Centre for Economic Performance

Discussion Paper ISSN 2042-2695

No. 1983
March 2024

Immigration and political realignment

Javad Shamsi

LSE THE LONDON SCHOOL OF ECONOMICS AND POLITICAL SCIENCE

UKRI Economic and Social Research Council

Abstract
This paper examines how immigration reshapes political landscapes, centring on the influx of immigrants from the EU's 2004 enlargement and its implications for the UK. I use a new variation in exposure to immigration based on migrant flows across various industries coupled with the employment structure in each region. Addressing potential concerns of endogeneity, I introduce a novel shift-share IV design, harnessing the industry-specific flow of migrants to regions outside the UK within the pre-2004 EU. The findings reveal a significant impact on support for the right-wing UK Independence Party and the Brexit Leave campaign, accompanied by a decline in Labour Party support. Moreover, the research indicates that voters' social attitudes toward immigration become more adverse in response to immigration. Political parties, particularly Conservatives, are also observed to increasingly engage with the topic of immigration in constituencies most affected by immigration, typically marked by negative rhetoric. The paper reconciles these findings by highlighting how immigration shocks entrench immigration cleavage, realigning political conflict from traditional economic lines to new cultural dimensions.

Keywords: immigration, political realignment, industry-specific migration, EU enlargement
JEL Codes: J15; D72; F22; J61; P16

This paper was produced as part of the Centre's Labour Markets Programme. The Centre for Economic Performance is financed by the Economic and Social Research Council.

I am grateful to Tim Besley, Guy Michaels, and Xavier Jaravel for their exceptional, patient, and supportive mentorship. I also extend sincere thanks to the participants of the Political Economy, Development, and Labour seminars at LSE, and the numerous seminar audiences at UCL, TeIAS, and Princeton for their insightful feedback and enriching discussions. I also thank Torsten Persson, Gharad Bryan, Ellora Derenon-court, Leah Boustan, Seema Jayachandran, Sergei Guriev, Stephane Wolton, Kaveh Majlesi, Jake Fazzio, and Linchuan Xu. Their collective insights, suggestions, and feedback have been instrumental in elevating the quality of this work. The UK Data Service, the Electoral Commission, the Parliamentary Digital Service (PDS), and the Understanding Society Team at the University of Essex provided excellent support.

Javid Shamsi, London School of Economics and Centre for Economic Performance at LSE.

Published by
Centre for Economic Performance
London School of Economic and Political Science
Houghton Street
London WC2A 2AE

1. Introduction

Immigration has become a contentious issue in many countries. What, then, are the electoral repercussions? Recent studies show that immigration can benefit the electoral prospects of right-wing, and sometimes far-right parties (Tabellini, 2020; Dustmann *et al.*, 2019; Halla *et al.*, 2017). However, the adoption of anti-immigration rhetoric by right-wing parties, rather than their left-wing rivals, presents a puzzle. Immigrant competition for jobs and potential wage suppression predominantly happens among the unskilled labor sector—a demographic traditionally inclined towards left-wing ideologies. Parties on the left, with their agendas centered on economic redistribution, might have been the more apparent recipients of support in the wake of this economic dislocation. Yet, intriguingly, it is the nativist and ethno-nationalist populists with low redistributive agendas who have seized this narrative.

In this paper, I delve into these dynamics within the UK context, focusing on the European Union (EU) immigrants from new member states. I show the sudden influx of immigrants changes attitudes towards anti-immigration stances and sways voters towards right-wing anti-immigrant parties. A similar anti-immigration rhetoric response is observed on the supply side of politics as political parties take more localist anti-immigrant rhetoric in response to immigration. I explain these results by showing the sudden influx of immigrants increases the salience of immigration in politics and makes this issue and broader cultural concerns the primary points of political contention. I empirically show that in response to immigration, the non-economic dimension becomes the driver of voting and group clustering. The results suggest that, in the wake of an immigration shock, working-class voters may pivot away from left-wing political parties, which would maximize their economic well-being, and lean towards nationalist parties that resonate with their national and cultural affiliations.

My research design uses the EU 2004 enlargement as a natural experiment. In 2004, ten Eastern European countries joined the EU. My identification strategy is based on the arrival of migrants from EU accession countries in different industries, proxying their comparative advantage, which UK locations are deferentially exposed to through pre-determined industry specialization. This research design approximates an ideal experiment that would randomly assign a different number of migrants across different locations. To further address potential endogeneity, I instrument for the growth in migration from accession countries to the UK in each industry using migrants' growth in other pre-2004 EU members. This approach, which is inspired by the ideas presented in the paper by Autor *et al.* (2013), allows me to isolate the supply-driven variation in exposure to immigration and study its effects on voting.

The exclusion restriction underlying this approach assumes that the common within-industry component of rising immigration from accession countries in the UK and other European countries arises from the relative skills of accession countries' workers in different industries and occupations. This assumption posits that UK locations specialising in industries for which other pre-2004 European countries' industries attracted a high level of immigration are not unobservably different from other UK locations. To test this assumption, I perform several falsification tests

using the lagged outcome variable. Across a range of specifications, results consistently support the assumption.

Using this measure, in the second part of the paper, I show people more exposed to immigration tend to vote more for nationalist and anti-immigration parties. I focus on the electoral outcome of the strongly eurosceptic UK Independence Party (UKIP), which directly reflects natives' demand for anti-immigration policies. Using both aggregate and individual-level data, I document that UKIP gained significant support in regions heavily impacted by immigration in general, European, and local elections. I then show immigration shifts people's attitudes to become more anti-immigration and socially conservative. I see a similar pattern concerning the 2016 Brexit referendum. Regions with heightened exposure to immigration demonstrated a marked inclination towards supporting Brexit, a trend robustly validated through both aggregate and individual-level data assessments. My counterfactual analysis suggests that if immigration had not been a factor, the outcome of the Brexit referendum would have been different. The findings suggest that, in response to immigration, voters become more anti-immigrant in their attitudes and tend to vote based on factors other than the traditional left-right class dimension.

In the third part of the paper, evidence points to an analogous shift on the political supply side. Using several techniques from natural language processing, I show in their political speeches, UK parties have increasingly emphasized immigration, usually with a negative tone. To shed light on the broader potential shift in cultural values, I use Enke (2020) measure and observe cultural polarization of political rhetoric. According to this metric, Conservative speeches have increasingly shed their universalistic undertones in recent years, while Labour speeches have adopted a more inclusive, universalistic rhetoric.

Finally, I make a case that all aforementioned results can be explained by a shift in voter alignment, transitioning from traditional economic considerations to cultural nuances, in reaction to immigration. I show while disagreements on redistribution policies show a downward trend in the UK, disagreements around cultural policies, particularly concerning immigration, have intensified. This shift in public discourse is further corroborated by clustering analysis, revealing a realignment of voter clusters from economic to cultural dimensions throughout the study. I see this clustering along cultural dimensions is stronger in regions hit hardest by immigration.

The shift from class-based to identity and culture-based politics risks sidelining the critical focus on redistribution and the welfare state in the face of rising economic inequalities. As identity-driven narratives gain predominance, policymakers may find it increasingly difficult to implement policies aimed at economic efficiency or equity if such policies are at odds with the dominant identity-driven political narratives. This transition can amplify polarization on matters such as immigration, globalization, and nationalism, fostering extreme policy stances. Such conditions are fertile grounds for the rise of populism, where political leaders might leverage identity concerns to rally support, potentially at the cost of overlooking detailed economic strategies.

This work builds on and integrates several literature strands. I contribute to the literature on electoral repercussions of immigration that predominantly finds increased immigration increases support for right-wing parties. For example, Tabellini (2020) found that although immigration in the interwar United States conferred economic gains on the host community, it concurrently

amplified support for conservative politicians and anti-immigrant policies. Similar results are reported in Halla *et al.* (2017), Barone *et al.* (2016), Mendez and Cutillas (2014), and Otto and Steinhardt (2014) in the context of Austria, Italy, Spain, and Germany, respectively. The predominant methodology within this literature is the "shift-share" empirical design, which integrates historical settlement patterns across regions with the contemporaneous national migration influx. This approach aims to address reverse causality issues, specifically the tendency of potential immigrants to avoid regions perceived as unwelcoming, and omitted variable bias, the idea that intertwining factors can concurrently shape immigration patterns, economic dynamics, and political attitudes.

This work contributes to the literature on the political effects of immigration in several ways. Methodologically, I introduce a novel quasi-experimental shift-share design based on the industry composition of each region and the comparative advantage of immigrants across industries. I further instrument this with industry-specific immigration to other non-UK EU countries. This approach leverages a new variation in exposure to immigration, previously unexplored, and addresses some limitations of traditional shift-share instruments that rely on historical settlement patterns[1]. The traditional shift-share instrument based on prior settlements is in particular not suited to study Eastern European migration to the UK as evidence indicates that the historical distribution of Eastern European migrants in the UK is not a strong predictor for later inflows of later migrants. This study also broadens its scope to study the supply side of politics, analyzing political responses to immigration at a granular, sub-national level, a relatively uncharted area of study. Lastly, the paper provides evidence on the realignment of voters along the cultural dimension, offering insight into the mechanisms through which immigration intensifies anti-immigrant sentiment and subsequently bolsters support for right-wing factions. It also provides an answer to the puzzle of why anti-immigration sentiment predominantly translates into heightened support for right-wing parties, rather than left-leaning ones.

A subset of the previously mentioned literature focuses on the impact of immigration within the context of the UK, particularly in relation to the Brexit referendum (Becker *et al.*, 2016, 2017; Colantone and Stanig, 2018). Notably, Becker *et al.* (2017) and Colantone and Stanig (2018) find no positive correlation between EU immigration and the leave vote in the Brexit referendum. However, this study reveals that this is due to not accounting for the selection of immigrant locations. Upon isolating exogenous immigration shocks, it becomes evident that immigration impacts voting behaviour. The findings align with those of Becker *et al.* (2016) and Viskanic (2017), who observed an increase in UKIP's vote share following the influx of Eastern European migrants. Compared to these studies, this paper adopts a new measure of exposure to immigration based on a novel shift-share instrument and sheds some new light on the underlying mechanism behind these electoral dynamics.

[1]According to Borusyak *et al.* (2022), these widely used shift-share instruments based on historical settlement patterns ultimately resemble traditional difference-in-differences models, contrasting regions with and without historical settlements. Such an approach may not sufficiently control for unobserved time-varying confounding shocks. In contrast, this paper's research design pivots on the exogeneity of shocks and, as will be demonstrated, possesses a sample size of shocks substantial enough to mitigate the challenges commonly associated with traditional approaches.

This work is related to a recent new line of research focusing on identity in economics. This literature acknowledges individuals' multiple identities and explores how these are prioritized based on economic factors. Shayo (2009) models identity choice as a balance between societal status and group alignment costs, suggesting that social identity formation and economic conditions are interlinked. Grossman and Helpman (2021) apply this to trade policy, showing how economic changes can shift self-identification and influence protectionist tendencies. Bonomi *et al.* (2021) introduce multiple political dimensions (economic left versus economic right, culturally liberal versus conservative), indicating that the salience of the issue, shaped by economic shocks, can redirect social identities and influence political alignments, transitioning the traditional left–right divide to a liberal–conservative one. Besley and Persson (2019) explores how voters' beliefs and party affiliations evolve with economic shifts and the salience of non-economic factors, like immigration, highlighting a dynamic interplay between economic conditions, social identity, and political landscapes.

The empirical results of this paper align with and complement several theoretical papers within this literature. Notably, based on Gennaioli and Tabellini (2023), when socially conservative voters, often less skilled, are more exposed to immigration, or when the salience of immigration issues increases, voters are more likely to align with their cultural identity rather than their economic class. The central theme of this paper complements these theories by providing empirical evidence that immigration can impact party support and reshape political cleavages, underscoring the increasing importance of cultural factors in political decision-making by overshadowing the traditional emphasis on class-based politics. This finding aligns with one of the scant empirical investigations in this area, Danieli *et al.* (2022), which highlights how people's priorities have shifted from economics towards cultural issues over time.

Finally, this paper stands at the intersection of political economy and computational linguistics, contributing to a burgeoning literature that employs text data to parse complex socio-political phenomena (Wilkerson and Casas, 2017; Gentzkow *et al.*, 2019). This work is among the pioneering efforts, alongside a select few such as Bhatiya (2023), to apply text analysis for examining the degree of political responsiveness to constituency-level shocks. I employ a range of text metrics to assess legislators' engagement with immigration issues and also incorporate the approach devised by Enke (2020) to quantify the universal values in legislators' rhetoric.

The subsequent sections of this paper are structured as follows: Section 2 outlines the study's data and context. Section 3 introduces the immigration exposure measure and delineates the empirical approach. Section 4 examines the immigration impact on attitudes and voting patterns at both aggregate and individual levels. Section 5 scrutinizes the political supply side, utilizing natural language processing to assess political reactions to immigration surges. In Section 6, evidence is presented to support the thesis that an immigration shock catalyzes a transition in voter alignment from conventional class-based distinctions to cultural identity considerations. Finally, Section 7 discusses the implications and offers concluding remarks.

2. Setting and Data

In this section, I provide context for the study by discussing the background and political context of the EU and immigration in the UK. Specifically, I examine the EU enlargements in 2004 and 2007 and the influx of migrants from accession countries to the UK, as well as the political manifestation of these events. I then describe the data sources and variables used in the analysis.

2.1. **Background.** The roots of the European Union (EU) can be traced back to the post-war 1950s. The Treaty of Rome in 1957, signed by Belgium, France, West Germany, Italy, Luxembourg, and the Netherlands, initiated the European Economic Community (EEC), a customs union that embedded free labor mobility into its framework. This set the stage for the EU as we know it.

The UK initially hesitated to join the ECC but later made two applications in 1963 and 1967 that were vetoed by France. The UK ultimately joined the EEC in 1973. A referendum followed in 1975 due to Labour's promise to reevaluate ECC membership and consult the public on these new terms. The public was asked if the UK should remain in the European Community. The affirmative response by a margin of 34.5 percent confirmed the UK's membership under the revised conditions.

Upon joining, the UK was instrumental in driving forward economic integration, particularly through its pivotal role in establishing the Single Market in 1986, advocating for the free movement of goods, services, capital, and labour. In 1992, the EEC transitioned into the European Union with the Maastricht Treaty. The UK was cautious about further deeper political integration, opting out of the Euro currency and the Schengen Area.

On May 1, 2004, ten countries including eight from Eastern Europe, alongside Malta and Cyprus, joined the EU, expanding the EU's population by nearly 75 million. This was the largest enlargement of the EU since the UK joined in 1973. Bulgaria and Romania also joined on January 1, 2007, adding an additional 30 million people to the EU. Upon their accession to the EU, the UK Tony Blair's government was one of the few member countries that did not impose temporary restrictions on the arrival of migrants from these new member states (hereinafter referred to as "NMS").

Evidence suggests the actual number of migrants from these countries coming to the UK was much higher than what the UK government had anticipated. Figure 1 shows the number of migrants based on the country of origin over time, using data from the Annual Population Survey (APS). As the figure shows, prior to 2004, the majority of EU-born migrants to the UK came from "EU-14" countries that had joined the EU before 2004. However, after 2004, there was a significant increase in the number of migrants from the NMS. The population of NMS-born residents in the UK increased by more than a factor of 10, from an estimated 160,000 in 2004 to 1,850,000 in 2017. This stands in contrast to the more gradual increase in migrants from EU-14 countries. Notably, after the Brexit referendum, the number of migrants from NMS began to decline. These features indicate that the expansion of the EU represents a sudden significant shock to the influx of migrants to the UK.

The other remarkable aspect of this new wave of migration is that the spatial distribution of these new migrants within the UK is also different from the spatial distribution of migrants from

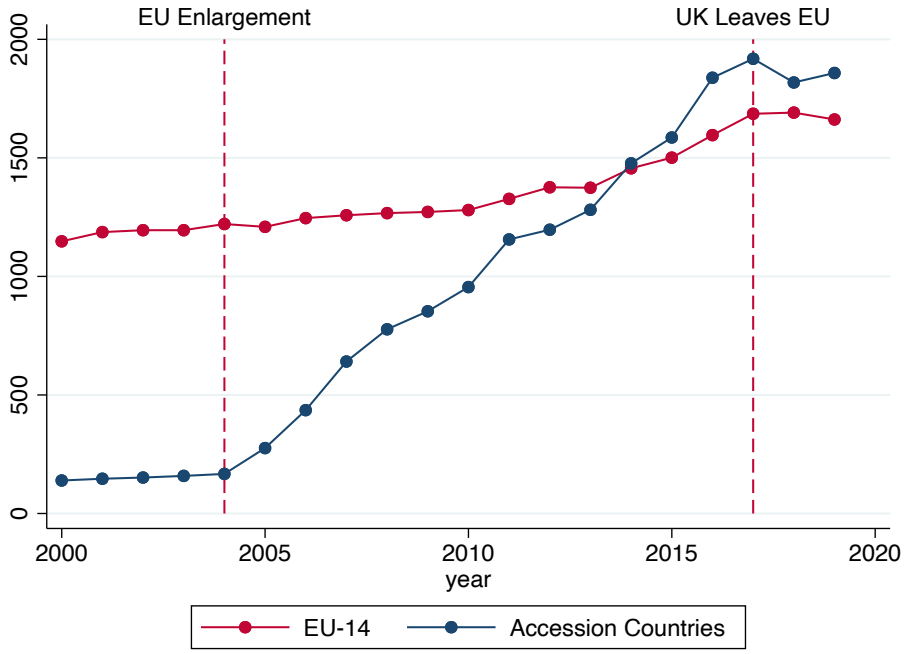


Figure 1. *Notes:* This graph shows EU-born migrants in the UK over time. Data is sourced from ONS, Population by Nationality and Country of Birth. The estimated population of residents in the United Kingdom is categorized by country of birth, excluding those living in communal accommodations such as hostels or care homes. Estimates are based on the Annual Population Survey (APS), comprising wave 1 and wave 5 of the Labour Force Survey (LFS), plus annual sample boosts. The sample boosts are included primarily to improve geographical coverage. For statistics relating to accession countries before 2004, data is sourced from the quarterly Labour Force Survey, since the original dataset does not include this information. Accession countries refer to those that joined the UK in 2004.

these countries who entered the UK before 2004. This is evident in Figure A.1, which shows the share of NMS migrants as a share of each local authority population. These distinctive characteristics motivate my empirical analysis to use the 2004 and 2007 EU enlargements as a natural quasi-experiment.

As the European Union's influence expanded, so too did the opposition within the UK to further integration. This opposition is best reflected in the United Kingdom Independence Party (UKIP). Originally established as the Anti-Federalist League in 1991, this single-issue Eurosceptic party was rebranded as its current name in 1993, broadening its manifesto to encompass a wider right-wing agenda with the primary objective of withdrawing the UK from the EU. Although UKIP struggled to secure seats in the UK Parliament due to the first-past-the-post electoral system, they achieved greater success in European Parliament (EP) elections. This success can be attributed to two main factors: the implementation of proportional representation in European elections, and the fact that European elections tend to focus voters' attention on EU-specific issues. In the 2014 EP elections, UKIP secured a victory with 26.2% of the vote.

UKIP's rise in the UK mirrors broader trends observed in several other Western countries, reflecting a growing wave of populist and Eurosceptic sentiment. This phenomenon is characterized by skepticism towards globalisation signified by supranational institutions like the European Union, concerns over national sovereignty, and often a tough stance on immigration. Similar movements have gained traction in countries like France with the National Rally (formerly National Front), Germany with the Alternative für Deutschland (AfD), Italy with the League (Lega Nord), and the United States with the election of Donald Trump, who capitalized on themes of anti-immigration and anti-establishment rhetoric. These parties and leaders typically channel public frustration over economic dislocations, perceived loss of cultural identity, and dissatisfaction with the political status quo.

Before the 2015 general election, Prime Minister David Cameron, seeking to appease the Eurosceptic wing of his party and counter the UKIP threat, made a strategic pledge to renegotiate the UK's terms with the European Union and to hold an in-out EU membership referendum, should the Conservatives secure a majority. This move was largely seen as an attempt to reunite his party and retain votes that might have otherwise gone to UKIP. He made this promise in the light of predictions showing the most likely scenario would be a hung parliament. Contrary to widespread expectations, the Conservatives won an outright majority. This unexpected electoral result forced Cameron to uphold his referendum promise, ultimately leading to the 2016 Brexit referendum.

Throughout the Brexit referendum campaign, the issue of immigration emerged as a pivotal and divisive issue, particularly emphasized by the Leave campaign and UKIP. Many proponents of Brexit adeptly tapped into public concerns over rising immigration levels, framing the EU's free movement of people as a loss of British control over its borders. They argued that the UK should regain control over who enters the country and adopt an "Australian-style points system" that treats EU and non-EU migrants equally. As illustrated in Figure A.4, in the lead-up to the election, the level of concern regarding immigration significantly increased, surpassing economic issues. Additionally, the disparity in concern between Labour and Conservative voters expanded considerably, a notable change from 2001, when immigration was only a minor issue. Polling data also revealed that a significant driver for the Leave vote was the desire to regain control over immigration and borders, with 33% of Leave voters indicating this as their primary motivator, based on an election day survey of 12,369 voters by Ashcroft (2016). Ultimately, the UK voted to leave the EU by 52% to 48% on June 23, 2016, after a contentious 10-week campaign.

While Brexit was a culmination of concerns over immigration, this pattern seems to begin to intensify with the rise in migrants from NMS. Captured in Figure 2, this escalation is evidenced by three interwoven indicators – public opinion, media representation, and parliamentary focus – all of which collectively illustrate how immigration became a pivotal issue in the UK, ultimately peaking during the lead-up to the Brexit referendum. Public opinion, as depicted in the top panel, reflects a growing perception among the populace that immigration was a top issue facing the country. The middle panel's portrayal of media representation echoes this sentiment, revealing a parallel increase in the frequency with which immigration was featured in the nation's most

widely-read newspapers. The bottom panel, showing parliamentary focus, indicates that the issue was not only a matter of public and media concern but also a significant topic of legislative discussion, with mentions of immigration in the House of Commons spiking alongside the other indicators. The timeline of these indicators provides a suggestive narrative: as the number of NMS immigrants grew, so did the salience of immigration as a political and societal issue, a trend that reached a critical point with the Brexit decision.

Contrary to the focus on immigration by the Leave campaign and its salience throughout the campaign, data suggests that areas with a higher proportion of foreign-born residents were, paradoxically, more inclined to vote Remain in the EU (Becker *et al.*, 2017; Colantone and Stanig, 2018). A plausible rationale is that immigrants often gravitate towards regions with more inclusive cultures and robust economies, as exemplified by London, which absorbed a significant portion of net migration from NMS and voted predominantly for Remain. The subsequent chapter will delve into the causal relationship between immigration and the rise of anti-immigration sentiment.

2.2. **Data Sources.** The data on the composition of employment at local authorities or constituency comes from the Office for National Statistics' (ONS) Business Register and Employment Survey (BRES). The BRES is an annual business survey that provides employee and employment estimates at detailed geographical and industrial levels. It is the official source of employee and employment estimates by detailed geography and industry in the UK.

To categorize workers according to the type of firm for which they work, I use the two-digit Standard Industrial Classification (SIC). Data on the number of migrants from NMS at the national level is obtained from the Labour Force Survey (LFS), a quarterly survey conducted by the ONS that provides information on the employment status and characteristics of the UK population. The LFS is a large, nationally representative sample survey that is widely used to produce official statistics on the UK labour market. [2]

I estimate the annual bilateral gross migration flows from NMS to other European countries in each industry for the period 2004-2016 using data from the European Union Labour Force Survey (EU-LFS). The EU-LFS is a large household sample survey conducted by Eurostat that aims to provide quarterly results on the labor participation of people aged 15 and over, as well as those outside the labor force, in 35 participating countries. It is the largest European survey of its kind and is widely used to generate official statistics across the labor markets of European countries.

For the examination of anti-immigration sentiments, I utilize individual-level data from the British Election Study (BES), specifically focusing on Wave 8, conducted between May 6 and June 22, 2016, immediately preceding the Brexit referendum on June 23. This wave encompasses responses from a substantial sample size of 31,409 participants. It not only captures the vote intention in the referendum but also provides a comprehensive dataset that includes attitudes towards

[2]Data before 2006 are reported using SIC 1992, while afterwards, SIC 2007 classification is used. I use Office for National Statistics proportional mapping between these two classifications. A proportional mapping provides the most accurate correspondence when the focus is on aggregate or mean measures, like in our case.

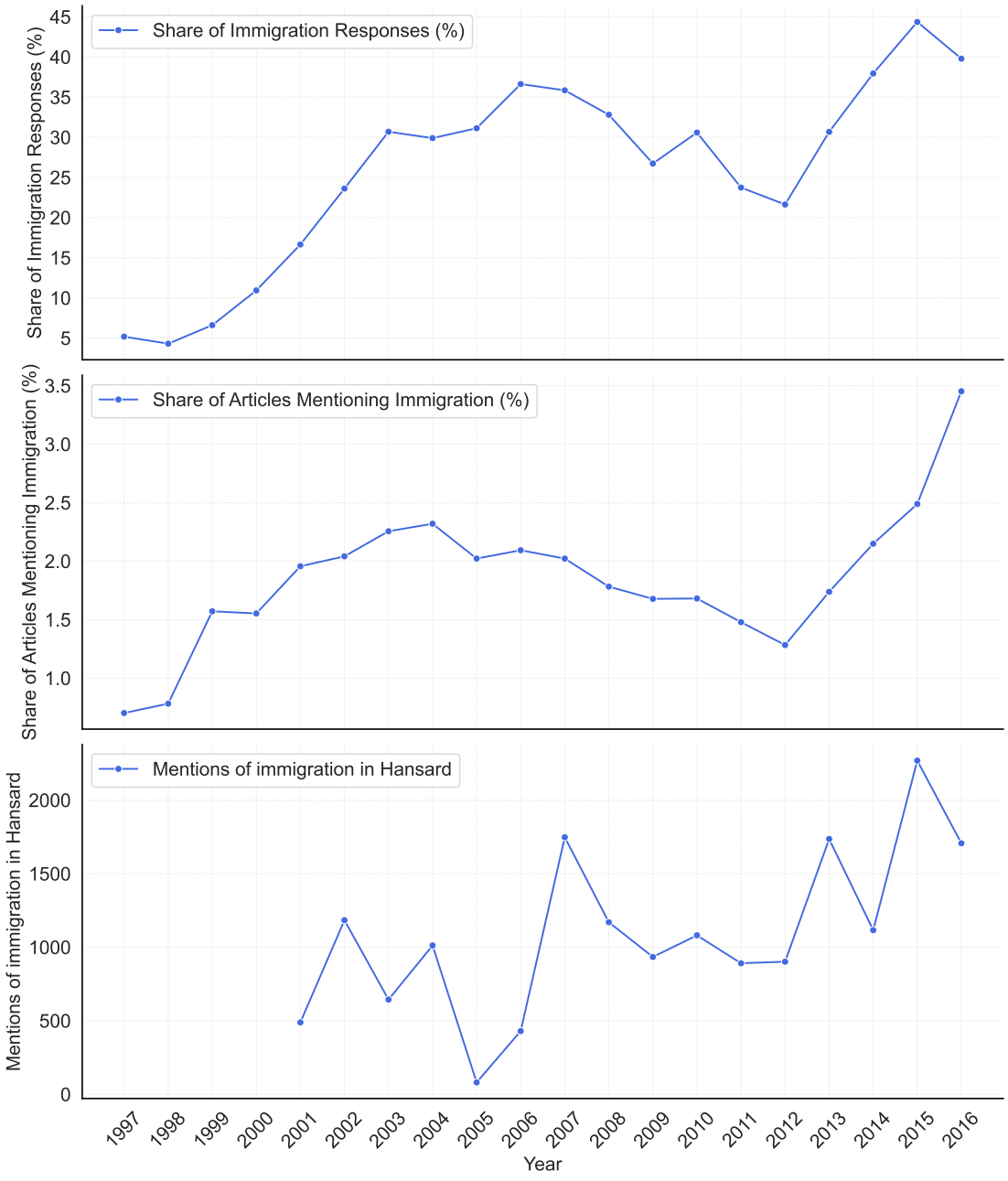


Figure 2. *Notes:* The top panel quantifies public opinion, displaying the annual percentage of respondents identifying immigration as one of the top three critical issues in the UK (Source: Ipsos Mori). The middle panel examines media representation, showing the weighted proportion of articles mentioning immigration in the three highest-circulation UK newspapers during this period: The Sun, Daily Mirror, and Daily Mail. The bottom panel offers a parliamentary viewpoint, illustrating the frequency of immigration mentions in the Hansard records by MPs in the House of Commons.

immigration, among other variables. To add a geographical dimension to the analysis, I categorize each respondent based on their place of residence, assigning them to their corresponding local authority.

For the individual-level analysis of voting, I use data from the UK Understanding Society panel survey. Understanding Society is a panel survey of households in the UK that collects data on a wide range of topics related to social, economic, and health issues. It is conducted by the Institute for Social and Economic Research (ISER) at the University of Essex and began in 2009, with ongoing waves of data collection every year. Understanding Society builds on the British Household Panel Survey (BHPS), a similar panel survey conducted from 1991 to 2009. The panel for Understanding Society consists of around 40,000 households, with approximately 80,000 individuals participating. The survey includes detailed information on demographics, employment, education, health, and other topics, as well as measures of attitudes and beliefs, including those related to immigration.

To examine parties and the evolution of their ideological positioning, I use data from The Chapel Hill Expert Survey (CHES). CHES is an ongoing initiative led by the Center for European Studies (CES) at the University of North Carolina at Chapel Hill. It systematically collects expert assessments on the ideological positions and policy stances of a wide range of political parties in Europe. I use CHES data to determine parties' stances on economic and cultural issues over time.

In addition, to further delve into MPs' positions on immigration and social values, I use collections of the UK Parliamentary Debates (Hansard) extracted through web-scraping their official website (https://hansard.parliament.uk). These records are released under the Open Parliament License, facilitating their use for research with appropriate attribution. By analyzing the language and tone used in these debates, I can better understand parties' cultural views, in particular on immigration, and how they may have changed in response to immigration.

3. Empirical Strategy

This section introduces the concept of immigration exposure, which measures the extent to which a region is affected by immigration. I will then explain the method I use to construct an instrument for immigration exposure, which helps to identify the causal effect of immigration on my outcome of interest. Finally, I will present the results of the first stage and test the validity of the instrument.

The 2004 EU enlargement introduced a large influx of immigrants to the UK. The immigration exposure measure, or immigration shock, is designed to capture the shock felt by the average worker within distinct local labor markets. This quantification is achieved by weighting the national industry-level migration growth from NMS by the local area's share of employment in that industry. Essentially, this index reflects how much each local labour market is exposed to migration from NMS, based on its industrial composition. If a location has a high share of employment in industries that are facing significant NMS migration, its import exposure index would be high.

More precisely, this measure comprises two elements: national-level shocks and predetermined local exposure shares. The shocks are calculated from the variation in the share of migrants from

NMS over time across different industries. Each shock represents the national-level change in the number of migrants from accession countries in each 2-digit industry between year t and 2004. This approach hinges on the idea that NMS individuals possess a comparative advantage in certain sectors relative to UK workers. This comparative advantage, coupled with the sudden EU enlargement, naturally inclines them towards employment in certain sectors. The industry-level shocks are then combined with exposure shares, s_{ik}, which are calculated based on the specialization of industries in different locations. Consequently, the measure of the immigration shock at the regional level is calculated as follows:

$$\Delta IM_{it} = \sum_k s_{ik} \frac{\Delta IS_{k,t}}{L_k} = \sum_k \frac{L_{ik}}{L_i} \frac{\Delta IS_{k,t}}{L_k} \tag{1}$$

In the above formula i indexes regions, k indexes industries, and t indexes times. The national-level change in the number of migrants from NMS in each 2-digit industry k between periods t and 2004, represented by $\Delta IS_{k,t}$, is normalized by the total number of workers in the same industry in the UK, represented by L_k. The region-specific shock is then calculated as the weighted sum of these changes in immigration share across industries, with the weights reflecting the respective significance of each industry within that region. I look at the change in immigration over this time frame since 2004 is the year at which 10 out of 12 NMS joined the EU. While I include immigrants from Bulgaria and Romania who joined the EU in 2007 in shock, their exclusion does not change results qualitatively.

To avoid simultaneity bias, I use start-of-period shares (i.e., shares in 2004) in the above formula. While lagging the shares by more periods could help to isolate cleaner time-varying shock variation, it might also reduce the predictiveness of the exposure measure and thus reduce the efficiency of the analysis. Notably, the shares from before 2004 are reported in a different industry classification version, and using a mapping to convert them to the current classification will introduce additional noise. However, as these shares do not vary significantly over time, the year in which they are calculated has minimal impact on the results.

To address the concern that changes in UK industry demand may affect the influx of migrants, I use a non-UK exposure variable, $IM^O_{i,t}$, as an instrument for the immigration exposure $IM_{i,t}$. This variable is constructed using data on contemporaneous industry-level growth of migrants from NMS to other existing European countries. The idea behind using this instrument is that the flow of migrants from NMS to the UK might be influenced by changes in both UK supply and demand conditions, which may have direct effects on our outcome variable in UK regions. However, the flow of migrants to other European countries is influenced only by the comparative advantage of migrants and some domestic supply and demand shocks. The instrument is calculated as follows:

$$\Delta IM^O_{it} = \sum_k \frac{L_{ik}}{L_i} \frac{\Delta IS^O_{k,t}}{L_k} \tag{2}$$

where $\Delta IS^O_{k,t}$ is the change in NMS migrants for other European countries for 2-digit industry k between periods t and 2004. This expression can be motivated by the fact that other European countries in the EU are similarly exposed to the influx of migrants from accession countries, which

is driven by the comparative advantage of these workers in certain industries. This approach is based on the logic presented in Autor *et al.* (2013). Conceptually, this instrument leverages multiple sets of shocks. One can treat industry shocks from each individual country as an independent as-good-as-randomly assigned instrument. However, to align with the approach used in Autor *et al.* (2013), I use the average migration across ten EU members as my instrument.

Before the 2004 expansion, the EU comprised 15 countries, including the UK. In my analysis, I focus on 10 of these countries (EU10): the Republic of Ireland, Sweden, Greece, Spain, Finland, Italy, Portugal, the Netherlands, Luxembourg, and France. This choice is based on two considerations. First, these countries either placed no restrictions or had milder restrictions on migrants from the NMS compared to Belgium, Denmark, Austria, and Germany, which are excluded. Second, Germany's data at the 2-digit industry level is unavailable in the EU-LFS for the study period. Including all EU members in the instrument doesn't markedly affect the results. Although some included countries had transient restrictions on migrants from accession nations, these were comparatively lenient than those in the omitted nations and were phased out within a few years. Moreover, these restrictions were generally uniform across sectors, hinting that the migrant composition across industries remained unaffected. The key findings remain robust, even when the instrument is restricted to only Sweden and Ireland — two countries that, akin to the UK, avoid any entry restrictions from the outset.

The identification of shift-share instruments hinges on the exogeniety of either the shocks or the shares, or both. Conventional shift-share instruments in immigration literature, using pre-settlements patterns, are generally perceived as leveraging exogenous shares (Goldsmith-Pinkham *et al.*, 2020). However, in our context, shares are unlikely to be exogenous as they are equilibrium shares that could measure the location's exposure to any unobserved demand or supply shocks across industries (e.g. China import competition or automation). Instead, I rely on the exogeneity of the shocks to establish the validity of my identification approach, as formalized by Borusyak *et al.* (2022).

Following the framework established by Borusyak *et al.* (2022), the validity of this instrument is anchored in specific identification conditions. The first condition is the relevance condition, such that the instrument has power. More precisely, we should have $E[\Delta IM_{it} IM_{it}^{O} | X_{it}] \neq 0$. Figure 3 plots the relationship between actual and predicted immigration exposure in each local authority. This parallels the first-stage regression in the later analysis, conducted without any controls. The t-statistic and R-squared are 4.9 and .5, respectively, revealing the substantial predictive power of the other EU countries' instrument for changes in immigration exposure for the UK.

Building on the numerical equivalence in Borusyak *et al.* (2022), when a shift-share research design leverages exogenous variations in shocks, the exclusion restriction can be written as an orthogonality condition between the underlying shocks and shock-level unobservable. Omitting the time subscript for brevity, Borusyak *et al.* (2022) formalize this condition as follows:

$$(\frac{1}{I}\sum_{i} \Delta IM_{i}^{O} \epsilon_{i} \xrightarrow{p} 0) \iff (\frac{1}{K}\sum_{k} \hat{s_k} \frac{\Delta IS_{k}^{O}}{L_k} \bar{\epsilon_k} \xrightarrow{p} 0) \tag{3}$$

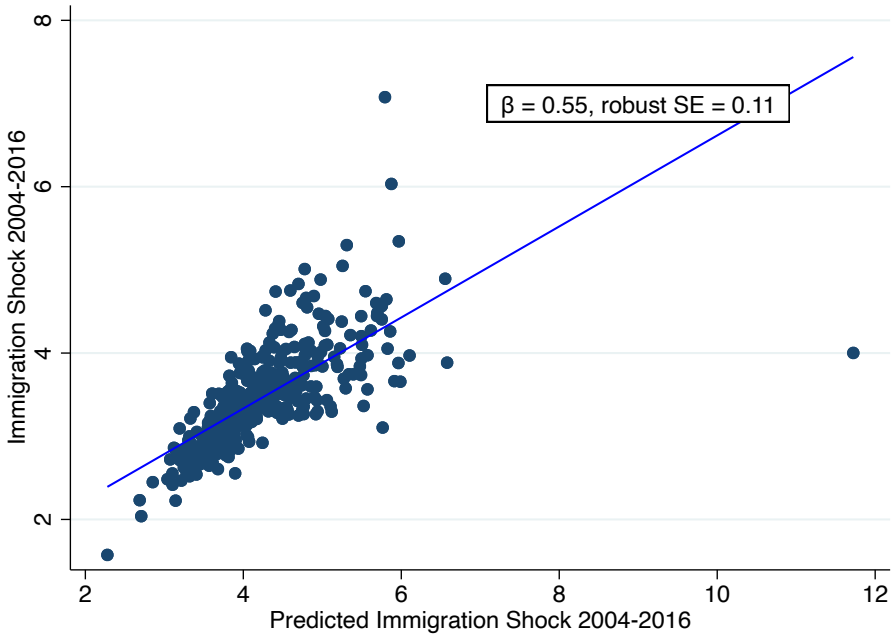


Figure 3. *Notes:* This graph depicts the first-stage relationship between actual and predicted immigration shocks in local authorities across the UK from 2004 to 2016. The actual immigration shock is derived from industry-specific changes in NMS immigration within the UK, weighted by the representation of each industry in the local authorities, as detailed in equation 1. In contrast, the predicted shock is computed using similar industry weights but combined with the change in immigration in each industry to other non-UK, pre-2004 EU countries. Each data point corresponds to one of the 390 local authorities.

where $\hat{s_k} = \frac{1}{I}\Sigma_i s_{ik}$ and $\bar{\epsilon_k} = (\Sigma_i s_{ik}\epsilon_i)/\Sigma_i s_{ik}$. Casting the exogeneity assumption as a condition on shocks, we can see that the consistency of my estimates can be inferred from the law of large numbers as applied to the equivalent shock-level regression. This means that my shares are allowed to be endogenous. Falsification tests using lagged outcome variables will confirm the as-good-as-random assignment of shocks, validating the shift-share instrument. According to Borusyak *et al.* (2022), the concentration of industry exposure as measured by the inverse of its Herfindahl index (HHI), $1/\Sigma_{n,t} s_{nt}^2$, corresponds to the effective sample size. As I will discuss, the HHI of the weights $\hat{s}_n$ is 389, reassuring that my effective sample size is large enough.

Table A.1 presents the distribution of the instrument, which is based on migration from NMS to other European countries. The distribution appears to be regular, with a significant amount of variation. The effective sample size is 389. The second column only includes shocks in 2016, as the Brexit specification only considers cross-sectional variation in immigration exposure in 2016. As expected, the effective sample size for this subset is smaller, which is an important factor to consider in the cross-sectional analyses focusing only on 2016.

It is important to note that in a shift-share design, the assumption of independent and identically-distributed (iid) observations is unlikely to hold. As a result, conventional standard errors may not be valid in the presence of exposure-based clustering, as pointed out by Adao *et al.* (2019) and

Borusyak *et al.* (2022). In the table appendix Table A.2, I follow Adao *et al.* (2019) to correct for standard errors for the main analysis. These potentially more conservative standard errors do not significantly differ from the baseline standard errors.

One potential threat to the identification is that the immigration from NMS countries to other European countries might not only reflect the comparative advantage of immigrants but also demand shocks that are common between the UK and other European countries. A related concern is that migration shocks might be confounded by other unobserved characteristics. For example, migrants from NMS might tend to work in industries that are concentrated by routine jobs, which are already on a different labour market trend. To address these concerns, I will control for a range of technological shocks and conduct a series of falsification tests to confirm my assumption that I have a quasi-random shock assignment with a large enough effective sample size.

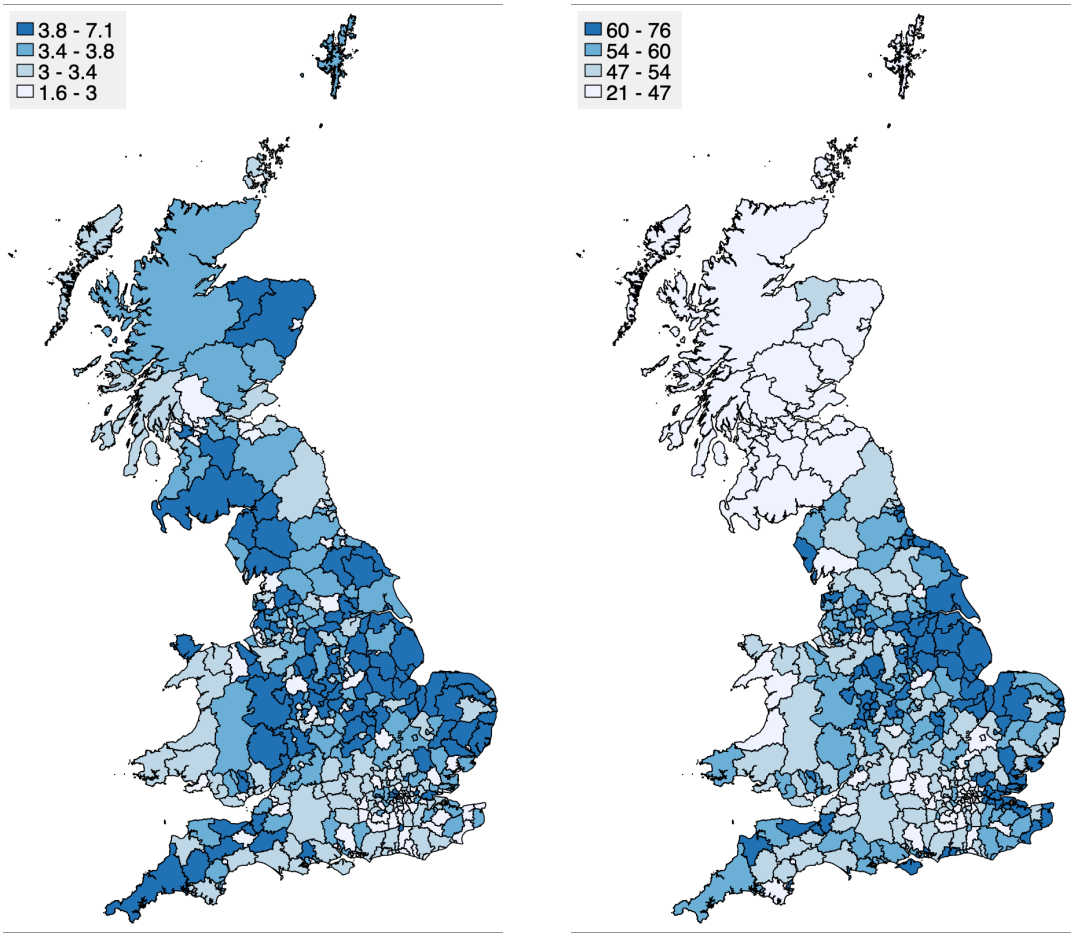
Furthermore, the fact that the decision to expand the EU was made collectively by countries outside the UK supports my assumption that the influx of immigrants after 2004 was driven by supply rather than demand. As previously mentioned, both the composition and spatial distribution of immigration after 2004 differed significantly from the pattern of immigration prior to that year. Furthermore, if demand were a significant factor in determining immigration patterns, my estimates of the effect of immigration on anti-EU sentiments would likely be downward biased. This is because negative shocks to a particular industry would result in that industry receiving fewer immigrants, and regions specialized in that industry would be more likely to support anti-EU platforms. Therefore, my results can be considered conservative estimates.

There has been a recent discussion following the observations by Jaeger *et al.* (2018) on shift-share instruments, pointing out potential issues when there's a slow adjustment process and a high serial correlation in the immigrants' country-of-origin distribution. They suggest that this setup might blur the distinction between immediate reactions to new immigrant arrivals and delayed responses to previous inflows. For several reasons, these concerns do not significantly apply to this analysis.

First, I am exploiting an exogenous structural break in the pattern of immigration that dramatically changed the country-of-origin mix of immigrants, as evident in Figure 1. This means the serial correlation of immigrant flow with the flow before 2004 is very low. This argument is supported by the findings of Jaeger *et al.* (2018), which suggest that shift-share instruments are still consistent when there is a structural break in their aggregate components.

Second, the concerns raised by Jaeger *et al.* (2018) are unlikely to apply in my setting because I do not use past settlement patterns as shares but rather the employment structure. This further reduces the issue of serial correlation. Third, general equilibrium adjustments are much more relevant for wages, as the adjustment in the capital may gradually offset the initial negative effect of immigration on wages and lead to subsequent return and positive wage growth. Priorly, there is no reason to expect such dynamic adjustments in electoral outcomes in response to immigration.

Immigration exposure by location authority reveals a considerable amount of geographic variation in its strength. In Figure 4 panel A, I report immigration exposure in 2016, the year of the EU referendum. The results indicate that locations in the Midlands and Northern England are hit hardest by immigration, with some strong effects elsewhere. This shock spans from a low of 1.34



(a) Immigration Shock **(b)** Leave Vote Share

Figure 4. *Notes:* This map shows the spatial distribution of immigration shock and Leave vote across local authorities in the UK. Panel A illustrates the strength of the immigration shock in 2016 at the local authority level, with darker shades indicating a stronger shock. Panel B shows the Leave vote share in the 2016 Brexit referendum, with darker shades representing a higher percentage of votes for Leave.

in the City of London to a peak of 6.5 in South Holland (East Midlands), averaging out at 2.74, accompanied by a standard deviation of 0.58, reflecting its dispersion.

As a point of comparison, Figure 4 panel B displays the geographic variation in the Brexit vote. Brexit vote tends to be high in locations in the Midlands and Northern England, where the immigration exposure is also high. Interestingly, these places are known as "The Red Wall", a term describing constituencies which historically supported the Labour Party (but "turned blue" in the 2019 general election). While not crucial to the identification strategy, these facts provide context and help to better understand the role of immigration in the Brexit vote. The histogram in Figure A.2 plots the range of variation in the immigration shock measure for 2016, indicating a significant amount of variation in this measure.

4. Voter Behavior and Attitudes

Using several survey data and official election results, this section first studies how immigration affects voting decisions. I establish that regions with higher exposure to immigration exhibit a significant tilt toward right-wing anti-immigration UKIP party and the Leave campaign in the 2016 Brexit referendum. I will also conduct placebo tests to ensure that my results are not being driven by some underlying, long-term factor that impacts both immigration and anti-EU sentiment. Subsequently, I explore the underlying mechanism of this political shift. I show immigration shock shifts public attitudes toward immigration, characterized by an increase in anti-immigration sentiment and a heightened perception of immigration as a critical issue. Interestingly, immigration shock also seems to reduce the demand for redistribution and shifts voter values towards authoritarianism.

4.1. **Voting Patterns: Administrative Data.** The initial investigation into the political ramifications of immigration begins with an analysis of its impact on voting decisions. The focus here is primarily on the electoral performance of UKIP. The party's vote share is often interpreted as a barometer for British Euroscepticism, a sentiment that culminated in the 2016 EU referendum's leave vote. To analyze the relationship between exposure to immigration and support for UKIP, I employ a pooled difference-in-difference approach. The core of this analysis is reported in the following equation:

$$y_{i,r,t} = \alpha_i + \eta_{r,t} + \beta \Delta IM_{it} + \epsilon_{i,r,t} \tag{4}$$

where $y_{i,r,t}$ represents the share of UKIP in location i, in region r, in the election held at time t. The immigration shock, ΔIM_{it}, is instrumented using the variable IM^O_{it}, as described previously. Throughout the paper, I look into three different types of elections. Except for general elections, which are reported at the constituency level, the spatial unit of my analysis would be the local authority.

Before 2004, the number of migrants from NMS was minimal (as illustrated in Figure 1). As a result, in the construction of immigration shock, ΔIM_{it}, it is practically equivalent to considering the level value of migrants or the change from 2004. Given the natural experiment of the EU enlargement took place in 2004, shocks prior to this year are set to zero, aligning with the negligible NMS immigration to the UK before this period. The adjusted immigration shock formula, shown in equation 5, refines the definition by setting pre-2004 shock values to zero and maintaining the post-2004 immigration exposure as previously defined. This empirical specification exploits the national-level, time-varying shocks that impact different industries when immigrants enter the UK labor market, as well as the variation in employment composition across places. The instrument defined in equation 2 will also be refined accordingly and the same approach will be used throughout the paper.

$$\Delta IM_{it} = \begin{cases} 0 & t < 2005 \\ \sum_k \frac{L_{ik}}{L_i} \frac{\Delta IS_{k,t}}{L_k} & t \geq 2005 \end{cases} \tag{5}$$

I start by presenting the results of the OLS relationship between immigration exposure and vote for UKIP in Table 1, panel A. Column 1 shows the effect of immigration exposure on UKIP vote share in European elections held in 2004, 2009, and 2014. The results indicate that local authorities that experienced a significant influx of migration from NMS saw a significant increase in UKIP vote shares. Specifically, a one standard deviation increase in immigration shock would increase the UKIP vote share by 1.6 percent.

The analysis extends to local and general elections, as presented in Columns 2 and 3, respectively. Each electoral context offers distinct dynamics and complexities. For instance, local elections are more frequent compared to their European and general counterparts, ensuring that in any given year, certain local authorities are actively engaged in council elections. However, within the scope of this study, only three instances each of European and general elections were observed. Additionally, turnout in local and general elections is generally higher than in European elections. Conversely, local and general elections, unlike European ones, employ a system of First-Past-The-Post (FPTP), potentially incentivizing strategic voting. Moreover, the issue of immigration, intrinsically tied to EU dynamics, assumes greater prominence in European elections. Consequently, UKIP's performance in these elections might more accurately mirror the electorate's stance on immigration. Despite these electoral nuances, the results from Columns 2 and 3 consistently indicate that heightened immigration is correlated with increased support for UKIP.

Panel B provides estimates of the effect of immigration exposure on the vote for UKIP by instrumenting the immigration exposure by similarly constructed measures using immigration change from NMS to other pre-2004 European countries. The results are similar in magnitude to those obtained through OLS, suggesting that the source of bias may not be significant. By comparing the "Average effect in the last election" and "Mean of dependent variable" rows in columns 2 and 3, it is clear that a large portion of support for UKIP in local and general elections can be attributed to the immigration shock. It is important to note that the vote share for UKIP in European elections, as indicated in the "mean of dependent variable" row, is much higher than in other elections. This is due to the use of a proportional voting system in European elections, which benefits smaller parties like UKIP, as well as the greater salience of issues related to Europe in these elections, as mentioned before.

I perform a pre-trend falsification test by examining the relationship between the immigration shock and the performance of UKIP in previous elections to confirm the orthogonality of my shocks. Specifically, I regress the outcome variable at different points in time on the immigration exposure in the latest election year in my sample period (which is 2016, 2015, and 2014 for local, general, and European elections, respectively). This specification allows for the impact of immigration to be different at different times. The lagged dependent variable serves as a proxy for unobserved error terms ϵ_{it}, and the lack of a relationship supports my identification strategy. I estimate the following equation:

$$y_{i,r,t} = \alpha_i + \eta_{r,t} + \sum_{t \in [2000,2016]} \beta_t \times Year_t \times IM_{i,2016} + \epsilon_{i,r,t} \tag{6}$$

Table 1. Effects of Immigration on the Electoral Performance of UKIP

	(1) European elections	(2) Local Elections	(3) General Elections
Panel A. OLS			
Immigration Shock	1.636	1.279	2.181
	(0.464)	(0.520)	(0.297)
Avg effect in the last election	5.238	4.097	6.874
Standard deviation	.9922	.7760	1.349
Mean of dependent variable	22.3	4.49	6.03
Panel B. 2SLS			
Immigration Shock	1.407	0.992	2.293
	(0.555)	(0.779)	(0.291)
F-stat	196	254	406
Avg effect in the last election	4.505	3.178	7.226
Standard deviation	.8532	.6020	1.418
Mean of dependent variable	22.3	4.49	6.03
LA/Constituency FE	Yes	Yes	Yes
Region-Year FE	Yes	Yes	Yes
Spatial units	347	346	566
Observations	1041	3263	2047

Notes: This table presents the estimated effects of immigration shocks on the electoral performance of the UK Independence Party (UKIP) across different types of elections: European, local, and general. The immigration shock variable is constructed using industry-specific changes in immigration, weighted by the industry composition of each region. The exact construction of the immigration shock and its instrument is explained in the text. F-stat refers to the Kleibergen-Paap rk Wald F-statistic for weak instruments. Robust standard errors, clustered at the local authority (for Local and European Elections) or constituency level (for General Elections), in parenthesis.

In Figure 5, I plot out the estimated coefficients $\hat{\beta}_t$, which are coefficients of the interaction of the immigration shock in the last election year and a set of year fixed effects, over time for local, European, and general elections. We would not expect the exposure in 2016, just before the Brexit referendum, to predict the support for UKIP in prior elections. As shown in the figure, the relationship is indeed absent in elections before the referendum. All three plots suggest that I cannot reject the hypothesis that there is no relationship between the lagged outcome variable and current shocks. Panel A suggests that immigration exposure in 2016 only had a significant effect on UKIP electoral outcome in the few years prior to 2016. Specifically, the constructed shock is not

statistically associated with support for UKIP before 2013. Panels B and C, which look at European and General elections respectively, also show that the exposure measure in the last election year only explains the outcome in the last election year.

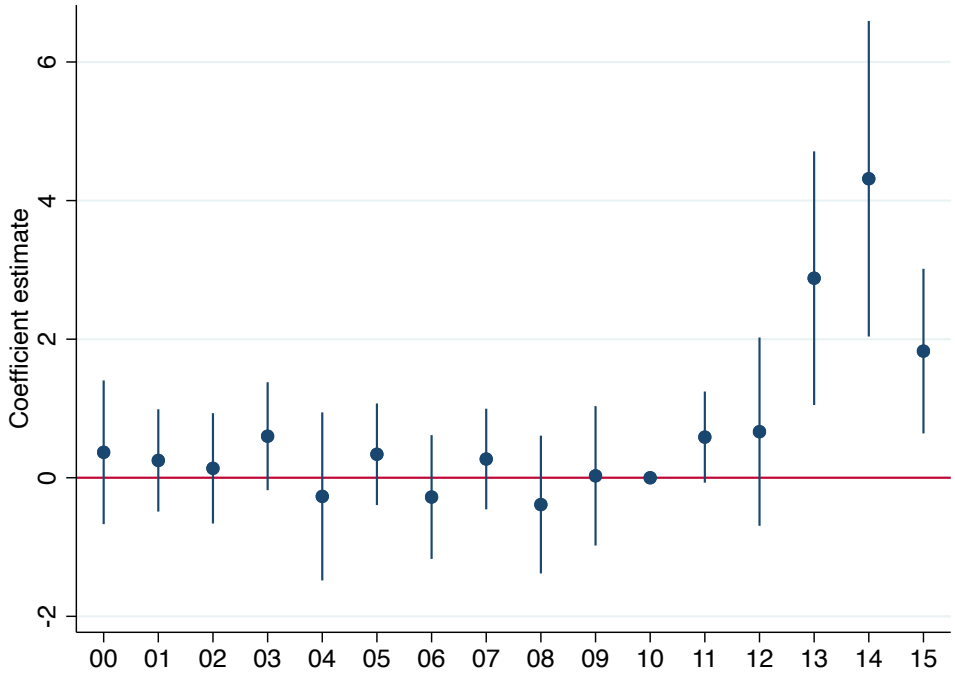
As an alternative specification, I estimate the model in first differences, separately for each period. This approach has the advantage that by focusing on a precise, fixed time frame between two consecutive elections for each regression, it ensures that the analysis captures the net average effect specific to that interval. This addresses the concern articulated by Jaeger *et al.* (2018) that my estimates may conflate short and long run responses. Furthermore, this refined approach facilitates the execution of a pre-trend test, adding another layer of robustness to the analysis. It is worth highlighting that as immigration exposure is zero before 2004, for any period post-2004, the level of immigration exposure and its change from 2004 would essentially be the same. The model estimated is as follows:

$$\Delta y_{i,t} = \alpha_{j(i)} + \beta \Delta IM_{i,t} + \epsilon_{it} \tag{7}$$

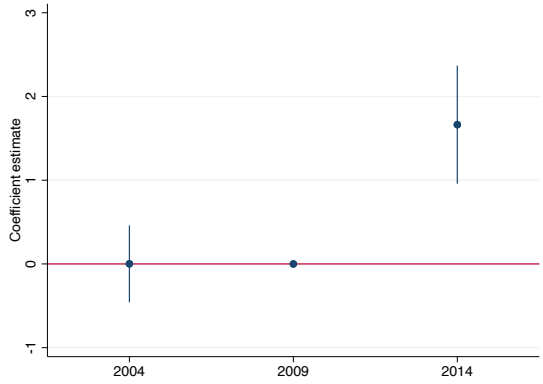
I will estimate this model using European, Local and General elections. When analyzing local elections, it is important to consider the fact that these elections take place at least every 4 years, but not all local governments hold elections at the same time. Some local governments elect all of their local councillors every 4 years, while others elect half of their councillors every 2 years, and some elect one-third of their councillors every year. Instead of running different regressions for every combination of two elections, which would result in few observations and many coefficients, I consider four different periods: 2000-2003, 2004-2007, 2008-2011, and 2012-2015. Each local authority in each of these periods had at least one election. When there is more than one election, I take the average.

Table 2 displays the outcomes of the model estimated using first differences. The initial three columns demonstrate that both OLS and 2SLS estimates yield coefficients that are consistent in sign and magnitude across various election types, underscoring the robustness of the statistical associations. Specifically, the first column analyzes European elections between 2004 and 2014, the second focuses on general elections from 2005 to 2015, and the third examines local elections spanning from 2004-2007 to 2012-2015. Regardless of the election type and the estimation method (OLS or 2SLS), the findings consistently indicate that regions experiencing a substantial influx of immigrants are more likely to support UKIP, a party representing anti-immigration politics. This trend confirms that the impact of immigration shock extends beyond merely influencing attitudes, manifesting clearly in voting behaviors that favor anti-immigration parties. It indicates that exposure to immigration influences people's opinions, and these altered attitudes become significant considerations in their voting decisions.

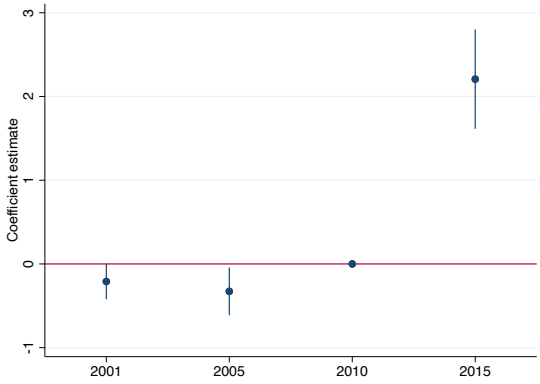
The subsequent three columns in Table 2 explore the link between past changes in the electoral outcome of UKIP and future changes in immigration exposure. This analysis acts as a falsification test, aiming to verify that the observed results are not confounded by any long-term common factors that may be affecting both the success of UKIP and the increase in immigration exposure. The lack of significant findings in these columns lends weight to the assertion that the identified effects are capturing the period-specific effects of immigration exposure.



(a) Local Election



(b) European Election



(c) General Elections

Figure 5. *Notes:* Analysis of Pre-trends in Votes for UKIP. This figure presents the impact of immigration shocks in the last election year on the percentage of votes for UKIP in English and Welsh local, European, and general elections from 2000-2015 in panels a, b, and c, respectively. The graph shows point estimates of the interaction between the immigration shock and a set of year-fixed effects, while controlling for local authority district fixed effects and region-by-year fixed effects. Standard errors are clustered at the local authority (for Local and European Elections) or constituency level (for General Elections), and 90% confidence bands are shown.

Table 2. First Difference Estimation

	Main analysis			Pre-trend analysis		
	(1)	(2)	(3)	(4)	(5)	(6)
Election:	European	General	Local	European	General	Local
	2014-2004	2015-2005	(2012-15)-(2000-3)	2004-1999	2005-2001	(2004-7)-(2000-3)
Panel A. OLS						
Current Imm. Shock	1.729	1.983	2.735			
	(0.442)	(0.345)	(0.635)			
Future Imm. Shock				-0.019	-0.149	-0.006
				(0.325)	(0.093)	(0.170)
Panel B. 2SLS						
Current Imm. Shock	2.045	2.919	3.032			
	(0.612)	(0.394)	(0.941)			
Future Imm. Shock				-0.274	-0.237	0.088
				(0.495)	(0.117)	(0.212)
F-stat	77.9	261	75.3	77.9	292	75.3
R-Squared	347	573	346	347	570	346

Notes: This table displays the outcomes of first-difference estimations examining the effects of immigration shocks on the electoral performance of the UKIP across various election types. The analysis is conducted separately for European, local, and general elections and captures the net effect specific to each time window. For local elections, the analysis is segmented into four distinct periods (2000-2003, 2004-2007, 2008-2011, and 2012-2015) to accommodate varying election cycles across local governments. When multiple elections occur within a period, the average outcome is considered. The last three columns serve as a falsification test, exploring the relationship between past changes in UKIP's electoral outcomes and future changes in immigration exposure. F-stat refers to the Kleibergen-Paap rk Wald F-statistic for weak instrument. Standard errors are clustered at the local authority (for Local and European Elections) or constituency level (for General Elections) and are presented in parentheses.

Alternative Standard Errors: In light of discussions by Adao *et al.* (2019) and Borusyak *et al.* (2022), accounting for correlated errors in shift-share research designs is crucial. The findings remain significant across various inference methods designed to mitigate biases stemming from correlated unobservables among locations sharing similar characteristics. Table A.2 presents standard errors

as derived from the methodologies of Adao *et al.* (2019) which doesn't show significant differences from the conventional standard errors.

Other Parties' Support: Should the rise of UKIP be attributed to immigration, it's crucial to discern which parties are bearing the brunt of this shift. Such insights not only deepen our understanding of immigration's impact on the political landscape but also are crucial for traditional political parties to refine their electoral strategies, focusing on appealing to those who might be swayed by UKIP's messaging. Table A.3 examines the effect of immigration shock on the support for the Conservative and Labour parties. The evidence suggests that immigration is helping UKIP gain support at the expense of the Labour Party. That is, panel A of the table indicates a significant loss of support for the Labour Party in areas with a higher level of immigration shock in European, local, and general elections. Estimates are similar in magnitude in OLS and 2SLS estimates.

On the other hand, panel B of Table A.3 shows no evidence of an effect of immigration shock on the support for the Conservative Party. This is consistent with the idea that societal focus shifts from class-based distinctions to cultural-based distinctions will harm traditional left-wing parties the most. This is because these parties traditionally focus on class struggle, advocating for the working class against the capitalist elite. A shift towards cultural issues might dilute their traditional class-based message, especially among conservative voters, causing them to lose votes.

Brexit Referendum: Given the substantial impact of immigration on UKIP support and the critical position of UKIP in shaping the narrative around the Brexit referendum, it's crucial to investigate the direct impact of immigration on this defining political event. The Brexit referendum was not just a reflection of UKIP's political agenda, but also a crucial indicator of public sentiment towards immigration. To unravel the extent to which immigration shock contributed to the Leave campaign's success, the following baseline specification is employed:

$$y_i = \alpha_{j(i)} + \beta IM_{i,2016} + \epsilon_i \tag{8}$$

where y_i is the vote share for the leave option in local authority i. The results of this analysis are presented in Table 3. All regressions, except for column 1, include fixed effects $\alpha_{j(i)}$ for NUTS-1 region j in which local authority i is situated. I exclude local authorities in Scotland as I suspect the political landscape in Scotland can be very different from the rest of the UK. However, the results are mainly robust to the inclusion of Scotland. I also drop Northern Ireland and Gibraltar as the largest and smallest 'local authority' by order of magnitude.

The point estimates across all specification and estimation methods indicate a strong positive relationship between exposure to immigration shock and leave vote share. The effect is quite substantial; according to the second column, two regions situated within the same NUTS-1 region but differing in exposure to immigration shock by one standard deviation are expected to vary by 5% in support of the leave campaign. This suggests that a modest decrease in the magnitude of the immigration shock may have resulted in a different outcome in the referendum.

To further strengthen the validity of the results, the analysis progressively incorporates additional controls. In column 3, adjustments are made for demographic variables while column 4 also controls for other factors impacting the labor market throughout the study period. These include the volume of imports from China between 1990 and 2007, and changes in routine occupations, as

proxied by their baseline employment shares. These controls reduce the magnitude of the coefficient on immigration shock, but also make it more precisely estimated. These patterns strengthen the presumption that the pattern of migration from NMS across different industries is a supply-driven force that is largely unrelated to other industry shocks. Finally, column 5 looks at the effect on turnout and finds a modest effect. This could indicate that the referendum held significant importance for locations hit by immigration, possibly due to concerns about the implications of Brexit on immigration policies, and rights to live, work, and move freely.

Counterfactual Analysis: The findings reveal a positive causal relationship between immigration and the Leave vote, necessitating further investigation to determine whether this impact extends to altering major political events. To undertake this counterfactual analysis, I rely on the results in the fifth column of Table 3. I evaluate the political consequence of these estimates by constructing a counterfactual leave vote share that would have occurred in the absence of increases in migration. The counterfactual leave vote share at the national level can be expressed as:

$$\hat{LeaveShare} = \sum_i E_i(L_i - \beta \widetilde{IS}_{i,2016}) \tag{9}$$

where β is the 2SLS coefficient estimate of the effect of immigration on the leave vote share, E_i and L_i are the electorate size and the observed leave share in local authority i, respectively. $\widetilde{IS}_{i,2016}$ is the estimated immigration shock that can be attributed to the supply-driven component of the increase in migration from accession countries in local authority i. The calculation of $\widetilde{IS}i, 2016$ involves multiplying the local authority i observed immigration shock by the partial R-squared from the first-stage 2SLS regression, valued at 0.51 in our base case (refer to Figure 3). This $\widetilde{IS}_{i,2016}$ variable is a consistent estimate of the contribution of the supply component of migration to changes in the actual increase in migration, assuming the instrument's validity and absence of measurement error.

The analysis does not account for the turnout effect, given the uncertainty regarding how immigration-induced new voters might vote compared with the existing voter base. In creating the counterfactual scenario, I also assume that other factors, including observed covariates and unobserved factors reflected in the error term, remain constant despite removing the supply-driven migration increase from new EU countries. The results suggest that the leave vote share in the counterfactual world, where there is no immigration from accession countries, would be 48.1%. This finding implies that a modest decrease in immigration shock could have been sufficient to tip the balance towards the remain camp in the Brexit referendum.

4.2. **Voting Patterns: Individual Survey Data.** Now, I use Understanding Society panel data to extend the analysis to the individual level and see whether the same pattern holds at the individual level. Using panel data at the individual level allows me to control for respondents' fixed characteristics, such as ethnicity, cohort, and education. Leveraging the longitudinal aspect of the data, in Figure A.3, I use a Sankey diagram to visualize some descriptive information about where supporters of UKIP and the Leave campaign came from. Panel A shows a substantial flow from Conservative to Leave, and a smaller but significant flow from Labour to Leave. UKIP supporters exhibit an almost exclusive flow towards Leave, validating using UKIP as a proxy for anti-EU

Table 3. Effects of Immigration on Brexit Referendum

	Leave vote				Turnout
	(1)	(2)	(3)	(4)	(5)
Panel A. OLS					
Immigration Shock	7.074	5.126	2.645	1.881	0.447
	(1.969)	(1.217)	(0.908)	(0.805)	(0.250)
Panel B. 2SLS					
Immigration Shock	7.401	4.780	2.959	2.134	0.691
	(2.393)	(1.201)	(0.721)	(0.618)	(0.279)
R-Squared	.216	.428	.745	.783	.853
Observations	348	348	348	345	345
Region Fixed Effects	No	Yes	Yes	Yes	Yes
Demographics	No	No	Yes	Yes	Yes
Initial composition of immigrants	No	No	No	Yes	Yes
Routine Jobs	No	No	No	Yes	Yes
Import Competition Exposure	No	No	No	Yes	Yes

Notes: This table examines the direct impact of immigration on the Brexit referendum. All regressions control for NUTS-1 regions. Columns 2-4 add three sets of controls. First, they add demographics which include employment share of manufacturing, construction and agriculture, and the share of people 20-44 years, 45-59 years, and people over 60 years old. Second, they control the share of employment in routine jobs at the baseline as well as the vote share of UKIP in 2004 European election. Finally, the last set of covariates controls for the growth rate of migration from EU15 countries and non-EU countries (2001-2011) as well as the initial NMS resident share. Standard errors are clustered at NUTS-1 level, and presented in parentheses.

and anti-immigration policies. Panel B depicts the flow of people in terms of their party support. It maps people's party support in 2015 to their previous party support. It reveals two critical trends: a substantial share of UKIP's support base comprised individuals previously outside the traditional two-party preference, and there was a considerable flow from Labour to UKIP. These patterns suggest that UKIP's appeal transcended traditional party lines, possibly tapping into broader concerns among voters that are not strictly defined by the conventional left-right political spectrum.

While Figure A.3 provides insight into which party UKIP supporters and Leave campaigners previously supported, it does not directly explain how immigration impacts voting behavior. To probe this dynamic, I examine the relationship between individual voting patterns and the degree

of immigration shock encountered in their local areas. This inquiry is formulated through the estimation of the following econometric model:

$$\Delta y_{j,t} = \alpha_j + \eta_t + \beta \Delta IM_{i(j),t} + \epsilon_{jit} \tag{10}$$

In Table 4, I report the results of the individual level analysis. The preferred specification is the last column, which includes individual-fixed effects as well as region-wave-year time fixed effects. By including individual fixed effects, the model capitalizes on within-individual variations in immigration exposure over time, while controlling for constant individual characteristics. Other included fixed effects account for time-varying demand and supply shocks at the governmental region and national level. The results show that individuals who experienced a significant influx of immigration in their local area are more inclined to support UKIP. Both OLS and 2SLS methods validate this finding, which also mirrors the aggregate-level analysis. Both individual and aggregate analyses indicate a remarkably consistent effect size; a one-standard deviation rise in immigration shock increases the likelihood of voting for UKIP or UKIP vote share by around 2%.

While the analysis indicates a causal relationship between the immigration shock and increased voting for UKIP, it does not specifically identify if these UKIP voters are the ones who have developed more anti-immigration attitudes, as the Understanding Society lacks direct queries on immigration attitudes or social policy preferences. Nevertheless, this finding, in conjunction with the patterns I have documented previously, aligns with the notion that an immigration shock elevates the salience of immigration in the political sphere and media discourse, potentially shaping individuals' beliefs towards anti-immigration stances, which then crystallize into a distinct voting pattern that diverges from the traditional left-right ideological spectrum.

Table 5 extends the analysis and looks at support for the leave campaign and turnout at the 2016 Brexit referendum. The leave campaign variable is constructed using a number of questions that ask individuals about their perception of the EU. The results on the effect of immigration on support for the leave campaign, represented in the first three columns, indicate that the immigration shock is driving people toward voting leave in the referendum. Results are consistent when estimated using both OLS and 2SLS methods. The last column of the table shows that immigration does not appear to have any significant effect on turnout in the referendum. It is worth noting that individual fixed effects could not be included in this analysis because the relevant data was only collected in one wave. Instead, a rich set of demographic variables was included.

In table A.4, I run a couple of placebo tests to investigate whether the results found in the previous analyses hold up when considering different time periods. Specifically, I regress measures of anti-EU attitudes prior to 2016 on the 2016 immigration shock. It is expected that the 2016 immigration shock should not be correlated with pre-period attitudes. The results show that out of the four different variables tested, only one of them appears to have a significant relationship. This suggests that the previous findings on the relationship between immigration shock and support for the leave campaign and for UKIP are robust and not simply due to some other common factor driving both variables.

Table 4. Individual-level Analysis

	(1)	(2)	(3)	(4)	(5)
	Support for UKIP				
OLS Estimates:					
Immigration Shock	0.026	0.025	0.016	0.015	0.023
	(0.006)	(0.006)	(0.005)	(0.005)	(0.007)
2SLS Estimates:					
Immigration Shock	0.089	0.089	0.020	0.019	0.073
	(0.024)	(0.024)	(0.009)	(0.009)	(0.028)
Observations	236,312	236,310	220,202	220,196	220,196
Local Authority FE	Yes	Yes	No	No	Yes
region x wave x time FE	Yes	Yes	No	Yes	Yes
individual FE	No	No	Yes	Yes	Yes
region x year FE	No	No	Yes	No	No
Demographics	No	Yes	No	No	No

Notes: This table examines the relationship between individual-level voting behavior and local immigration shock, specifically focusing on support for UKIP. Demographic variables include age, income decile, highest qualification, current employment status, and occupation. Standard errors, adjusted for clustering at the local authority, are shown in parentheses.

The observed impact of exposure to immigration on the shift towards right-wing, anti-immigration parties and supporting the Leave vote in the referendum can be due to several reasons. The upcoming analysis will scrutinize how this trend may reflect a shift in voters' attitudes towards immigration. However, alternative explanations exist, such as the heightened salience of immigration as an issue and the consequent shift in priorities among the electorate. Under this scenario, when immigration becomes more visible or is perceived as impacting local economies or social structures, political parties and candidates that emphasize immigration issues may gain traction not because individuals inherently change their ideologies, but because they prioritize the immediate challenges. This strategic voting can temporarily align voters with parties or candidates that promise to address these concerns, reflecting strategic voting based on current priorities rather than a deep-seated change in social attitudes or political identities. Nonetheless, subsequent analysis will demonstrate that support for UKIP signifies a fundamental change in attitudes, potentially heralding more durable consequences.

4.3. **Anti-Immigration Attitudes.** This section delves into the mechanisms behind the observed relationship between immigration and voting for UKIP. I explore whether shifts in individual-level voting patterns may reflect changes in attitudes and social preferences towards immigration. Further exploration in Chapter 6 considers whether these shifts signify a broader transition in identity emphasis from class to culture. Figure A.4 represents the evolution of concerns among

Table 5. Individual-level Analysis (II)

	Support for Leave Campaign			Turnout
	(1)	(2)	(3)	(4)
OLS Estimates:				
Immigration Shock	0.074	0.057	0.053	-0.009
	(0.011)	(0.009)	(0.009)	(0.011)
2SLS Estimates:				
Immigration Shock	0.095	0.069	0.065	0.001
	(0.014)	(0.013)	(0.012)	(0.014)
Observations	33,140	33,138	33,134	26,487
region x wave x time FE	Yes	Yes	Yes	Yes
qualification and age FE	No	Yes	Yes	No
economic activity status FE	No	Yes	Yes	No
income decile FE	No	No	Yes	No
employment sector FE	No	No	Yes	No
individual FE	No	No	No	Yes

Notes: This paper examines the effect of immigration on the individual-level support for the Leave campaign and voter turnout during the 2016 Brexit referendum. Support for the Leave campaign is measured using questions about opinions on leaving the EU. The outcome variable in the initial three columns is support for the Leave campaign and the last column outcome variable is Referendum turnout. Demographic variables include age, income decile, highest qualification, current employment status, and occupation. Standard errors, adjusted for clustering at the local authority level, are shown in parentheses.

Conservative and Labour party supporters towards immigration and the economy between 2001 and 2015. In the earlier period, the economy overwhelmingly preoccupied supporters of both parties, while immigration concerns were relatively marginal. By 2015, a pronounced pivot is observed: immigration concern has markedly increased and has replaced the economy as the point of contention with the disparity between the parties' supporters regarding it reaching a significant 18%. The graph displays a clear shift in the political landscape with immigration becoming a prominent issue, especially for Conservative supporters, indicating a significant realignment of priorities over the 14-year span.

To see whether this increase in anxiety about immigration is caused by immigration, I use data from Wave 8 of the British Election Study (BES), the wave leading to the referendum, scrutinizing individual perceptions and attitudes towards immigration. Specifically, this research utilizes four variables: the belief in immigration's benefits to Britain's economy (Econ) and cultural life (Cultural), the perception of immigration trends (Change), and the stance on immigration policy

(Policy). Higher values on Change indicate a stronger perception of increasing immigration, while higher values for the other three variables suggest more favorable views on immigration. Now, I estimate the following specification:

$$y_j = \alpha + X_j + \beta \Delta IM_{i(j),2016} + \epsilon_i \tag{11}$$

where y_j is one of the four aforementioned metrics reflecting immigration attitudes and perceptions of individual j in local authority i. The immigration shock, $\Delta IM_{i(j),2016}$, represents the shock in local authority i that individual j lives in 2016 and is instrumented using the variable $IM^{O}_{i(j),2016}$. All regressions have a rich set of individual demographics as a control.

Table 6 presents findings. The table displays two sets of estimates: Ordinary Least Squares (OLS) and Two-Stage Least Squares (2SLS), both considering an 'immigration shock' variable, which reflects a measure of local-level immigration exposure. The OLS estimates show a negative association between immigration shock and all four measures of cultural attitudes towards immigration, suggesting that areas experiencing higher immigration shock are associated with more negative views on these aspects. The 2SLS estimates, which account for potential endogeneity, reinforce these findings with slightly larger magnitudes of the coefficients. While these patterns might simply show immigration is shifting attitudes, the question is whether voters are prioritising these new attitudes in their voting decisions and shaping their identities based on these cultural and social preferences. Further analysis in subsequent sections suggests these results align more with a shift in political cleavages, from class-based to cultural distinctions, prompting voters to decide which party to support based on their immigration preference.

Columns 5 and 6 of Table 6 reveal that immigration not only shifts the attitudes of voters regarding immigration but also influences broader economic and social attitudes, leading to a decreased demand for redistribution and an increase in authoritarian sentiments among voters. Specifically, individuals in areas with higher exposure to immigration are found to be more receptive to reductions in domestic public spending and position themselves more authoritatively on the authoritarian-liberal spectrum.

The observed shift in redistribution preferences, triggered by immigration—a factor ostensibly disconnected from fiscal redistribution—may initially appear counterintuitive. Nonetheless, the literature offers two compelling interpretations. First, Alesina *et al.* (2023) found that prompting individuals to think about immigrants can significantly diminish support for redistributive policies, a pattern that is particularly pronounced among less educated and right-wing respondents. The authors suggest it is rooted in a reluctance to redistribute wealth towards individuals perceived as outsiders or foreigners. Second, Bonomi *et al.* (2021) posits that significant immigration influxes can pivot societal identity from class-based to culture-based distinctions. As cultural aspects become more dominant, they play a greater role in shaping policy preferences. The emphasis on cultural identity blurs class distinctions and thereby dampens redistributive conflict.

The findings of this section align with the narrative proposed by Bonomi *et al.* (2021), illustrating how immigration acts as a catalyst for the transformation of societal identity from class-based to culture-based. This transition can be driven by two mechanisms. First, immigration shock increases the salience of immigration issues, serving as a stand-in for wider cultural issues (as

Table 6. Public Attitudes

	Immigration Preference				RedistPref	AuthScale
	Econ	Cultural	Change	Policy		
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. OLS						
Immigration Shock	-0.114	-0.142	0.036	-0.167	-0.033	0.171
	(0.030)	(0.034)	(0.013)	(0.054)	(0.035)	(0.047)
Panel B. 2SLS						
Immigration Shock	-0.120	-0.156	0.045	-0.181	-0.126	0.179
	(0.039)	(0.044)	(0.018)	(0.068)	(0.042)	(0.060)
Observations	17,284	17,443	17,572	16,996	16,817	16,541
Demographics	Yes	Yes	Yes	Yes	Yes	Yes

Notes: This table presents regression results using data from Wave 8 of the British Election Study, specifically examining the public's stance on immigration, redistribution and cultural issues. Column (1) 'Econ' reflects responses to the survey question assessing the perceived economic impact of immigration. Column (2) 'Cultural' is based on the question evaluating immigration's influence on cultural life. The survey question regarding perceptions of whether immigration levels are rising or falling informs Column (3) 'Change'. Column (4) 'Policy' relates to views on the policy of allowing families of residents into Britain. The 'RedistPref' variable in Column (5) is scored on a 0-10 scale, formulated by combining and standardizing five variables to gauge attitudes towards redistribution, where 10 indicates the highest preference for redistribution. Likewise, the 'AuthScale' variable in the final column is based on a 0-10 scale, aggregating and normalizing five variables that explore individuals' liberal versus authoritarian values, with 0 representing libertarian views and 10 indicating authoritarian tendencies. The independent variable is the immigration shock experienced in 2016 at the local authority, controlling for individual demographics such as household income, age, educational attainment, and job zone, while incorporating fixed effects for various governmental regions. Standard errors are clustered at the local authority level.

illustrated in Figure 2). Second, individuals negatively impacted by immigration could be predominantly conservative, potentially as a result of their lower education. This shift from class to cultural identity leads to voting patterns that reflect cultural preferences, explaining the rise in the support of the UKIP.

This pivot towards cultural identity causes voters to move their beliefs in the direction of stereotypes, increasing polarisation and conflict about issues like immigration. Conversely, individual beliefs about redistribution become less polarised. This phenomenon can explain why voters exposed to immigration become anti-immigrant and demand less redistribution. If this transformation towards cultural identity is indeed occurring, it anticipates a corresponding shift in the

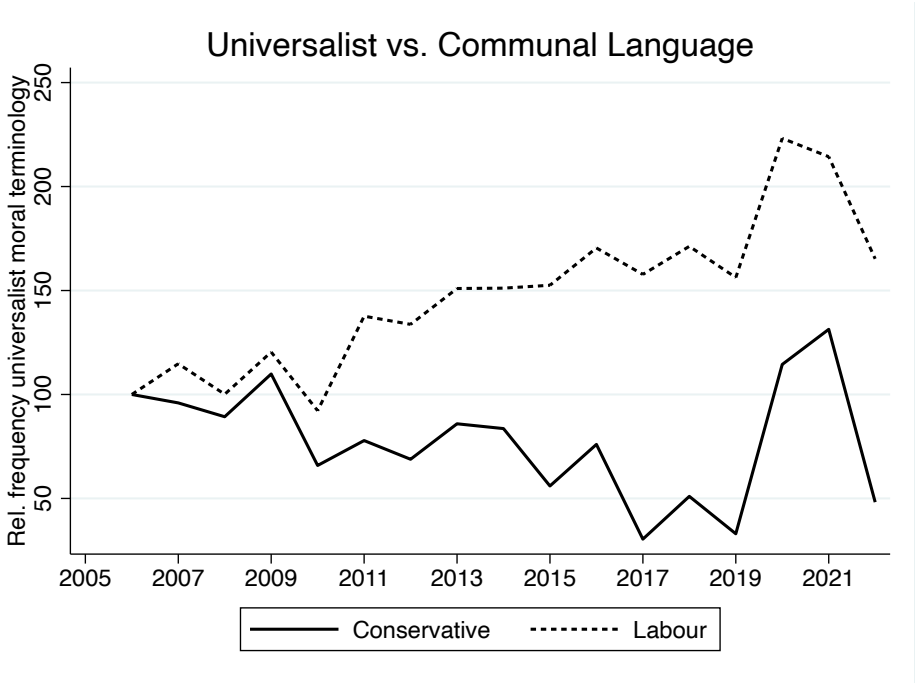


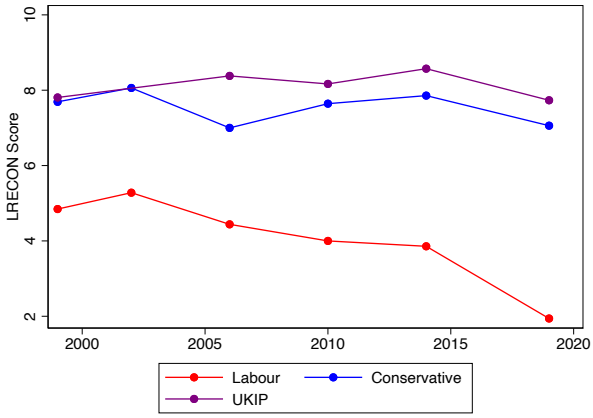
Figure 6. *Notes:* This graph illustrates the trend in the relative frequency of universalist versus communal moral rhetoric in speeches within the UK Parliament from 2006 to 2022. The solid line represents the relative frequency of universalist rhetoric in combined speeches delivered by Conservative MPs. In contrast, the dashed line indicates the relative frequency of universalist language in speeches by Labour MPs. The methodology for this computation is adapted from Enke (2020). For clarity and comparison, the frequencies for each party are normalized, setting the value to 100 in the initial year of the plot (2006).

political arena's supply side. The next section will therefore explore the adjustments made by political parties in response to immigration dynamics.

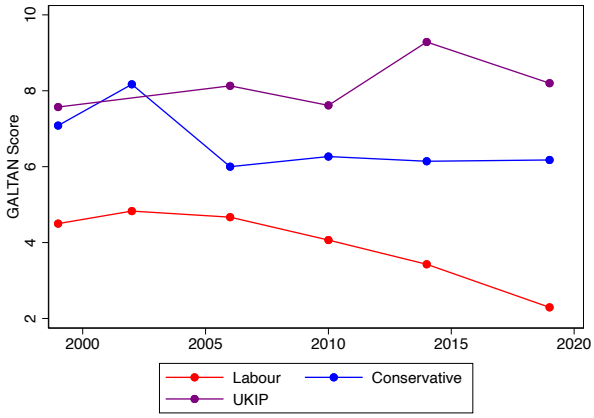
5. Party Responses to Immigration

In this section, I investigate if an analogous development has taken place on the political supply side. That is, if in their political activities, British parties have increasingly prioritized cultural issues over economic ones in response to immigration. Concurrent with the rise in NMS immigration, Figure 6 illustrates a cultural polarization in political rhetoric in the UK, as captured by the metric developed in Enke (2020). The figure indicates that parliamentary speeches have become less universalistic over recent years for Conservatives, with a notable increase in universalism for Labour.

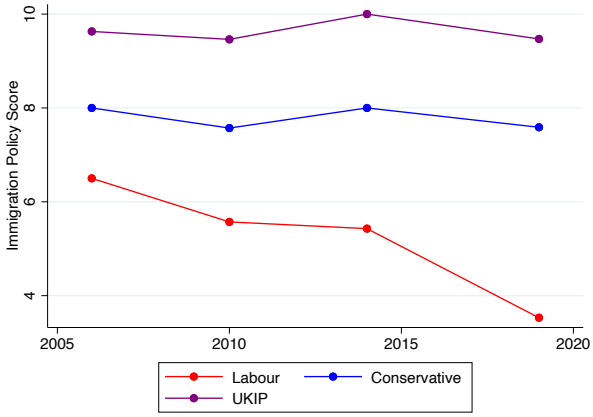
The measure used in Figure 6 measures universalism relative to the communal moral values of MPs. To get a more comprehensive view and measure the ideological positions of political parties on other margins, I use data from the CHES. In Figure 7 Panel A, I present the evolution of positions on economic issues for the parties UKIP, Labour, and Conservative over the same time window. It appears that Labour has become increasingly left-wing over time, while the other two parties do not show any clear trend. Interestingly, while UKIP and the Conservatives both align



(a) Party's position on economic issues



(b) Party's position on social and cultural values.



(c) Party's position on immigration policy.

Figure 7. *Notes:* Parties' Scores over Time. Panel A measures the party's position on social and cultural values such as personal freedoms, abortion rights, same-sex marriage, tradition, and stability on a scale of zero to ten, with a higher score indicating a more traditional/authoritarian stance. Panel B measures the party's position on economic issues including privatization, taxes, regulation, government spending, and the welfare state on a scale of zero to ten, with a higher score indicating a belief in a reduced role for government. Panel C measures the party's position on immigration on a scale of zero to ten, with a higher score representing a more restrictive policy on immigration. .

to the right of Labour on economic issues, there seems to be no substantial distinction between stances of these two parties on this margin.

In Panel B, I present the trend for parties' positions on social and cultural values. As with the economic positions, it is only Labour that becomes increasingly more progressive over time. Panel C focuses specifically on parties' positions on immigration. As expected, UKIP is almost as anti-immigrant as possible, while the Conservative party is positioned between Labour and UKIP. Like the other two panels, only Labour exhibits a change in its position over time, moving towards a

more pro-migrant stance. In sum, similar to Enke (2020) measure reported in Figure 6, CHES scores along different dimensions also exhibit a divergent trend between main political parties in the UK.

While the timing of the rise in immigration and increase in the political salience of immigration (reported in Figure 2) suggest that this polarisation might have happened due to an immigration shock, a direct causal relationship has not yet been established. My next step is to explore how MPs may adapt their local political positions and rhetorics in response to immigration shocks within their constituencies.

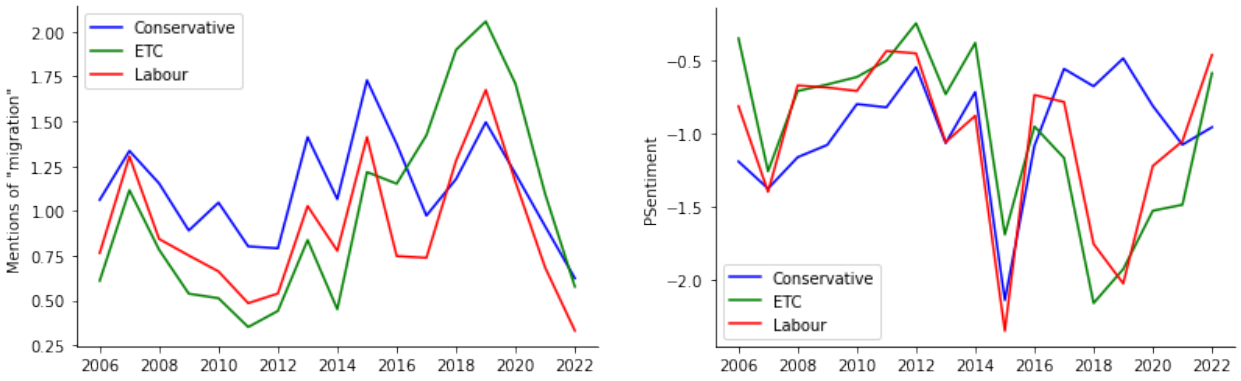
To investigate this possibility, I analyze the relationship between the exposure of a constituency to immigration and the engagement with immigration topics in Parliament by the MP of that region. I apply natural language processing techniques to Parliamentary speeches to construct three indicators for each constituency and year that illuminate various aspects of political discourse surrounding immigration.

Frequency Measure: This metric measures the density of selected keywords indicative of discussion around migration and minority issues[3] within an MP's parliamentary discourse over a specified year. It is calculated by tokenizing speeches to extract words, filtering out non-alphabetic characters to focus solely on textual content, and then counting occurrences of relevant keywords. The aggregate frequency of these keywords is then normalized by the total word count of the MP's annual contributions, yielding a relative frequency measure. This metric, termed $MigrationTalk_{i,t}$, quantifies the extent to which MPs engage with the designated topics within their parliamentary language, offering an objective metric for thematic emphasis.

Sentiment Measure: The sentiment score captures the emotional resonance and evaluative tone of parliamentary discussions on immigration by identifying the presence of relevant keywords within MPs' tokenized contributions. For each keyword, a snippet —spanning 10 words before and 10 words after each keyword— is extracted to capture the surrounding sentiment. Leveraging the `NLTK` library's sentiment analysis tools, which assign sentiment values to words, a compound sentiment score is calculated for each contribution, ranging from -1 (highly negative) to +1 (highly positive)[4]. This process aggregates scores across an MP's yearly contributions, normalizing by the number of speeches mentioning the keywords. The resulting metric, termed $MigrationSentiment_{i,t}$, reflecting an average sentiment score per relevant speech, quantitatively assesses the emotional and evaluative tone MPs adopt in their discourse on immigration.

Figure 8 illustrates the temporal trends of these measures across various parties. Panel A shows the frequency of mentions of "migration", while panel B shows the sentiment towards migration as measured by $MigrationSentiment_{i,t}$. As expected, the number of mentions of "migration"

[3]Keywords include terms such as 'migra*', 'asylum', 'minorit*', 'traveller', 'ethnic*', 'racial*', and 'gypsy'.
[4]I utilize the SentimentIntensityAnalyzer from the VADER tool in the Natural Language Toolkit (NLTK) package, which leverages a sentiment-annotated lexicon to assess word polarity (positive, negative, neutral) and emotional intensity in various contexts. VADER's analysis, informed by grammatical and syntactical rules, effectively interprets modifiers like intensifiers, diminishers, and negations, impacting sentiment scores. The analyzer outputs four metrics: 'neg' (negative), 'neu' (neutral), 'pos' (positive), and 'compound'—an overall sentiment score. I focus on the 'compound' score for a concise summary of textual sentiment orientation.



(a) $MigrationTalk_{i,t}$ **(b)** $MigrationSentiment_{i,t}$

Figure 8. *Notes:* This plot shows the average of $MigrationTalk_{i,t}$ and $MigrationSentiment_{i,t}$ over time by party. $MigrationTalk_{i,t}$ for firm i at time t is normalized using the average $MigrationTalk_{i,t}$ in the sample; $MigrationSentiment_{i,t}$ for firm i at time t is normalized using the average $MigrationSentiment_{i,t}$ in the sample.

has increased until 2019, but there does not appear to be a significant difference between different parties. More notable is the trend shown in panel B, which reveals that MPs had the most negative tone towards migrants right before the referendum. Interestingly, there is no significant difference among parties in terms of their sentiment towards migrants at this time.

While these two measures have the advantage of looking at immigration directly, they don't necessarily capture the potential larger shift in party rhetoric along the cultural dimension. The following metric aims to capture this broader potential shift.

Universalism Measure: To this end, I again use Enke (2020) framework, which uses a simple word count that is based on keywords found in the Moral Foundations Dictionary (MFD) on the US Congressional Record. The dictionary used categorizes words into four dimensions: harm/care, fairness/reciprocity, in-group/loyalty, and authority/respect, totaling 215 words or word stems. The index of relative universalism, proxied by the relative frequency of universal terminology, is calculated as follows:

$$Universalism_{i,t} = \frac{Care_{it} + Fairness_{it} - Ingroup_{it} - Authority_{it}}{N_{it}} \tag{12}$$

Here, each term in the numerator represents the total count of words belonging to each category and the denominator, and N_{it} is the total number of non-stop words. According to this framework, individuals with a universalistic outlook tend to apply their value system broadly, often championing progressive civil rights and immigration policies. Thus, a decline in universalism might reflect a trend among right-wing politicians towards more culturally conservative rhetoric or a diminished propensity among left-wing politicians for progressive advocacy. Using this measure, Figure 6 shows a polarising at the national level between major parties. However, for a more granular analysis, I construct this measure for each MP and year to examine whether regions with higher exposure to immigration exhibit a shift towards more conservative or communal rhetoric, especially by right-wing parties.

Although ideal data would encompass the local stances of all parties across all constituencies, using parlimentary speeches provides a proxy for the sentiment at the constituency level only for the party currently holding the seat. This approach is particularly constrained in contexts like the UK, where the First-Past-The-Post (FPTP) electoral system is used. FPTP's winner-takes-all nature and its encouragement of strategic voting tend to amplify the voice of major parties. This system can result in a representation gap, leaving the viewpoints of some segments of the electorate, especially those backing smaller parties, underrepresented in Parliament. Therefore, it's crucial to interpret the forthcoming analysis as indicative of the impact of immigration on the rhetoric and positioning of the incumbent MPs, rather than a comprehensive reflection of the entire political landscape within constituencies.

To investigate the potential for the supply side of politics to respond to the level of immigration exposure at the location level, I estimate the following specifications:

$$y_{i,t} = \alpha_i + \eta_{r,t} + \beta \Delta IM_{it} + \epsilon_{i,r,t} \tag{13}$$

where $y_{i,t}$ represents either $MigrationTalk_{i,t}$, $MigrantSentiment_{i,t}$, or $Universalism_{i,t}$ for constituency i in year t. The term $\eta_{r,t}$ controls for region-year shocks.

The findings are presented in Table 7. Coefficients are admittedly noisy. Focusing on 2SLS estimates, column one provides suggestive evidence that there's a positive impact of immigration on the frequency of immigration discussions by the region's MP, albeit not reaching statistical significance. This analysis was further refined by categorizing the sample according to the party affiliation of the MPs during the observed period. Notably, this effect appears more pronounced among Conservative MPs. Columns 5 to 8 look at the impact on $MigrantSentiment$. The analysis of $MigrantSentiment$ across columns 5 to 8 reveals that the sentiment coefficients are negative significant for Conservative MPs, while Labour MPs exhibit a positive coefficient, despite not reaching statistical significance. Collectively, these findings suggest areas with heightened exposure to immigration, Conservative MPs are observed to discuss immigration more frequently and tend to adopt a negative tone in their discourse. Conversely, the data does not indicate a similar trend among Labour MPs, suggesting a reluctance or inability to mobilize on immigration issues.

Table 7's last three columns offer tentative evidence suggesting a divergence in responses to immigration exposure based on party lines. Labour MPs in constituencies with higher levels of immigration exposure exhibit a slight shift towards universalistic rhetoric. On the other hand, Conservative MPs have not markedly altered their rhetoric while MPs from other parties have shown a tendency to adopt a less universalistic stance. The apparent responsiveness of smaller parties' MPs suggests that these are the most agile ones to go beyond party lines and capitalise on these shocks.

It is important to note that the results in this table may reflect changes in rhetoric within individual MPs over time or shifts in the composition of MPs. That is, immigration shocks may alter the electoral landscape, making it more likely for certain candidates, who are perhaps more responsive or attuned to immigration issues, to be elected. Second, incumbent MPs may adjust their rhetoric to align more closely with the prevailing sentiments on immigration within their constituencies.

This section, by focusing on political party responses, complements the insights from the prior section, offering a more nuanced understanding of immigration's multifaceted impact. The previous section showed that immigration affects public attitudes and preferences towards immigration and subsequently influences voting patterns in alignment with parties' stances on immigration. This section highlights that political entities recalibrate their messaging and rhetoric in response to immigration shocks. This dual interaction—public sentiment evolving in response to immigration and political entities adjusting accordingly—suggests a transformative shift in political cleavage, moving away from traditional dichotomies towards a new axis centred on cultural dimensions, notably immigration. The ensuing chapter is devoted to a direct empirical investigation of this hypothesis, aiming to validate the proposed paradigm shift in the political landscape.

6. Cultural Realignment

This section explores the dynamics and mechanisms driving the patterns of voter behavior and political responses observed, particularly the rise in support for right-wing parties amid anti-immigration sentiments. This phenomenon occurs despite the fact that those potentially economically disadvantaged by immigration do not directly benefit from the right-wing agenda of minimal redistribution and reduced social welfare. The evidence presented in this chapter suggests this puzzle can be explained by a pivotal shift: cultural alignment emerges as the primary cleavage, eclipsing traditional economic considerations in the voting calculus. This observation aligns with the theoretical concept of identity realignment as discussed in Bonomi *et al.* (2021), highlighting that economic incentives no longer encapsulate the main factors influencing political preferences. When electoral priorities change and cultural concerns predominate, the capacity and willingness of left-wing parties to adopt anti-immigration stances may find inherent limitations.

As already shown in Figure 2, concurrently with the rise of immigration in the UK there has been growing salience of immigration in public discourse, media, and politics. This chapter seeks to empirically validate the hypothesis that not only salience of immigration has increased but it has also led to a shift in how voters prioritize their political preferences. Specifically, it suggests that the visibility and frequent discussion of immigration may transform it into a critical point of political division as cultural considerations become more immediate and emotionally resonant. As a result, voters may begin to weigh cultural issues more heavily than economic policies, which could appear more abstract or distant. This dynamic suggests that immigration becomes a lens through which voters evaluate political parties and candidates, favoring those who reflect their cultural values.

First, I examine whether the heightened salience of immigration coincides with it evolving into a more contentious political cleavage issue. The shift in voters' disagreement over redistribution and culture and how these factors influence voting decisions is illuminated in Figure 9, which leverages data from the biennial European Social Survey (ESS) for the UK. Here, indices capturing the public's demand for redistribution and progressive cultural policies are constructed. The former is derived as the principal component from three questions related to public spending. Similarly, an index representing the demand for progressive cultural policies is formulated from

Table 7. Effects of Immigration on Parliamentary Speeches

	$MigrationTalk_{i,t}$				$MigrantSentiment_{i,t}$				$RelativeUniversalism_{i,t}$			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(5)	(6)	(7)	(8)
Panel A. OLS												
Immigration Shock	0.13	0.12	0.31	0.01	-0.29	-0.15	-0.57	-0.21	0.10	0.08	0.18	-0.55
	(0.09)	(0.15)	(0.14)	(0.17)	(0.10)	(0.14)	(0.19)	(0.26)	(0.08)	(0.14)	(0.12)	(0.23)
Panel B. 2SLS												
Immigration Shock	0.26	-0.17	0.89	0.53	-0.11	0.10	-0.85	0.86	0.01	0.21	0.07	-2.07
	(0.21)	(0.29)	(0.42)	(0.42)	(0.25)	(0.45)	(0.39)	(0.92)	(0.18)	(0.27)	(0.26)	(0.84)
Constituencies	All	Labour	Con.	Others	All	Labour	Con.	Others	All	Labour	Con.	Others
Observations	6171	2479	2709	979	4249	1566	1947	704	6171	2479	2709	979

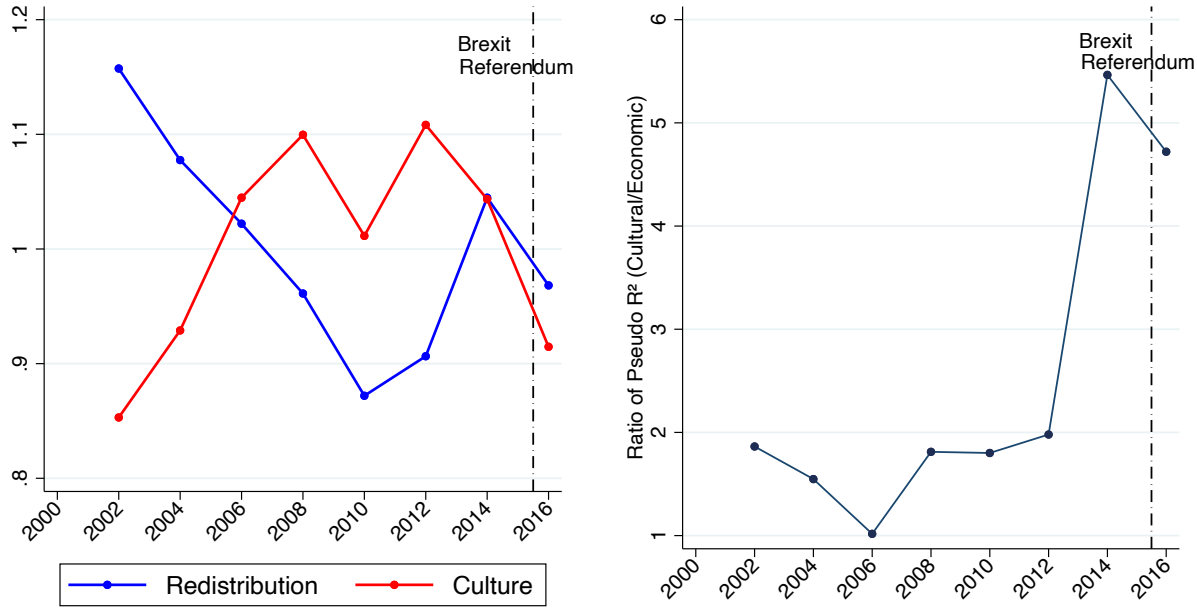
Notes: This table presents the impact of immigration on the respective sentiment measures. All dependent variables have been standardized. The regression includes controls for the share of the 2001 resident population lacking formal qualifications, the share of employees in routine occupations, and the shares of the working-age resident population employed in the manufacturing and retail sectors, interacted by year. Standard errors, adjusted for clustering at the constituency level, are provided in parentheses.

opinions on immigration. I adjust both indices by estimating their residuals, conditioned on respondents' party affiliations and interacting with wave fixed effects to account for the dynamic nature of political party stances. Panel A of the figure delineates the variance of these indices from 2002 to 2016, where the last point refers to post-Brexit referendum data. The data presents a striking trend: while disagreements on redistribution show a general decline, the contention surrounding cultural policies intensifies notably during this period. This shift is not isolated to the UK context but resonates with similar trends observed in the US, as documented by Bonomi *et al.* (2021). Panel B shows the predictive power of redistributive and cultural attitudes in explaining voting behaviour and further underscores this realignment, revealing the growing predominance of cultural issues in shaping voting patterns, a trend particularly pronounced around the Brexit referendum era. This evolving political landscape suggests a reshaping of the axes of political conflict, heralding a new era where cultural considerations increasingly dictate the electoral dynamics.

Building on the observation of increased cultural divisiveness and its growing role in voting dynamics, I explore voter realignment through cluster analysis, following the methodology outlined by Bonomi *et al.* (2021). Cluster analysis is a powerful approach for discerning shifts in voter alignment, particularly between cultural conflicts and economic dimensions. Utilizing the K-means algorithm, voters are classified into two distinct clusters within a bidimensional policy space that encompasses demands for progressive cultural policies and redistribution. As illustrated in Figure 10, a notable shift is observed in the 2015-14 period compared to 2002-2003. The primary distinctions between clusters have evolved, now more prominently based on cultural progressiveness versus conservatism, rather than pro- or anti-redistribution stances. This evidence supports the idea of voter realignment, indicating a transition in the political landscape where cultural issues, such as immigration, race, and national identity, increasingly influence political behavior, overshadowing traditional economic concerns like government spending and employment policies.

So far in this section, I have illustrated the shifts in political cleavages and a movement towards cultural clustering. The synchronicity of these shifts with the timing of immigration shocks suggests a causal relationship between immigration and political cleavages, which in turn causes the voting patterns discussed in earlier sections. To directly examine the existence of such a causal link, I utilize the cross-sectional variation in voter clustering. For this purpose, I turn to the British Election Study Internet Panel, initiated around the referendum period, which provides a broader sample size and finer geographical details for each respondent than the European Social Survey (ESS). Applying K-means clustering to individual local authorities enables an examination of whether immigration directly causes voter clustering around cultural issues. This is accomplished through Cluster Centroid Analysis, explained below.

Upon completing the K-means clustering in each local authority, I conduct a detailed examination of the centroids of the resulting clusters. A marked difference in centroids along the cultural dimension, coupled with minimal variance along the economic dimension, would suggest a primary influence of cultural factors. In contrast, if significant disparities are observed along the economic dimension, it would imply that economic factors are more influential. To quantify this distinction, I calculate the ratio of the differences in centroids along each axis. Specifically,



(a) Variance in Attitudes

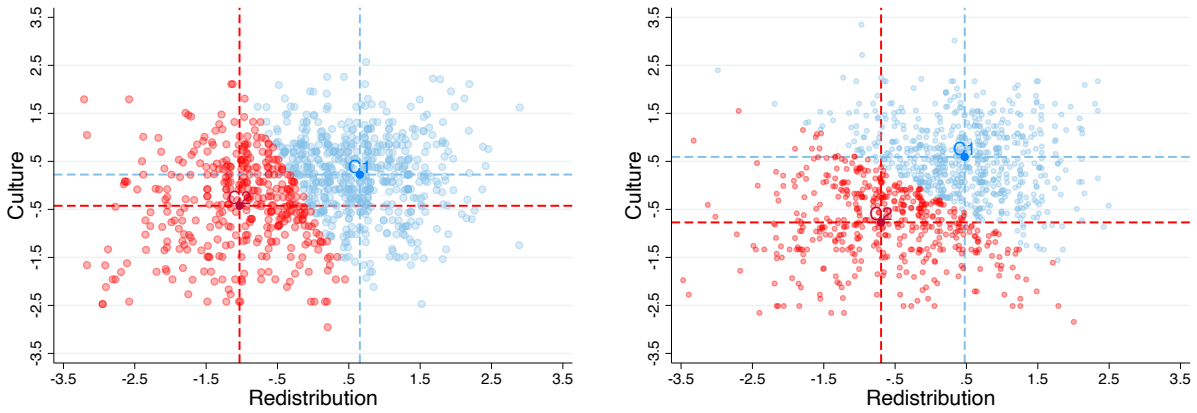
(b) Culture/Redistribution in Voting Predictions

Figure 9. *Notes:* Panel A displays the variances of 'Redistribution' and 'Culture' concepts derived respectively from three questions about redistribution preferences/public spending and three questions concerning immigration, with responses standardized. The first principal component for each concept, calculated using polychoric principal component analysis, reflects higher values for more liberal views. Both 'Redistribution' and 'Culture' are then residualized based on party identity, factoring in interactions with wave fixed effects from the European Social Survey (ESS). Across every survey wave, residuals have been standardized to achieve a mean of zero and a variance of one. Panel B illustrates the ratio of pseudo R-squared values. These values are obtained from separate multinomial logistic regressions, where party affiliation is regressed on 'Culture' and 'Redistribution' for each round of the ESS. This approach allows for an assessment of the relative explanatory power of cultural versus economic factors in predicting political party alignment across different periods covered in the ESS data.

I compute the following Culture-Redistribution Centroid Ratio (CRCR) measure for each local authority:

$$CRCR_i = \frac{C1_{i,culture} - C2_{i,culture}}{C1_{i,redist} - C2_{i,redist}} \tag{14}$$

In this formula, $C1$ represents the centroid of the cluster characterized by a stronger pro-redistribution stance. The subscript i refers to the specific local authority under analysis. This CRCR measure is then regressed against the immigration shock, with findings detailed in Table 8. While the results are somehow noisy in both OLS and 2SLS estimations, which is not surprising given the relatively small sample size in each local authority and resulting attenuation bias, they predominantly indicate that the immigration shock has led to a more pronounced realignment of voters along cultural



(a) 2002-3

(b) 20014-2015

Figure 10. *Notes:* This table illustrates UK respondents' attitudes towards cultural policies and redistribution for the years 2002–2003 (panel a) and 2014–2015 (panel b). The vertical axis represents cultural policy attitudes (with higher values indicating more open attitudes), while the horizontal axis reflects attitudes on redistribution (with higher values signifying a stronger preference for redistribution). These measures were derived by first extracting the principal polychoric component from two sets of questions, each addressing one of these political conflict dimensions. The principal component for cultural issues, labelled 'Culture', is based on questions regarding preferred immigration levels, abortion policy, and racial attitudes. The principal component for redistribution preferences, labelled 'Redistribution', is derived from questions about desired government spending levels and the government's role in ensuring citizens' employment and living standards. The residuals were then estimated after adjusting for respondents' party identity. Each marker in the graph represents an individual respondent. The colour coding differentiates respondents according to the two clusters identified using the K-means method, applied to the aforementioned residuals for both periods separately with initial group means estimated using Ward's method. C1 and C2 mark the centroids of each cluster. Data Source: European Social Survey (ESS).

lines, rather than redistribution lines. This trend persists even after adjusting for demographic variables and other industry shocks, suggesting a robust realignment of voter preferences along cultural lines in response to immigration.

This chapter's exploration sheds light on the nuanced influence of immigration on political cleavages and voter alignment, suggesting a gradual shift towards cultural considerations. The evidence points towards an emerging landscape where cultural factors outweigh economic factors in shaping voter decisions. In this evolving political context, not paying attention to the shift towards cultural issues in politics can lead to a range of adverse outcomes, from misreading the political landscape to exacerbating social divisions. Recognizing this shift is crucial for correctly interpreting electoral outcomes and the motivations behind voter behaviour.

Table 8. Immigration Impact on Cultural and Redistribution Divides

	Culture-Redistribution Centroid Ratio			
	(1)	(2)	(3)	(4)
Panel A. OLS				
Immigration Shock	0.551	0.461	0.828	0.944
	(0.548)	(0.574)	(0.994)	(1.080)
Panel B. 2SLS				
Immigration Shock	0.579	0.493	0.940	1.020
	(0.370)	(0.397)	(1.218)	(1.288)
R-Squared	.00493	.00279	.0201	.0268
Observations	314	314	314	312
Region Fixed Effects	No	Yes	Yes	Yes
Demographics	No	No	Yes	Yes
Initial composition of immigrants	No	No	No	Yes
Routine Jobs	No	No	No	Yes
Import Competition Exposure	No	No	No	Yes

Notes: This table presents the results of analyses using data from the British Election Study Internet Panel (BES), specifically waves 8 (2015) and 14 (2017). The dataset was prepared by merging individual records based on unique identifiers. Responses marked as 'Don't know' were treated as missing values. Principal Component Analysis (PCA) was employed to construct composite indices for cultural attitudes and preferences for redistribution. Cultural attitudes were derived from views on immigration, racial equality, gender equality, and gay rights, while preferences for redistribution were based on attitudes towards government spending and taxation, as well as left-right self-placement. In both indices, higher values indicate more liberal stances. These principal components were normalized and residualized against political party identification. For each local authority, a clustering exercise was conducted in a policy space defined by two dimensions: demand for progressive cultural policies and redistribution demand. This process began with Ward's method to determine initial centroids, followed by refinement using K-means clustering. The final step involved calculating the ratio of the distances between two clusters' centroids along the cultural dimension versus the redistribution dimension for each local authority. This ratio was then used as the dependent variable in our analysis. The outcome variable is winsorised at 1% and 99%. Standard errors are clustered at the governmental region level.

7. Conclusion

The increasing prevalence and political divisiveness of immigration in many Western countries coincide with a pivotal shift in political dynamics in these countries. Twentieth-century politics was largely shaped by economic divides, with the left advocating for workers and social welfare, and the right championing smaller government and the private sector. Contemporary politics, in contrast, pivots more on identity and cultural issues, with the left supporting various marginalized groups and the right focusing on protecting traditional national identity, often linked to race, ethnicity, or religion. This temporal juxtaposition raises a question: to what extent is immigration contributing to or influencing this profound political evolution?

To study this question, I began with an examination of how local exposure to immigration influences social attitudes and policy preferences, revealing a growing aversion towards immigration. Employing a novel research design, this study tapped into previously unexplored variations in immigration exposure, utilising migrant flows across industries and employment structures across regions. I instrument my measure using the industry-specific flow of migrants to other immigration destinations akin to the UK, i.e., pre-2004 EU countries. This approach uncovered immigration shock triggers a notable shift in political support, with individuals transitioning from the traditional left-leaning Labour Party towards the right-wing, anti-immigrant UK Independence Party (UKIP). Furthermore, this investigation extends to the domain of political rhetoric, highlighting an inclination among MPs from constituencies hit hard by immigration to discuss immigration issues negatively in their parliamentary speeches or to embrace a more localized discourse. Notably, such responses are markedly missing from Labour MPs, highlighting the complex, party-specific nature of reactions to the dynamics of immigration.

Bringing these findings into a comprehensive perspective, I provide some suggestive evidence that can explain observed dynamics by voter realignment, transitioning from economic considerations to cultural factors, driven by immigration. Notably, the salience of immigration has surged significantly among voters, political discourse, and media narratives. This heightened prominence of immigration-related topics is concurrent with an increasing disagreement surrounding cultural issues and with cultural factors taking centre stage as a pivotal force in shaping electoral choices. Moreover, it becomes evident that individuals tend to cluster along cultural dimensions as a response to immigration, thereby reshaping the political landscape away from traditional economic considerations.

However, this analysis is not without its limitations. The suggestive evidence on immigration's role in voter realignment, while illuminating, points to the need for further research to robustly establish causal links and grasp the full extent of this shift. Recognizing these limitations opens avenues for future inquiry into other potential shocks that might similarly influence political landscapes, such as economic downturns, technological changes, globalisation, and environmental crises. Exploring these areas can enhance our grasp of political and social dynamics, informing the creation of responsive and inclusive policies.

These findings carry significant implications for the lens through which we should perceive the political landscape in recent years. We need to account for these dynamic political cleavages in

both our theoretical and empirical analysis. Ignoring this evolution could result in a misreading of electoral outcomes, policies that fail to align with the public's needs, increased voter disenchantment, and potentially fueling the rise of populism and extremism.

In conclusion, this paper provides empirical insights that complement existing theoretical frameworks, underscoring the impact of shocks, such as immigration, on voter realignment from economic to cultural considerations. It provides an analysis of how immigration is reshaping the political landscape in the UK, underscoring the need for a more complex and multifaceted understanding of contemporary politics in the face of evolving cultural dynamics.

REFERENCES

ADAO, R., M. KOLESÁR, AND E. MORALES (2019): "Shift-share designs: Theory and inference," *The Quarterly Journal of Economics*, 134, 1949–2010. [*Cited on pages 14, 15, 22, 23, and 50.*]

ALESINA, A., A. MIANO, AND S. STANTCHEVA (2023): "Immigration and redistribution," *The Review of Economic Studies*, 90, 1–39. [*Cited on page 29.*]

ASHCROFT, M. (2016): "How the United Kingdom voted on Thursday… and why," *Lord Ashcroft Polls*, 24, 1–14. [*Cited on page 8.*]

AUTOR, D. H., D. DORN, AND G. H. HANSON (2013): "The China syndrome: Local labor market effects of import competition in the United States," *American Economic Review*, 103, 2121–68. [*Cited on pages 2 and 13.*]

BARONE, G., A. D'IGNAZIO, G. DE BLASIO, AND P. NATICCHIONI (2016): "Mr. Rossi, Mr. Hu and politics. The role of immigration in shaping natives' voting behavior," *Journal of Public Economics*, 136, 1–13. [*Cited on page 4.*]

BECKER, S. O., T. FETZER, AND D. NOVY (2017): "Who voted for Brexit? A comprehensive district-level analysis," *Economic Policy*, 32, 601–650. [*Cited on pages 4 and 9.*]

BECKER, S. O., T. FETZER, *et al.* (2016): "Does migration cause extreme voting?" *Center for Competitive Advantage in the Global Economy and The Economic & Social Research Council*, 1–54. [*Cited on page 4.*]

BESLEY, T. AND T. PERSSON (2019): "The Rise of Identity Politics," . [*Cited on page 5.*]

BHATIYA, A. Y. (2023): "Do Enfranchised Immigrants Affect Politicians' Behaviour?" *'Working Paper'*. [*Cited on page 5.*]

BONOMI, G., N. GENNAIOLI, AND G. TABELLINI (2021): "Identity, beliefs, and political conflict," *The Quarterly Journal of Economics*, 136, 2371–2411. [*Cited on pages 5, 29, 36, and 38.*]

BORUSYAK, K., P. HULL, AND X. JARAVEL (2022): "Quasi-experimental shift-share research designs," *The Review of Economic Studies*, 89, 181–213. [*Cited on pages 4, 13, 14, 15, 22, and 49.*]

COLANTONE, I. AND P. STANIG (2018): "Global competition and Brexit," *American political science review*, 112, 201–218. [*Cited on pages 4 and 9.*]

DANIELI, O., N. GIDRON, S. KIKUCHI, AND R. LEVY (2022): "Decomposing the Rise of the Populist Radical Right," *Available at SSRN 4255937*. [*Cited on page 5.*]

DUSTMANN, C., K. VASILJEVA, AND A. PIIL DAMM (2019): "Refugee migration and electoral outcomes," *The Review of Economic Studies*, 86, 2035–2091. [*Cited on page 2.*]

ENKE, B. (2020): "Moral values and voting," *Journal of Political Economy*, 128, 3679–3729. [*Cited on pages 3, 5, 31, 33, and 34.*]

GENNAIOLI, N. AND G. TABELLINI (2023): "Identity Politics," *Working Paper*. [*Cited on page 5.*]

GENTZKOW, M., B. KELLY, AND M. TADDY (2019): "Text as data," *Journal of Economic Literature*, 57, 535–74. [*Cited on page 5.*]

GOLDSMITH-PINKHAM, P., I. SORKIN, AND H. SWIFT (2020): "Bartik instruments: What, when, why, and how," *American Economic Review*, 110, 2586–2624. [*Cited on page 13.*]

GROSSMAN, G. M. AND E. HELPMAN (2021): "Identity politics and trade policy," *The Review of Economic Studies*, 88, 1101–1126. [*Cited on page 5.*]

HALLA, M., A. F. WAGNER, AND J. ZWEIMÜLLER (2017): "Immigration and voting for the far right," *Journal of the European Economic Association*, 15, 1341–1385. [*Cited on pages 2 and 4.*]

JAEGER, D. A., J. RUIST, AND J. STUHLER (2018): "Shift-share instruments and the impact of immigration," Tech. rep., National Bureau of Economic Research. [*Cited on pages 15 and 20.*]

MENDEZ, I. AND I. M. CUTILLAS (2014): "Has immigration affected Spanish presidential elections results?" *Journal of Population Economics*, 27, 135–171. [*Cited on page 4.*]

OTTO, A. H. AND M. F. STEINHARDT (2014): "Immigration and election outcomes—Evidence from city districts in Hamburg," *Regional Science and Urban Economics*, 45, 67–79. [*Cited on page 4.*]

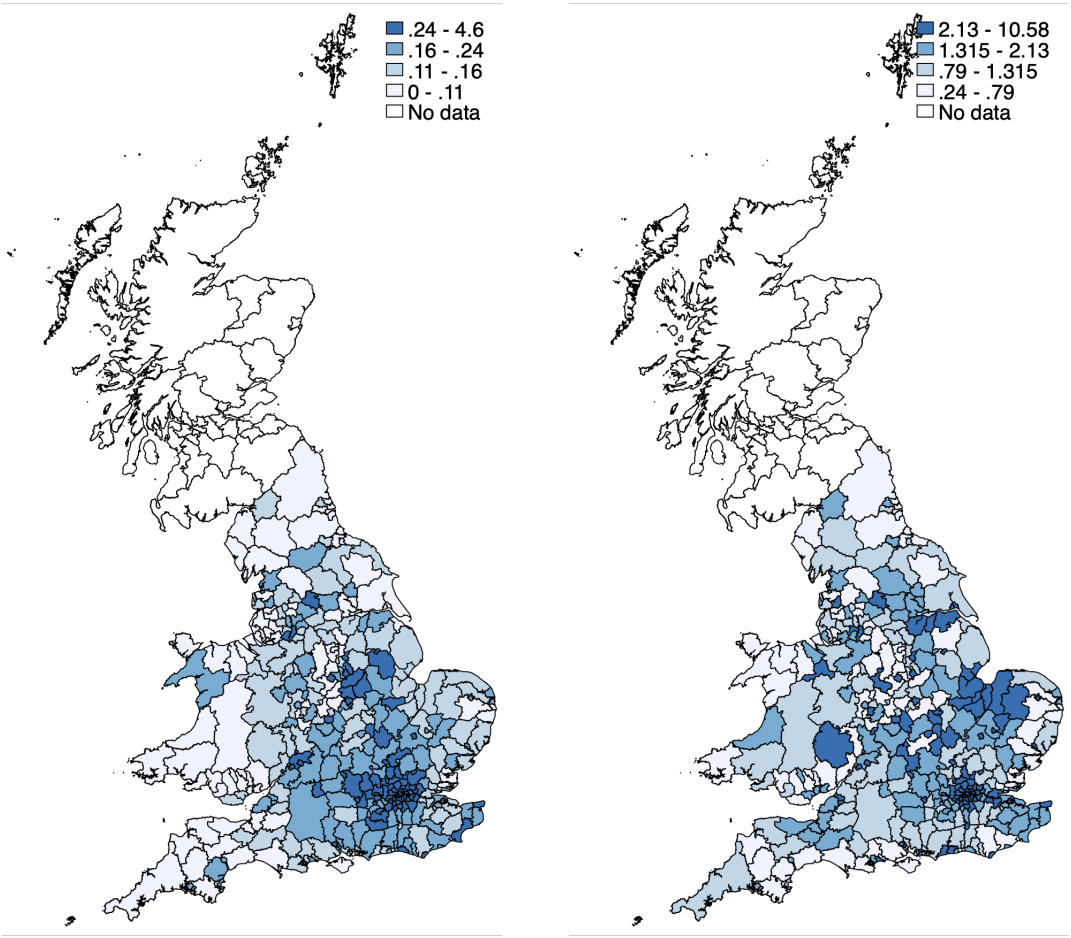
SHAYO, M. (2009): "A model of social identity with an application to political economy: Nation, class, and redistribution," *American Political science review*, 103, 147–174. [*Cited on page 5.*]

TABELLINI, M. (2020): "Gifts of the immigrants, woes of the natives: Lessons from the age of mass migration," *The Review of Economic Studies*, 87, 454–486. [*Cited on pages 2 and 3.*]

VISKANIC, M. (2017): "Fear and loathing on the campaign trail: did immigration cause Brexit?" *Available at SSRN 2941611*. [*Cited on page 4.*]

WILKERSON, J. AND A. CASAS (2017): "Large-scale computerized text analysis in political science: Opportunities and challenges," *Annual Review of Political Science*, 20, 529–544. [*Cited on page 5.*]

Appendix A. Graphs



(a) 2001 **(b)** 2010

Figure A.1. *Notes:* This map displays the spatial distribution of immigrants from the New Member States (NMS) in 2001 (left panel) and 2010 (right panel) as a share of the total population in England and Wales. The data used for this visualization is derived from the 2001 and 2011 census, which quantifies the resident population in each local authority area according to the country of birth.

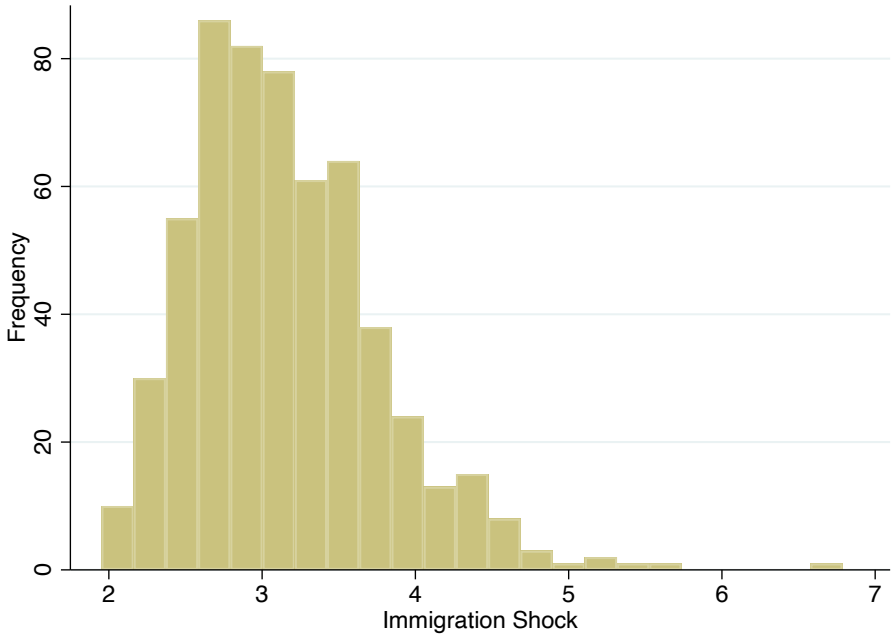
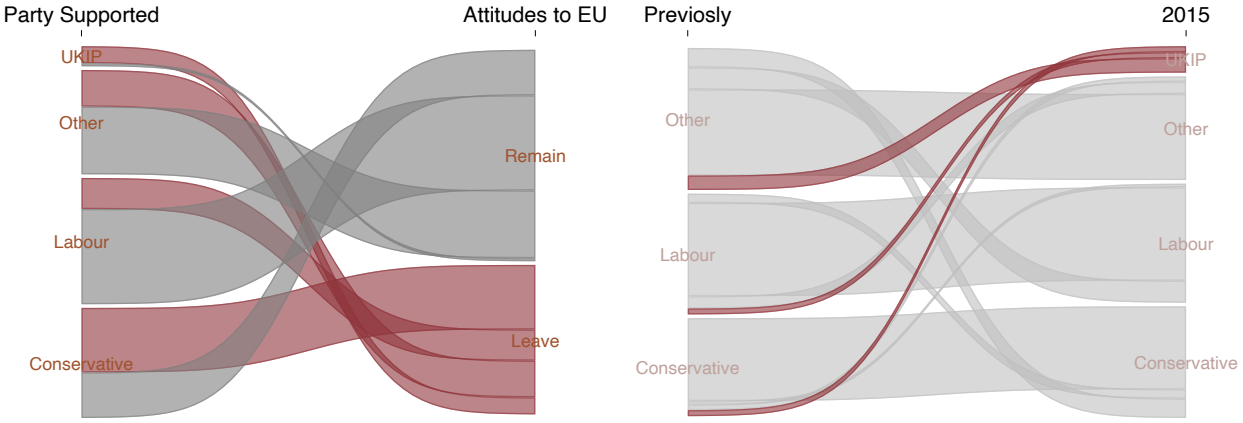


Figure A.2. *Notes:* This graph shows the distribution of immigration shock in 2016 across constituencies in the UK. The immigration shock is a measure of the impact of immigration on each constituency, with higher values indicating a greater impact, as defined in equation 1.



(a) Attitude toward EU and Party Support

(b) Party Support transition

Figure A.3. *Notes:* This graph shows the transition of voters over time. Panel A is a Sankey diagram showing the supported party of those who prefer either leaving or remaining in the UK, based on their attitudes toward the EU. The attitude to EU variable is constructed using answers to several questions. Panel B displays how respondents moved between parties from 2015. Each respondent is matched to the last party they supported, with UKIP supporters matched to their previous non-UKIP party.

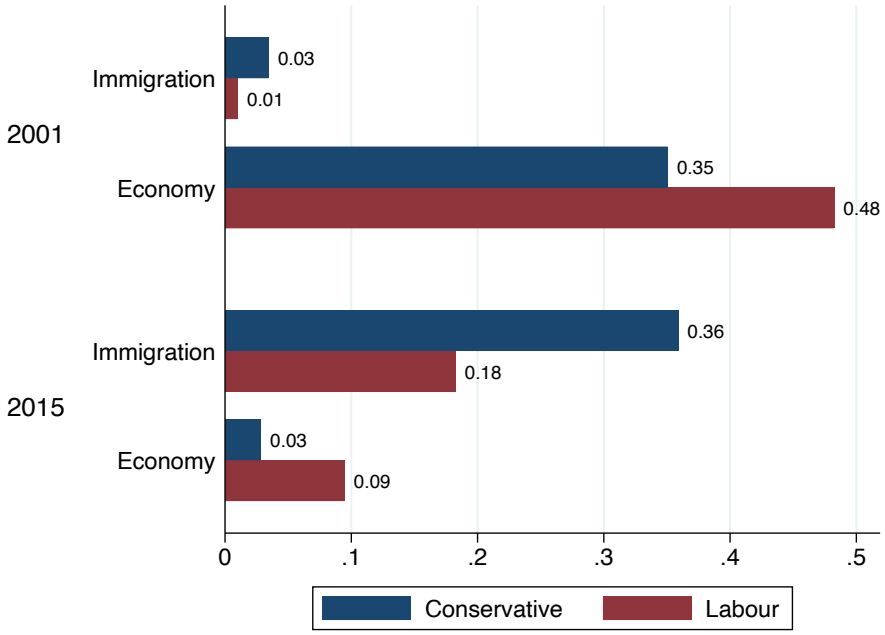


Figure A.4. *Notes:* This graph depicts the proportion of individuals identifying either economic factors or immigration as the Most Important Issue (MII), segmented by party support and year. The 2001 data stems from the BES Panel's post-election aggregation, while the 2015 data is sourced from the BES Internet Panel (Wave 8). In this context, 'Immigration' represents the fraction of respondents who consider immigration/asylum the most pressing issue facing the country, whereas 'Economy' aggregates the shares of individuals prioritizing health (NHS), education, or taxation.

Table A.1. Shock Distribution

	Over years	In 2016
Mean	.02	.047
Standard deviation	.038	.067
Interquartile range	.026	.048
Effective sample size (1/HHI)	389	24
Largest average exposure	.0068	.11
Number of shocks	1344	84

Notes: This table presents distributional statistics of the shift-share instrument, constructed based on migration from NMS to EU10 countries. Statistics are weighted by average industry exposure shares and are based on employment share at the start of the period. Column 1 includes all shocks over time, while Column 2 only includes shocks in 2016. Effective sample size (inverse renormalized Herfindahl index of exposure weights, as suggested by Borusyak *et al.* (2022)), is also reported.

Table A.2. Revised Analysis of Table 2 with Alternative Inference Approaches

	UKIP Vote Share Change		
	European 2014-2004	General 2015-2005	Local (2012-15)-(2000-3)
	(1)	(2)	(3)
Current Immigration Shock	2.045	2.919	3.032
	(0.612)	(0.394)	(0.941)
Alternative Standard Errors:			
Robust	0.587	0.407	0.806
Adao et al (2019)	0.917	0.956	1.085
Wild cluster bootstrap	0.612	0.394	0.941
Estimator	IV	IV	IV
Region FE	Yes	Yes	Yes
Observations	347	573	346
Outcome mean	12.68	12.69	12.91
Adj. R^2	0.0415	0.0404	0.0506
F-statistic	77.92	260.9	75.30

Notes: This table presents a re-estimation of Table 2, employing various inference methods in addition to the conventional approach of clustered standard errors, which are denoted in parentheses. It includes robust standard errors, standard errors clustered at the regional level—with adjustments for potential biases arising from a limited number of clusters via the wild-cluster bootstrap method—and adjusted standard errors for shift-share designs as suggested by Adao *et al.* (2019).

Table A.3. Effects of Immigration on the Electoral Performance of Labour and Conservative

	European Elections		Local Elections		General Elections	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Labour Party						
Immigration Shock	-3.210	-2.009	-2.982	-2.353	-2.817	-2.694
	(0.638)	(0.487)	(0.920)	(0.709)	(0.554)	(0.442)
Panel B. Conservatives Party						
Immigration Shock	0.060	0.006	1.594	0.354	0.561	0.285
	(0.382)	(0.328)	(0.937)	(0.676)	(0.453)	(0.351)
Method	2SLS	OLS	2SLS	OLS	2SLS	OLS
LA/Constituency FE	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1041	1041	3263	3263	2283	2283

Notes: This table analyzes the effects of immigration on the electoral performance of the Labour and Conservative parties across European, local, and general elections. The analysis is structured into two panels: Panel A focuses on the Labour Party, while Panel B is dedicated to the Conservative Party. For each party, the table presents both Ordinary Least Squares (OLS) and Two-Stage Least Squares (2SLS). The analysis is conducted using data from local authorities and constituencies, excluding Scotland. Standard errors, adjusted for clustering at the local authority or constituency level, are shown in parentheses.

Table A.4. Individual-level Pre-trend Analysis

	(1) UK membership of EU a bad thing	(2) UK benefited from being in EU	(3) UK longterm policy wr. EU	(4) EURO currency
OLS Estimates:				
2016 Imm. Shock	0.004	0.027	0.004	0.009
	(0.008)	(0.009)	(0.007)	(0.015)
2SLS Estimates:				
2016 Imm. Shock	0.013	0.042	0.007	0.011
	(0.010)	(0.011)	(0.009)	(0.016)
Observations	19,113	21,585	17,796	13,990

Notes: This table presents the results of a pre-trend analysis examining the relationship of immigration and historical individual attitudes towards various aspects of the UK's relationship with the EU before the Brexit referendum. The analysis uses questions from previous waves of the survey to construct outcome variables related to UK membership, benefits of being in the EU, long-term policy towards the EU, and opinions on the EURO currency. It employs both Ordinary Least Squares (OLS) and Two-Stage Least Squares (2SLS) methods. All regressions include region-wave-time fixed effects and control for individual qualification, age, economic activity statute, income decile and employment sector. Data are from surveys conducted in 1999, 2000, 2001, and 2002. Standard errors, adjusted for clustering at the local authority or constituency level, are shown in parentheses.

CENTRE FOR ECONOMIC PERFORMANCE
Recent Discussion Papers

1982	Ekaterina Oparina Christian Krekel Sorawoot Srisuma	Talking therapy: Impacts of a nationwide mental health service in England
1981	Xiao Chen Hanwei Huang Jiandong Ju Ruoyan Sun Jialiang Zhang	Endogenous mobility in pandemics: Theory and evidence from the United States
1980	Alan Manning Graham Mazeine	Should I stay or should I go? Return migration from the United States
1979	Rosa Sanchis-Guarner José Montalbán Felix Weinhardt	Home broadband and human capital formation
1978	Luca Macedoni John Morrow Vladimir Tyazhelnikov	Firms in product space: Adoption, growth and competition
1977	Gonzalo Nunez-Chaim Henry G. Overman Capucine Riom	Does subsidising business advice improve firm performance? Evidence from a large RCT
1976	Julian Alves Bruno Serra Jason Greenberg Yaxin Guo Ravija Harjai John Van Reenen	Labour market power: New evidence on Non-Compete Agreements and the effects of M&A in the UK
1975	Virginia Minni	Global managers, local workers: Wage setting inside a multinational firm
1974	Jonathan Colmer Suvy Qin John Voorheis Reed Walker	The changing nature of pollution, income and environmental inequality in the United States

1973	Italo Colantone Gianmarco I.P. Ottaviano Piero Stanig	The social footprint of globalization: Towards the introduction of strategic industries in quantitative trade models
1972	Viet Nguyen-Tien Robert J.R. Elliott Eric Strobl Chengyu Zhang	Estimating the longevity of electric vehicles: What do 300 million MOT test results tell us?
1971	Michael Amior Jan Stuhler	Immigration, monopsony and the distribution of firm pay
1970	Jonathan Colmer David Lagakos Martin Shu	Is the electricity sector a weak link in development?
1969	Gaia Dossi Marta Morando	Political ideology and innovation
1968	Natalie Irmert Jan Bietenbeck Linn Mattisson Felix Weinhardt	Autonomous schools, achievement and segregation
1967	Stephen B. Billings Adam Soliman	The erosion of homeownership and minority wealth
1966	Pawel Bukowski Pawel Chrostek Filip Novokmet Marek Skawiński	Income inequality in the 21st century Poland
1965	Benny Kleinman Ernest Liu Stephen J. Redding Motohiro Yogo	Neoclassical growth in an interdependent world
1964	Hanwei Huang Gianmarco I.P. Ottaviano	Rethinking revealed comparative advantage with micro and macro data