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***Immigration and voting behavior; Evidence from Greece***

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## *Notice*

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*Dorothea Lange. Migratory woman, Greek, living in a cotton camp near Exeter, California vers 1935.  
Library of Congress, US.*

## *Acknowledgments*

*I would like to thank my professor, Margarita Katsimi, for her patient guidance throughout this difficult yet exciting academic journey.*

## *Abstract*

This study examines how immigration inflows influenced voting behavior and attitudes toward immigration policy in Greece between 2009-2019. Using a difference-in-differences approach, the analysis compares electoral districts that experienced above-average immigrant inflows to those with below-average inflows. The results indicate that districts with higher immigrant inflows, particularly from Asian countries, shifted toward more restrictive immigration policy stances relative to low-inflow districts, despite an overall national trend toward more liberal positions. A one percentage point increase in the immigrant population share is associated with a 0.19-point increase in restrictiveness on a 0-10 scale. The effect is stronger for Asian immigrants, who account for about 80% of the total effect. These shifts in voting behavior persist even when controlling for economic conditions, education levels, and demographic factors. The findings suggest immigration inflows can shape local political attitudes, in line with Group Threat Theory. The study also reveals strong correlations between immigration attitudes and views on redistribution, multiculturalism, and religious principles in politics, indicating immigration stance is part of a broader ideological orientation. Overall, the results highlight the complex dynamics between demographic change, economic conditions, and voting behavior in Greece during a period of significant immigration and economic upheaval.

keywords: immigration, voting behavior, Greece, populism, refugee inflows

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# *1. Introduction*

Historically, Greece has been a nation characterized by emigration. However, following the collapse of the authoritarian regimes of Eastern Europe during the 1990s and the political unrest in Africa and Asia in the 2000s, the country began to experience significant immigration inflows. (Cavounidis, 2002; Kasimis et al., 2003). While Greece's transition to an immigrant-receiving country occurred during a general pattern observed by the countries of Southern Europe, its experience differs in key dimensions. The impact of immigration on Greece was more pronounced, with the immigrant population growing to approximately 10% of the national population and 15% of the economically active population (Kasimis & Papadopoulos, 2005). This rapid growth was largely uncontrolled and led to significant settlement and employment of migrants in rural areas (Kasimis & Papadopoulos, 2005).

In the aftermath of the World Financial Crisis, following the collapse of the Lehman Brothers financial institution, Greece experienced severe austerity measures and political instability. The nation's membership in the European Union was put to a referendum, while populist movements, particularly those of the extreme right, gained significant traction and public support. The increasing popularity of these conservative, authoritarian, and anti-immigration coalitions, epitomized by the rise of Golden Dawn—later designated as a criminal organization linked to the murder of the young artist Pavlos Fyssas and Pakistani immigrant Shahzad Luqman—coincided with an unprecedented influx of refugees into the country (Dinas et al., 2019). The country experienced a significant inflow of refugees during the mid-2010s, particularly 2015 and 2016. According to Kotsioy et al. (2018), since the beginning of 2014, 1,112,332 people crossed the borders of the country. This massive influx put significant pressure on the country's already weak infrastructure and resources.

Immigrant populations have been instrumental in addressing labor shortages and stimulating economic growth. Immigrants have filled labor gaps, meeting the country's persistent demand for low-skilled labor in sectors such as construction, agriculture, and tourism (Cholezas & Tsakloglou, 2008). The increased participation of Greek women in the workforce, facilitated by female immigrant care providers, has contributed to gender equality and economic opportunities for families across the nation. However, the impact of immigration on Greece's economy is not uniformly positive.

Despite immigration's positive impact on the country's economy, voters often fail to recognize it, particularly during times of economic instability and heightened labor competition. According to Group Threat Theory, discrimination and prejudice can arise from interactions between local and immigrant populations, especially when the local population experiences economic and social status anxiety

(Quillian 1995). Quillian examines how economic competition can serve as a catalyst for prejudice resulting from such interactions. This sense of threat often meets the ballot box, where contact with immigrant and refugee groups has been shown to correlate positively with votes for far-right, anti-immigrant political groups (Dinas et al., 2019; Dustmann et al., 2019; Hangartner et al., 2019).

While the literature on the Greek population's response to immigration is extensive, much of it concentrates either on the recent refugee influx or the vote share of right-wing party coalitions. Recognizing the significant influence of the three major established parties in the country—PASOK, New Democracy, and later SYRIZA—this study seeks to explore how immigration has shaped voting attitudes, not only from the perspective of the ballot but also in terms of changes in party manifestos and pre-election agendas. Although small, right-wing reactionary parties may fundamentally oppose immigration, they often gain support through a broader anti-establishment sentiment. It remains unclear, based solely on election outcomes, to determine the impact of immigration on voting attitudes toward the far-right. Instead, the rhetoric of the general parties is considered. By utilizing two major data sets, the University of Michigan Constituency-Level Elections Archive and the Chappel Hill expert survey, along with demographic and economic data from the Hellenic Statistical Authority, this thesis constructs a model to assess electoral district stances on various issues, such as immigration, state spending and taxation, wealth redistribution, and the role of religion in politics. The immigration stance is then analyzed using a Difference-in-Differences model to determine whether electoral districts experiencing an immigrant influx above the national average translated this into anti-immigration voting. This analysis seeks to address the central question: *How does immigration impact the voting behavior of local populations?*

In addition to addressing the central question, this study conducts an analysis of Asian and general immigration inflows to provide insights into the possibility of different responses to economic migrants and refugees. Moreover, a general stance analysis is done, to determine whether attitudes toward immigration policy are indicative of a broader ideological position or represent a single-issue voting decision. The period under examination spans from 2009 to 2019, allowing for an analysis of how the economic crisis that affected the country influenced the general party agenda and constituent responses.

Section 2 examines the theoretical framework concerning economic and political approaches to immigration and voting behavior. Section 3 provides a case background on Greece's immigration history. Section 4 examines the existing empirical literature. Section 5 outlines the data and methodology used in the analysis. Section 6 presents the Difference-in-Differences regression results. Section 7 investigates the varying district stances. Section 8 discusses the findings, and Section 9 concludes the thesis.



## *2. Theoretical Framework — Economic and Political Approaches to Migration and Voting Behavior*

Throughout the years, various scholars from different fields and disciplines have examined the phenomenon of migration. This chapter focuses on presenting the key theories relevant to this thesis.

The Neoclassical Theory of Migration Economics—the most popular framework among scholars and one that has seized modern contemporary economics—bases its findings on the idea that immigration is a person-level rational decision. Harris & Todaro (1970) analyze how immigration decisions rely on expected employment and wages, even when the receiving country faces high unemployment. In Greece's first wave of immigration (early 1990s), this theory aligns with the observed flow of Albanian migrants entering and settling in the country, a rational choice given Albania's economic collapse at the time. During the second wave (2010s), research and empirical evidence suggest that many newcomers planned merely to transit through Greece toward wealthier European states. Nevertheless, Harris & Todaro's analysis points out that some migrants would still choose to settle in Greece, despite its austerity and economic tribulation, with a personal anticipation of employment and wages outweighing the risks.

On a microeconomic level, Sjaastad (1962) investigates immigration as an investment-in-human-capital decision, highlighting the rationality of immigration decisions. Through his analysis, Sjaastad presents that immigrants calculate monetary and non-monetary expenses such as transportation, distance, language, and potential racism faced, comparing them to the expected gains from migrating. Borjas (1987, 1999) suggests that migration is not a universal pattern across a population. That lower-skilled workers are more likely to migrate, leading to higher competition in the blue-collar labor market of the receiving country. However, empirical evidence has shown that more recent immigration flows to Greece have also affected white-collar highly educated populations (Roupakias, Chletsos, 2020).

While the neoclassical theory provides a theoretical approach to immigration by focusing on income and labor, it has been subject to significant criticism by economists, sociologists, and other scholars. Alternative approaches—including the New Economics of Labour Migration, Systems theory, and Capabilities Approaches—also draw attention to the role of decision-making at the household level, structural imbalances, and the so-called "politics of aspiration". These politics are especially pertinent within the context of Greece, where low- as well as high-skilled migrants, including refugees, have emigrated to. Far from entirely discarding the neoclassical approach, this thesis builds on it while documenting its deficiencies.

The New Economics of Labour Migration (NELM), initially developed to interpret flows from rural to urban areas within a country, emphasizes that migration decisions are made at the household rather than the individual level. NELM focuses on the role of the family as a core institution involved in strategic economic planning. In contrast to the Neoclassical Theory, Stark and Bloom (1985), in their influential work, argue that even highly skilled individuals may choose to migrate to protect household income, despite the apparent "irrationality" of such decision from a personal perspective. They stress that migration should not be viewed merely as a rational choice made by individuals; instead, it should be understood as a household-level strategy to reduce risk. This perspective aligns with the empirical knowledge in Greece, where highly skilled individuals from sub-Saharan African and Asia migrate to the country to ensure their families' economic stability.

Taylor (1999) introduces the concept of economic transfers to the country of origin, suggesting that families may pursue migration as a short-term strategy for financial improvement. Similarly, De Haas (2010, 2011) argues that migration is not solely driven by economic necessity but also aspiration and personal ambition, which helps explain why individuals invest heavily in risky migratory journeys, contradicting the assumptions of the rationality of the neoclassical approach. Although NELM acknowledges that migration is often a temporary strategy, host country populations often fail to perceive it as such, leading to political tensions and public debate. This thesis explores local perceptions of immigration, as reflected in voting behavior.

Another significant theoretical approach to immigration, particularly relevant to the Greek context, is the Dual Labor Market Theory (DLM), first developed by Michael Piore, in 1979. Unlike the neoclassical and NELM theories, the DLM theory emphasizes the role of pull factors within the receiving country's economy. Rather than focusing on individual or household-level decision-making, DLM argues that developed economies inherently create a demand for cheap, flexible labor, a demand met mainly by immigrants. In contrast to previously discussed theories, the Dual Labor Market Theory views immigration as a structural and permanent feature of modern economies, driven by their internal labor market needs. However, this theoretical understanding often clashes with public perception, which tends to portray migrants as a threat to local employment opportunities.

While this thesis primarily uses core structural theories of migration, it is worth briefly describing heterodox theoretical approaches to immigration, too, which provide interesting critiques and alternative views of the phenomenon of immigration. Castles & Kosack (1973) provide a fundamental Marxian analysis of migration, arguing that it serves as a mechanism of labor market segmentation, strengthening class division and clash. Parallel to that, post-Keynesian research, such as the work of Pérez and Matsaganis (2018), focuses on the role of the state in managing crises and responding to labor market inefficiencies.

This thesis primarily focuses on conducting an econometric analysis to investigate the impact of immigration on voting behavior. By utilizing empirical data and statistical models, it aims to uncover how shifts in immigrant populations influence electoral outcomes across different regions. In addition to its quantitative approach, the thesis also delves into a range of foundational political science theories that provide context and interpretive frameworks for understanding the relationship between demographic change and political preferences. Through this interdisciplinary lens, the study seeks to offer a comprehensive understanding of the complex interplay between immigration and voter behavior.

In his study Quillian, L. (1995) expands upon Blumer's (1958) Group Threat Theory. He contends that discrimination and prejudice arise from intergroup relations rather than individual interactions. Quillian posits that these biases are influenced by both the net number of immigrants and the economic conditions of a region, a point particularly relevant to this thesis, which examines immigration trends during Greece's significant economic crisis. He illustrates the persistent discrimination and systemic racism experienced by Black Americans, in contrast to Asian Americans, who constitute a comparatively smaller minority group. Furthermore, Quillian identifies that prejudice against immigrant and minority communities may stem from a perceived loss of status and "privilege," linking these sentiments to economic competition between locals and immigrants. Prejudice, therefore, is not solely a response to personal threats but also a reflection of the feeling that one's group's standing in society and the economy is under threat, manifesting as a sense of economic and social vulnerability.

Contrary to the Group Threat Theory, the Intergroup Contact Theory, introduced by psychologist Gordon Allport, displays that, under specific conditions, institutionally supported interactions between members of different racial and social groups can reduce prejudice between them. Pettigrew (1998) tested this theory and examined the specific conditions needed for limitation of prejudice under group contact: a) equal group status within the situation, b) common goals, c) intergroup collaboration, and d) support from the established authority. Pettigrew's review provides a comprehensive and updated perspective on Intergroup Contact Theory. By addressing the limits of Allport's original hypothesis and incorporating the crucial role of processes, generalization, friendship potential, individual differences, and societal context within a longitudinal framework, his research advances our understanding of how and under what conditions intergroup contact can effectively reduce prejudice and improve intergroup relations. It highlights the need for more longitudinal research and a focus on fostering opportunities for meaningful, long-term intergroup relationships. Moreover, the Intergroup Contact Theory justifies the general idea of the state's role in establishing group relations, especially regarding integration policies and strategies. While this study considers the Contact Theory, it is important to note, as Dinas et al. (2019) assert, that most interactions between Greeks and refugees during the 2015 peak did not fulfill the prerequisites of Allport's theory. Consequently, any empirical findings should not be interpreted as contradicting the Contact Theory, but rather as existing in parallel to it. However,

although this study does not specifically focus on the interaction between the Greek population and refugees—focusing instead on immigrants in general—several findings may align with Allport's theory.

While the previously analyzed theories focus on economic competition, explaining the results of interaction between social groups, other researchers have focused on groups' cultural and identity political behaviors. Often, immigration is faced as a "national threat", a "threat to the cultural and social norms and customs", even when economic competition is relatively insignificant. Various scholars argue that immigration is often used as a means of political gain by political elites and the media when economic policies fail to provoke support for the governing majority. Political Opportunity Structure theories emphasize that voter behavior alone does not translate into electoral outcomes. (Kestilä & Söderlund, 2007) Instead, they provide the argument that right-wing parties have used links between voting attitudes and immigration for political gain. If not for these parties and their electoral interests, immigration alone may not have been the subject of debate. In the Greek context, parties such as Golden Dawn and Elliniki Lysi have capitalized on immigration fears by linking them to broader narratives of national decline and political corruption, most of the time justifying their existence.

### *3. Immigration to Greece*

Greece, traditionally a country of emigration, began to experience significant immigration flows following the collapse of the USSR and the fall of the communist regime in Albania (Cavounidis 2013). Albanian immigration became a major social and political issue in the early 1990s, posing challenges to the integration and assimilation of Albanians into the Greek state (Baldwin-Edwards, M., 2004). However, it was not until the 2010s that Greece began to receive a large number of migrants of non-Caucasian descent, marking a shift in the country's migration patterns and raising new debates around multiculturalism and social inclusion (Cavounidis, 2013; Bansak et al., 2016).

The country became the epicenter of a humanitarian and refugee crisis during the mid-2010s when it simultaneously faced hard austerity measures, which led to cuts in social benefits, social security, and public investment. Although most of the refugee/immigrant population was hosted in closed reception facilities, where contact with the local populations was limited, several integration efforts were conducted for those granted asylum by both state agencies and non-governmental organizations (OECD, 2018). Thus, the "immigration issue" played a significant role in public discourse during that period, taking place in public debates between conservative and progressive political powers, leading to tensions (Dimitriadi and Sarantaki, 2018; Bansak et al., 2016).

This section offers an overview of the documented immigration patterns to Greece, outlining the nation's transition from a country of emigration to a recipient of diverse immigrant and refugee populations. While the primary focus is on the years examined in this thesis, the analysis also references the historical, economic, and societal impacts, as well as the political and media discourses that have influenced public perception and the setting of political agendas.

Greece, as analyzed by Cavounidis (2013), traditionally a country that sent migrants abroad, witnessed a significant influx of immigrants following the collapse of Eastern European communist regimes in the late 1970s. The most impactful of these was the fall of Albania's communist regime, which led to the opening of its borders and a substantial migration flow into Greece. Among the immigrants from former socialist regimes, a small segment comprised Greek diaspora populations. These individuals were more warmly received, and their "repatriation" process was considerably smoother compared to those of non-Greek descent.

By the late 2000s, Asian and African immigrants had become the dominant immigrant groups in Greece (Cavounidis, 2013). They primarily entered through changed border routes, often "irregularly". During this period, Greece accounted for a significant percentage of the EU's illegal entries, and the number of undocumented immigrants increased.

Unlike earlier immigrant groups, these newcomers struggled to integrate into the labor market, which increased the visibility of immigration but did not have the same economic impact as previous waves of immigration. In Greek public schools, enrollment of foreign-born and foreign-descent students increased, leading to more interaction between immigrant and local populations (Gropas & Triandafyllidou, 2011). While earlier waves of immigrants were granted citizenship or residency permits, this was not the case for the later Asian and African arrivals. Albanians and other Eastern European immigrants had already established themselves in sectors such as construction, caregiving, and agriculture. In contrast, the newer arrivals faced challenges in being absorbed into the economy, which contributed to the rise of illegal labor (Cavounidis, 2013).

The increased visibility of these groups and potential ethnic differences have heightened public discourse and debate surrounding immigration (Andreouli et al., 2017). In 2015, amidst harsh austerity measures and the Grexit debate, Greece became the epicenter of a humanitarian crisis often referred to as the “refugee crisis.” That summer, between the two elections of the year and just months before the country’s referendum on EU membership, approximately 860,000 individuals entered Greece, primarily through the borders of Evros and the islands of Aegean (Dimitriadi & Sarantaki, 2018). Most of these newcomers were of Syrian, Afghan, and Iraqi origins.

Dimitriadi and Sarantaki (2018) highlight the politicization and mediatization of the refugee “issue,” noting that while the majority of the Greek population supported humanitarian assistance for the refugees, they were less favorable towards granting them stay permits. The European Union’s response to the crisis faced significant criticism from Greeks, who blamed the Union for its slow reaction and perceived limited financial aid. Consequently, immigration was not an isolated event; it was framed within a broader discussion of the EU’s role and Greece’s membership.

By 2016, after the EU and Turkey signed an immigration Agreement results in limiting of refugee inflows (Bansak et al., 2016), the discourse shifted to how the Greek government managed the “crisis,” leading to polarization among the population. However, immigration remained more of an illustration of the EU’s failures rather than a standalone debate (Dimitriadi and Sarantaki, 2018).

Immigration has significantly influenced the Greek economy. Cholezas and Tsakloglou (2008) highlight that immigrants contributed significantly to Greece's gross domestic product (GDP) by providing cheaper labor and causing wage-push inflation, which eased the country's transition to the Eurozone. Male immigrants made up a substantial portion of the labor force in construction and agriculture, while female immigrants mainly worked as care providers in the domestic sector. This enabled Greek women to enter the workforce more easily. However, economists have noted that immigration, particularly irregular immigration in Greece, has contributed to the growth of shadow and

illegal labor. Additionally, the availability of low-cost labor from immigrants has delayed the adoption of technology adaption and investment in capital.

While this research's results highlight a general liberization of parties' agenda on immigration, Greek media, as highlighted by Kollias, et al. (2025), played a major role in portraying refugee populations as a "threat," particularly a "political threat." This led to the adoption of relevant rhetoric in the country's already tense political debate, resulting in the establishment and popularity of several right-wing parties. If not for these parties and their electoral interests, immigration alone may not have been the subject of debate. In the Greek context, parties such as Golden Dawn and Elliniki Lysi have capitalized on immigration fears by linking them to broader narratives of national decline and political corruption, often justifying the party's own existence.

When we consider these historical developments collectively- the influx of workers from neighboring Balkan countries in the post-1990s, Afrasian countries later, and the humanitarian wave of 2015- we see significant changes in both the economic implications of migration and the societal perceptions of newcomers. The influx of labor during the 1990s resulted in an overall increase in employment opportunities in the construction and agricultural sectors. (Cholezas and Tsakoglou, 2008), positively influencing the Greek economy in general. In contrast, the migrant arrivals of the 2010s took place amid economic austerity and intensified media scrutiny, which altered the public perception of migrants from being viewed as 'workers' to being seen as 'competition for welfare.' This transformation is significant, particularly regarding local migration experiences and their impact on voting behavior, as discussed previously. Nonetheless, immigration never dominated the national debate, even during its most intense periods, as it was always framed within a broader discussion about the country's EU membership. In this thesis, all these broad and multiconnected ideas and public opinions are examined. From immigration and multiculturalism to the correlation between migrant flows and public perception of income redistribution and welfare state. While this chapter aimed at providing a general background of Greece as a migrant receiving nation, the following section analyzes the empirical literature relevant to this thesis.

## *4. Empirical Literature on immigration and voting attitudes*

This chapter aims to analyze and review the literature on the relationship between immigration and voting attitudes. A substantial body of research has examined the influence of immigration on voting behavior and political stances, with particular attention in recent years to the effects of refugee inflows into Europe. The welcoming of refugee populations became the epicenter of much research, reshaping how scholars study political reactions to migration. This chapter examines the relevant empirical findings and identifies different theoretical explanations across disciplines (see Theoretical Framework). Special emphasis is given to panel data researches that explore voting behavior and political attitudes over time, as these approaches are particularly relevant to the methodology employed in this thesis.

Across the world, increasing immigration has often been correlated with support for right and far-right, populist nationalist political groups (Dustmann, Vasiljeva, & Damm, 2019; Halla et al., 2017; Golder, 2003). However, research has shown that the political outcomes of immigration vary across contexts. Empirical findings suggest that anti-immigration sentiment is more likely to occur in times of economic instability and recession, lower employment of the public, and increased labor-market competition (Hopkins, 2010; Otto & Steinhardt, 2014). The findings highlight that immigration does not inherently lead to political changes; instead, the local economic and media environments serve as important mediating factors.

Moreover, regional and local interaction with immigrants significantly affects voting. Research has shown that sudden migratory inflow into regions, especially those with no historical immigration patterns, is correlated with firmer political shifts, in contrast to cases of state-organized strategic migration and integration processes (Hangartner et al., 2019; Dustmann et al., 2019). Different groups of immigrants also trigger different reactions: refugees (asylum seekers) may cause different reactions than migrants (humanitarian rescue in comparison to economic competition and competition in the labor market) (Hangartner et al., 2019). While these studies have explicitly focused on the political consequences of refugee inflows, their findings offer broader insights into the mechanisms through which immigration can influence voting behavior.

In concluding the positive relationship between direct exposure to refugees and the political effects on native voting behavior, Hangartner et al. (2019) examine the Greek Aegean Islands, which became a focal point of immigration during that period. By considering the proximity of Greek islands to the Turkish coast and employing a Difference in Differences method, they analyzed how various areas responded to the questions posed. The treatment was based on refugee arrivals, while the questionnaire remained consistent for all respondents. Similar to the methodology employed in this thesis, Hangartner



et al. explored the correlation between different immigration-related stances and the number of refugee arrivals in the respondents' areas of residence. The research found a significant correlation between anti-immigrant stances and treatment, with respondents from treated areas more likely to support policies such as banning refugee children from Greek schools or restricting asylum grants.

To address the heterogeneity that arises when immigrants typically move to areas more welcoming to immigration, Dustman et al. (2019) investigate the impact of a state policy that randomly distributed immigrants and refugees across Denmark in the 1990s, treating this as a shock event. By measuring party vote-share and categorizing it into ideological quartiles (center-left, small-center, center-right, and anti-immigration), they employed a differences-in-differences in first differences model, using the allocation of refugees (as a percentage of the population census) as the treatment variable. Their findings revealed a pronounced urban/rural divide in election outcomes: rural areas that received refugees showed an increase in anti-immigrant voting, while urban areas experienced a decline in anti-immigration voting. Moreover, center-left parties tended to lose support in areas receiving more refugees, while the impact on center-right parties was less consistent.

The study demonstrates that the political impact of refugee presence correlates with specific local characteristics: anti-immigrant sentiment was stronger in municipalities with preexisting immigrant populations, higher crime rates, and greater wealth per capita. In contrast, areas with higher church tax payments, serving as a proxy for altruistic norms, exhibited reduced political backlash. As the researchers point out, the urban-rural divide was not driven by economic factors but by the nature of social contact. Voluntary, positive interactions in urban areas mitigated hostility, while involuntary exposure in rural areas heightened perceptions of threat, reinforcing Group Threat Theory (see Theoretical Framework).

Dinas et al. (2019) utilized the "natural experiment" of refugee arrivals on the coasts of the Aegean islands, where local populations experienced varying levels of exposure to these arrivals, to assess the impact on local behavior. By integrating elements of the methodologies from Dustman et al. (2019) and Hangartner et al. (2019), they employed a Difference-in-Difference approach to analyze outcomes in national elections at the municipality and township levels, with a particular focus on the vote share of the Golden Dawn party. They compared the two elections held in 2015, as the refugee arrivals began to surge in the Aegean between these two electoral events. Their findings indicate that the influx of refugees significantly increased the far-right vote share, resulting in up to a 44 percent rise in Golden Dawn's vote share in affected areas. They concluded that the vote share for Golden Dawn increased by nearly 2 percentage points between the two 2015 elections due to the refugee arrivals.

Literature examining the influence of immigration patterns in political behavior has emphasised the importance of panel data and longitudinal approach. Earlier research focused on snapshots and cross-

sectional data, failing to account for local characteristics or time dynamics. On the contrary, panel and longitudinal research examine the change within territories, controlling for heterogeneity. Research has underlined the importance of this approach. Dustmann et. al (2019) use such methodology, within the context of random allocation of refugees in Danish towns, which combined with a difference-in-differences approach helps understand the effect of refugee allocation and interaction on the local populations' voting attitudes. Similarly, Hangartner et al. (2019) use longitudinal data on Swiss municipalities to highlight that the effects of immigration on support for far-right parties were an ephemeral voter behavior, demonstrating the importance of long-term, panel analysis.

In the Greek context, Roupakias and Chletsos (2020) utilize panel data from the Hellenic Statistical Authority's Labor Force survey and the Ministry of Interior to investigate the impact of immigration on far-right voting between 2004 and 2012. By analyzing data from the country's electoral districts, they discover that immigration is positively correlated with voting for extreme right party coalitions, leading to electoral losses for the left. Chletsos and Roupakias employ census data for both their primary variable (share of immigrants) and their control variables, while introducing an instrumental variable to address potential heterogeneity in relation to prior immigrant settlement. Their regression analysis explores the correlation between far-right parties' vote share and immigration. Their research reveals a general negative correlation between the elderly and far-right voting in the context of immigration, which the authors attribute to the absence of labor competition. They also find no statistical significance in the districts' per capita GDP and educational attainment.

Despite the growing literature on immigration and voting behavior, limited research has been conducted focusing specifically on Greece, and even less so across all of the country's electoral districts.

Greece, having become a central point in the European migration debate over the past decade, offers a valuable context for understanding how regional variations in immigration trends may relate to shifts in political behavior, or not. However, the primary purpose of this study is not to determine which explanation — economic or cultural — holds more explanatory power, but rather to concentrate on whether voting shifts are correlated with regional immigration patterns. By leveraging panel data across regions and over time, this study builds on best practices, applying dynamic analysis to better capture how immigration trends influence voting behavior in a politically and economically volatile setting. With a use of a Difference-in-Differences methodology, a robust empirical model is presented below, for analyzing how regional immigration flows may shape political behavior in Greece, especially given the country's significant rural-urban disparities. Accordingly, this literature review seeks to analyze and synthesize existing work, while highlighting the specific empirical gaps that this study modestly aims to address through its focus on regional immigration exposure and electoral outcomes in Greece.

## *5. Data and Methodology*

The primary aim of this study is to assess how Greek local populations' exposure to immigration influences voting behavior. Unlike earlier research, which compared shifts in far-right and left-wing coalitions, the broader evolution of party agendas over time was considered. Rather than raw party vote shares, each district's stance was calculated from the complete set of parties supported in that district at each election, weighted by their respective vote shares.

The removal of historical election results from the Hellenic Ministry of Interior's official website posed a significant challenge. To address this issue, the University of Michigan CLEA Lower Chamber Elections Archive was used to obtain district-level electoral data. The elections analysed were those of 2009, 2012, January 2015, July 2015, and 2019. For 2012, only the June election was retained, as it was the sole one that led to the formation of a government; the inconclusive May election was excluded.

Regarding district-level stances, the Chapel Hill Expert Survey Trend File (1999–2019) provided measures for each political party's agenda on immigration and several other issues. Based on the scoring provided by the Chapel Hill Survey, each district's stances, weighted and normalized, were calculated for the corresponding electoral districts. To estimate the different stances of each district, a weighted average of party positions is constructed based on their vote shares within each electoral district and year. Specifically, data on party-level policy positions from the Chapel Hill Expert Survey (CHES) were combined with detailed election results from the CLEA dataset. For each party contesting in a given district and year, its vote share is multiplied by its expert-coded position. A score of 0 is generally represented as the most "left," "liberal" option offered in the questionnaire, while 10 is marked as the most "right," "authoritarian," or "restrictive" position. The exact wording of every question—and the meaning of the scale endpoints for each issue—can be found in the CHES Trend File Codebook. (Jolly, S. et al., 2022)

The district-level stances include nine issue dimensions: economic left-right (LRECON), GAL-TAN cultural values, spending-versus-taxation, redistribution, social-lifestyle liberalism, the salience of religious principles in politics, immigration policy, multiculturalism, and the urban-rural cleavage as analyzed in the published research on which CHES coding was determined (Jolly, S. et al., 2022).

Table 1. CHES stance variable description

Issue dimension	CHES variable	Question wording (abridged)	Scale anchors (0–10)
<b>Economic left–right</b>	LRECON	Party position on economic issues such as taxes, spending & public ownership	0 = extreme economic left   10 = extreme economic right
<b>GAL–TAN cultural values</b>	GALTAN	Libertarian-post-materialist vs traditional-authoritarian-nationalist cultural values	0 = extreme GAL   10 = extreme TAN
<b>Spending vs taxation</b>	PUBSERV	Preference for improving public services versus reducing taxes	0 = strongly favours spending   10 = strongly favours lower taxes
<b>Redistribution</b>	REDIST	Support for redistribution from the rich to the poor	0 = strongly favours redistribution   10 = strongly opposes redistribution
<b>Social-lifestyle liberalism</b>	LIFESTYLE	Stance on social/lifestyle issues (e.g., abortion, homosexuality)	0 = strongly liberal   10 = strongly conservative
<b>Religious principles in politics</b>	RELIGION	Role that religious principles should play in politics	0 = strongly opposes religion in politics   10 = strongly supports religion in politics
<b>Immigration policy</b>	IMMIG	Toughness of immigration policy	0 = strongly opposes tough policy (liberal)   10 = strongly favours tough policy (restrictive)
<b>Multiculturalism</b>	MULTICULT	Integration of immigrants & asylum seekers: multiculturalism vs assimilation	0 = strongly favours multiculturalism   10 = strongly favours assimilation
<b>Urban–rural cleavage</b>	URBAN	Support for urban versus rural interests	0 = strongly supports urban interests   10 = strongly supports rural interests

The weighted values across all parties in the district were then aggregated and normalized by the total vote share of parties with available ideology scores. This results in a district-level score that reflects the average ideological stance of voters, accounting for each party's electoral strength. The resulting measure is continuous and comparable across districts and time, and it was used as the primary independent variable in the subsequent panel analysis.

$$DistrictStance_x = \frac{\sum_i (VoteShare_i \times Stance_i)}{\sum_i VoteShare_i}$$

Where:

- District Stance is the given district stance of x district;
- Vote Share is equals the vote share of party i;
- Stance i is the given stance of party i.

The determinator is used to weigh smaller party coalitions not accounted for.

Because certain district configurations changed after the 2012 elections, Attica West and Attica East were merged into a single district labeled “Attica.” Likewise, Athens B1, Athens B2, and Athens B3 (formerly Athens B) were consolidated into “Attica B,” and Thessaloniki A and Thessaloniki B were combined into “Thessaloniki,” to match immigration data consistently.

In the analysis, several control variables that according to the literature are relevant to the issue examined were utilized. The first one was educational attainment at the district level was captured using census data for the years 2011 and 2021. The dataset distinguishes five levels of education: (1) people who left primary school early, are illiterate, or only completed preschool education; (2) primary school

graduates; (3) lower secondary school graduates (three-year gymnasium or vocational schools); (4) upper secondary school graduates (lyceum); and (5) holders of tertiary qualifications, including university degrees, master's, and doctorates. Each education level was treated as a separate variable, expressed as the percentage of the district's total population. The educational variables are structured through a reshaping process, ensuring that each education category was isolated. `Less_than_primary`, `primary_edu`, `lower_secondary_edu`, `high_school_edu`, `tertiary_edu` all represent each group accordingly. Higher education attainment has been associated with more welcoming attitudes towards immigration (Louis et al., 2010). Utilizing education levels of the population was used for examining this possible correlation.

Secondly, gender composition at the district level was calculated through the percentage of females in the total district population, using census data from the years 2011 and 2021. For each district and year, the variable `share_female` represents the proportion of the population identified as female. The inclusion of gender distribution allows the analysis to control for structural demographic differences across districts, which could influence electoral outcomes, but also examine the possible effect of the districts demographic composition on voting.

Thirdly, the percentage of elderly citizens was also used as a control variable, in an effort to capture possible correlation between the district's age composition and the effects of immigration to the different age groups and their political stances. The initial effort included the use of a median age variable, although the gaps in the data sets of the Hellenic Statistical Authority did not allow for that. The percentage of elderly citizens, individuals of 70 and more years of age, is presented as `pop_70plus_share` and was calculated using the nominal number of the age group divided by the total population of the district. Older populations are seen to be more open towards immigration, since they are not directly threatened by possible labor market competition (Chletsos & Roupakias, 2020).

Additionally, unemployment at the district level was measured as the percentage of unemployed individuals within the total district population, based on census data for the years 2011 and 2021. The variable `unemployment_rate` reflects the share of individuals without employment at the time of each census. This measure is used as a proxy for local economic conditions, under the assumption that labor market distress may influence political preferences, particularly in the context of migration-related concerns. Another control variable used was the per-capita gross domestic product was also employed as a control variable to capture possible interactions between a district's economic conditions and its population's voting behavior. Unlike the other control variables, G.D.P. per capita for each district in a given election year was published directly by the Hellenic Statistical Authority, so no interpolation was required. Nevertheless, because two elections took place in 2015, the 2015 G.D.P. per capita value was adjusted in line with its trend (using the preceding and following-year figures). All G.D.P. values were seasonally adjusted by the Statistical Authority. Economic conditions have been examined to have a

strong influence over political stances, and attitudes towards immigration (Dustmann et al., 2019; Hangartner et al., 2019). Thus, control variables of per capita GDP and unemployment at the district level was used to examine this possible relation.

Lastly, population density was also used as a control, to examine how different areas respond to immigration. Data was obtained by the Statistical Office of the European Communities' (EUROSTAT) based, with the data code of `demo_r_d3dens`. Similar to the per capita GDP control, because of the two elections of 2015, as density is published on an annual basis, values were adjusted in line with the 2014 and 2016 trends. Since the urban and rural divide has attracted attention in the literature (Dinas et al., 2019), the density variable was used to analyze whether urban and rural areas respond differently to the treatment.

One significant challenge in constructing the control dataset was that it relied solely on the 2011 and 2021 census surveys, with no detailed data for the intermediate years. During the intervening decade - marked by a severe national economic crisis- demographic and socioeconomic shifts likely went unrecorded. To render the data more useful for this study, two interpolation techniques were employed. Linear interpolation was applied to age, gender, and education variables, while a non-linear interpolation, calibrated to national unemployment trends over the same period, was used to estimate unemployment. Based on the general trend of each demographic control variable values, from 2011 to 2021 (2011 census assigned to the 2009 election and 2021 to the 2019 one). Linear interpolation traces a straight trajectory between the 2009 and 2019 census values, imputing the missing values for the control variables as if each share evolved at a constant rate. Unemployment, by contrast, is projected along a calibrated five-point national curve (the national unemployment numbers), letting constituency-level figures mirror the aggregate boom-and-bust pattern rather than a simple straight line.

Each constituency was expanded to five records (waves 1–5) by the STATA commands *expand 5* and *bys cst: gen wave=\_n*. For age, gender and the five education shares, the 2009 and 2019 census values (waves 1 and 5) were retained and the three intervening waves were linearly interpolated: the series were sorted (*sort cst wave*), the function *ipolate* was applied (*by cst: ipolate var wave, gen(tmp)*), and intermediate gaps were replaced (*replace var=tmp if inrange(wave,2,4)*). For unemployment, a five-point national time-path (10.3, 25.3, 25.6, 24.7, 17.4 percent) was merged (*merge m:1 wave*) and a progress fraction was calculated; constituency-specific 2012–15 figures were then generated as  $u09+(u19-u09)*prog$ .

Control variable selection was similar to that of Chletsos and Roupakias (2019). Since census data are released at the NUTS-3 regional-unit (Περιφερειακές Ενότητες) level, additional adjustments were required to align them with the country's electoral districts (εκλογικές περιφέρειες). Regional units correspond to the NUTS-3 classification units of the country, whereas electoral districts are

characterized by shared candidates and ballots. Numerous regional units are encompassed within the same electoral district; consequently, the integration of control numbers was executed to align with the electoral districts.

### ***Difference in Difference regression***

#### **Empirical Strategy**

To identify the effect of immigration flows on voter behaviour towards immigration, based on the empirical literature of Hangartner et al. (2019), a comprehensive two-period DiD (difference-in-differences) method was used. The analysis compared 2009 as the pre-treatment period and 2019 as the after-treatment period, with the intermediate elections of 2012 and 2015 excluded to ensure the results were not influenced by non-linear periods. The panel comprises 54 electoral districts (*csts*) observed exactly twice, resulting in 108 observations. The calculated Immigration Policy stance (*immigrate\_policy*) is measured on a 0-10 scale, where zero stands for a strong liberal position, while 10 a strongly conservative, restrictive one. Time-varying controls include *educational level*, *unemployment rate*, *female population share*, *log population density*, and *GDP per capita*, for each electoral district, in both elections, ensuring a thorough and robust analysis.

#### **Binary treatment definition**

The two-period DiD design compares base conditions of 2009 (wave 1) with those in 2019 (wave 5). Let

$$\Delta s_c = \text{pct}_{c,2019} - \text{pct}_{c,2009},$$

where *pct* is either the Asian-born share or the total immigrant share of electoral district (CST) *c*. A binary treatment indicator is defined as:

$$\text{Treated}_c = \begin{cases} 1, & \text{if } \Delta s_c > \bar{\Delta s}, \\ 0, & \text{otherwise.} \end{cases}$$

Thus, the CSTs (electoral districts) that experienced higher-than-average immigration flows comprise the treatment group, while the controlled group consists of the districts with below-average observed immigration. Asian immigrant groups were examined individually, too, because this migrant group was at the epicentre of the ongoing refugee inflow experienced in the country.

## Regression equation

The regression equation was moduled as:

$$Immigrate Policy_{ct} = \beta (Treated_c \times Post_t) + X_{ct\gamma} + \alpha_c + \varepsilon_{ct}$$

- *Immigrate Policy<sub>ct</sub>* is the Immigration Policy Stance index, as mentioned in previous chapters. (0= liberal, 10= highly restrictive), for a given electoral district (c) at a given wave (t);
- *Treated<sub>c</sub>* 0 for control districts and 1 for treated ones;
- *Post<sub>t</sub>* equals 0 for 2009 and 1 for 2019;
- *a<sub>c</sub>* are the district Fixed Effects;
- *X<sub>ctγ</sub>* the control variables of education shares, female share, unemployment etc.;
- *ε<sub>ct</sub>* as the error term;
- *β* the differential change in policy stance for treated vs controlled districts;

The regression is performed with reghdfe command, absorbing district effects and clustering S.E. at the district level.



## 6. Regression results

In this chapter, the primary regression results of this thesis are examined. Drawing on the findings of (Brunner & Kuhn, 2018), who explain that different immigrant groups lead to different local views and voting behaviors, two separate regressions were conducted: one focusing solely on the increase in the Asian immigrant population, and another considering the increase in the entire non-Greek population. Differentiation was expressed through the treatment method, with one treatment calculated based on the Asian population share and the other on the total population, resulting in two distinct DiD variables: `did_tot` and `did_asia`.

*Table 2. Descriptive Statistics*

Variable	Obs	Mean	Std. Dev.	Min	Max
did	108	.259	.44	0	1
post	108	.5	.502	0	1
primary edu	108	25.844	4.825	11.37	35.684
high school edu	108	25.996	5.889	16.669	37.701
tertiary edu	108	14.712	3.808	8.515	29.246
unemployed perc	108	6.918	1.205	4.365	10.46
female perc	108	50.271	.924	47.687	52.584
density	108	402.835	1773.705	10.4	12614.6
gdp percapita	108	15976.389	4791.843	9600	37600

## ***Total immigration regression***

*Table 3. Total Immigration Regression*

VARIABLES	(1) Total immigration Policy Regression
did_tot	0.190* (0.043)
post	-1.103* (0.230)
primary_edu	-0.037* (0.014)
high_school_edu	0.015 (0.020)
tertiary_edu	0.011 (0.035)
unemployed_perc	0.034* (0.020)
female_perc	0.083* (0.041)
density	-0.000* (0.000)
gdp_percapita	-0.000* (0.000)
Constant	2.527 (2.065)
Observations	108
R-squared	0.968
Clusters	54
Obs	108

Robust standard errors in parentheses

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01

*Table 3* reports the estimates from the two-period DiD specification in which constituencies (CSTs) whose ten-year increase in the share of foreign-born residents exceeds the national mean are coded as treated (treated\_tot = 1). The interaction of this variable indicator with the post-period dummy (post = 1 for 2019, 0 for 2009) yields the treatment effect (did\_tot). The regression account for CST fixed effects and clusters standard errors by CST. The coefficient on did\_tot is 0.190 (s.e. 0.044,  $t = 4.39$ ,  $p < 0.001$ ). This means that, relative to non-treated constituencies, treated CSTs experienced an additional 0.19-point increase in policy restrictiveness on the eleven-point Immigration Policy scale between 2009 and 2019. The post dummy is negative and statistically significant ( $-1.103$ , s.e. 0.230,  $p < 0.001$ ),

reflecting the nationwide shift to more liberal immigration stances. Once this common shift is accounted for, the DiD identifies *the excess change in treated areas*.

Among the covariates, the share of residents with primary education only is associated with a less restrictive stance ( $-0.037$ , s.e.  $0.014$ ,  $p = 0.011$ ): a five-percentage-point rise in primary-educated population is linked to a 0.19-point reduction in the restrictiveness score. The coefficient on the high-school share is positive but imprecisely estimated ( $0.015$ , s.e.  $0.020$ ,  $p = 0.451$ ). Tertiary education is small and insignificant ( $0.011$ , s.e.  $0.036$ ). Labour-market conditions matter: a one-percentage-point increase in unemployment is associated with a 0.034-point rise in restrictiveness (s.e.  $0.020$ ,  $p = 0.095$ ). The female share is insignificant, while the expected negative relationship between population density and restriction emerges clearly ( $-0.00028$  per additional person  $\text{km}^{-2}$ , s.e.  $0.00005$ ,  $p < 0.001$ ). GDP per capita is small and statistically indistinguishable from zero. The model explains a large share of within-CST variation. With 54 clusters the heteroscedasticity-robust F statistic for the full model ( $125.97$ ,  $p < 0.001$ ) confirms collective explanatory power.

In summary, after controlling for demographic composition, labor-market status, urbanization, and income, districts that experienced above-average immigrant inflows between 2009 and 2019 shifted almost one-fifth of a scale point toward greater restrictiveness relative to areas where immigration growth was more modest. This pattern supports the hypothesis that sizable demographic shocks at the local level translate into attitudinal change, even when a national liberal trend is under way.

## *Asian Immigration regression*

Table 4. Asian Immigration Regression

VARIABLES	(1) Immigrate Policy Regression
did_asia	0.157* (0.047)
post	-1.264* (0.286)
primary_edu	-0.005 (0.022)
high_school_edu	0.043 (0.031)
tertiary_edu	0.029 (0.033)
unemployed_perc	0.035 (0.027)
female_perc	0.088* (0.045)
density	-0.000* (0.000)
gdp_percapita	-0.000* (0.000)
Constant	0.575 (2.595)
Observations	108
R-squared	0.963
Clusters	54
Obs	108

Robust standard errors in parentheses

\*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table 4 presents the two-period DiD in which constituencies whose ten-year rise in the Asian-born share exceeds the national mean are coded as treated ( $\text{treated\_asia} = 1$ ). Interacting this indicator with the post-period dummy ( $\text{post} = 1$  for 2019, 0 for 2009) yields the treatment effect ( $\text{did\_asia}$ ). With CST fixed effects and clustered standard errors, the coefficient on  $\text{did\_asia}$  equals 0.157 (s.e. 0.047,  $t = 3.33$ ,  $p = 0.002$ ). Thus, relative to non-treated constituencies, treated CSTs became 0.16 points more restrictive on the 0–10 immigration-policy scale between 2009 and 2019. The post dummy remains strongly negative ( $-1.264$ , s.e. 0.286,  $p < 0.001$ ), confirming the nationwide liberal shift.

Turning to the controls, primary education no longer reaches significance ( $-0.026$ , s.e.  $0.022$ ,  $p \approx 0.26$ ), while the coefficient for the high-school share is positive but imprecise ( $0.043$ , s.e.  $0.036$ ,  $p \approx 0.17$ ) and tertiary education remains small and insignificant. A one-point increase in the unemployment rate predicts a  $0.035$ -point rise in restrictiveness, but the larger standard error pushes the  $p$ -value above the  $0.10$  threshold. As in the total-immigrant model, density exerts a robust effect against restriction ( $-0.00019$  per additional resident  $\text{km}^{-2}$ ,  $p = 0.001$ ) and GDP per capita remains statistically null.

*Table 5. Results Comparison*

	(1) Total immigrant inflow treatment	(2) Asian inflow treatment
Treatment×Post	0.190*** (0.043)	0.157*** (0.047)
Post period (2019)	-1.103*** (0.230)	-1.264*** (0.286)
primary_edu on wave	-0.037** (0.014)	-0.005 (0.022)
high_school_edu on wave	0.015 (0.020)	0.043 (0.031)
tertiary_edu on wave	0.011 (0.035)	0.029 (0.033)
unemployed_perc on wave	0.034* (0.020)	0.035 (0.027)
female_perc on wave	0.083** (0.041)	0.088* (0.045)
density	-0.000*** (0.000)	-0.000*** (0.000)
Interpolated GDP per capita	-0.000* (0.000)	-0.000* (0.000)
Observations	108	108

When results are compared, it can be observed that the Asian immigration effect (0.157) is approximately 80% of the total-treatment effect (0.190). Given that Asian inflows constitute only a portion of the total immigrant growth, this implies that a significant part of the negative reaction measured by the total treatment effect is attributable to the Asian component. In other words, a stronger reaction is expressed towards migrants perceived as culturally different, a result strongly related with the literature of the field. Brunner & Kuhn (2018), suggests that immigration inflows of culturally different groups is a significant estimator of anti-immigration voting, contrary to culturally similar immigrant groups. Treated areas' coefficient differs by about 0.19 points when considering all immigrants and by 0.16 points when focusing solely on Asian inflows. This indicates that, since total immigration accounts for Asian groups too, other foreign-born groups had minimal impact on the restrictive trend. Thus, an influx of immigrants from a single group can influence local opinions almost as significantly as a large overall increase in immigration.

Overall, the results indicate that areas with higher Asian inflows experienced a clear shift towards stricter immigration policies, despite the country moving in the opposite direction. Although the point estimate is slightly smaller than the total-treatment effect, the comparable size and the substantial impact of Asian inflows underscore how public opinion is sensitive to the type of immigration, not only the size of immigrant groups.

While using a Difference in Differences approach, it is important to test for the Parallel Trend Assumption. The parallel-trends assumption is a method of testing whether the examined trend, the difference between treated and control groups, was already occurring before treatment. It analyzes if, absent the treatment, the outcome for the treated group would be the same. A major flow of this thesis was the inability to test for the parallel trend assumption, because of the two-period setting. As a result, no "trend" can be tested.

Some limitations of this research are attributed to the available immigration data. The two election waves from 2015, despite being chronologically closer to the refugee influx, were excluded from the main DiD analysis. This decision was made because the data was limited, which could have led to inaccuracies in determining the treatment dummy. Another significant limitation identified in the study concerns the alignment of statistical data with the election results. Electoral districts of critical importance to the research frequently corresponded to the same NUTS-3 level regional district, and vice versa. Although a methodology to address this issue has been developed (see Data and Methodology), it would be preferable for these elements to be aligned from the outset.

## 7. Stance Observations and Analysis

### *Stance trends*

*Insert Figure 1. Median Immigration Stance Across Elections here.*

By calculating and graphing the median stance on immigration across the five elections (Figure 1), we can trace how Greek public opinion evolved over time. Immigration appears to move parallel to the electorate's chief concern, the economy. The change from 2009 to 2012 is small and offers little analytical leverage, as does the shift from 2012 to 2015; both intervals coincide with changes in the governing party, so modest movement is to be expected. The noteworthy finding is the persistent stability in median views on immigration between 2015 and 2019, even as executive power passed from the SYRIZA–ANEL coalition to a New Democracy government.

*Insert Figure 2. National Vote Weighted Immigration Stances by CHES data here.*

Figure 2 uses the CHES data, where party immigration stance was weighted by national vote share, to calculate and examine the party agenda rhetoric on immigration between the surveyed years. The downward slope highlights a monotonic positioning of parties on immigration. Greek parties -on average- have moved to more liberal immigration positions over the examined years. Figure 1, in contrast, graphs the median constituency stance in the five parliamentary elections (2009 to 2019). Here, a non-linear positioning can be traced. A fall between 2009 and 2012 (when the economic crisis firstly hit the country), a small rebound between the two 2015 elections, and a rather stable positioning between 2015 and 2019.

The examined trends suggest that changes in district position on immigration are driven less by party agendas rather than by shifts in the general electoral attitudes. In the 2012 crisis-era, anti-immigration sentiment pulled the electorate to more restrictive stances, even though the party agenda had already begun shifting to less restriction. The shifts seen in 2015 and 2019 similarly indicate a redistribution of voter support instead of sudden changes in the narratives of those in power. This pattern aligns with research indicating that voters' collective stance on issues can differ from party positioning during economic upheavals or when new players alter the party landscape (Hobolt & Tilley 2016). It highlights the crucial need to assess both adjustments in party agendas and the shifts in voting priorities, as surveys of elites alone fail to capture the instability that occurs when electorates redefine the conversion of party platforms into voting.

*Insert Figure 3. Stances across the election years here.*

Interestingly, immigration seems to be the only stance with general stabilized results between 2015 and 2019.

## ***Stance observation***

To enhance the analysis of the relationship between various stances and to gain a deeper understanding of public opinion and perspectives, regressions were conducted between key stances.

A simple OLS regression of district-level immigration stances on redistribution preferences yields a statistically significant and substantively strong relationship ( $\beta = 0.82$ ,  $p < 0.001$ ), suggesting a robust association between economic conservatism and anti-immigrant sentiment. The model explains over half of the variation in immigration stance ( $R^2 = 0.51$ ), consistent with a unified ideological axis across Greek districts.

The observed positive correlation between preferences for lower redistribution and more restrictive immigration stances at the district level reflects a broader alignment of economic and cultural conservatism. This finding is consistent with theories of ideological structuring, where individuals and electorates increasingly organize their political preferences along a single, integrated left–right axis (Inglehart & Norris, 2016; Kriesi et al., 2008). In this framework, economic self-reliance and skepticism toward state redistribution align with cultural protectionism and exclusionary attitudes toward out-groups. The strength and statistical significance of this relationship ( $\beta = 0.82$ ,  $p < 0.001$ ,  $R^2 = 0.51$ ) suggest that in the Greek context, district-level ideological orientations are not fragmented but reflect a coherent worldview that links market liberalism with national identity concerns. This finding is consistent with the literature on the economic underpinnings of anti-immigrant sentiment (e.g., Oesch, 2008; Rydgren, 2007), while also supporting the idea that voter blocs and parties may mobilize simultaneously around economic and cultural issues.

*Insert Figure 4. Immigration Policy-Redistribution Preferences Regression plot here.*

Similar to redistribution, religious values appear to positively correlate with immigration stances. In fact, an OLS regression of immigration stances on religious principles ( $N = 270$ ) yields a slope of  $\beta = 0.937$  ( $SE = 0.017$ ,  $t = 54.89$ ,  $p < 0.001$ ; 95% CI [0.904, 0.971]), indicating that a one-unit increase in religious-principles score is associated with nearly a one-unit increase in anti-immigration stance. The model explains 91.8 % of the variance in immigration policy positions ( $R^2 = 0.918$ ). This strong positive association in Greece contrasts with Dustmann et al. (2019), who found that regions with higher tax contributions tend to be more receptive to migrant populations. Overall, these results suggest that religious identification in Greece is tightly linked to anti-immigration sentiment.

*Insert Figure 5. Immigration Policy-Religious Principles Regression Scatterplot here.*



To further explore the link between related attitudes, immigration policy was also regressed on multiculturalism. This model explains 48.7 % of the variance in immigration stances ( $R^2 = 0.487$ ,  $F(1, 268) = 254.08$ ,  $p < 0.001$ ). Each one-unit increase in the multiculturalism score is associated with a 0.655-point rise in restrictive immigration stance ( $SE = 0.041$ ,  $t = 15.94$ ,  $p < 0.001$ ; 95 % CI [0.574, 0.736]). Given its strength and significance, this relationship can itself serve as a useful robustness check: those holding more skeptical views on multiculturalism also tend to adopt more restrictive immigration positions.

*Insert Figure 6. Immigration Policy-Multiculturalism Stance Scatterplot here.*

## 8. *Discussion*

The primary two-period Difference-in-Differences analysis reveals that Greek electoral districts experiencing immigrant inflows above the average shifted significantly toward more restrictive immigration policy stances. Highly affected districts exhibited a 0.19-point increase in restriction approval on the total-immigrant index. For Asian immigration, which is more relevant to the refugee population's arrival, there was a 0.16-point increase in restrictiveness. These regression effects remain statistically significant even when accounting for district and year fixed effects, economic conditions (unemployment, per capita GDP), and demographic characteristics. The regression results align with the Group Threat Theory, which states that when a local population perceives competition -whether over employment, social status, or public services; they become more hostile toward immigration (Blumer, 1958). The following section unpacks these mechanisms in detail, comparing district-level panel results to empirical literature from Greece and beyond, and exploring the role of local conditions.

While much of the literature focusing on Greece examines the refugee populations and their interactions with the local population, this study aims to examine immigration in general. Refugee populations are part of the general migratory flows; thus, they were examined both as a part of the general migration pattern and on their own, to draw conclusions about different attitudes toward migrants and refugees. In this context, the study found that the Asian influx- the group most closely associated with the refugee wave- accounted for roughly 80 % of the total treatment effect. This finding aligns with the empirical literature (Hangartner et al., 2019; Dustmann et al., 2019).

In the examined models, educational levels of the population seem to emerge as powerful predictors of immigration attitudes. Counterintuitively, education seems to have a positive relation to restrictiveness, especially for the general-immigration model. Labor and employment stress generate consistent behavior as well, where an increase in unemployment has a strong correlation with an increase in restrictiveness. Gender composition of the population (share of women) behaves stably: districts with a higher proportion of women tend to vote for more restrictive immigration policies. Lastly, a final finding was the confirmation of the rural-urban divide (Dustmann et al., 2019), where population density (higher density accounts for more urban models) pushes the immigration stance downward, toward a less restrictive position.

Educational attainment shows that when immigration increases, backlash among blue-collar workers is experienced. However, that only occurs for the total-immigration model, whereas in the Asian-immigration model, the influence of low-skill status fades. This might be consistent with the existing literature, which suggests that political backlash to immigration occurs when the local population expresses fear of labor-market competition and unemployment. Refugee populations, although significant in numbers, were hosted in closed facilities with no employment rights. Thus, it is likely that

they were not perceived as labor market competition by the general population, while this was not the case for general immigrants who seek employment.

The analysis of immigration stance confirms that it is not an isolated attitude but part of a broader ideological perspective. Over multiple elections, the median immigration stance follows a U-shaped pattern, even as overall party agendas have become more liberal. This trend highlights a growing divide between political elites and the general public. The OLS regressions reveal a very significant alignment between immigration stance and other policy areas. Each one-point against supporting the redistribution of wealth, coincided with a 0.82-point rise in support of restrictive immigration policy ( $R^2=0.51$ ). The relationship is even more significant for the support of religious principles in politics ( $\beta=0.94$ ,  $R^2=0.92$ ) and skepticism toward multiculturalism adds a further 0.66 points towards restriction ( $R^2=0.49$ ). These patterns suggest that support for immigration restriction is part of a coherent right-wing ideology that combines free-market economics, cultural assimilation, and religious traditionalism. The findings also underscore the widening gap between increasingly liberal party platforms and voters who remain cautious about immigration.

Party elites frequently fail to align with public sentiment, particularly when issues such as immigration are addressed without evidence-based policy setting. Instead, they often exploit opportunities for political gain and potential backlash. The state, as an institutional entity, plays a crucial role in mitigating polarization and anti-institutional tendencies. The evidence suggests that anti-immigrant backlash is sharpest where sizeable, culturally distant inflows meet pre-existing economic insecurity, yet it also fades once economic pressures ease and contact normalizes. Based on the findings of this thesis, policymakers should concentrate resources to accelerate labor-market matching and language-training programs in high-unemployment districts immediately after large arrivals; support municipal information campaigns that emphasize skills complementarities rather than competition; and incentivize civil-society and religious organizations -especially in more traditional districts- to host structured contact events that demystify newcomers long before electoral cycles. By targeting the short window in which threat perceptions form, such interventions can stop the initial swing toward restriction without the need for a national policy.

A notable methodological challenge faced during this analysis concerns the alignment and integration of data collected at different administrative levels and distinct points in time. Specifically, immigration data from the Greek census were available only for 2011 and 2021, whereas the electoral outcomes analyzed correspond to the 2009, 2012, 2015 and 2019 elections. As a result, the immigration data used for election analysis is often out of date. This can cause errors and make it harder to draw clear conclusions. Also, differences between voting areas and census areas required careful data handling, which can lead to errors. Even though regional averages and district-level estimates were used to reduce these issues, some uncertainty remains due to mismatches in time and space. These limitations highlight

the need to be cautious when interpreting the study's results, especially regarding cause-and-effect claims and how widely they apply.

This thesis focuses on district-level voting patterns up to 2019, but questions remain open. The period studied was politically intense, with the rise of right-wing coalitions potentially influencing public opinion and voting behavior. Adding individual survey data could help explain voting choices and attitudes. Looking at a longer time frame might reduce the effect of crisis-driven views. Also, comparing Southern European countries like Italy, Spain, Portugal, and southern France could show if the economic insecurity and cultural distance seen in Greece apply to similar labor markets and party systems. Research has shown that anti-immigration feelings in Greece were more part of anti-European discussions rather than solely anti-immigrant or anti-refugee views. A broader comparison could explore these attitudes further.

## *9. Conclusion*

This thesis investigated the impact of local immigration “shocks” on electoral attitudes in Greece using a two-period Difference-in-Differences design. By constructing a model to capture district level ideological stances, using electoral results and party manifesto analysis, it explores the changes in voting behavior, influenced by the experiences of interaction with refugee and immigrant populations. Different from prior empirical research that concentrates on the vote shares of right-wing parties, this study recognizes the dynamic nature of party agendas over time and instead focuses on the broader transformation in public opinion and party agenda as demonstrated by the electorate's voting patterns.

The analysis revealed that electoral districts experiencing above-average immigrant growth adopted significantly more restrictive stances on immigration policy, despite a national trend towards liberalization. The estimated shifts represent substantial changes, comparable to findings from recent island- and municipality-level studies. Notably, Asian arrivals, serving as a proxy for culturally distant refugee waves, emerged as a stronger per-unit driver of backlash, aligning with the Group-Threat theory.

Labor competition also seems to play a role in shaping voting attitudes, with low-skilled workers appearing to feel more threatened by the presence of permanent immigrants than by refugees. Although theory suggests that immigration has historically functioned as a mechanism for economic prosperity, labor supply, and even as a catalyst for emancipation, local populations often fail to perceive it as such. Faced with the threat of unemployment or the potential loss of economic and employment status, they tend to vote against immigration.

This evidence suggests that changes in attitudes toward immigration should not be seen as permanent or irreversible. Public opinions on migration are not consistently becoming more rigid or polarized. Instead, they change dynamically, influenced by factors such as the number of immigrants, their ethnic identities, how immigration is presented to the public or the general economic and moral arguments presented to the voters. This insight highlights the importance of recognizing that public opinion on immigration can adapt and shift in response to changing circumstances.

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## Figures

Figure 1. Median Immigration Stance Across Elections

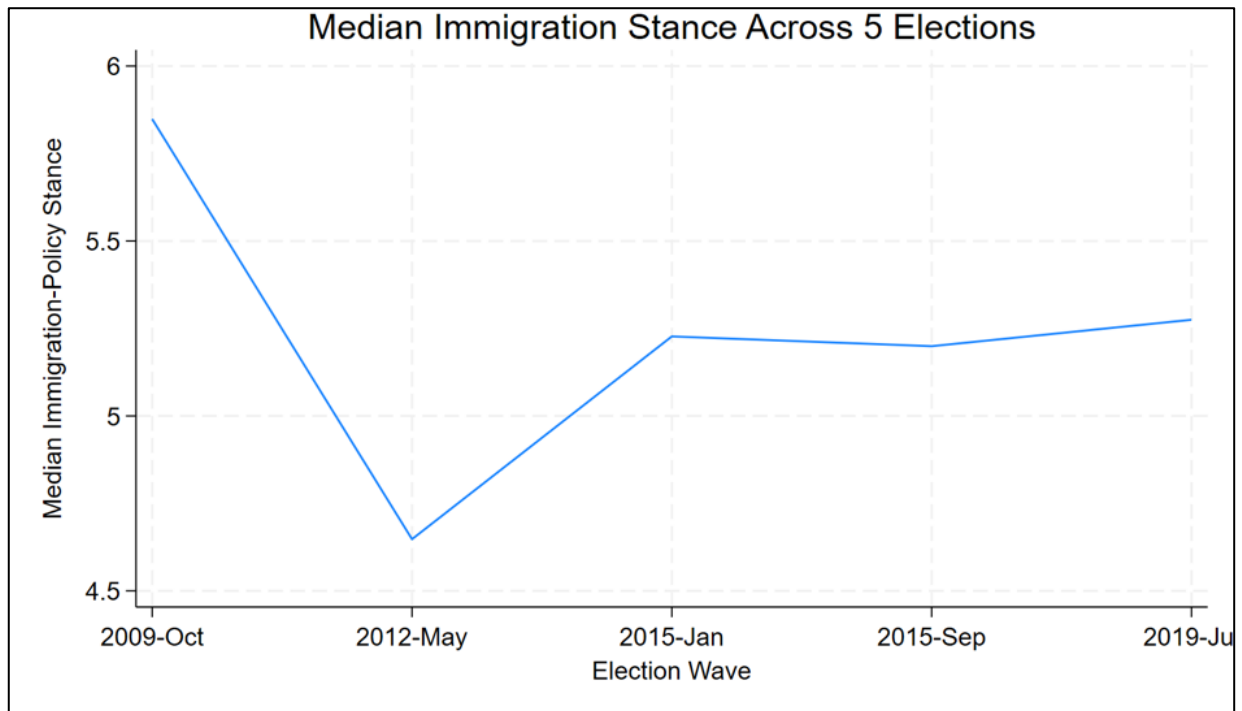


Figure 2. National Vote Weighted Immigration Stances by CHES data

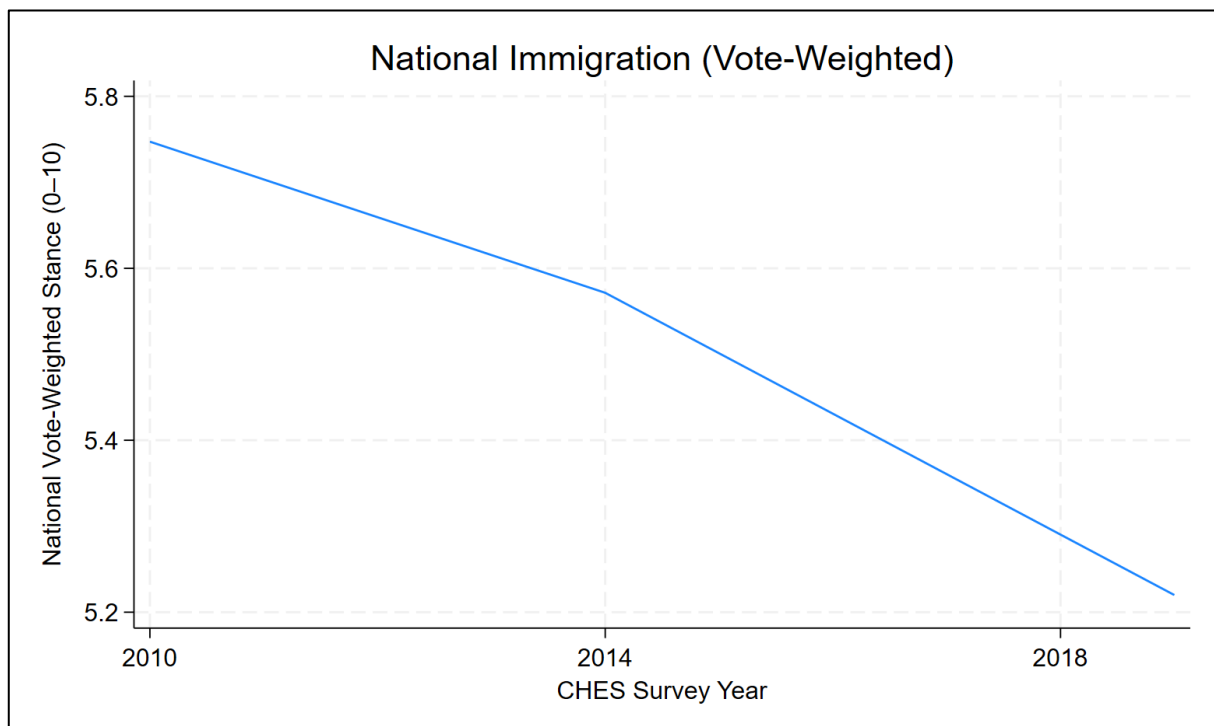


Figure 3. Stances across the election years

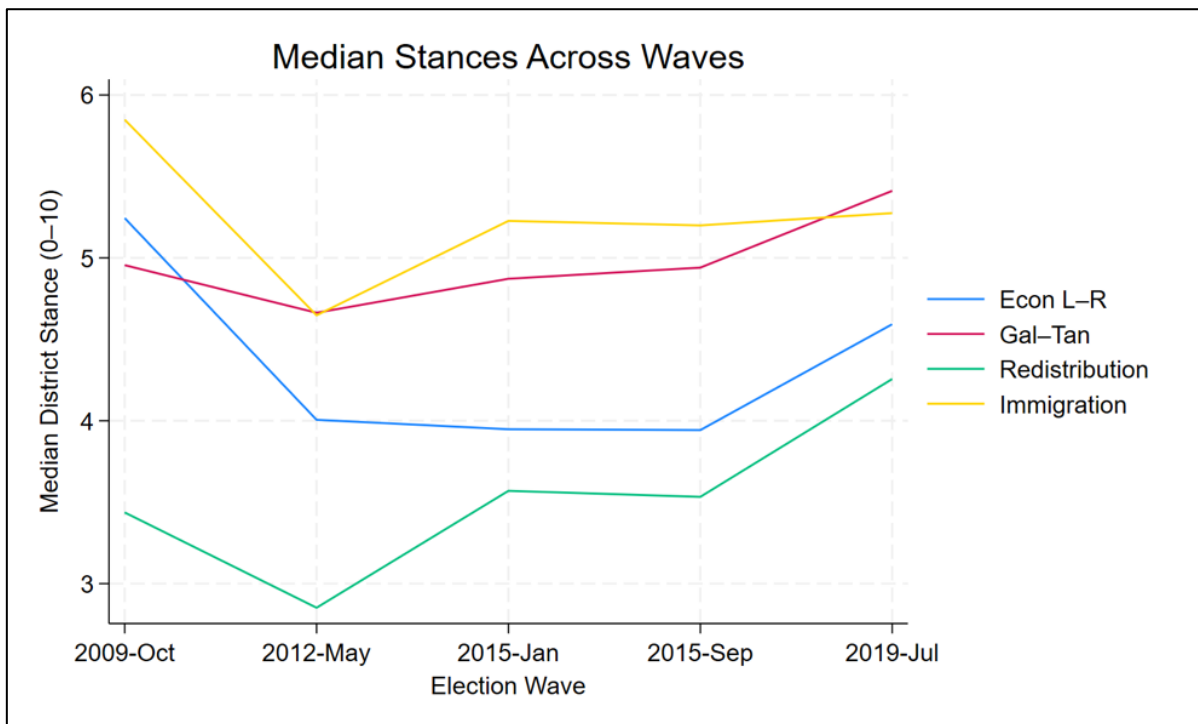


Figure 4. Immigration Policy-Redistribution Preferences Regression plot

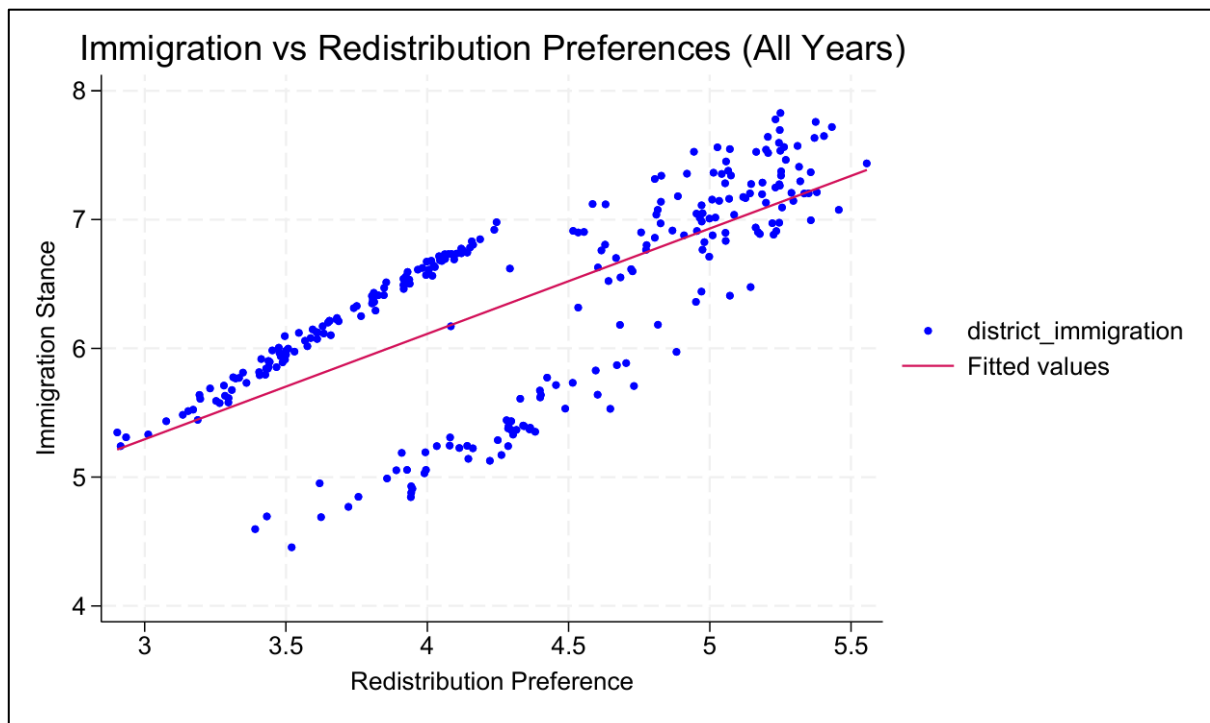


Figure 5. Immigration Policy-Religious Principles Regression Scatterplot

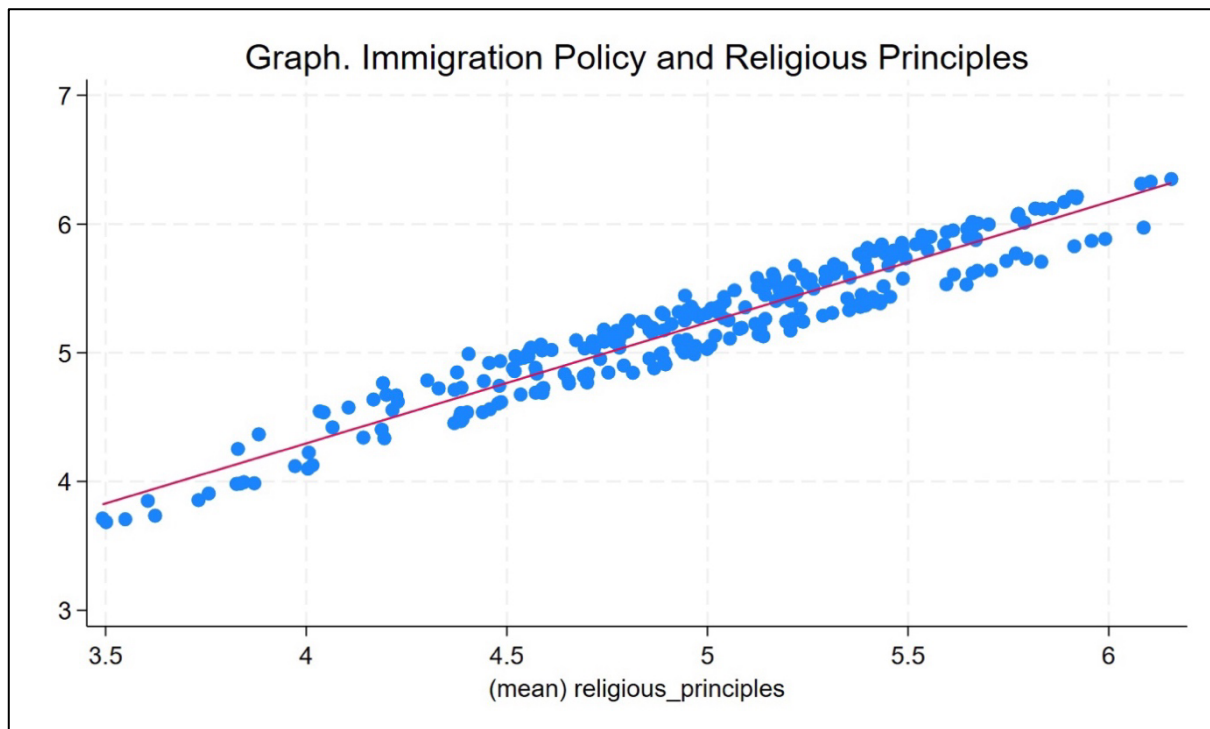
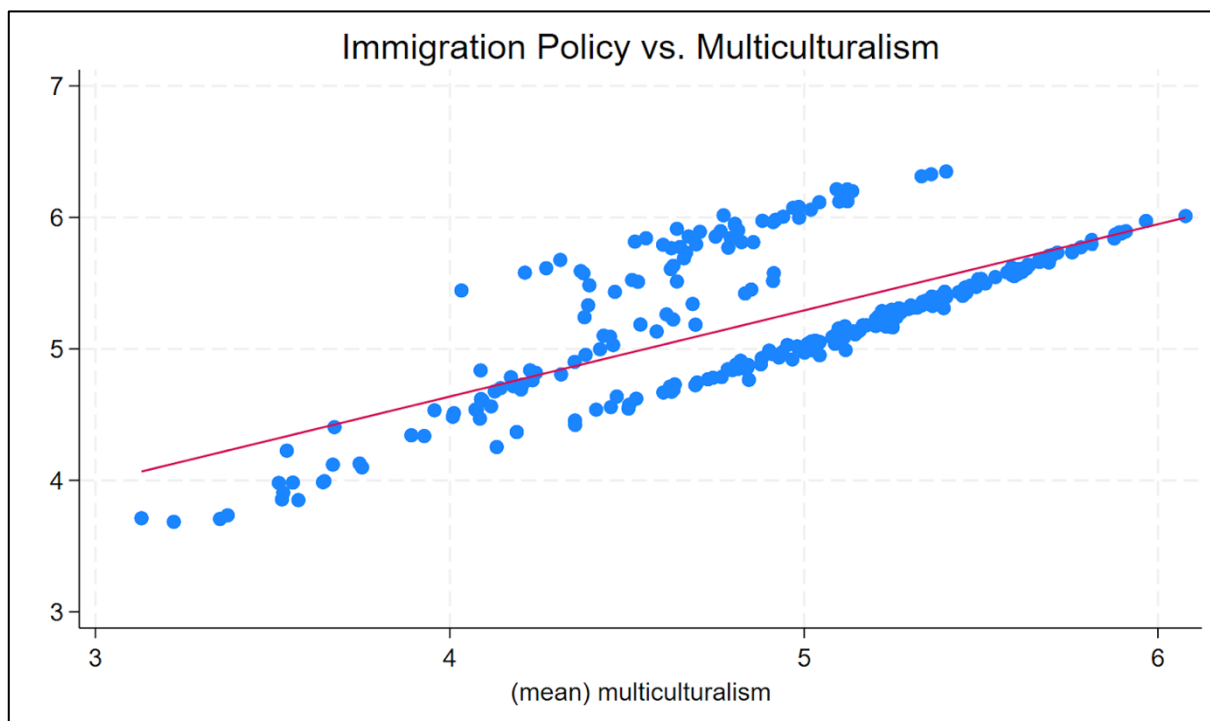


Figure 6. Immigration Policy-Multiculturalism Stance Scatterplot



## Regression Results

### Regression Output A. Immigration Policy-Redistribution Regression

66 . reg district_immigration district_redistribution						
Source	SS	df	MS	Number of obs	=	280
Model	87.8097066	1	87.8097066	F(1, 278)	=	296.73
Residual	82.2675238	278	.295926345	Prob > F	=	0.0000
				R-squared	=	0.5163
				Adj R-squared	=	0.5146
Total	170.07723	279	.609595808	Root MSE	=	.54399
district_immigration		Coefficient	Std. err.	t	P> t	[95% conf. interval]
district_redistribution		.8180804	.0474916	17.23	0.000	.7245917 .9115692
_cons		2.840061	.2070444	13.72	0.000	2.432487 3.247635

### Regression Output B. Immigration Policy-Religious Principles Regression

. regress immigrate_policy religious_principles						
Source	SS	df	MS	Number of obs	=	270
Model	73.1286368	1	73.1286368	F(1, 268)	=	3013.23
Residual	6.50414647	268	.024269203	Prob > F	=	0.0000
				R-squared	=	0.9183
				Adj R-squared	=	0.9180
Total	79.6327832	269	.296032651	Root MSE	=	.15579
immigrate_policy		Coefficient	Std. err.	t	P> t	[95% conf. interval]
religious_principles		.9372471	.0170741	54.89	0.000	.9036306 .9708636
_cons		.5483266	.0856506	6.40	0.000	.379693 .7169602

### Regression Output C. Immigration Policy-Multiculturalism Stance Regression

Source	SS	df	MS	Number of obs	=	270
Model	38.7548713	1	38.7548713	F(1, 268)	=	254.08
Residual	40.8779119	268	.152529522	Prob > F	=	0.0000
				R-squared	=	0.4867
				Adj R-squared	=	0.4848
Total	79.6327832	269	.296032651	Root MSE	=	.39055
immigrate_policy		Coefficient	Std. err.	t	P> t	[95% conf. interval]
multiculturalism		.6554118	.0411176	15.94	0.000	.5744572 .7363665
_cons		2.015906	.2024758	9.96	0.000	1.617261 2.414552

### Regression Output D. General Immigration

```
. reghdfe immigrate_policy did_tot post `controls', absorb(cst) vce(cluster cst)
(MWFE estimator converged in 1 iterations)
```

HDFE Linear regression		Number of obs	=	108
Absorbing 1 HDFE group		F( 9, 53)	=	125.97
Statistics robust to heteroskedasticity		Prob > F	=	0.0000
		R-squared	=	0.9684
		Adj R-squared	=	0.9250
		Within R-sq.	=	0.9403
Number of clusters (cst)	=	54		Root MSE = 0.1119

(Std. err. adjusted for 54 clusters in cst)

immigrate_policy	Coefficient	Robust std. err.	t	P> t	[95% conf. interval]	
did_tot	.189666	.0431968	4.39	0.000	.1030242	.2763079
post	-1.103065	.2303147	-4.79	0.000	-1.565018	-.6411125
primary_edu	-.0369671	.0141089	-2.62	0.011	-.0652659	-.0086683
high_school_edu	.0148857	.0195957	0.76	0.451	-.0244184	.0541898
tertiary_edu	.0109434	.0346304	0.32	0.753	-.0585164	.0804031
unemployed_perc	.0339758	.0199636	1.70	0.095	-.0060662	.0740177
female_perc	.0833119	.0414505	2.01	0.050	.0001727	.166451
density	-.0002757	.0000476	-5.79	0.000	-.0003712	-.0001802
gdp_percapita	-.0000227	.0000128	-1.77	0.082	-.0000483	2.96e-06
_cons	2.526536	2.065055	1.22	0.227	-1.61544	6.668513

### Regression Output E. Asian Immigration

```
. reghdfe immigrate_policy did_asia post `controls', absorb(cst) vce(cluster cst)
(MWFE estimator converged in 1 iterations)
```

HDFE Linear regression		Number of obs	=	108
Absorbing 1 HDFE group		F( 9, 53)	=	93.00
Statistics robust to heteroskedasticity		Prob > F	=	0.0000
		R-squared	=	0.9628
		Adj R-squared	=	0.9115
		Within R-sq.	=	0.9296
Number of clusters (cst)	=	54	Root MSE	0.1216

(Std. err. adjusted for 54 clusters in cst)

immigrate_policy	Coefficient	Robust std. err.	t	P> t	[95% conf. interval]	
did_asia	.1571932	.0472012	3.33	0.002	.0625196	.2518667
post	-1.263516	.2855871	-4.42	0.000	-1.836331	-.6907009
primary_edu	-.0052066	.0221485	-0.24	0.815	-.0496308	.0392176
high_school_edu	.0429475	.0305576	1.41	0.166	-.0183433	.1042383
tertiary_edu	.0294626	.0333257	0.88	0.381	-.0373803	.0963054
unemployed_perc	.0348709	.0271557	1.28	0.205	-.0195964	.0893382
female_perc	.0878811	.0454976	1.93	0.059	-.0033756	.1791377
density	-.0001886	.0000544	-3.47	0.001	-.0002977	-.0000795
gdp_percapita	-.0000248	.0000142	-1.75	0.086	-.0000533	3.67e-06
_cons	.5745473	2.595053	0.22	0.826	-4.630471	5.779565

Absorbed degrees of freedom:

Absorbed FE	Categories	- Redundant	= Num. Coefs
cst	54	54	0 *

\* = FE nested within cluster; treated as redundant for DoF computation