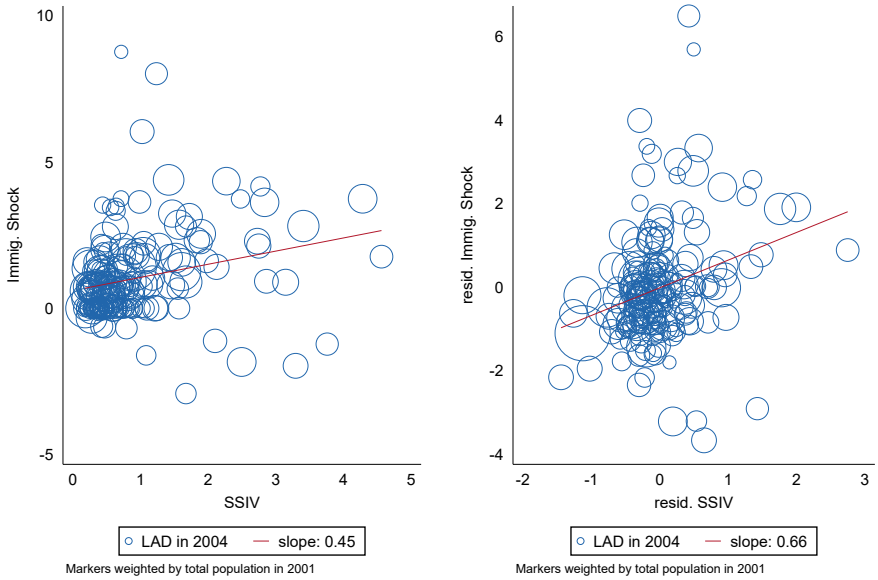
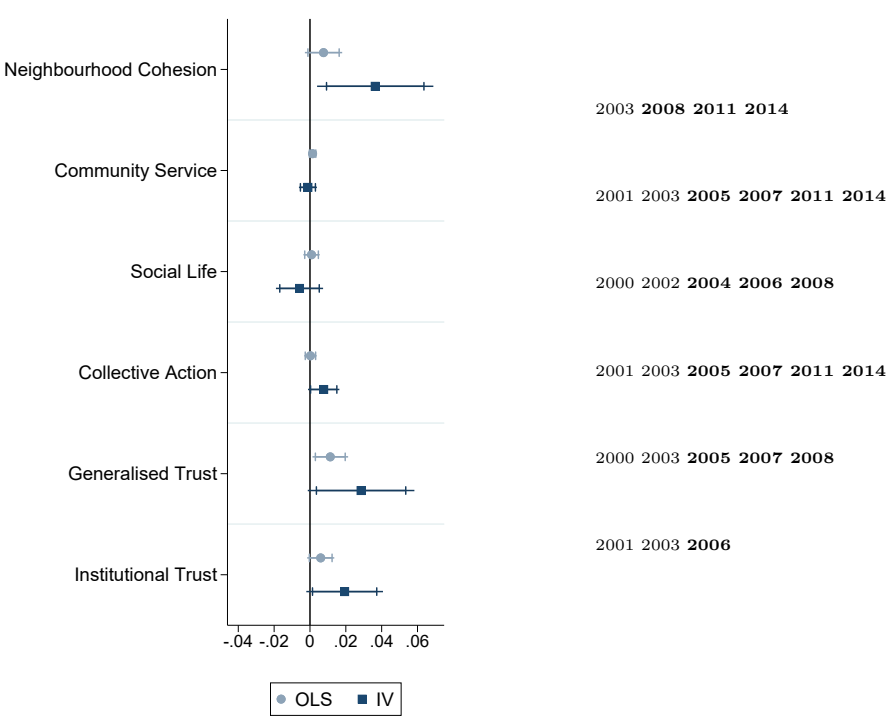


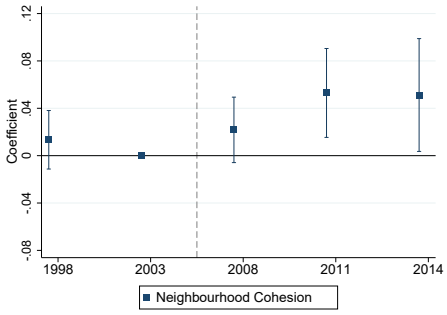
Figure 4: Impact of Immigration on Social Capital



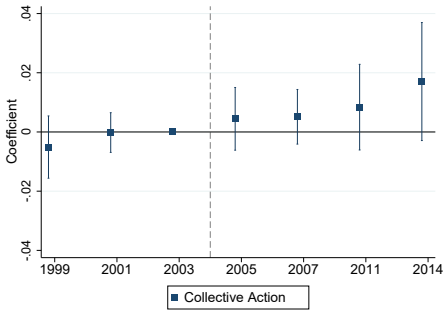
Notes: The figure displays coefficients for the main social capital dimensions estimated from model 1. Horizontal bars represent 95% confidence intervals and vertical lines indicate 90% confidence level.

Figure 5: Dynamic Responses

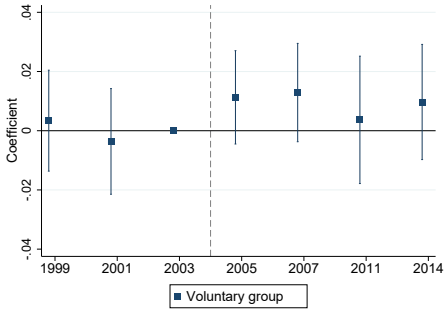
(a) Neighbourhood Cohesion



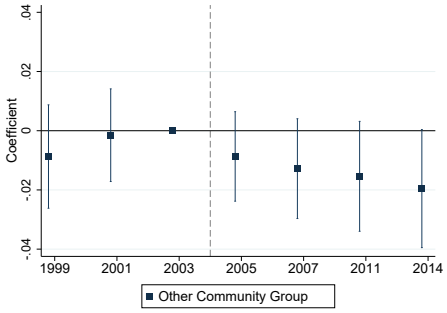
(b) Collective Action



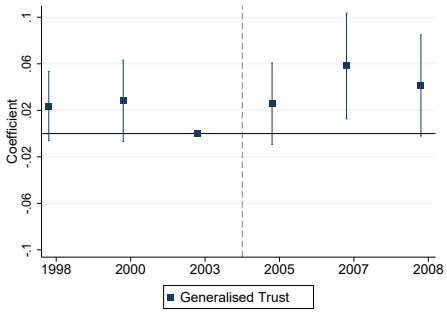
(c) Voluntary Services



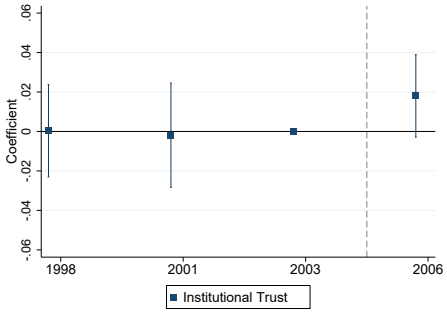
(d) Other Community Group



(e) Generalised Trust



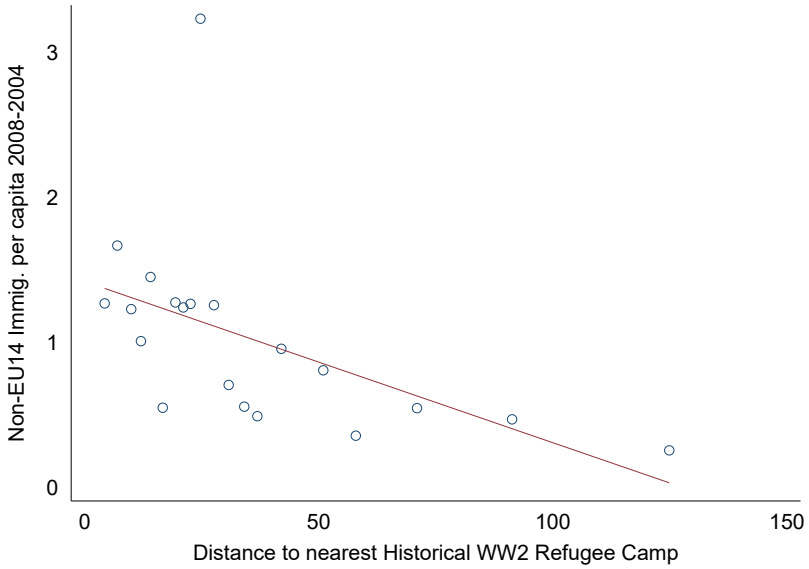
(f) Institutional Trust



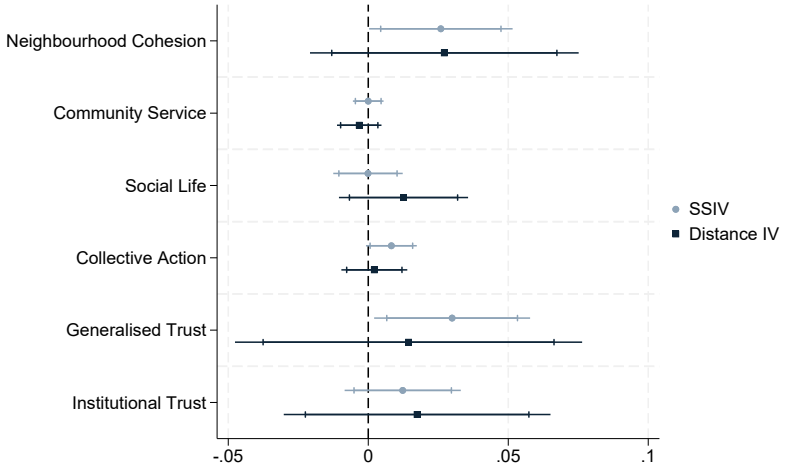
Notes: The figure displays the estimated coefficients and 95% confidence intervals from model 3 for different social capital dimensions and subcomponents.

Figure 6: Alternative Instrument: Post-WWII Polish Resettlement Camps

(a) First-Stage



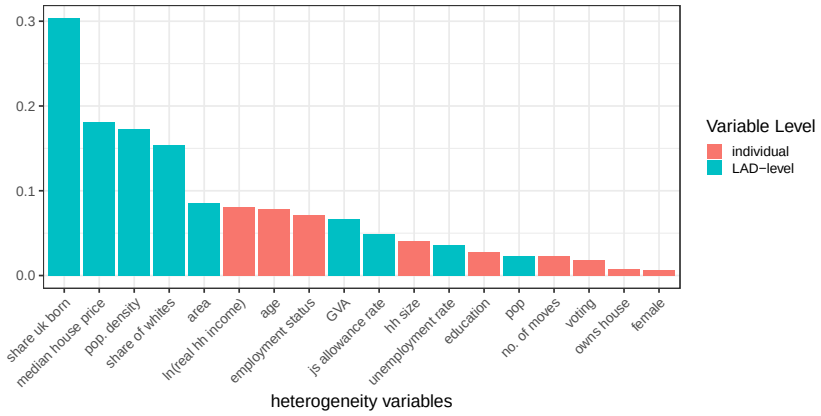
(b) 2SLS Estimates



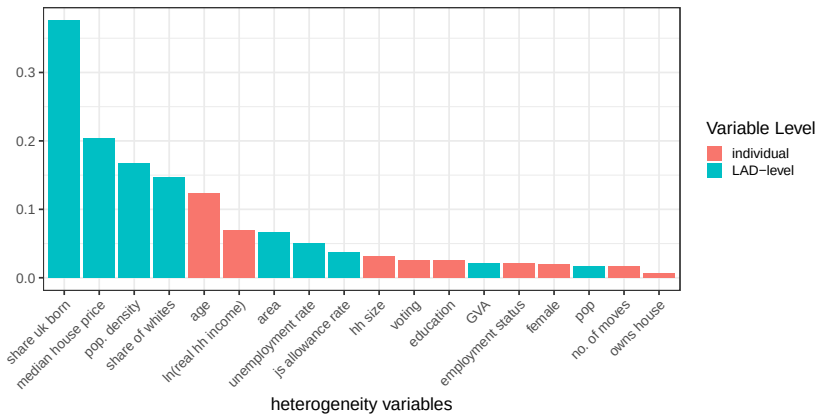
Notes: Panel (A) of the figure plots the distance between the closest Polish Resettlement Camp and the centroid of each district against the 2004-2008 immigration shock from New Member States. Panel (B) compares two-stage least squares estimates from our main shift-share instrument with those from the camp-based instrument.

Figure 7: Causal Forest Analysis

(a) Neighborhood Cohesion



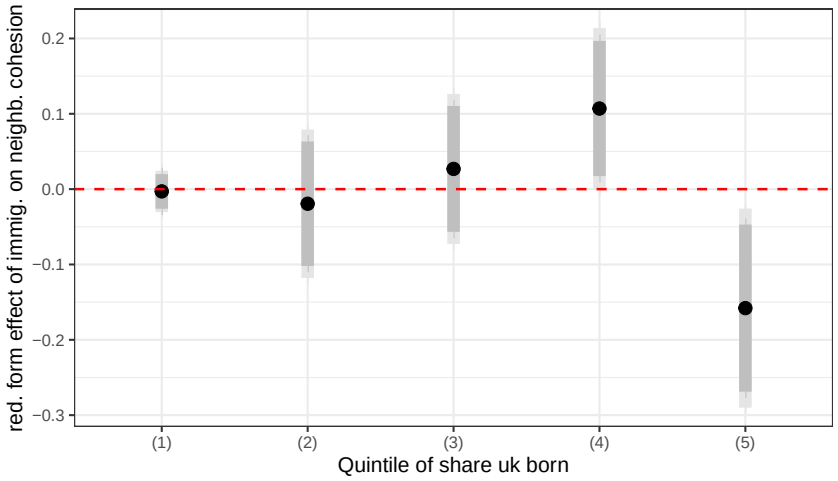
(b) Generalised Trust



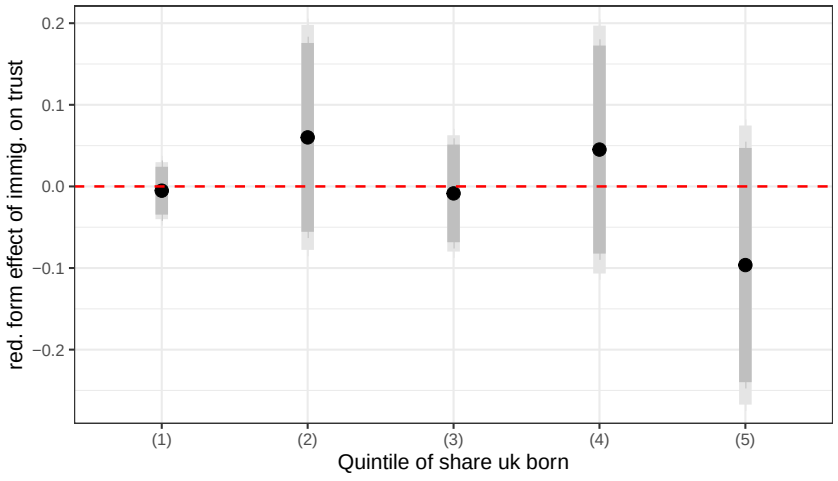
Notes: The figure reports results from a causal forest analysis based on (Athey, Tibshirani, and Wager, 2019). We measure variable importance by creating a weighted sum of the share of tree splits a variable is responsible for. The bars represents the relative importance of different district and individual characteristics in explaining the heterogeneity in treatment effects.

Figure 8: Heterogeneity by Share of UK-born Population at Baseline

(a) Neighborhood Cohesion



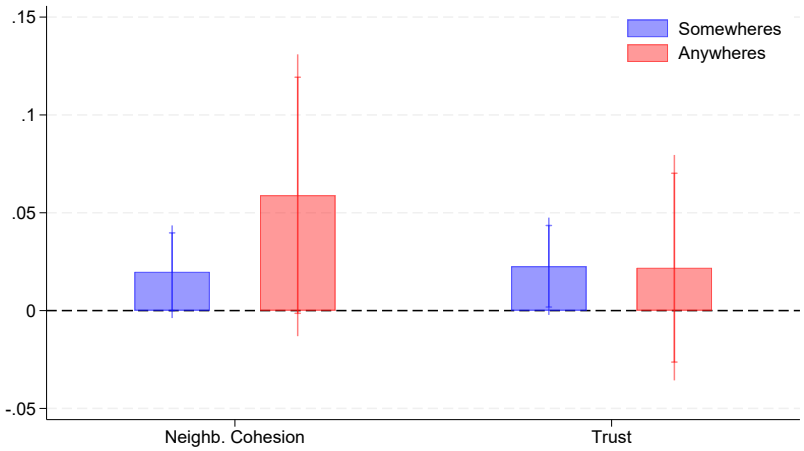
(b) Generalised Trust



Notes: The figure reports estimates of the impact of the immigration shock on neighborhood cohesion (Panel A) and generalised trust (Panel B) separately for quintile of the share of UK-born residents distribution. The share of UK-born residents at the district level is obtained from the Census 2001, thus before the immigration shock started.

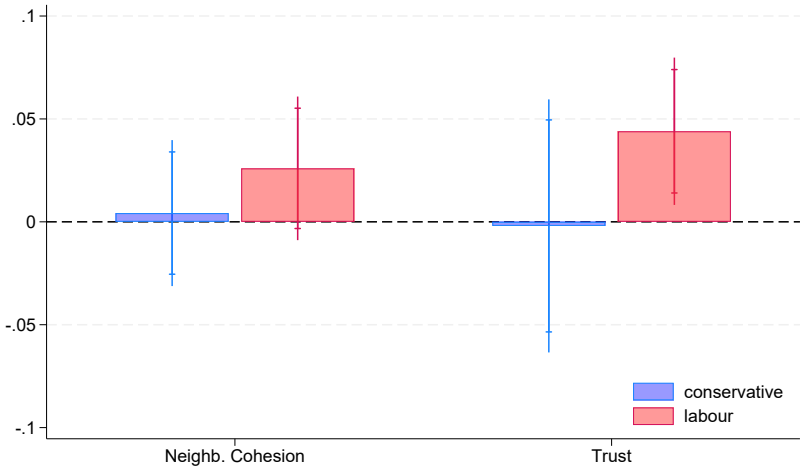
Figure 9: "Somewheres" vs "Anywheres"

(a) Rootedness

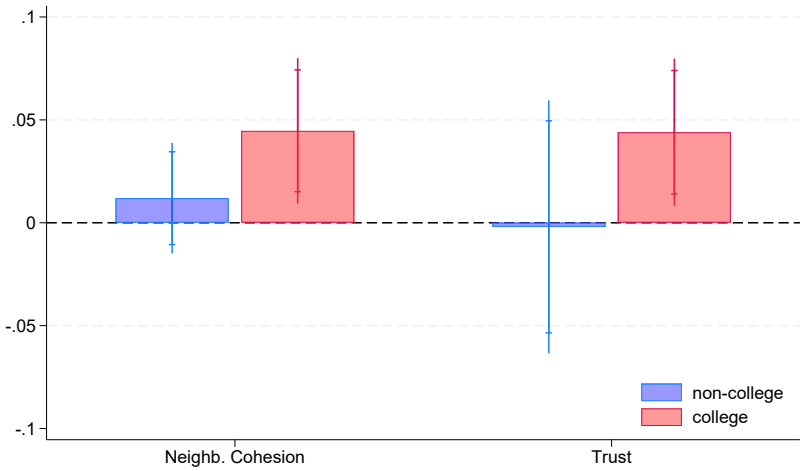


Note: Somewheres moved at most once, Anywheres moved more than once

(b) Political Alignment



(c) Education



Notes: The figure displays estimated coefficients from model 1 based on different individual characteristics. In Panel (a),*Anywheres* are individuals who have moved across LADs more than once between 1991 and 2003, while *Somewheres* those who have lived in the same LAD between 1991 and 2003. during the same period. In Panel (b), individuals are labeled as conservative or labor depending on their self-reported voting preferences collected before year 2004.

Figure 10: Occupational Sorting and labor Market Tightness

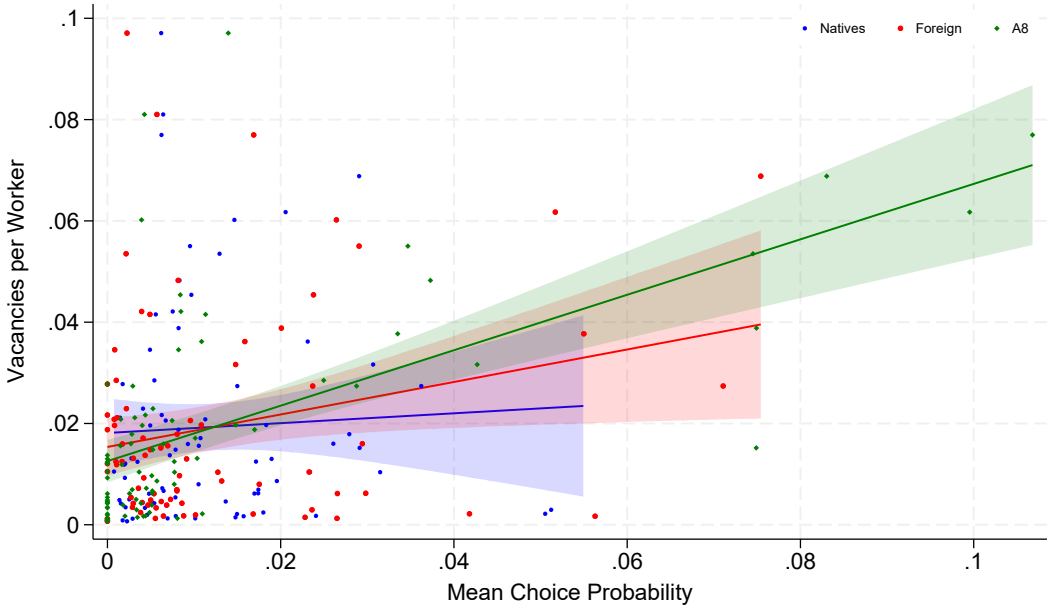


Figure 11: Elasticity of Occupational Sorting to labor Market Tightness

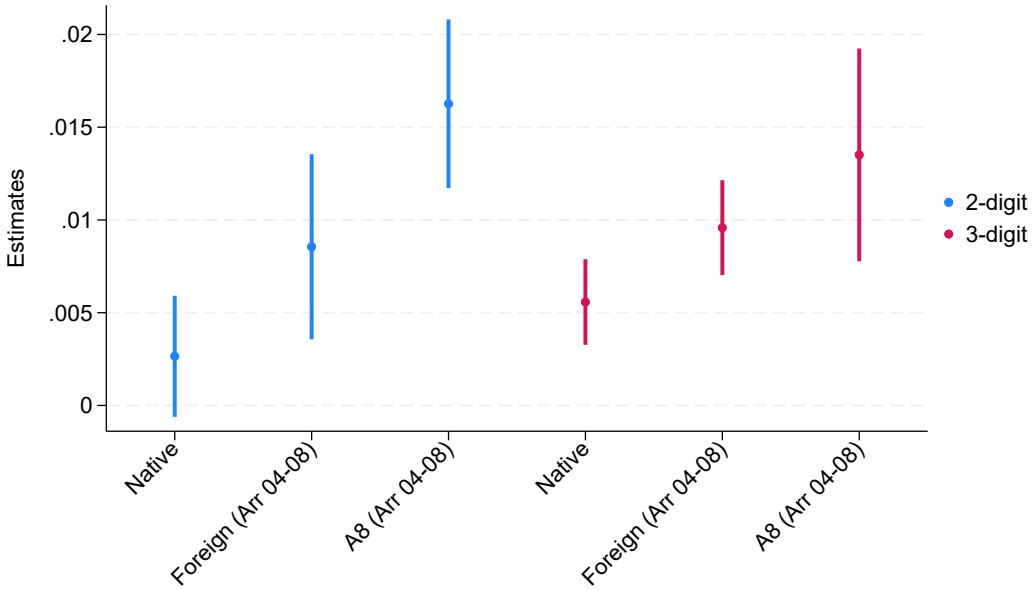


Figure 12: Refugee Inflows under the UK Dispersal Policy

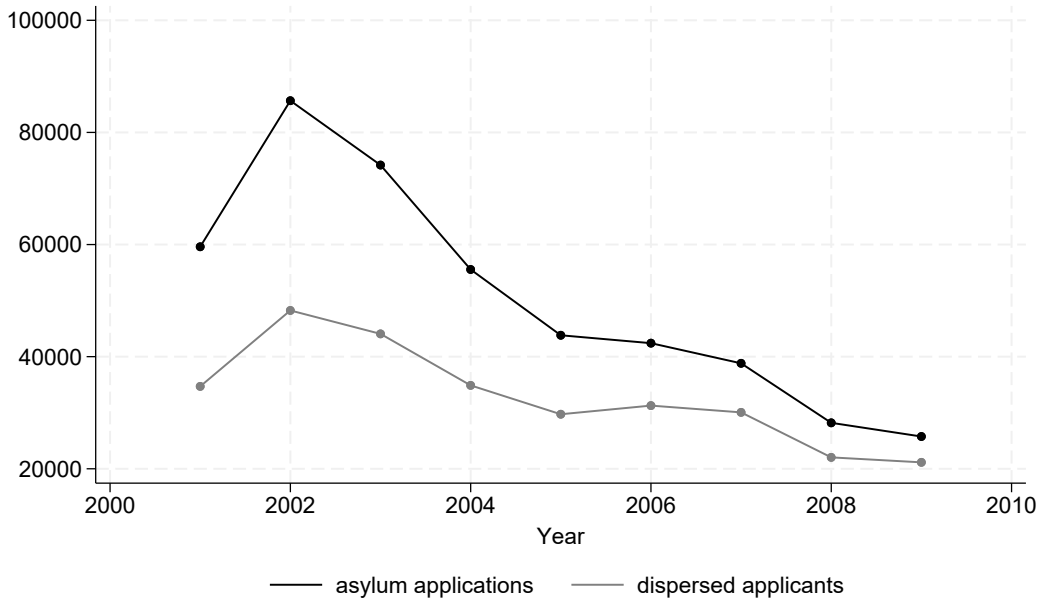
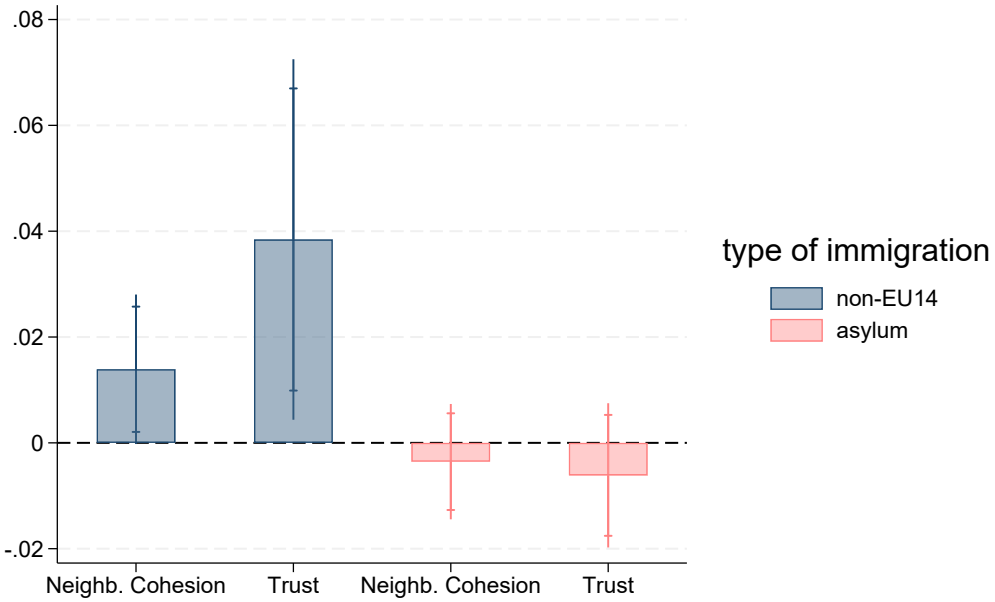


Figure 13: Social Capital Effects: NMS Immigration vs. Refugees



Tables

Table 1: PCA Results: Social Capital Classification

	Neighbourhood Cohesion	Community Service	Social Life	Collective Action	Institutional Trust	Unexplained
NC1: Belong to neighbourhood	**0.374**	-0.020	-0.024	0.046	0.067	0.404
NC2: Local friends mean a lot	**0.377**	0.024	-0.012	-0.080	-0.018	0.364
NC3: Advice obtainable locally	**0.344**	0.019	0.019	-0.088	-0.019	0.472
NC4: Can borrow things from neighbours	**0.283**	0.013	0.122	0.010	-0.111	0.628
NC5: Willing to improve neighbourhood	**0.224**	0.026	0.095	0.135	-0.083	0.744
NC6: Plan to stay in neighbourhood	**0.319**	-0.046	-0.126	0.162	0.041	0.520
NC7: Am similar to others in neighbourhood	**0.349**	-0.062	-0.081	0.032	0.069	0.465
NC8: Talk regularly to neighbours	**0.357**	0.020	-0.020	-0.100	-0.062	0.418
NC9: Frequency of talking to neighbours	**0.212**	0.056	-0.032	-0.247	-0.095	0.664
NC10: Likes present neighbourhood	**0.204**	-0.074	0.087	0.133	0.110	0.781
CS1: How often: Attend local groups	0.026	**0.350**	-0.116	0.027	0.028	0.661
CS2: How often: Do voluntary work	-0.017	**0.352**	-0.017	-0.031	0.009	0.703
CS3: A/M Religious/church org.	-0.005	**0.223**	-0.017	0.007	0.002	0.877
CS4: A/M Voluntary services group	0.010	**0.158**	-0.022	0.075	0.131	0.887
CS5: A/M Other community group	0.005	**0.155**	-0.095	-0.122	0.085	0.899
CS6: A/M Political party	0.041	**0.149**	-0.028	0.127	-0.067	0.898
CS7: A/M pensioners groups/organisation	0.001	**0.504**	0.004	-0.016	-0.001	0.372
CS8: A/M Tenants/Residents group	-0.018	**0.496**	0.021	-0.026	-0.036	0.401
SL1: How often: Go to cinema	-0.063	0.022	**0.458**	0.052	-0.021	0.483
SL2: How often: Go to theatre/concert	-0.011	0.193	**0.352**	0.030	0.023	0.585
SL3: How often: Eat out	0.004	0.043	**0.413**	-0.097	0.009	0.608
SL4: How often: Go out for a drink	-0.004	-0.143	**0.472**	-0.075	-0.020	0.475
SL5: Satisfied with social life	0.096	0.058	**0.184**	-0.311	0.185	0.696
SL6: Frequency of meeting people	0.027	0.065	**0.160**	-0.478	-0.014	0.627
SL6: A/M Sports Club	0.028	-0.025	**0.271**	0.134	0.023	0.796
SL7: A/M Social/Working men group	0.059	-0.057	0.100	-0.099	-0.002	0.946
CA1: A/M Professional organisation	0.026	0.071	0.116	**0.411**	0.004	0.664
CA2: A/M Trade union	0.038	-0.063	0.128	**0.328**	-0.062	0.796
CA3: A/M Environmental group	0.016	0.121	0.015	**0.248**	0.012	0.847
CA4: A/M Parents/School's Association	0.038	0.122	0.043	**0.167**	-0.161	0.868
CA5: Trustworthiness of others	0.082	0.077	0.105	**0.209**	**0.180**	0.782
IT1: Government reflects will of the people	0.005	-0.001	-0.001	0.011	**0.591**	0.477
IT2: People can influence govt. policy*	-0.009	0.005	0.054	0.140	**0.432**	0.665
IT3: Government puts nation's interests first	-0.006	-0.021	-0.046	-0.103	**0.528**	0.579

Notes: (*) Original question asks if *people can't influence government policy.* For comparison with other questions we invert the responses of this question framing it in a positive way: *people can influence government policy.*

Table 2: Impact of Immigration on Social Capital

	(1) OLS All	(2) IV All	(3) IV Natives	(4) IV All
Neighbourhood Cohesion	0.008	0.036**	0.040**	0.026**
	(0.005)	(0.016)	(0.019)	(0.013)
N	20,628	20,628	19,238	20,628
Mean Dep.	0.668	0.668	0.668	0.668
F-KP		24.265	24.975	43.315
Community Service	0.001	-0.001	0.000	-0.000
Organisations	(0.001)	(0.003)	(0.003)	(0.003)
N	35,433	35,433	33,014	35,433
Mean Dep.	0.052	0.052	0.052	0.052
F-KP		22.999	24.100	31.772
Social Life	0.001	-0.006	-0.006	-0.000
Monthly Activities	(0.002)	(0.007)	(0.007)	(0.006)
N	33,827	33,827	31,574	33,827
Mean Dep.	0.323	0.323	0.326	0.323
F-KP		22.077	24.581	31.069
Collective Action	0.000	0.008*	0.005	0.008*
	(0.002)	(0.004)	(0.004)	(0.005)
N	35,433	35,433	33,014	35,433
Mean Dep.	0.086	0.086	0.086	0.086
F-KP		22.999	24.100	31.772
Generalised Trust	0.011**	0.029*	0.031*	0.030**
	(0.005)	(0.015)	(0.017)	(0.014)
N	32,883	32,883	30,696	32,883
Mean Dep.	0.373	0.373	0.373	0.373
F-KP		23.445	24.715	31.497
Institutional Trust	0.006	0.019*	0.022*	0.012
	(0.004)	(0.011)	(0.012)	(0.011)
N	20,898	20,898	19,499	20,898
Mean Dep.	0.178	0.178	0.174	0.178
F-KP		21.642	23.339	32.387
Individual controls	✓	✓	✓	✓
LAD FE	✓	✓	✓	✓
Time FE	✓	✓	✓	✓
LAD time-varying contr.	No	No	No	✓

Notes: Column (1) displays OLS estimates. Columns (2)-(4) display IV estimates. All regressions include the following individual controls: age, sex, education, employment status, household income, house tenure, household size. In column (3) the sample is restricted to only native individuals, while column (4) includes time-varying LAD controls to the baseline specification: (ln) median house prices, (ln) GVA, job seekers' allowance rate. The sample size changes by social capital dimensions because not all questions are asked in the same years nor with the same frequency. More details on the sample construction are available in Section 3.2. Survey years for each category: Neighbourhood Cohesion 2003, 2008, 2011, 2014. Community Service 2001, 2003, 2005, 2007, 2011, 2014. Social Life 2000, 2002, 2004, 2006, 2008. Collective Action 2001, 2003, 2005, 2007, 2011, 2014. Generalised Trust 2000, 2003, 2005, 2007, 2008. Institutional Trust 2001, 2003, 2006. Appendix Table B.6.1 displays the timeline of the survey by question. Robust standard errors clustered at the LAD level in parentheses. $^{*}p < 0.10$, $^{**}p < 0.05$, $^{***}p < 0.01$.

Table 3: Residential Sorting and the Impact of Immigration

	All	Non-movers
	(1)	(2)
Neighbourhood	0.036**	0.021*
Cohesion	(0.016)	(0.012)
N	20,628	19,055
Mean Dep.	0.668	0.675
F-KP	24.265	27.407
Generalised Trust	0.029*	0.029**
	(0.015)	(0.014)
N	32,883	30,968
Mean Dep.	0.373	0.371
F-KP	23.445	24.320

Notes: IV estimates. Column (1) presents the baseline estimates including all individuals regardless of mobility dynamics. Column (2) restricts the sample to those who live in the same district as before the shock (2004). All regressions include the following individual controls: age, sex, education, employment status, household income, house tenure, household size. Robust standard errors clustered at the LAD level in parentheses. $^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$.

Table 4: Individual Fixed Effects Model

	Enlargement Shock (DiD)		**Annual Immigration Variation**	
	District FE	Individual FE	District FE	Individual FE
	(1)	(2)	(3)	(4)
Neighbourhood	0.0364**	0.0199	0.0196**	0.0119*
Cohesion	(0.0164)	(0.0136)	(0.00798)	(0.00691)
N	20,628	18,642	19,500	17,339
F-KP	24.27	24.49	47.60	46.35
Generalised Trust	0.0285*	0.0256*	0.0353**	0.0342*
	(0.0151)	(0.0154)	(0.0166)	(0.0191)
N	32,883	32,161	26,784	25,682
F-KP	23.45	23.37	23.01	22.01

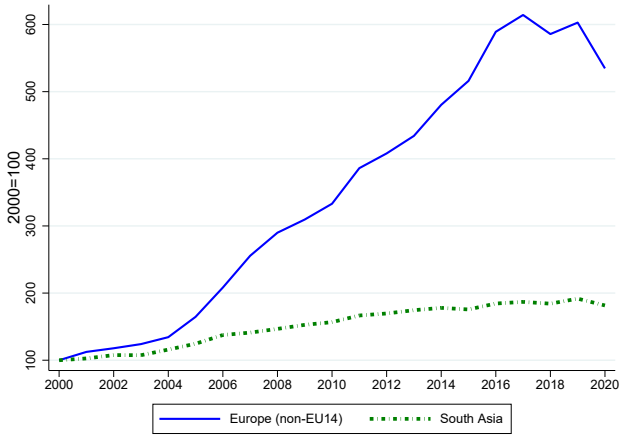
Notes: IV estimates. Columns (1) and (3) include Local Authority District (LAD) fixed effects based on 2004 residence. Columns (2) and (4) include Individual fixed effects. In columns (1) and (2) we report DiD estimates from equation (1), while in columns (3) and (4) we move to a specification in which we allow the immigration shock to vary year-to-year. We remove singleton observations in all regressions for comparability (when individuals only appear once). All regressions include the following individual controls: age, sex, education, employment status, household income, house tenure, household size. Robust standard errors clustered at the LAD level in parentheses. $^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$.

Online Appendix

A Supplementary Figures

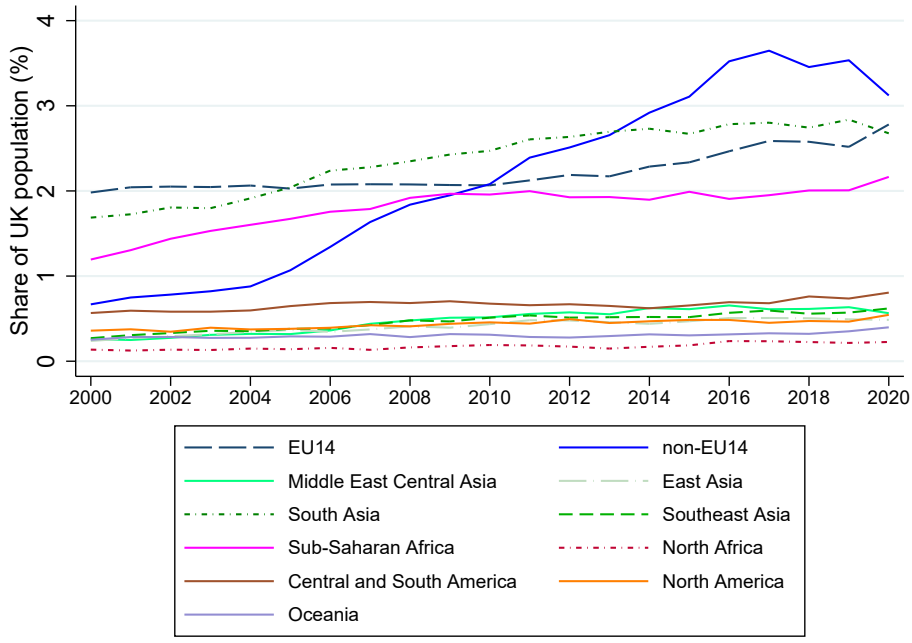
A.1 Immigration

Figure A.1.1: Immigration from New Member States and Asian Immigration in the UK



Note: European stocks exclude EU14 countries: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Republic of Ireland, Spain and Sweden. Source: Annual Population Survey.

Figure A.1.2: Share of immigrants by origin group

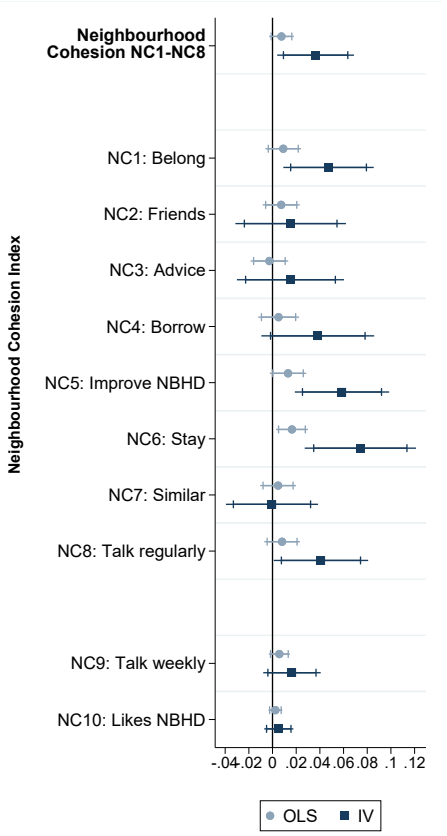


Notes: EU14: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Republic of Ireland, Spain and Sweden. Non-EU14 refers to all the other European countries. Source: Annual Population Survey.

A.2 Unravelling the Effects

In this section we unravel the effects of the EU enlargement on social capital by looking at how the elements of each dimension are affected by the local immigration shock. To better understand the forces behind the responses, we regress separately each question that integrates our social capital key components on the instrumented migration shock following the specification described in equation 1.

Figure A.2.1: Immigration and Neighbourhood Cohesion



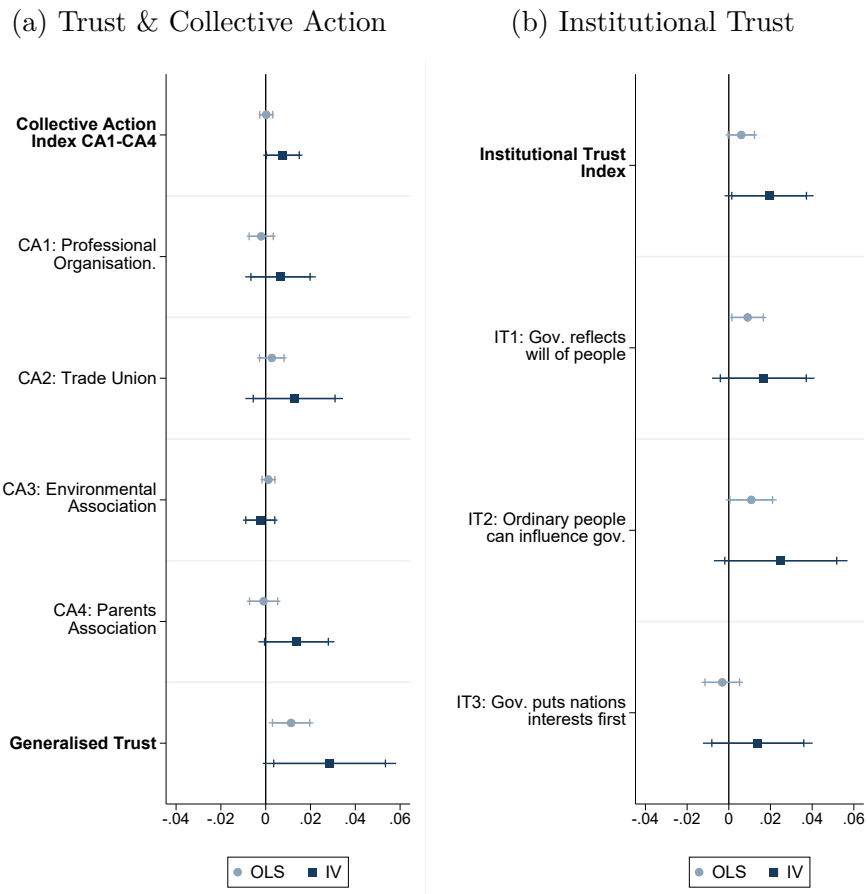
Notes: The figure displays coefficients for the neighbourhood cohesion index and sub-components estimated from model 1. Horizontal bars represent 95% confidence intervals and vertical lines indicate 90% confidence level.

Figure A.2.1 displays the effects of European immigration on neighbourhood cohesion. We can observe that the positive impact on this dimension's index is driven by four key elements: i) people's sense of belonging in the neighbourhood ii) their willingness to improve or iii) to stay in the neighbourhood and iv) talking regularly to their peers. The latter is reinforced by a suggestive positive effect on the element NC9: *Talk at least weekly with neighbours*,[20] although not statistically significant at conventional levels. Likewise, we observe a positive effect on residents feeling that they can *borrow things from their neighbours* (NC4). The responses on these dimensions suggest a strengthening of local networks.

[20]Element NC9 and NC10 are excluded from the main neighbourhood cohesion index because they are asked in different years than the rest of questions.

Furthermore, having a nearly zero coefficient on the component NC7: *Am similar to others in the neighbourhood* is not only in line with our expectations but also reassuring. A positive effect would be somewhat unforeseen in this setting. The effect thus strengthens to some extent the causal interpretation of our findings by suggesting that we are actually recovering an immigration effect.

Figure A.2.2: Impact of Immigration on Trust and Collective Action Groups

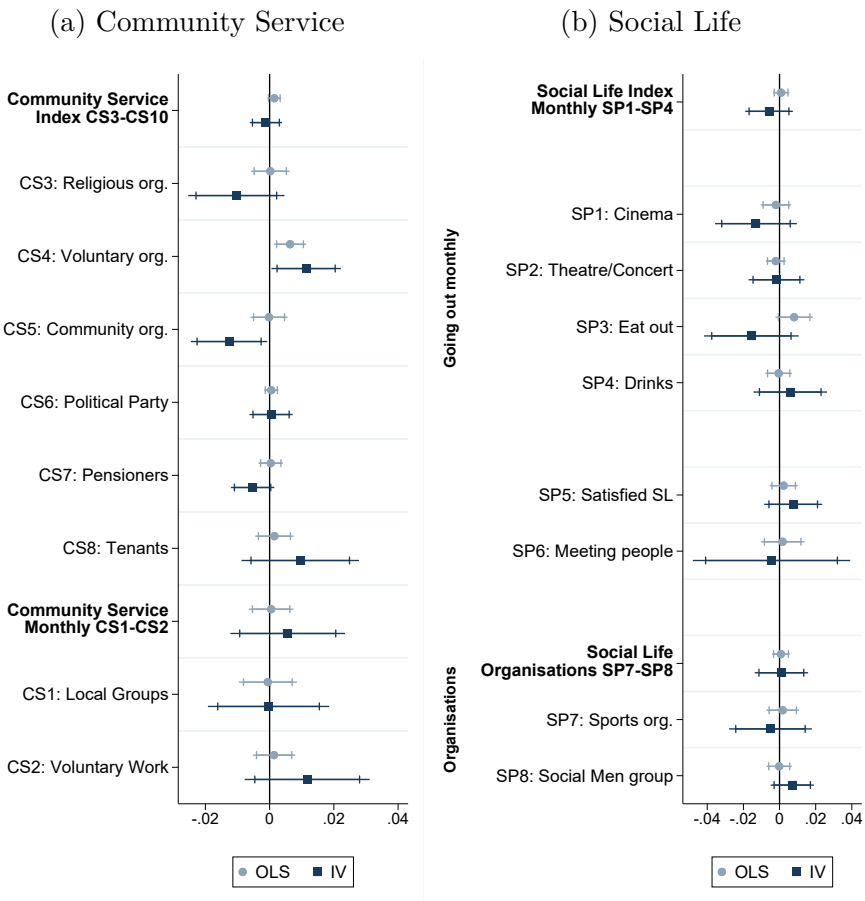


Notes: Panel (a) displays coefficients for the collective action index and its subcomponents along with generalised trust. Panel (b) displays coefficients for the institutional trust index and its subcomponents. All coefficients are estimated from model 1. Horizontal bars represent 95% confidence intervals and vertical lines indicate 90% confidence level.

Figure A.2.2a unpacks the impact of immigration on *collective action* organisations. We observe that individuals with higher immigration exposure are more likely to join parents associations organisations and a suggestive increased probability to participate in a trade union, albeit not statistically significant. Amid incoming demographic changes, parents might involve more actively to ensure that any required adjustments align with their interests regarding their children, as well as meet their educational and school-environment standards. Regardless of the motivation, –*responsibility* or *fear* driven–, these interactions still translate into a social capital uplift. Along with a potential enhancement of local ties, there seems to be a positive association between East European immigration and all subcomponents of trust. Both individual (Figure A.2.2a) and institutional aspects (Figure A.2.2b).

Finally, Figure A.2.3 displays the effect of immigration on *community service* and *social life*. As discussed in Section 5.1 we found no effects on the aggregate indices. However, once we disaggregate these outcomes, two key aspects arise. On the first outcome, we observe an increase on the likelihood of participating in a voluntary organisation. The effect however seems to be counterbalanced by a decline on the probability of joining *"other community organisation"* of approximately the same magnitude. Given the similar nature of these organisations, it is possible that we are recovering a *crowding-out* effect where individuals likely to choose *any* community group before the shock, decide to spend their time in more specific voluntary organisations. One reason could be the willingness to contribute to an effective integration of the newly arrived. Another one could be that exposure to different realities and cultures increases the desirability to help others in a more tailored way.

Figure A.2.3: Impact of Immigration on Community Service and Social Life



Notes: Panel (a) displays coefficients for the community service index and its subcomponents. Panel (b) displays coefficients for the social life index and its subcomponents. All coefficients are estimated from model 1. Horizontal bars represent 95% confidence intervals and vertical lines indicate 90% confidence level.

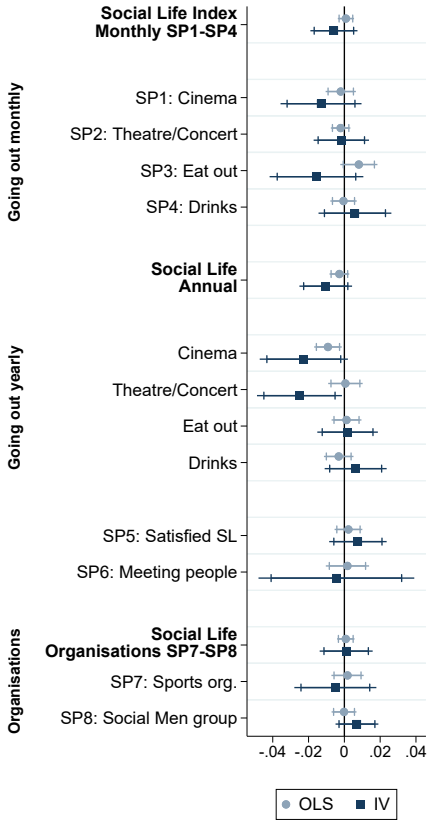
Second, we find no evident statistically significant effect on any of the social life elements. It is possible that the arrival of European immigrants indeed did not affect this dimension. However, the results might also be influenced by the *frequency* at which we measure these outcomes relative to customary behaviours. In Appendix A.3.1 we test

this hypohtesis. We find that when measured at the annual rather than monthly frequency, the probability of going to the cinema and attending public spectacles such as concerts and the theatre declines. Given its costs, these are activities that in fact tend to be conducted with less frequency. In addition, it is interesting to notice the cultural nature of these activities. Our results connect directly with Card et al. (2012) findings on *compositional amenities* concerns of immigration. In fact, one of the *two* main questions from the European Value Survey that the authors use to measure this concept is culture: *"IC4. Would you say that a country's cultural life is undermined or enriched by the presence of immigrants?"*.[21] An alternative explanation could be a soar in prices driven by migration-induced demand changes. However, the evidence on the UK on this regard suggests limited price effects (Frattini, 2014). Finally, another possibility for the absence of effects in our baseline measure could be that these behaviours are highly heterogeneous among individuals. In section 6 we turn to this analysis.

[21] From a pool of five questions, Card et al. (2012) select two that they find to be the clearest indicators of compositional concerns. The one cited above which directly involves immigration and the following: *"IC1: Do you agree or disagree that it is better for a country if everyone shares the same customs and traditions?"*.

A.3 Impact of Immigration on Social Capital: Additional Results

Figure A.3.1: Impact of Immigration on Social Life II

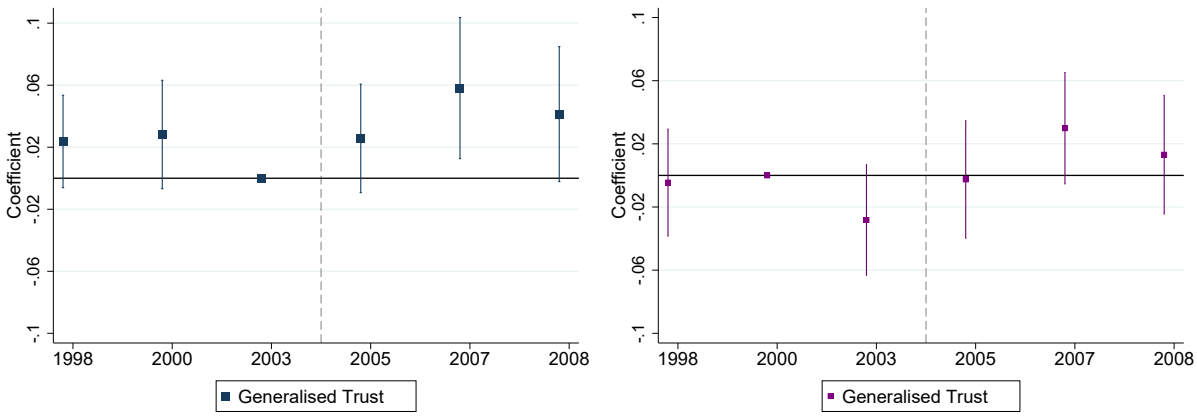


Notes: The figure displays coefficients for the impact of immigration on social capital subcomponents at the monthly and annual frequency. It also shows the effects of participating in social organisations. All coefficients are estimated from model 1. Horizontal bars represent 95% confidence intervals and vertical lines indicate 90% confidence level.

Figure A.3.2: Trust: Using different base years.

(a) Trust: baseline

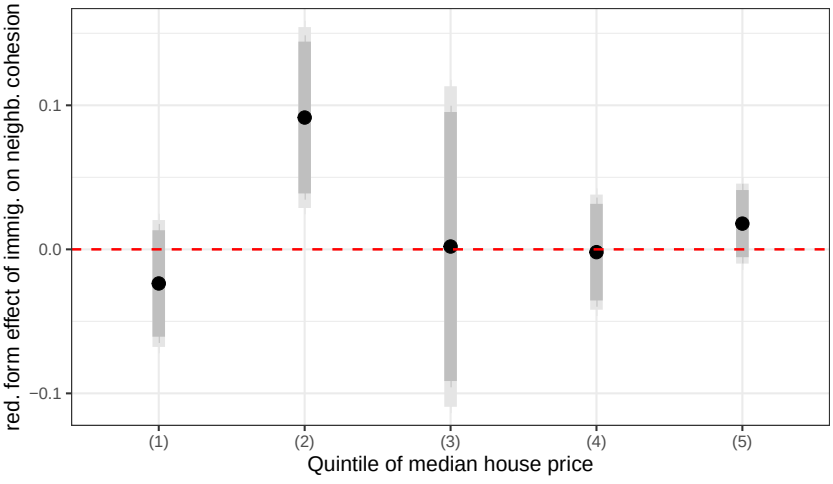
(b) Changing base year



Notes: The figure displays the estimated coefficients and 95% confidence intervals from model 3 for generalised trust.

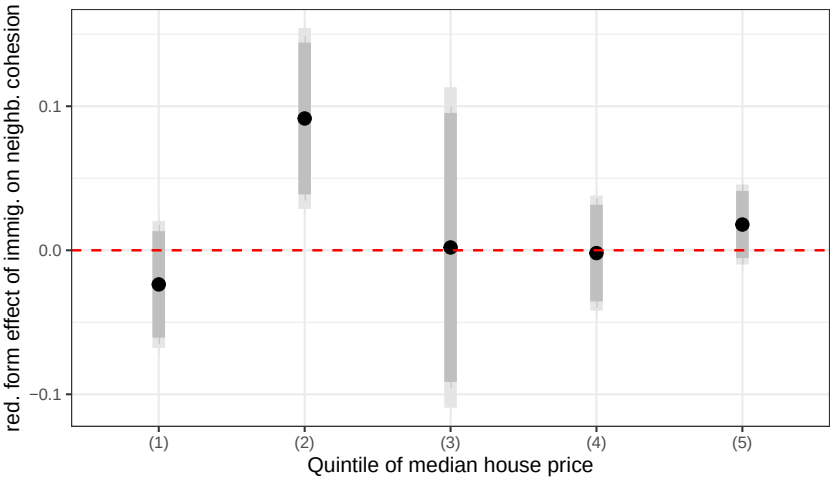
Figure A.3.3: Heterogeneous Impacts on Neighborhood Cohesion

(a) House Price



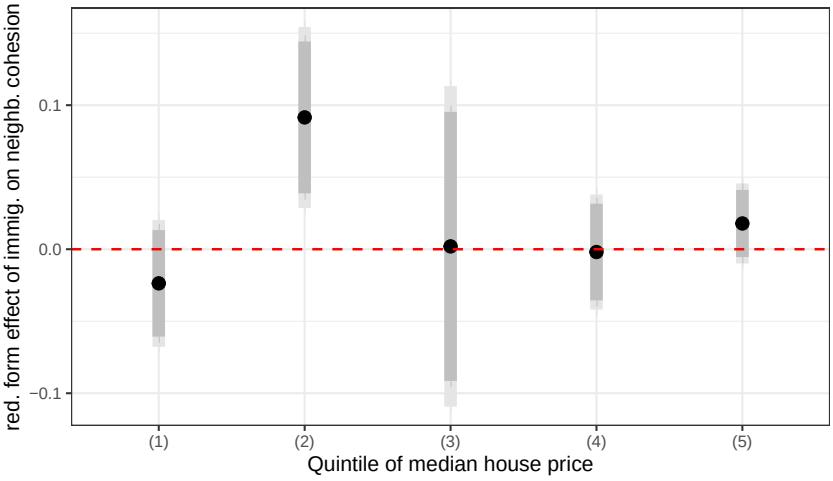
nobs (nclust): 2555 (46) 2690 (33) 2682 (51) 2754 (68) 2618 (102)

(b) Population Density



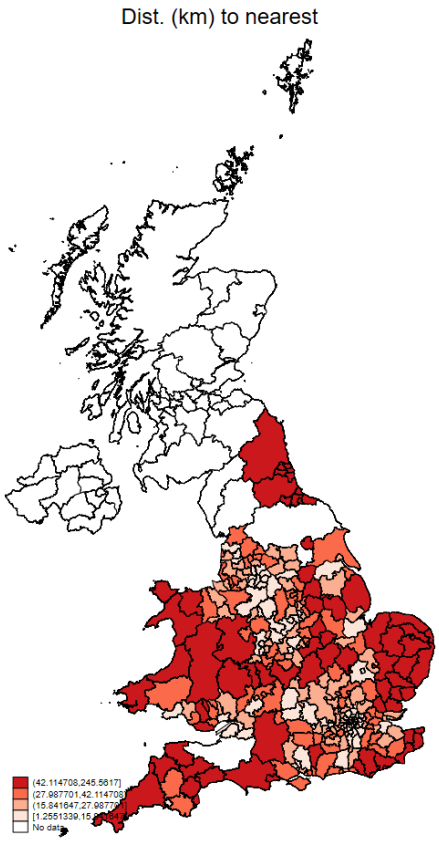
nobs (nclust): 2555 (46) 2690 (33) 2682 (51) 2754 (68) 2618 (102)

(c) Share of Whites



nobs (nclust): 2555 (46) 2690 (33) 2682 (51) 2754 (68) 2618 (102)

Figure A.3.4: Distance from Closest Polish Resettlement Camps



Notes: The figure displays the distribution of the distance from the closest Polish Resettlement Camp.

B Supplementary Tables

B.1 Descriptive Statistics

Table B.1.1: Descriptive Statistics: Dependent Variables

	N	Mean	SD	Min	Max
NC1: Belong to neighbourhood	21,107	0.720	0.449	0.00	1.00
NC2: Local friends mean a lot	21,098	0.654	0.476	0.00	1.00
NC3: Advice obtainable locally	21,077	0.630	0.483	0.00	1.00
NC4: Can borrow things from neighbours	21,088	0.462	0.499	0.00	1.00
NC5: Willing to improve neighbourhood	21,081	0.779	0.415	0.00	1.00
NC6: Plan to stay in neighbourhood	20,986	0.734	0.442	0.00	1.00
NC7: Am similar to others in neighbourhood	21,041	0.636	0.481	0.00	1.00
NC8: Talk regularly to neighbours	21,113	0.724	0.447	0.00	1.00
NC9: Frequency of talking to neighbours	62,996	0.394	0.489	0.00	1.00
NC10: Likes present neighbourhood	72,142	0.934	0.248	0.00	1.00
CS1: How often: Attend local groups	36,301	0.127	0.333	0.00	1.00
CS2: How often: Do voluntary work	36,301	0.051	0.221	0.00	1.00
CS3: A/M Religious/church org.	36,301	0.035	0.184	0.00	1.00
CS4: A/M Voluntary services group	36,301	0.022	0.147	0.00	1.00
CS5: A/M Other community group	36,301	0.023	0.151	0.00	1.00
CS6: A/M Political party	36,301	0.055	0.228	0.00	1.00
CS7: A/M pensioners groups/organisation	34,686	0.139	0.346	0.00	1.00
CS8: A/M Tenants/Residents group	34,677	0.105	0.307	0.00	1.00
SL1: How often: Go to cinema	34,679	0.143	0.350	0.00	1.00
SL2: How often: Go to theatre/concert	34,683	0.056	0.229	0.00	1.00
SL3: How often: Eat out	34,702	0.570	0.495	0.00	1.00
SL4: How often: Go out for a drink	34,688	0.526	0.499	0.00	1.00
SL5: Satisfied with social life	56,163	0.648	0.477	0.00	1.00
SL6: Frequency of meeting people	63,000	0.461	0.498	0.00	1.00
SL6: A/M Sports Club	36,301	0.205	0.404	0.00	1.00
SL7: A/M Social/Working men group	36,301	0.111	0.314	0.00	1.00
CA1: A/M Professional organisation	36,301	0.098	0.298	0.00	1.00
CA2: A/M Trade union	36,301	0.153	0.360	0.00	1.00
CA3: A/M Environmental group	36,301	0.030	0.171	0.00	1.00
CA4: A/M Parents/School's Association	36,301	0.060	0.237	0.00	1.00
CA5: Trustworthiness of others	33,770	0.372	0.483	0.00	1.00
IT1: Government reflects will of the people	21,221	0.200	0.400	0.00	1.00
IT2: People can influence govt. policy*	21,409	0.200	0.400	0.00	1.00
IT3: Government puts nation's interests first	21,237	0.133	0.340	0.00	1.00

Notes: Statistics calculated with data for the 2000-2014 period. (*) Original question asks if *people can't influence government policy*. For comparison with other questions we invert the responses and the question.

Table B.1.2: Descriptive Statistics: Individual Characteristics

	N	Mean	SD	Min	Max
Age	88,449	48.347	18.246	15.00	101.00
Female	87,325	0.544	0.498	0.00	1.00
College education	86,202	0.243	0.429	0.00	1.00
Secondary education	86,202	0.214	0.410	0.00	1.00
Primary education	86,202	0.348	0.476	0.00	1.00
No education	86,202	0.193	0.395	0.00	1.00
(Log) Real household income	85,627	7.563	0.807	-2.79	12.72
House owned or on mortgage	86,717	0.776	0.417	0.00	1.00
Household size	88,425	2.794	1.362	1.00	16.00
Employed	87,968	0.583	0.493	0.00	1.00
Student	87,968	0.036	0.185	0.00	1.00
Retired	87,968	0.243	0.429	0.00	1.00
Born in the UK	86,420	0.949	0.221	0.00	1.00

Notes: Statistics calculated with data for the 2000-2014 period. Gross household income in 2015 prices.

Table B.1.3: Stocks of EU Accession Countries (2004 and 2007 enlargements) 2008 values

	Stocks (Thousands)	Share(%)	$\Delta_{2004-2008}$ (Thousands)
Poland	447	63.77	354
Lithuania	56	7.99	35
Slovakia	42	5.99	35
Romania	41	5.85	28
Bulgaria	32	4.56	22
Czech Republic	28	3.99	10
Latvia	25	3.57	19
Hungary	24	3.42	12
Estonia	5	0.71	3
Slovenia	1	0.14	0

Notes: The table shows the number of persons from the Eastern European accession countries living in the UK as of 2008, measured in thousands (column (1)) and as share of the total (column (2)). Column (3) displays the difference in absolute numbers between 2004 and 2008.

Table B.1.4: Descriptive Statistics: Shares of European Immigrants between 2004 and 2008 at the Local Authority District level

	N	Mean	SD	p10	p25	p50	p75	p90	Min	Max
$\Delta NonEU14^{2004-2008}/Pop_{2004}$	197	1.01	1.46	0.00	0.00	0.72	1.58	2.81	-2.92	8.77
$\Delta EU8^{2004-2008}/Pop_{2004}$	84	1.21	1.53	0.00	0.20	0.86	1.60	3.16	-1.46	7.02

Notes: Shares at the Local Authority District (LAD) level measured as percentages, calculated as the difference in stocks between 2004 and 2008 divided by the population of the LAD in 2004. The first row, NonEU14 refers to European countries that were not part of the EU as of 2001. EU8 refers to the 8 countries from continental Europe that entered the European Union in the 2004 enlargement Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia. Source: Annual Population Survey.

B.2 Responses and Missing Values

Table B.2.1 shows the distribution of the sample in terms of responsiveness. For all eligible individuals[22] the table splits the potential respondents into those that enter our estimation sample (columns (1)-(3)) and those that do not (columns (4)-(7)). Column (1) *complete*, shows the number of people that fully replied to all questions that integrate a given dimension providing a meaningful quantifiable response –e.g. they do not refuse to reply nor answer "*don't know*"–. Column (2) reports those individuals that entered the sample but replied *don't know* to at least one question that integrates the dimension. In that case we compute the social capital outcome as the average among the quantifiable responses.[23] Column (3) reports those individuals that entered the sample but had a missing value in at least one question that integrates the dimension, but provided valid responses to others. Given the small number of cases, we compute the dimension based on the remaining valid responses.

Turning to those observations that do not enter the sample, we have the following categories: *proxy*, reported in column (4) refers to cases in which the interviewee was not available at the interview. In some cases a family member replies on their behalf, in this case the variable will be missing for them. Notice that for individuals coded as proxy, their responses will be missing –under the *proxy* category– for all questions that integrate each dimension. As shown in the Table, this situation accounts for the majority of missing cases in for all dimensions. Column (5) refers to the very few cases in which an individual refused to respond all questions within a category, column (6) reports those individuals that answered *"don't know"* to all questions within a dimension and finally column (7) constitutes a combination of different missing values' categories across questions.[24] If we were to exclude the proxy category, the percent rate of fully complete answers is close to 98% for all dimensions, and exceeds the 99% when we include the cases in columns (2) and (3) which also enter the sample.

[22] By eligible we refer to those that are actually asked the questions that we analyse, have a complete set of controls and an identified Local Authority District that can be merged with the immigration shock.

[23] (Section 3.2.1 provides further details on the construction of each dimension.)

[24] More information about coding of missing values in the BHPS and UKHLS can be found at: https://www.understandingsociety.ac.uk/documentation/mainstage/user-guides/main-survey-user-guide/missing-values/.

Table B.2.1: Responses by Category

	In sample			Not in sample				Total
	Complete	Don't know	Missing	Proxy	Refusal	Don't know	Missing	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Neighbourhood Cohesion								
Frequency	20,304	319	5	407	-	7	3	21,045
Percent	96.48	1.52	0.02	1.93	-	0.03	0.01	100.00
Community Service								
Frequency	35,433	-	-	527	3	29	4	35,996
Percent	98.44	-	-	1.46	0.01	0.08	0.01	100.00
Social Life								
Frequency	33,788	39	-	276	-	5	3	34,111
Percent	99.05	0.11	-	0.81	-	0.01	0.01	100.00
Collective Action								
Frequency	35,433	-	-	527	3	29	4	35,996
Percent	98.44	-	-	1.46	0.01	0.08	0.01	100.00
Generalised Trust								
Frequency	32,883	-	-	270	-	221	100	33,474
Percent	98.23	-	-	0.81	-	0.66	0.30	100.00
Institutional Trust								
Frequency	20,590	200	108	178	-	109	65	21,250
Percent	96.89	0.94	0.51	0.84	-	0.51	0.31	100.00

Notes: Number of observations by social capital dimension vary since questions are asked in different years and with a different frequency. Table B.6.1 reports the waves in which each question was asked.

B.3 First Stage

Table B.3.1: First Stage: NonEU14 and EU8
2004-2008

	(1) ΔM_{EU8}	(2) $\Delta M_{NonEU14}$	(3) ΔM_{EU8}	(4) $\Delta M_{NonEU14}$
$Shift - Share_A$	0.348^{***}	0.515^{***}		
	(0.104)	(0.124)		
$Shift - Share_B$			0.320^{***}	0.482^{***}
			(0.105)	(0.123)
LADs	84	197	84	197
$\bar{R}^2$	0.058	0.090	0.053	0.087
F	11.124	17.136	9.350	15.423

Notes: First stage regressions at the regional level. Shift-Share A includes Poland, Czechia and Baltic group. Shift-Share B includes Poland, Czechia, Baltic group and Romania. EU8, refers to the eight countries from continental Europe that entered the European Union in the 2004: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia. Non-EU14 includes the countries that joined in the subsequent enlargements. Robust standard errors in parentheses. Robust standard errors in parentheses. $^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$.

Table B.3.2: First Stage: NonEU14 and EU8
2004-2014

	(1) ΔM_{EU8}	(2) $\Delta M_{NonEU14}$	(3) ΔM_{EU8}	(4) $\Delta M_{NonEU14}$
$Shift - Share_A$	0.276^{**}	0.648^{***}		
	(0.109)	(0.132)		
$Shift - Share_B$			0.216^{**}	0.560^{***}
			(0.101)	(0.111)
LADs	81	210	81	210
$\bar{R}^2$	0.047	0.172	0.036	0.174
F	6.354	24.039	4.543	25.614

Notes: First stage regressions at the regional level. Shift-Share A includes Poland, Czechia and Baltic group. Shift-Share B includes Poland, Czechia, Baltic group and Romania. EU8, refers to the eight countries from continental Europe that entered the European Union in the 2004: Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia. Non-EU14 includes the countries that joined in the subsequent enlargements. Robust standard errors in parentheses. Robust standard errors in parentheses. $^{*}p < 0.10, ^{**}p < 0.05, ^{***}p < 0.01$.

B.4 Switching locations

Table B.4.1: Probability of living in a different location before and after 2004

	Moving Out			Moving In		
	(1)	(2)	(3)	(4)	(5)	(6)
ΔM	0.066***	0.022	0.002	0.027*	0.027	-0.005
	(0.021)	(0.036)	(0.026)	(0.015)	(0.042)	(0.029)
N	47,071	47,071	47,071	28,767	28,767	28,767
Mean Dep.	0.082	0.082	0.082	0.061	0.061	0.061
Individual Controls	✓	✓	✓	✓	✓	✓
LAD Time varying C	No	✓	✓	No	✓	✓
LAD Constant C.	No	No	✓	No	No	✓
Period	2005-2014	2005-2014	2005-2014	2000-2003	2000-2003	2000-2003

Notes: IV estimates. The dependent variable in columns (1)-(3) is an indicator that takes a value of one if, after 2004, the individual was living in a different LAD with respect to her 2004 residence *after* the Enlargement. The dependent variable in columns (4)-(6) is an indicator that takes a value of one if the individual was living in a different LAD with respect to her 2004 residence *before* the Enlargement began. The main explanatory variable ΔM is constant in all regressions and measures the inflows between 2004-2008 of European immigrants normalised by the LAD population as of 2004. Individual, constant and time varying controls are the same reported in Table 2.

B.5 Restricting to Native Individuals

Table B.5.1: Impact of Immigration on Social Capital: Natives

	(1) All	(3) Natives
Neighbourhood Cohesion	0.036**	0.040**
	(0.016)	(0.019)
N	20,628	19,238
Mean Dep.	0.668	0.668
F-KP	24.265	24.975
Community Service	-0.001	0.000
	(0.003)	(0.003)
N	35,433	33,014
Mean Dep.	0.052	0.052
F-KP	22.999	24.100
Social Life	-0.006	-0.006
	(0.007)	(0.007)
N	33,827	31,574
Mean Dep.	0.323	0.326
F-KP	22.077	24.581
Collective Action	0.008*	0.005
	(0.004)	(0.004)
N	35,433	33,014
Mean Dep.	0.086	0.086
F-KP	22.999	24.100
Generalised Trust	0.029*	0.031*
	(0.015)	(0.017)
N	32,883	30,696
Mean Dep.	0.373	0.373
F-KP	23.445	24.715
Institutional Trust	0.019*	0.022*
	(0.011)	(0.012)
N	20,898	19,499
Mean Dep.	0.178	0.174
F-KP	21.642	23.339
Year FE	✓	✓
LAD FE	✓	✓
Controls	✓	✓

Notes: Column (2) and (4) restricts the sample to those individuals that are observed at least once before *and* after the 2004 Enlargement.

B.6 BHPS - UKHLS Social Capital Questions

Table B.6.1: Social Capital Questions

Year	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
BHPS Wave	8	9	10	11	12	13	14	15	16	17	18						
UKHLS Wave												1	2	3	4	5	6
NC1: Belong to neighbourhood	●					●					●	●		●			●
NC2: Local friends mean a lot	●					●					●	●		●			●
NC3: Advice obtainable locally	●					●					●	●		●			●
NC4: Can borrow things from neighbours	●					●					●	●		●			●
NC5: Willing to improve neighbourhood	●					●					●	●		●			●
NC6: Plan to stay in neighbourhood	●					●					●	●		●			●
NC7: Am similar to others in neighbourhood	●					●					●	●		●			●
NC8: Talk regularly to neighbours	●					●					●	●		●			●
NC9: Frequency of talking to neighbours	●	●	●	●	●	●	●	●	●	●	●						
NC10: Likes present neighbourhood	●	●	●	●	●	●	●	●	●	●	●			●			●
CS1: How often: Attend local groups	●		●		●		●		●		●						
CS2: How often: Do voluntary work	●		●		●		●		●		●						
CS3: A/M Religious/church org.		●		●		●		●		●				●			●
CS4: A/M Voluntary services group		●		●		●		●		●				●			●
CS5: A/M Other community group		●		●		●		●		●				●			●
CS6: A/M Political party		●		●		●		●		●				●			●
CS7: A/M pensioners groups/organisation		●		●		●		●		●				●			●
CS8: A/M Tenants/Residents group		●		●		●		●		●				●			●
SL1: How often: Go to cinema	●		●		●		●		●		●						
SL2: How often: Go to theatre/concert	●		●		●		●		●		●						
SL3: How often: Eat out	●		●		●		●		●		●						
SL4: How often: Go out for a drink	●		●		●		●		●		●						
SL5: Satisfied with social life	●	●	●		●	●	●	●	●	●	●						
SL6: Frequency of meeting people	●	●	●	●	●	●	●	●	●	●	●						
SL6: A/M Sports Club		●		●		●		●		●				●			●
SL7: A/M Social/Working men group		●		●		●		●		●				●			●
CA1: A/M Professional organisation		●		●		●		●		●				●			●
CA2: A/M Trade union		●		●		●		●		●				●			●
CA3: A/M Environmental group		●		●		●		●		●				●			●
CA4: A/M Parents/School's Association		●		●		●		●		●				●			●
CA5: Trustworthiness of others	●		●			●		●		●	●	●					
IT1: Government reflects will of the people	●			●		●			●								
IT2: People can influence govt. policy*	●			●		●			●								
IT3: Government puts nation's interests first	●			●		●			●								

Notes: (*) Original question asks if *people can't influence government policy*. For comparison with other questions we invert the responses and the question. Even if some questions are asked in 2009 we do not consider that wave since the sample is entirely new (first UKHLS wave). BHPS individuals joined the UKHLS sample from its second wave onwards.