Immigration and Political Realignment

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ABSTRACT. This paper examines how immigration reshapes political landscapes, centering 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 and regional employment structures, and address endogeneity concerns with a novel shift-share IV design that utilizes 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. This realignment is not attributable to economic factors like job competition or wage suppression; rather, it is driven by evolving social attitudes toward immigration. Moreover, political parties, particularly Conservatives, are 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.

Key words: Immigration, Political Realignment, Industry-specific migration, EU Enlargement **JEL codes**: J15, D72, F22, J61, P16.

London School of Economics, Department of Economics. m.shamsi@lse.ac.uk, javadshamsi.com 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 39th meeting of the European Economic Association, 2nd Junior Workshop on the Economics of Migration, Third University of Milan Junior Economists Meeting, and Political Economy, Development, and Labour seminars at LSE, the seminar at TeIAS, and the Pol-Econ seminar at Princeton for their insightful feedback and enriching discussions. I also thank Torsten Persson, Gharad Bryan, Guido Tabellini, Ellora Derenoncourt, Leah Boustan, Seema Jayachandran, Sergei Guriev, Stephane Wolton, Kaveh Majlesi, Jake Fazzio, Nicola Gennaioli, Sascha Becker, 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.

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 rightwing, 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 leftwing rivals, presents a puzzle. Immigrant competition for jobs and potential wage suppression predominantly happens among the unskilled labour sector—a demographic traditionally inclined toward left-wing ideologies. Parties on the left, with their agendas centred 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 toward anti-immigration stances and sways voters toward 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. The findings do not indicate significant negative effects on wages or undue strain on the welfare state attributable to immigration. Rather, 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 toward 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 specializing 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 toward 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 third part of the paper explores various potential mechanisms behind these trends, distinguishing between economic and cultural factors. The labor market analysis shows that immigration boosts economic activity and lowers unemployment without notably affecting wages, except for a modest impact at the lower end of the wage distribution. Additionally, I observe that immigrants reduce the pressure on the welfare system, contradicting claims that they burden the system. Despite these economic benefits, the evidence points to cultural dynamics as the primary drivers behind the observed shift in voting behavior. Specifically, in response to immigration, voters become more socially conservative and particularly more anti-immigrant in their attitudes and tend to vote based on factors other than the traditional left-right class dimension.

In the fourth part of the paper, I present evidence of an analogous shift on the political supply side. Using several techniques from natural language processing, I show that in their political speeches, UK parties have increasingly focused on immigration, often portraying it negatively. 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 identitydriven 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. Mayda *et al.* (2022) identified a similar trend with low-skilled immigration to the United States from 1990 to 2016. Analogous results emerge in European contexts, including Austria (Halla *et al.*, 2017; Steinmayr, 2021), Italy (Barone *et al.*, 2016), Spain (Mendez and Cutillas, 2014), and Germany (Otto and Steinhardt, 2014). 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 measure 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 patterns¹. 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. 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.

¹According 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 timevarying 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.

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 behavior. 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. Moreover, this paper intersects with adjacent literature exemplified by Carreras *et al.* (2019), which explores the cultural and economic divisions underlying Brexit. Unlike related works that primarily use correlational analysis, this research employs causal inference to more accurately assess these dynamics.

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 toward 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). While previous research has applied computational methods from natural language processing to trace the portrayal of immigration in

parliamentary discussions (Nguyen *et al.*, 2015; Card *et al.*, 2022), these studies have not explored how political parties causally respond to local immigration shocks. 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 voting patterns at both aggregate and individual levels. Section 5 explores the underlying mechanisms of this impact, suggesting a cultural rather than economic influence, as immigration appears not to detrimentally affect the economy yet significantly alters cultural attitudes. Section 6 scrutinizes the political supply side, utilizing natural language processing to assess political reactions to immigration surges. In Section 7, 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 8 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 labor. 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,



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.

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 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 rightwing 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 toward globalization 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 toward 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.



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.

The LFS is a large, nationally representative sample survey that is widely used to produce official statistics on the UK labor 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 toward 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.

Labor market analyses rely on the Annual Population Survey (APS) for regional unemployment and economic activity rates, alongside the Annual Survey of Hours and Earnings (ASHE) for detailed hourly wage data across wage distribution quantiles, broken down by local authority of residence.

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

²Data prior to 2006 are reported using the SIC 1992 classification, while data from 2006 onwards use the SIC 2007 classification. 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.

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 labor 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 flow 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, comparing year t to 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 toward 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 nationallevel 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 net change in immigration (i.e., the net flow) 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, $IM_{i,t}^O$, 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:

$$\Delta I M_{it}^O = \sum_k \frac{L_{ik}}{L_i} \frac{\Delta I S_{k,t}^O}{L_k} \tag{2}$$

where $\Delta IS_{k,t}^O$ 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. These nations imposed no or relatively mild restrictions on NMS migrants compared to Belgium, Denmark, Austria, and Germany, which are excluded.³ 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.

³Moreover, Germany's data at the 2-digit industry level is unavailable in the EU-LFS for the study period.



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.

The identification of shift-share instruments hinges on the exogeneity of either the shocks, the shares, or both. Conventional shift-share instruments in immigration literature, using presettlements 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:

$$\left(\frac{1}{I}\sum_{i}\Delta IM_{i}^{O}\epsilon_{i}\xrightarrow{p}0\right)\iff\left(\frac{1}{K}\sum_{k}\hat{s_{k}}\frac{\Delta IS_{k}^{O}}{L_{k}}\bar{\epsilon_{k}}\xrightarrow{p}0\right)$$
(3)

where $\hat{s}_k = \frac{1}{I} \sum_i s_{ik}$ and $\bar{\epsilon}_k = (\sum_i s_{ik} \epsilon_i) / \sum_i s_{ik}$. 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), $1/\sum_{n,t} s_{nt}^2$, 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 identicallydistributed (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 labor 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 shiftshare 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 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 that 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 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



(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.

by some underlying, long-term factor that impacts both immigration and anti-EU sentiment. In the following chapter, I will delve into the mechanisms driving this political realignment.

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:

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

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, $\Delta I M_{it}$, is instrumented using the variable $I M_{it}^O$, 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 occurred 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.

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

$$(5)$$

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:

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

$$\tag{6}$$

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,



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.

	(1) European elections	(2) Local Elections	(3) General Elections
Panel A. OLS			
Immigration Shock	1.636 (0.464)	1.279 (0.520)	2.181 (0.297)
Avg effect in the last election Standard deviation	5.238 .9922	4.097 .7760	6.874 1.349
Mean of dependent variable	22.3	4.49	6.03
Panel B. 2SLS			
Immigration Shock	1.407 (0.555)	0.992 (0.779)	2.293 (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

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

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.

the level of immigration exposure and its change from 2004 would essentially be the same. The model estimated is as follows:

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

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 councilors every 4 years, while others elect half of their councilors every 2 years, and

some elect one-third of their councilors 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.

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

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

Table 2. First Difference Estimation

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.

parties the most. This is because these parties traditionally focus on class struggle, advocating for the working class against the capitalist elite. A shift toward 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 toward immigration. To unravel the extent to which immigration shock contributed to the Leave campaign's success, the following baseline specification is employed:

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

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 supplydriven force that is largely unrelated to other industry shocks. Interestingly, this specification does not find a relationship between exposure to Chinese import competition and support for the leave campaign, which is in contrast to some previous studies that have suggested a link between these factors.

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:

$$LeaveShare = \sum_{i} E_i (L_i - \beta \widetilde{IS}_{i,2016})$$
(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 toward 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 toward Leave, validating using UKIP as a proxy for anti-EU 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:

		Leave vote					
	(1)	(2)	(3)	(4)	(5)		
Panel A. OLS							
Immigration Shock	7.074 (1.969)	5.126 (1.217)	2.645 (0.908)	1.881 (0.805)	0.447 (0.250)		
Panel B. 2SLS							
Immigration Shock	7.401 (2.393)	4.780 (1.201)	2.959 (0.721)	2.134 (0.618)	0.691 (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		

Table 3. Effects of Immigration on Brexit Referendum

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 the 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.

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

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

	(1)	(2)	(3)	(4)	(5)			
	Support for UKIP							
OLS Estimates:								
Immigration Shock	0.026 (0.006)	0.025 (0.006)	0.016 (0.005)	0.015 (0.005)	0.023 (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			

Table 4. Individual-level Analysis

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.

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 toward 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

	Suppor	e 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

Table 5. Individual-level Analysis (II)

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.

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. The observed impact of exposure to immigration on the shift toward right-wing, anti-immigration parties and supporting the Leave vote in the referendum can be due to several reasons. The upcoming analysis in section 5 will first demonstrate that neither labor market dynamics nor pressure on the welfare system fully explains this shift. It will then examine how this trend may reflect a shift in voters' attitudes toward immigration. In Section 7, the discussion broadens to reveal a more comprehensive transformation: cultural alignment is identified as the dominant divide in response to immigration, overshadowing traditional economic factors in the electoral decision-making process. This observation underscores that economic incentives are no longer the predominant determinants of political leanings.

5. UNVEILING THE UNDERLYING MECHANISMS

This section explores the mechanisms behind the observed relationship between immigration and UKIP support. There are several potential drivers of this pattern. For instance, the observed notable rise in the salience of immigration issues leading up to the referendum (Figure 2) alone could account for the voter shift toward UKIP. Such an increase in the salience of a cultural issue can elicit a heterogeneous response among the electorate by amplifying the importance of cultural considerations and thereby motivating a segment of voters with socially conservative inclinations to prioritize the cultural issues in their identity and voting behavior. This channel is conceptualized in detail in Bonomi *et al.* (2021).

While the increase in immigration's salience serves as a plausible explanation for the shift, it is imperative to probe into other potential mechanisms that might also contribute to this trend. To this end, I differentiate between economic and cultural factors, while acknowledging their potential interplay. Economically, immigration is usually recognized for its overall positive contributions to the economy (Dustmann and Preston, 2019). However, beneath the surface of these aggregate benefits, specific concerns arise regarding job competition and wage pressures, particularly at the low end of the income distribution. On the cultural front, immigration introduces a broad spectrum of societal changes through the arrival of individuals from varied cultural, racial, religious, linguistic, and social backgrounds. This influx of diversity, while enriching in many respects, also poses challenges to societal cohesion and integration. Following the frameworks of Dustmann and Preston (2007) and Alesina and Tabellini (2024), this paper concentrates on three main areas: the labor market repercussions, the impact on the welfare system, and the hurdles to cultural integration.

The analysis reveals that neither labor market dynamics nor welfare system pressures fully account for this political shift. Instead, 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 toward authoritarianism.

5.1. **Labour Market Impact.** A primary concern regarding immigration is its potential effect on the native labor market, particularly through job competition. This could lead to the displacement of native workers from the labor market (the extensive margin) or downward pressure on wages

(the intensive margin). To assess the impact of immigration on the labor market, I first examine the extensive margin by analyzing its effects on economic activity and the unemployment rate. Local labor markets within the UK are interconnected due to internal migration, capital flows, and trade. Consequently, our estimates should be interpreted as indicators of relative regional improvement or decline. Using data from the Annual Population Survey spanning 2000 to 2016 at the local authority level, I estimate these impacts using equation 4. Results are reported in table 6. The findings in column 1 suggest a potential increase in the economic activity rate across both OLS and 2SLS estimations. Further analysis in columns 2 and 3 reveals that this increase is largely driven by men. Additionally, I observe a reduction in unemployment (column 4), which holds for both females and males, with a stronger effect for males (columns 5 and 6). Notably, when examining individuals aged 50 and older in column 7, a demographic that largely supported Brexit, I find no evidence of increased unemployment. The magnitudes of these effects are significant: immigration appears to decrease the average unemployment rate—initially observed at 5.51% across local authorities during the study period—by roughly 0.9%, as derived from 2SLS estimates in column 4. Additionally, immigration increases the economic activity rate, which averaged 78% across local authorities, by approximately 0.8%, according to the 2SLS estimates presented in column 1.

To investigate the intensive margin, I analyze the impact of immigration on hourly wages using data from the Annual Surveys of Hours and Earnings for each local authority from 2000 to 2016. Results are reported in table 7. While based on column 1 the overall effect on wages appears negligible, there is some evidence that those at the lower end of the income distribution, particularly the 25th percentile reported in column 5, might experience a slight negative wage impact due to immigration. This finding broadly aligns with previous research by Dustmann *et al.* (2013) and Becker and Fetzer (2018), which indicates that immigration can depress wages at the lower end of the distribution while slightly increasing them at the upper end. However, the magnitude of this impact appears minimal, with the strongest effect observed at the 25th percentile of the wage distribution, where wages might decrease by an average of 0.9% due to immigration. Considering that immigration was shown to boost economic activity and reduce unemployment, it seems unlikely that this slight wage pressure can be the main driver behind increasing opposition to immigration. These findings are consistent when examining annual wages, as shown in Table A.5.

A potential concern is that immigration can alter the demographic composition of a population, potentially leading to differing impacts across various groups. For example, the positive impact in the local labor market might accrue to the immigrant population themselves and might not extend equally to natives. Conversely, if immigrants largely complement native workers rather than directly competing with them, the positive effects of immigration on native unemployment could be greater, and the potential negative wage impacts could be significantly reduced. Unfortunately, the available data does not permit a precise distinction between the effects on native British individuals. However, the scale of immigration is likely not large enough to significantly alter the composition of unemployment or economic activity rates across different groups.

	Ecor	Economic Activity			Unemployment Rate				
	(1) All	(2) Male	(3) Female	(4) All	(5) Male	(6) Female	(7) 50 and Older		
Panel A. OLS									
Immigration Shock	0.363	0.324	0.175	-0.106	0.058	0.163	0.343		
	(0.248)	(0.312)	(0.272)	(0.125)	(0.186)	(0.223)	(0.210)		
Average effect	.443	.396	.213	12	.070	.199	.419		
Panel B. 2SLS									
Immigration Shock	0.699	1.009	-0.005	-0.770	-0.691	-0.454	-0.185		
-	(0.387)	(0.479)	(0.400)	(0.223)	(0.307)	(0.290)	(0.325)		
F-stat	219	216	215	204	241	274	212		
Average effect	.854	1.23	00	94	84	55	22		
Mean of DV	78.3	83.9	72.9	5.51	6.47	5.91	4.54		
	Vaa	Vaa	Vaa	Vaa	Vaa	Vaa	Vac		
LA FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Region-Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Spatial units	346	345	346	316	347	347	347		
Observations	6592	6587	6582	5891	4888	4628	3272		

 Table 6. Effects of Immigration on the Employment

Notes: This table presents the estimated impacts of immigration shocks on the economic activity rate and unemployment rate using Annual Population Survey data. Some data points are excluded due to the Office of National Statistics determining insufficient precision in the statistics. The term "F-stat" refers to the Kleibergen-Paap rk Wald F-statistic, which is used to test for weak instruments. The table presents robust standard errors, which are clustered by local authority, in parentheses.

5.2. **Pressure on the Welfare System.** During the Brexit campaign, arguments that immigrants place undue strain on the welfare system were common. This sentiment is reflected in survey evidence, such as the 2014 European Social Survey, which indicated that 43% of British respondents believed immigrants take out more than they contribute to health, welfare, and taxation, compared to only 31% who believed the opposite. This perception stands in contrast to the findings of Dustmann and Frattini (2014), who demonstrated that immigrant groups arriving after 1999 have made positive fiscal contributions. Specifically, they calculated that recent immigrants from EU accession countries contributed nearly £5 billion between 2001 and 2011.

I explore how the immigration shock affected the number of claimants for major benefit types in each local authority. Using the log of the number of claimants as the dependent variable from the Work and Pensions Longitudinal Study (2000-2016), I estimate equation 4. Results, reported in Table 8, suggest that local authorities experiencing higher levels of immigration witnessed a decline

log(Hourly Pay):	(1)	(2)	(3)	(4)	(5)	(7)
	Avg	90th Pct	75th Pct	Med	25th Pct	10th Pct
Panel A. OLS						
Immigration Shock	-0.006	0.008	-0.010	-0.007	-0.008	-0.003
	(0.003)	(0.009)	(0.003)	(0.003)	(0.003)	(0.002)
Average effect	62%	.847%	-1.0%	78%	89%	28%
Standard deviation	.710	.957	1.19	.886	1.00	.326
Panel B. 2SLS						
Immigration Shock	-0.000	0.017	-0.007	-0.007	-0.008	0.001
	(0.005)	(0.015)	(0.005)	(0.005)	(0.004)	(0.002)
F-stat	220	101	205	216	216	213
Average effect	03%	1.85%	74%	74%	89%	.152%
Standard deviation Pre-log mean of DV	.0370 .041 15.0	2.09 22.8	.844 17.6	.839 11.8	1.01 8.46	.172 6.99
LA FE	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Spatial units	348	327	344	348	347	346
Observations	7427	1615	7216	7428	7427	7411

Table 7. Effects of Immigration on the Wage Distribution

Notes: This table presents the estimated impacts of immigration shocks on wage distribution, with the dependent variable being the log of hourly wages at the mean and also various percentiles within the earnings distribution of a local authority, as derived from the Annual Survey of Hours and Earnings. Some data points are excluded due to the Office of National Statistics determining insufficient precision in the statistics. The term "F-stat" refers to the Kleibergen-Paap rk Wald F-statistic, which is used to test for weak instruments. The table presents robust standard errors, which are clustered by local authority, in parentheses.

in demand for most benefits. This aligns with the idea that immigration can stimulate economic growth, create jobs, and reduce long-term reliance on social benefits. Specifically, consistent with previous labor market findings, EU accession immigrants may alleviate labor shortages in critical sectors, boosting the local economy and generating employment opportunities. These immigrants often possess skills that complement the native workforce, increasing productivity and promoting economic growth, this will cause a lower dependence on welfare benefits. Additionally, as NMS immigrants tend to be younger with fewer dependents, their initial demand for social support services like income support and incapacity benefits is typically lower. An exception is observed with the Job Seeker's Allowance, where immigration appears to increase the number of claimants.

log(Benefit Type):	(1) All	(2) Carers Allow.	(3) Disab. Living	(4) Incap. Benefit	(5) Income Support	(6) Job Seeker
Panel A. OLS						
Imm. Shock	0.002 (0.009)	-0.002 (0.013)	-0.024 (0.013)	-0.083 (0.024)	0.045 (0.011)	-0.008 (0.022)
Average effect Standard deviation	.330% .294	23% .206	-3.2% 2.93	-11.% 10.1	6.11% 5.45	-1.0% .938
D 1 D 2010						
Panel B. 2SLS						
Imm. Shock	-0.033 (0.028)	-0.031 (0.017)	-0.034 (0.017)	-0.215 (0.044)	0.061 (0.018)	-0.078 (0.033)
F-stat	38.4	221	61.2	38.4	221	56
Average effect	-4.5%	-4.1%	-4.6%	-29.%	8.34%	-10.%
Standard deviation	4.04	3.74	4.17	26.1	7.45	9.51
Pre-log mean of DV	1389	819.	939.	2600	1911	2467
LA FE	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Spatial units	348	348	348	348	348	348
Observations	5916	5905	5213	5916	5901	5914

Table 8. Effects of Immigration on the Welfare

Notes: This table presents the estimated impacts of immigration shocks on various types of welfare benefits using data from the Work and Pensions Longitudinal Study (WPLS). The analysis examines the log of the annual count of benefit claims, as recorded by the Office for National Statistics (ONS). Some data points are excluded due to the Office of National Statistics determining insufficient precision in the statistics. The term "F-stat" refers to the Kleibergen-Paap rk Wald F-statistic, which is used to test for weak instruments. The table presents robust standard errors, which are clustered by local authority, in parentheses.

This could be due to the initial employment hurdles immigrants face, such as language barriers, unrecognized qualifications, or a lack of local work experience, leading to a temporary higher dependency on the Job Seeker's Allowance. However, this effect is expected to be short-lived.

The decline in demand for welfare benefits suggests two potential dynamics. First, it indicates limited migration directly into the welfare system. Second, it implies that immigration may stimulate the local labor market, drawing the native population into employment and reducing reliance on benefits overall. While the data limitations prevent me from disentangling the precise effects on UK-born versus foreign-born workers, the negative effect on the net number of claimants makes

it unlikely that there's a substantial increase in absolute claimant numbers from migrant populations. This suggests that immigration is not likely to be placing undue pressure on the benefits system.

If economic factors fall short in accounting for the political shift observed, what then is the driving force behind this shift? The following section of this paper posits that a transformation in voters' cultural attitudes provides a cogent explanation. 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.

5.3. **Cultural Concerns.** Immigration may influence the voting choices of native populations through more than just economic factors, a perspective acknowledged across economics, political science, and sociology. Natives frequently worry, fueled by the anti-immigrant rhetoric of politicians, that immigrants from significantly different backgrounds fail to assimilate into new cultural norms, potentially challenging the societal fabric and integrity. Economic anxieties may interact with cultural fears, amplifying negative native perceptions. Some research has attempted to illuminate the role of cultural factors in anti-immigration sentiment by examining the cultural distance between immigrants and the host society. However, in my case, since all immigrants originate from the same origin, differing minimally in their distance to the culture of the host country, I cannot use cultural differences among immigrants to assess the impact of cultural factors. Instead, I can look at how the cultural attitude of voters will evolve in response to immigration. However, we should keep in mind that these cultural attitudes can themselves be influenced by economic factors.

I explore whether shifts in individual-level voting patterns may reflect changes in attitudes and social preferences toward immigration. Further exploration in Chapter 7 considers whether these shifts signify a broader transition in identity emphasis from class to culture. Figure A.4 represents the evolution of concerns among Conservative and Labour party supporters toward 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 toward 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:

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

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 $IM_{i(j),2016}^O$. All regressions have a rich set of individual demographics as a control.

Table 9 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 toward 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 prioritizing 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 9 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 toward individuals perceived as outsiders or foreigners. Second, Bonomi *et al.* (2021) posits that significant immigration influxes

Table 9. Public Attitu

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

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 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 toward 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 toward cultural identity is indeed occurring, it anticipates a corresponding shift in the political arena's supply side. The next section will therefore explore the adjustments made by political parties in response to immigration dynamics.

The compilation of evidence reviewed thus far underscores the significant role of cultural factors, as opposed to economic ones, in shaping the preferences of native populations and in the political realignment in reaction to immigration. This aligns with Tabellini (2020), which demonstrates a notable positive influence of immigration on the employment rates and occupational earnings of native individuals. Nevertheless, we cannot entirely overlook the role of economic factors. First, immigration appears to precipitate modest economic drawbacks, predominantly affecting the lower echelons of the native workforce in the short term. Second, economic insecurities can be voiced through cultural concerns, often exacerbated by political figures and media outlets, which can lead to natives harboring skewed perceptions about immigrants and their impact.

6. PARTY RESPONSES TO IMMIGRATION

In this section, I investigate if an analogous development has taken place on the political supply side. That is, whether the UK parties have shifted their focus in political activities toward prioritizing 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 to the right of Labour on economic issues, there seems to be no substantial distinction between the 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 the 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



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).

toward 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 the political discourse surrounding immigration.

Frequency Measure: This metric measures the density of selected keywords indicative of discussion around migration and minority issues⁴ within an MP's parliamentary discourse over a specified year. It is calculated by tokenizing speeches to extract words, filtering out non-alphabetic

⁴Keywords include terms such as 'migra*', 'asylum', 'minorit*', 'traveller', 'ethnic*', 'racial*', and 'gypsy'.



(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.

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.



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.

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)⁵. 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 toward migration as measured by $MigrationSentiment_{i,t}$. As expected, the number of mentions of "migration" 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 toward migrants right before the referendum. Interestingly, there is no significant difference among parties in terms of their sentiment toward migrants at this time.

⁵I 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.

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 used dictionary 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:

$$Universalism_{i,t} = \frac{Care_{it} + Fairness_{it} - Ingroup_{it} - Authority_{it}}{N_{it}}$$
(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 toward 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 toward 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 parliamentary 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 voices 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:

$$y_{i,t} = \alpha_i + \eta_{r,t} + \beta \Delta I M_{it} + \epsilon_{i,r,t}$$
(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 results are detailed in Table 10. Concentrating on the 2SLS estimates, the first column suggests a positive effect of immigration on the frequency of discussions about immigration by the region's MP, though this does not achieve statistical significance. This analysis was further refined in columns 2 to 4 by splitting the sample based on the party affiliation of the MPs throughout the observation period. Notably, the effect is more marked among Conservative MPs, as evidenced in column 3, the only column with a significant coefficient. The examination of *MigrantSentiment* in columns 5 to 8 indicates that sentiment coefficients for Conservative MPs are negative and significant. In contrast, Labour MPs and other MPs show a positive coefficient, but these do not attain statistical significance. Together, these findings indicate that in areas with increased exposure to immigration, Conservative MPs are more likely to discuss immigration frequently and adopt a negative stance in their discussions. On the other hand, the data does not reveal a comparable pattern among Labour MPs, hinting at either a reluctance or an inability to engage with immigration issues.

Table 10'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 toward 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 capitalize 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 toward 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 toward a new axis centered 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.

7. CULTURAL REALIGNMENT

This section explores the dynamics driving the patterns of voter behavior and political responses observed, particularly the rise in support for right-wing parties amid anti-immigration sentiments. Section 5 demonstrated that immigration does not have a significant negative economic impact, suggesting that the underlying causes of this phenomenon are more cultural than economic. However, this raises the question of why those potentially economically disadvantaged

		$MigrationTalk_{i,t}$	$nTalk_{i,i}$	t (W	$MigrantSentiment_{i,t}$	entimen	$t_{i,t}$	Rei	$Relative Universal is m_{i,t}$	versalis	$m_{i,t}$
	(1)	(2)	(3)	(4)	(5)	(9)	(2)	(8)	(5)	(9)	(2)	(8)
Panel A. OLS												
Immigration Shock 0.13 (0.09)	0.13 (0.09)	0.12 (0.15)	0.31 (0.14)	0.01 -0.29 (0.17) (0.10)	-0.29 (0.10)	-0.15 (0.14)	-0.57 (0.19)	-0.21 (0.26)	0.10 (0.08)	$\begin{array}{ccc} 0.10 & 0.08 \\ (0.08) & (0.14) \end{array}$	0.18 (0.12)	-0.55 (0.23)
Panel B. 2SLS												
Immigration Shock 0.26 (0.21)	0.26 (0.21)	-0.17 (0.29)	0.89 (0.42)	0.53 (0.42)	-0.11 (0.25)	0.10 (0.45)	-0.85 (0.39)	0.86 (0.92)	0.01 (0.18)	0.21 (0.27)	0.07 (0.26)	-2.07 (0.84)
Constituencies Observations	All 6171	Labour 2479	Con. 2709	Others 979	All 4249	Labour 1566	Con. 1947	Others 704	All 6171	Labour 2479	Con. 2709	Others 979
<i>Notes</i> : 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 and over a directed for a directed by year.	s the imp controls f res of the	act of imm or the share working-ag	igration c e of the 2(ge resider	m the resp 001 resider 1 populati	bective se of popula on emplo	ntiment m ation lackir yyed in the	easures lg formal manufac	All depenc qualificati turing and	dent varia ions, the l retail se	ables have share of en ctors, inter	been star nployees acted by J	ıdardized. in routine year. Stan-
uaru errors, adjusteu ioi crusteririg at tite consultative) revel, are providen iti paretititeses.	וחשובו זיו	מו וווב רחוו	שוומכוורא	ובאבו' מור	hturu	ו זוו למוביות	(C2C2)					

 Table 10. Effects of Immigration on Parliamentary Speeches

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who do not directly benefit from the right-wing agenda of minimal redistribution and reduced social welfare would support such parties in response to immigration. 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 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 behavior 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



(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.

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.



Figure 10. Notes: This table illustrates UK respondents' attitudes toward 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, labeled 'Culture', is based on questions regarding preferred immigration levels, abortion policy, and racial attitudes. The principal component for redistribution preferences, labeled '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 color 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).

So far in this section, I have illustrated the shifts in political cleavages and a movement toward 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, I compute the following Culture-Redistribution Centroid Ratio (CRCR) measure for each local authority:

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

In this formula, *C*1 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 11. 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 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 toward cultural considerations. The evidence points toward an emerging landscape where cultural factors outweigh economic factors in shaping voter decisions. In this evolving political context, not paying attention to the shift toward 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 behavior.

8. 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 voting decisions, revealing a significant shift toward anti-immigrant right-wing parties. Employing a novel research design, this study tapped into previously unexplored variations in immigration exposure, utilizing migrant flows across industries and employment structures across

	Culture	-Redistr	ibution C	entroid Ratio
	(1)	(2)	(3)	(4)
Panel A. OLS				
Immigration Shock	0.551 (0.548)	0.461 (0.574)	0.828 (0.994)	0.944 (1.080)
Panel B. 2SLS				
Immigration Shock	0.579 (0.370)	0.493 (0.397)	0.940 (1.218)	1.020 (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

Table 11. Immigration Impact on Cultural and Redistribution Divides

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 toward 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.

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 toward 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.

Investigating various potential mechanisms, I provide evidence that regions undergoing immigration observe a subsequent reduction in unemployment rates and a boost in economic activity rates. Furthermore, these areas do not experience lower wage growth on average, although a slight decline in wage growth at the lower end of the wage distribution is noted. Additionally, these regions show a reduced burden on the welfare state. Thus, these economic factors, in isolation, cannot fully explain the emergence of anti-immigrant sentiments. The research then shifts to cultural dynamics, showing how immigration influences social attitudes and policy preferences, revealing a growing aversion to 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 center 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 land-scapes, such as economic downturns, technological changes, globalization, 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 15, 22, and 58.*]
- ALESINA, A., A. MIANO, AND S. STANTCHEVA (2023): "Immigration and redistribution," *The Review of Economic Studies*, 90, 1–39. [*Cited on page 35*.]
- ALESINA, A. AND M. TABELLINI (2024): "The political effects of immigration: Culture or economics?" *Journal of Economic Literature*, 62, 5–46. [*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 9.]
- 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. AND T. FETZER (2018): "Has Eastern European migration impacted UK-born workers?" Working Paper. [Cited on page 30.]
- 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 5 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 5.]
- 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 6.]
- 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, 35, 36, 44, and 45.*]
- 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*, 14, 15, 22, and 57.]
- CARD, D., S. CHANG, C. BECKER, J. MENDELSOHN, R. VOIGT, L. BOUSTAN, R. ABRAMITZKY, AND D. JURAFSKY (2022): "Computational analysis of 140 years of US political speeches reveals more positive but increasingly polarized framing of immigration," *Proceedings of the National Academy of Sciences*, 119, e2120510119. [*Cited on page 6.*]
- CARRERAS, M., Y. IREPOGLU CARRERAS, AND S. BOWLER (2019): "Long-term economic distress, cultural backlash, and support for Brexit," *Comparative Political Studies*, 52, 1396–1424. [*Cited on page* 5.]
- COLANTONE, I. AND P. STANIG (2018): "Global competition and Brexit," *American political science review*, 112, 201–218. [*Cited on pages 5 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. AND T. FRATTINI (2014): "The fiscal effects of immigration to the UK," *The economic journal*, 124, F593–F643. [*Cited on page 31*.]
- DUSTMANN, C., T. FRATTINI, AND I. P. PRESTON (2013): "The effect of immigration along the distribution of wages," *Review of Economic Studies*, 80, 145–173. [*Cited on page 30*.]
- DUSTMANN, C. AND I. P. PRESTON (2007): "Racial and economic factors in attitudes to immigration," The BE Journal of Economic Analysis & Policy, 7. [Cited on page 29.]
- —— (2019): "Free movement, open borders, and the global gains from labor mobility," Annual review of economics, 11, 783–808. [Cited on page 29.]
- 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, 6, 37, 38, and 41.]
- 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 14.*]
- 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 16 and 19.*]
- MAYDA, A. M., G. PERI, AND W. STEINGRESS (2022): "The political impact of immigration: Evidence from the United States," *American Economic Journal: Applied Economics*, 14, 358–389. [*Cited on page 4.*]
- 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.*]
- NGUYEN, V.-A., J. BOYD-GRABER, P. RESNIK, AND K. MILER (2015): "Tea party in the house: A hierarchical ideal point topic model and its application to republican legislators in the 112th congress," in *Proceedings of the 53rd Annual Meeting of the Association for Computational Linguistics and the 7th International Joint Conference on Natural Language Processing (Volume 1: Long Papers)*, 1438–1448. [Cited on page 6.]
- 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.]
- STEINMAYR, A. (2021): "Contact versus exposure: Refugee presence and voting for the far right," *Review of Economics and Statistics*, 103, 310–327. [*Cited on page 4.*]
- 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, 4, and 37.*]

VISKANIC, M. (2017): "Fear and loathing on the campaign trail: did immigration cause Brexit?" *Available at SSRN 2941611.* [*Cited on page 5.*]

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. EXTRA GRAPHS AND TABLES



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.



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.

	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

Table A.1. Shock Distribution

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.

	1	UKIP Vote Share Cha	ange
	European 2014-2004 (1)	General 2015-2005 (2)	Local (2012-15)-(2000-3) (3)
Current			
Immigration Shock	2.045	2.919	3.032
	(0.612)	(0.394)	(0.941)
Alternative Standard I	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

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

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).

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

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

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.

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

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

Notes: This table presents the results of a pre-trend analysis examining the relationship of immigration and historical individual attitudes toward 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 toward 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.

log(Annual Pay):	(1) Avg	(2) 90th Pct	(3) 75th Pct	(4) Med	(5) 25th Pct	(7) 10th Pct
Panel A. OLS						
Immigration Shock	-0.007 (0.004)	0.041 (0.024)	-0.004 (0.003)	-0.004 (0.004)	-0.002 (0.006)	0.002 (0.009)
Average effect Standard deviation	73% .826	4.42% 4.99	43% .494	39% .449	20% .236	.215% .243
Panel B. 2SLS						
Immigration Shock	-0.006 (0.007)	0.054 (0.034)	0.001 (0.005)	-0.008 (0.006)	-0.011 (0.009)	-0.007 (0.013)
F-stat	214	212	170	236	191	209
Average effect	61%	5.79%	.120%	88%	-1.2%	71%
Standard deviation	.691	6.54	.135	1.00	1.36	.803
Pre-log mean of DV	2705	3881	3316	2245	1384	7377
LAFE	Yes	Yes	Yes	Yes	Yes	Yes
Region-Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Spatial units	348	332	336	345	346	339
Observations	7286	719	5548	7042	6431	4211

Table A.5. Effects of Immigration on the Annual Pay Distribution

Notes: This table presents the estimated impacts of immigration shocks on wage distribution, with the dependent variable being the log of annual wages at the mean and also various percentiles within the earnings distribution of a local authority, as derived from the Annual Survey of Hours and Earnings. Some data points are excluded due to the Office of National Statistics determining insufficient precision in the statistics. The term "F-stat" refers to the Kleibergen-Paap rk Wald F-statistic, which is used to test for weak instruments. The table presents robust standard errors, which are clustered by local authority, in parentheses.

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