

# Immigration Shocks and Politicians' Rhetoric: Evidence from The Venezuelan Migration Crisis

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## Abstract

This paper examines how politicians respond to an unprecedented shock that dramatically alters the importance of a specific issue on their agendas. It focuses on the effects of the Venezuelan crisis, which has led to a significant influx of over 6.1 million immigrants into Latin American countries. Utilizing computational text-analysis methods such as Word-scores, unsupervised topic analysis, and OpenAI's API, applied to a corpus of over 3 million tweets from Chilean and Peruvian parliament members between 2013 and 2021, we identify statements about immigration, their stances (pro or anti-immigration), ideologies, and the framing used. We find that all party families increase the salience of the immigration issue without notable differences independent of the geographic exposure to the shock. Additionally, we find a positive causal link between the size of the immigrant population in the electoral district and the publication of pro-immigration statements on Twitter, primarily originating from left-wing politicians. However, we also document null effects of politicians' exposure to more immigrants in their districts on the number of tweets about immigration. Employing other NLP techniques, we explore and provide suggestive evidence that parties use distinct vocabularies aligned with their ideologies and emphasize different aspects when discussing immigration. This study contributes to understanding political behavior and communication strategies in the face of demographic changes, offering insights into how economic and social pressures influence policy discourse and public opinion formation in emerging economies.

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# 1 Introduction

Immigration has long been recognized for its significant political effects, often triggering hostility and backlash among native populations, influencing political preferences, and affecting electoral outcomes. This dynamic is well-documented, showing how immigration can alter the political landscape. However, as [Alesina and Tabellini \(2024\)](#) suggest, we need to explore attitude shifts beyond the native population. It remains unclear whether political elites adjust their positions on immigration in response to these shocks and how immigration relates to political polarization. Despite extensive literature on the impact of immigration on native political preferences, the potential for immigrant flows to increase political divisions among elites has not been thoroughly explored. The existing limited evidence focuses primarily on developed nations, leaving a gap in our understanding of how low- and middle-income nations, which host 76 percent of the world’s refugees ([Davis et al., 2024](#)), respond. This is the contribution of our study.

This paper aims to fill this gap by studying how an immigration shock shapes political agendas, particularly in the context of a crisis that forces changes on the extensive margins of political rhetoric. We test our argument by examining how members of the Chilean and Peruvian parliaments, two of the largest recipient nations, addressed an immigration shock using text analysis of their political statements. Specifically, we investigate the effects of Venezuelan immigration, which has led to a significant influx of over 6.1 million immigrants into Latin American countries and Haitian immigration into Chile. We investigate whether political parties vie for the ownership of immigration issues, how they strive to emphasize specific aspects of the issue, and whether there are variations in how parties from different ideological backgrounds address the topic. By proposing a theoretical framework that examines the relationship between crises, legislator behavior, and the emergence of new agenda items, this research seeks to answer these critical questions.

Understanding how political elites respond to immigration shocks is highly relevant from an economic perspective. Political responses to immigration can significantly influence economic policies and outcomes, including labor market regulations, social welfare provisions, and overall economic stability. Moreover, how political parties frame immigration issues can affect public opinion and, consequently, voter behavior and policy support. This study contributes to the broader debate on political economy by providing insights into the strategic behavior of politicians under demographic pressures, thereby enhancing our understanding of the complex interplay between economics, politics, and social change.

To answer these questions, we construct a novel dataset capturing the frames and emphasis on immigration from Chilean and Peruvian legislators’ public statements on Twitter. The dataset encompasses over 3 million tweets from the period between 2013 and 2021. Our aim is to investigate whether the left and right wings refer to the issue differently, focusing on the salience of immigration and how politicians frame the issue.

We argue that in the face of a dramatic crisis that triggers an expansion of the political debate (a change in the extensive margin regarding the share of immigrants), numerous political actors are likely to address the issue due to the high cost associated with dismissing it. In the specific context of the Venezuelan displacement, given its significant scale, all political actors

would be compelled to heighten the saliency of the issue. Considering immigration as a topic was not previously salient in most South American countries, we do not expect any particular group of parties (from the left or the right) to assume sole leadership of the issue in the short term within these countries.

Our findings demonstrate that all party families<sup>1</sup> increase the salience of the immigration issue, with no remarkable differences observed. These results diverge from patterns seen in OECD-hosting countries, where right-wing parties typically dominate the immigration discourse (Gessler and Hunger, 2022). In contrast, our study documents null differences between left-wing and other parties regarding the issue’s salience.

Nonetheless, immigration remains a highly divisive issue, influenced by ideological orientations. One of our contributions is utilizing OpenAI’s API to classify tweets as pro, neutral, or anti-immigration and to determine whether tweets refer to the topic of immigration following González-Rostani, Incio, and Lezama (2024). Parties differentiate themselves by employing distinct vocabularies aligned with their respective ideologies, and right-wing parties exhibit a higher share of tweets about immigration with anti-immigration stances.

Furthermore, according to the exploration of our topic analysis (employing non-negative matrix factorization) and BERTopic (Grootendorst, 2022), while right-wing legislators often link the immigration topic to regulatory aspects and mention Venezuelan presidents Nicolás Maduro or Hugo Chávez, left-wing legislators focus on human rights, particularly emphasizing women and children. Additionally, we use *Wordscores* following Le Pennec (2021) to demonstrate ideological differentiation in the language used to discuss immigration. Additionally, we explore whether the differences between the left and right wings in addressing the immigration issue are influenced by the areas they represent and the extent of the immigrant influx in these areas.

We also incorporate census data to measure the influx of immigrants across electoral districts. Using instrumental variables (following Ajzenman, Dominguez, and Undurraga, 2023), we show a causal link between the size of the immigrant population and the publication of pro-immigration tweets. This effect is significant only among left-wing politicians, suggesting that the effects of exposure also vary within party families. This variation may play a role in explaining the polarization surrounding this issue.

Our study is one of the first to shed light on the political reactions to one of the largest post-WWII migratory crises. Previous scholars have focused on relatively minor migration crises involving high-income countries. Surprisingly, Latin America, especially the Venezuelan displacement crisis, remains understudied. There are only a few working papers or recent papers that focus on forced migration from Venezuela. Previous research has focused on direct effects on labor outcomes (Caruso, Canon, and Mueller, 2021), education choices (Martínez and Martínez Heredia, 2023), the housing market (Forero-Vargas and Iturra, 2022; Undurraga and Gonzalez-Navarro, 2023) and crime-related outcomes (Knight and Tribin, 2020; Anatol and Kangalee, 2021; Pérez and Freier, 2023). There are other papers that show that immigration from Venezuela also affect public opinion and perceptions (Ajzenman, Dominguez, and Undurraga, 2022; Freire-Vidal and Graells-Garrido, 2019). Our study contributes to this literature

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<sup>1</sup>We refer to party families as the grouping of parties according to their ideological position. We classify them into left, center, and right (see subsection 4.2 for more details).

by analyzing the political divisions created by this influx and the strategic responses of politicians to large-scale immigration crises, highlighting how political agendas are shaped by both regional dynamics and partisan considerations. Additionally, our analysis of Chile and Peru simultaneously allows us to compare and contrast political responses across two of the largest recipient nations.

In terms of methodology, most scholars analyzing the politicization of immigration rely on static data from a single point in time, often obtained from electoral manifestos or campaign strategies (Alonso and Fonseca, 2012; Green-Pedersen and Otjes, 2019; Ruedin and Morales, 2019; Gruber, 2014; van Heerden et al., 2014), with some exceptions such as the recent work by Gessler and Hunger (2022). Surveys that aim to gather information about politicians’ positions on immigration do exist for the Latin American region, such as PELA-USAL (Alcantara, 2022) and CHES:LA. However, one limitation of these surveys is the lack of continuous data collection, which hinders obtaining more frequent and up-to-date information on politicians’ stances towards immigration. Our study advances empirical research on immigration politicization by examining how immigration becomes integrated into daily political discourse, focusing on the cohort of parliamentary elites in government during the Venezuelan immigration crisis.

Finally, our paper contributes to the literature on analyzing political speech in languages other than English (Licht, 2023; González-Rostani, Incio, and Lezama, 2024; Courtney et al., 2020; De Vries, Schoonvelde, and Schumacher, 2018). In particular, we use OpenAI’s API to determine political positioning. Our approach diverges from traditional sentiment analysis, which typically categorizes tweets as positive or negative. Instead, we can identify pro- and anti-immigration tweets that may convey negative or positive emotions, respectively. We enhance this categorization with additional methods that help us determine each tweet’s topic or ideological score.

We begin by examining the characteristics of Venezuelan migration to other Latin American countries, reviewing the literature on its effects, and highlighting how this influx represents a novel phenomenon for the region in recent decades (Section 2). This is followed by a presentation of our hypotheses based on the existing literature (Section 3). We then provide context for the specific immigration cases in Chile and Peru, detailing our data sources and the construction of the measures used in our analysis (Section 4). Next, we demonstrate the increasing salience of the immigration issue during the period we analyze and present the results of our analysis (Sections 5 and 6). Before the final remarks, we present the different frames used by the elites when discussing the immigration issue through clustering techniques (Section 7).

## 2 Background

Venezuela has been grappling with a severe economic and political crisis in recent years, particularly following the death of President Hugo Chavez in 2013. His successor, Nicolas Maduro, has faced opposition and claims of electoral irregularities during his time in office (Corrales, 2020). The country has also been hit hard by a decline in oil prices, which has led to a significant reduction in government revenue and resulted in shortages and high inflation. The economy is estimated to have contracted by two-thirds between 2013 and 2019 (Knight and Tribin, 2020).

This context has sparked widespread protests and demonstrations over economic and political issues in the country, and millions of Venezuelans have flown out. According to the Inter-Agency Coordination Platform for Refugees and Migrants from Venezuela (R4V), around 7.2 million refugees and migrants have left Venezuela as a result of the crisis.<sup>2</sup> This crisis is considered the sixth-largest refugee crisis ever registered since World War I, and it is the largest in history in Latin America.<sup>3</sup>

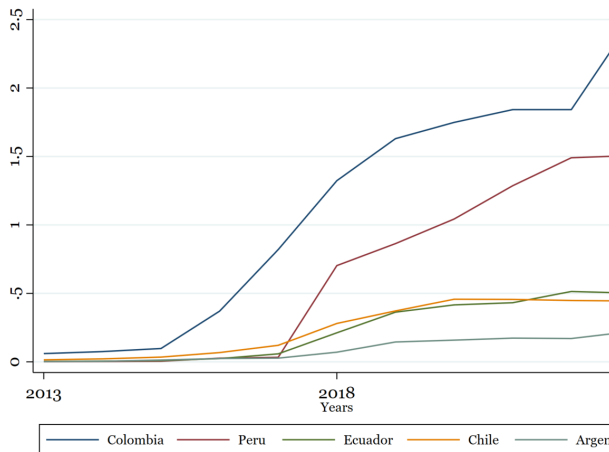


Figure 1: Evolution of the Number of Immigrants in the Top 5 Spanish-Speaking Countries  
Note: Millions of Venezuelan population reported by country. Source: Authors' own elaboration based on R4V's data.

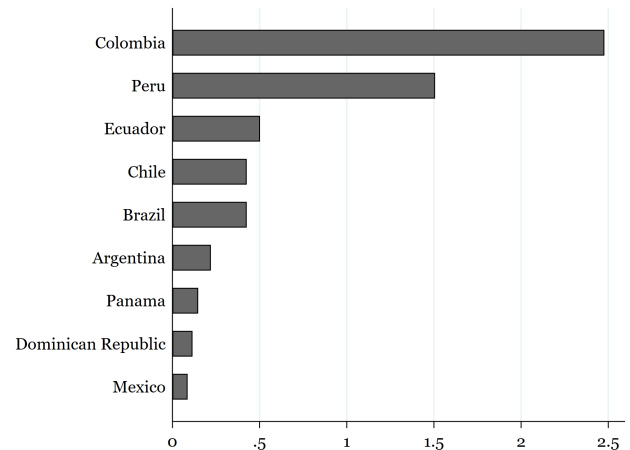


Figure 2: Latin American Countries with the Highest Number of Venezuelan Immigrants  
Note: Millions of Venezuelan population reported by country. Source: Authors' own elaboration based on R4V's data.

Figure 1 represents an exponential increase in the number of Venezuelan immigrants among Spanish-speaking Latin American countries that have encountered substantial immigration flows. This upward trajectory started in 2015 and gained momentum after 2017, coinciding with the reopening of the Venezuelan-Colombian border on August 12 2016,<sup>4</sup> and subsequently with the imposition of sanctions by the Trump administration on August 2017, which restricted the Venezuelan government's access to the U.S. financial system.

Following the immigration influx, Figure 2 provides an overview of the overall count of Venezuelan nationals residing in the nine Latin American countries that have experienced the highest influx of immigrants (as of March 2023). Colombia and Peru stand out as the main receiving countries, accommodating approximately 2.5 million and 1.5 million Venezuelans, respectively. In relative terms, these numbers represent around 4.9%, and 4.5% of the population of these countries respectively. These two countries have received more Venezuelans than the United States, where approximately fewer than 600,000 were living in 2021 (R4V based on ACS).

## 2.1 Public Salience of Venezuelan's Migration

The influx of refugees and migrants from Venezuela has not gone unnoticed by citizens; rather, it has captured considerable attention from the general public. As illustrated in Figure 3, there is

<sup>2</sup><https://www.r4v.info/en/refugeeandmigrants>

<sup>3</sup>List of largest refugee crises

<sup>4</sup><https://www.bbc.com/news/world-latin-america-37072433>

a notable surge in Google searches for the term “Venezuelans,” signaling an increased awareness and concern regarding the influx of Venezuelan refugees and migrants. There is a notable peak in the popularity of the issue between 2018 and 2020, coinciding with the significant influx of migrants to the region. To illustrate, when examining the trend in Peru (represented by the red line), the popularity of searches remains relatively low until around 2016, after which it begins to rise steadily.

The heightened popularity of these searches not only demonstrates a broader societal interest and concern regarding Venezuelan migration but also reflects the recognition of the profound impact and significance of this phenomenon within the region. Delving deeper into the related search topics reveals a range of queries encompassing travel visas, passports, alien law, criminal records, and employment regulations. For instance, in the context of Peru, the 2018 peak relates to the term “PTP” which corresponds to discussions surrounding transitory employment permits for Venezuelans. Similarly, in Chile, a significant search peak in May 2019 is associated with the topic of criminal records of Venezuelans. This corresponds to a public discussion concerning the regulatory changes introduced in mid-2019, which mandated that individuals seeking definitive permanency in the country must provide proof of a clean criminal record. These example underscores the dynamic nature of the public discourse surrounding Venezuelan migration, as specific policy measures and legal considerations come to the forefront of societal conversations.<sup>5</sup>

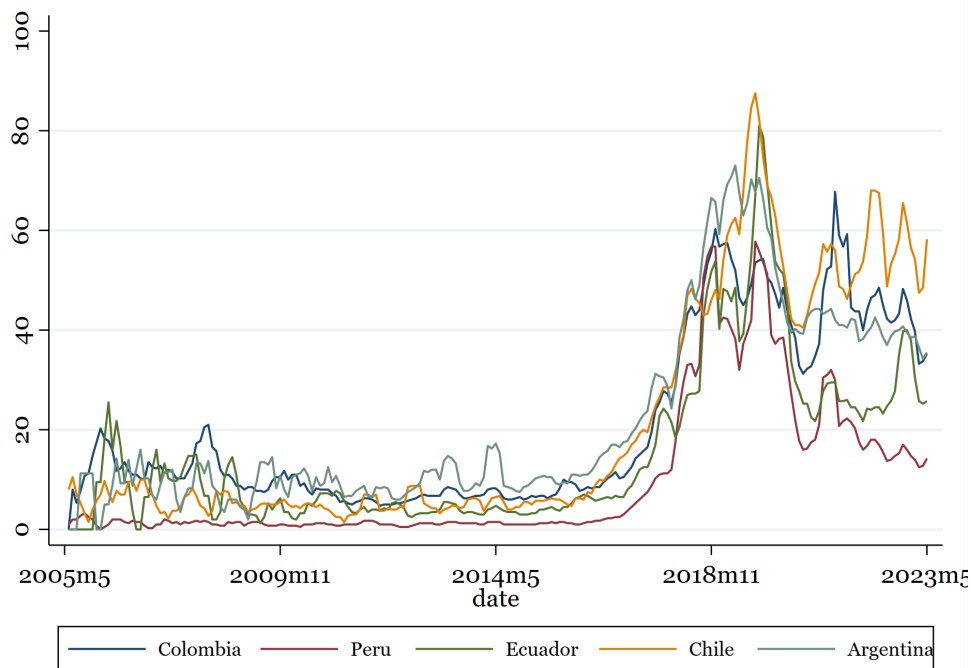


Figure 3: Public Saliency: Venezuelans

Note: The graph shows the 4-month moving average of the search interest relative to the highest point on the chart for the given region and time for the word “Venezolanos” (Venezuelans), from 2005 to May, 2023. A value of 100 is the peak popularity for the term. A value of 50 means that the term is half as popular. A score of 0 means that there was not enough data for this term.

Source: Authors’ own elaboration base on Google Trends’ data.

<sup>5</sup>Also note that during this period several new policies were implemented; see [subsection 9.1](#).

Public opinion has been shifting, as reflected in public opinion surveys. In Peru (Lima), the local newspaper *El Comercio* conducted two surveys to capture public perspectives on Venezuelan migrants: one in 2018 and another in 2019. In the first survey, 55% of respondents opposed allowing Venezuelans into Peru. The second survey showed a significant increase in opposition, with a 22.7% rise from the previous year. As a response to this increase in the hostility toward immigrants, the Peruvian migration agency launched an anti-xenophobia campaign in 2019, but perceptions that Venezuelan migrants are taking scarce job opportunities and services from locals remain. Reports from the Universidad Católica and the Panamerican Development Foundation suggest that several public institutions are struggling to cope with the influx of immigrants.<sup>6</sup> These issues underscore the ongoing challenge of managing the impact of Venezuelan migration on Peruvian society.

Similar patterns can be seen in Chile based on the Universidad Católica’s annual migration survey, which reveals a growing perception of conflict between Chileans and immigrants, with 85% of respondents expressing some level of conflict perception.<sup>7</sup> A comparative analysis of the 2017 and 2018 survey results shows a significant increase of over 15% in respondents perceiving a pronounced conflict with immigrants. Furthermore, the survey findings indicate that approximately three-quarters of the respondents believe that there is an excessive influx of immigrants into the country, and 62% assert that the number of immigrants should be reduced.

## 2.2 The Effects of Venezuelan Migration on Hosting Countries

The immigration crisis has profoundly impacted various aspects of hosting countries, with scholars documenting changes in multiple areas, including crime, labor market, housing, education, and health. One of the growing areas of research on the Venezuelan migratory crisis has demonstrated its impact on crime. Studies such as [Knight and Tribin \(2020\)](#) and [Anatol and Kangalee \(2021\)](#) show that the influx of migrants from Venezuela has increased crime in the host countries. In this line, [Knight and Tribin \(2020\)](#) find that immigration and violent crime (i.e., homicides involving Venezuelan victims) are positively correlated in the Colombia-Venezuela border, while [Anatol and Kangalee \(2021\)](#) demonstrate that the increased sentiment of suspicion and paranoia towards Venezuelan immigrants promoted by the media, which led to increased perceived crime level in Trinidad and Tobago.

An emerging group of scholars analyze the migrants’ impact on the labor market of the host countries.<sup>8</sup> For instance, [Caruso, Canon, and Mueller \(2021\)](#) find that the spillover effects of the Venezuelan crisis have had a significant impact on the labor market in Colombia, decreasing informal sector wages by ten percentage points in urban areas per every one percentage point increase in immigration from Venezuela. Moreover, [Pérez and Freier \(2023\)](#) have found that Venezuelan women suffer, in addition to discrimination, a hyper-sexualisation that hinders their incorporation into the society of the receiving countries.

Another group of scholars has looked at the impact of the crisis on housing rents, health, and

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<sup>6</sup><https://data.unhcr.org/en/documents/download/70863>

<sup>7</sup><https://encuestabicentenario.uc.cl/>

<sup>8</sup>See for example: [Zago \(N.d.\)](#), [Caruso, Canon, and Mueller \(2021\)](#), [John \(2019\)](#), [Ryu and Paudel \(2022\)](#), [Santamaria \(N.d.\)](#), [Boruchowicz, Martinelli, and W. Parker \(2021\)](#), [Peñaloza-Pacheco \(2022\)](#), and [Mora, Cuadros-Menaca, and Sayago \(2022\)](#).



education. [Forero-Vargas and Iturra \(2022\)](#) demonstrate that the migratory shock has increased housing rents, presenting evidence for the Colombian case. Focusing on health, researchers have found that the crisis has had a significant impact on countries receiving immigrants, generating a growing health threat and the resurgence of diseases such as malaria at the borders ([Mendoza and Miranda, 2019](#); [Torres and Castro, 2019](#); [Rebolledo-Ponietzky, Munayco, and Mezones-Holguín, 2019](#); [Jaramillo-Ochoa et al., 2019](#)). Finally, regarding education [Martínez and Martínez Heredia \(2023\)](#) demonstrates that Peruvian parents responded to the migration shock by transferring their children to higher-quality schools with fewer migrants and that children exposed to immigration saw a decline in their performance.

Overall, this emerging research on the Venezuelan migratory crisis accounts for the great magnitude of the struggle in hosting countries. This socioeconomic process should have dramatic political effects. Surprisingly, we still lack an understanding of these effects. Our paper aims to fill this gap in the literature by examining parliamentary elites' political responses to the Venezuelan migratory crisis.

### **2.3 Immigration and Politics: Latin American Framework**

Prior to the immigration shock, Latin American countries underwent significant policy liberalization, characterized by the enactment of expansive refugee laws ([Freier and Arcarazo, 2015](#)). Previous research attributes this liberalization to factors such as low levels of immigration from the region, high emigration rates, and the influence of left-leaning populist politics ([Acosta, 2018](#); [Freier and Arcarazo, 2015](#)). [Hammoud-Gallego and Freier \(2023\)](#) demonstrate that Latin American countries adopted strong measures for refugee protection when hosting few or no refugees at all. They argue that the absence of significant political controversy surrounding these policies can be attributed to the minimal presence of refugees. This situation facilitated the enactment of refugee laws alongside immigration law reforms, essentially representing a symbolic endorsement of the issue without substantial associated costs.

Latin America differs from high-income countries due to the active engagement of emigrant diasporas in domestic political debates. These diasporas advocate for the protection of migrants' rights, including the extension of external voting rights. Therefore, even though immigration had not prominently entered the political agenda prior to the shock, politicians were well aware of their compatriots leaving the country and providing support to their families back home. It was within this context that South American politicians began questioning the restrictive immigration policies of European and North American countries in the early 2000s, specifically targeting the EU's 2008 Returns Directive and the criminalization of immigration in the US ([Brumat and Feline Freier, 2021](#)).

This past context raises two important points. Firstly, Latin American legislators have not been characterized by restrictive views on immigration in the past. Secondly, the low number of immigrants has made immigration legislation politically inconspicuous. This context has undergone a significant change since 2016. After several decades of primarily being countries sending immigrants, Latin American countries have now become recipients of a large influx of immigrants.

A question arises: How will politicians respond to this change? If politicians follow the



previous trend, we would not expect a greater emphasis on restrictive measures in response to the increased number of immigrants. Instead, a focus on human rights may be adopted. Alternatively, political elites could shift their previous “symbolic” liberalizing stance after witnessing the significant inflow of immigrants.

Considering the novelty of this phenomenon in Latin America, the region’s previous trajectory of liberalization, and that hosting countries are now developing economies, it is likely that the patterns observed in high-income countries, as documented by previous scholars, will not be mirrored.

### 3 Theory

What reaction can we expect from legislators in response to Venezuelan migration? As discussed in previous sections, the exodus of Venezuelans in recent years has significantly impacted Latin American countries, many of which have little to no experience with migration. This phenomenon has not gone unnoticed by the public and has become a topic of political debate.

This section develops our theoretical framework and hypotheses regarding legislative responses to Venezuelan migration. We start by discussing the concept of ‘extensive margins’ and how crises, such as the one generated by Venezuelan migration, can lead to the inclusion of new issues in the political agenda. We then propose our first hypothesis, which tests whether legislators collectively respond to this new issue. Next, we explore how immigration could create political divisions among legislators given their ideology. Given the political divisions, we incorporate the role of representing highly impacted electoral districts as a driver of the political division. We propose hypotheses related to each of these factors and also consider a counter-hypothesis specific to the context of Venezuelan migration. Finally, we discuss how ideology may influence the way legislators frame and discuss the issue of migration.

#### 3.1 Extensive Margins and Riding the Wave

Venezuelan migration presents a crisis for receiving societies, offering unique opportunities for changes in political arenas and structures (Baumgartner et al., 2009; Collier and Collier, 2002; Thelen, 2004). Previous literature has focused on analyzing external shocks’ effects on government duration (Lupia and Strøm, 1995), ministry stability (Martínez-Gallardo et al., 2022), public policy changes (Williams, 2009), and public opinion (Aldrich et al., 2006).

Studies focused on the European Parliament have examined how political crises (Blumenau and Lauderdale, 2018) and economic crises, such as the 2008 financial crisis (Greene and Cross, 2017), affected parliamentary discourse and priorities. These studies primarily address the effects on the “intensive margins” of the political agenda. However, there is a lack of clear expectations on how crises affect the inclusion of new issues in the political agenda, expanding the repertory, or what we term the “extensive margins.” Our contribution is to analyze legislators’ responses to a crisis generated by an unfamiliar phenomenon, specifically examining how Venezuelan migration affects legislators’ reactions.

Our first step is to determine if legislators respond to the wave of Venezuelan migrants in their countries. Klüver and Sagarzazu (2016) mention that when an issue captures public

attention, it incentivizes all parties to respond, as no party wants to be left behind—a reaction termed the “riding the wave theory.” Similarly, [Abou-Chadi and Wagner \(2020\)](#) argue that parties respond to public pressure by prioritizing or reacting to issues that the public considers important. Therefore, we expect that politicians and parties, regardless of their political stance, will react to a crisis generated by a new phenomenon.

In countries with minimal immigration levels ([Hammoud-Gallego and Freier, 2023](#)) and a public acutely feeling the effects of Venezuelan migration in various aspects of daily life, we propose our first hypothesis:

**Hypothesis 1** *Legislators will place increased salience on the issue of migration as a result of Venezuelan migration in their countries.*

## 3.2 Differences in Responses

Hypothesis 1 explores whether all parties in Congress react to the migration crisis, but it does not address the differences in their responses. Two possible approaches provide plausible explanations.

### 3.2.1 Ideology

The first approach that may explain differences in legislators’ behavior regarding Venezuelan migration is their ideological position. Research on European countries indicates that right-wing parties typically dominate and “own” the migration issue. As mainstream parties have converged on economic issues, they have left a gap in the political space for parties prioritizing cultural issues like immigration. Right-wing parties have filled this gap ([Meguid, 2005](#)). These parties have strategically linked immigration to other issues like crime, terrorism, and the erosion of traditional values, making it seem even more urgent ([Mudde, 2013](#); [Rydgren, 2008](#)). Right-wing parties have successfully framed immigration as a key issue and positioned themselves as the most capable of addressing it. They use strong, clear messaging and often propose simple, decisive solutions that can appeal more to voters than the more complex or moderate approaches typically offered by left-wing parties ([Grande, Schwarzbözl, and Fatke, 2019](#)). Extrapolating these findings to our cases, we infer our third hypothesis:

**Hypothesis 2** *Right-wing parties will dominate the discourse on the immigration issue.*

However, three important considerations lead us to propose a counter-hypothesis. First, European studies refer to the reorganization or prioritization of existing issues (“intensive margins”), so the dominance of the issue by right-wing parties in a context where migration is a new phenomenon is questionable. Second, the migrant population shares significant similarities with the host population (language, religion, and phenotype), making the European context less relevant here. Finally, Venezuelan migration is partly a result of economic policies implemented by left-wing Venezuelan governments (Chávez and Maduro), which have tried to influence regional countries. This factor could suggest a different strategy for right-wing parties.

**Hypothesis 3** *Parties will maintain the level of importance placed on Venezuelan migration over time, regardless of their ideological preferences.*

In summary, both local pressures and ideology may play a role in shaping legislators’ responses to Venezuelan migration. Local pressures, such as the presence of Venezuelan immigrants in a legislator’s constituency, may lead them to prioritize the issue more than their peers. At the same time, ideology may influence how legislators approach and discuss the issue, with right-wing parties potentially dominating the discourse. In the following subsections, we propose specific hypotheses related to each of these factors.

### 3.2.2 Ideological Cues on Venezuelan Migration

Besides differences in issue attention based on ideological families, legislators may frame the issue according to their ideological signals. Recent studies have shown that language use varies by ideological position (Sterling, Jost, and Bonneau, 2020; Urso, 2018). A clear example is how liberals and conservatives use different terms to highlight the achievements of underprivileged groups (Kteily et al., 2019).

Thus, we expect ideology to play an important role when legislators discuss immigration. These differences could emerge from a strategic relationship of migration with certain issues more related to their agendas or from the characteristic language of each group (Rydgren, 2008).

**Hypothesis 4** *Party members from specific ideological families will use differentiation strategies, incorporating their ideological cues in their statements about immigration.*

### 3.3 Local Pressures

Finally, classic literature on representation indicates that legislators prioritize their relationship with local constituents (Fenno, 1978; Carey and Shugart, 1995). More recently, McKee (2008) shows that elected legislators can deviate from party lines if their electorates push them to do so. Additionally, Wong (2017) demonstrates that districts with rapidly changing demographics due to migration may feel pressured to adopt a more hardline stance on the issue, even if their party is more welcoming to migrants.

In our case, Venezuelan immigrants are not evenly distributed among the receiving countries. Some provinces have a high presence of migrants, while others report none. Therefore, following the aforementioned works, this heterogeneity should generate differences between legislators representing these provinces and those who do not. Thus, our second hypothesis is:

**Hypothesis 5** *Legislators representing provinces with higher Venezuelan presence tend to discuss the issue more than their peers.*

In summary, our first hypothesis explores the system’s response, expecting it to respond to a new issue, “extensive margins collectively.” We then seek to understand the factors that explain heterogeneity in legislators’ responses. We explore whether legislators respond more due to a link with their electorates or if the ideological factor helps them adapt and include this new issue in their repertoire.

The following section discusses the research design and observable measures we will construct to test our hypotheses.

## 4 Data

### 4.1 Case selection

We focus our analysis on Peru and Chile, two of the greatest destinations for Venezuelan immigrants (see [Figure 2](#)). We examine the migration shock’s impact on parliamentary elites, following them before and after the migratory crisis. In Chile, we analyze legislators from the 2014 and 2018 Congresses, while in Peru, we focus on legislators elected in 2016, 2020, and 2021.<sup>9</sup>

Besides being great receivers, we excluded Colombia and Ecuador from our cases for several reasons. First, Colombia has the largest border with Venezuela, and there is a long history of immigration between both countries. Since 1970, Colombians have fled to Venezuela to avoid political violence in their country, making Colombians the largest immigration group in Venezuela. This great flux between these countries makes it difficult to identify the impact of the current wave of immigration.

Second, during the peak years of 2017 and 2018, Ecuador was considered only a transit country for Venezuelan immigrants whose final destination was Peru or Chile. According to the Ecuadorian government, 80% of Venezuelan immigrants entering their country have Peru as their final destination.<sup>10</sup> For instance, in 2018, the Ecuadorian government provided free transportation for all Venezuelan immigrants entering Ecuador from their north border to their south border after the Peruvian government enforced in only a few days notice that Venezuelans should hold a passport for entering the country (the measure was implemented to stop the entry as it was difficult for migrants to obtain the document).<sup>11</sup>

### 4.2 Data

Understanding the complex dynamics surrounding immigration requires access to rich and timely data. Traditional data sources, such as elite surveys and expert-focused datasets, have limitations that hinder our ability to capture nuanced attitudes and responses of political actors. These surveys provide snapshots of data every several years, and only recently, post-2018, have they incorporated questions related to immigration.<sup>12</sup> We overcome these limitations by using politicians’ Twitter statements.

One of the key advantages of Twitter as a data source is its real-time nature, which enables us to gather up-to-date insights into political leaders’ evolving opinions and stances. This timeliness is particularly valuable for capturing immediate responses and adaptations to the influx of immigration in the short term, which may not be adequately reflected in surveys conducted at specific snapshots of time. Additionally, social media statements are easily accessible and not constrained by institutional or resource limitations, facilitating the study of the dynamic

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<sup>9</sup>The congress elected in 2014 in Chile ended its term in 2018 and the 2018 congress ended its term in 2022. In the Peruvian case, the congress elected in 2016 should have lasted until 2021. However, the political crisis in 2017 resulted in the closing of the Congress and the election of a new Congress in 2020 to complete the term until 2021 ([Arce and Incio, 2018](#))

<sup>10</sup><https://diariocorreo.pe/peru/ecuador-corredor-humanitario-traslado-venezolanos-peru-835940/?ref=dcx>

<sup>11</sup><https://www.infobae.com/america/venezuela/2018/09/02/exodo-sin-fin-la-odisea-de-conseguir-un-pasaporte-en-venezuela/>

<sup>12</sup>Refer to [subsection 9.2](#) for a more in-depth discussion of existing survey data.

process of agenda setting.<sup>13</sup> In contrast to works that rely on party manifestos, which can be a complex process and are only published during election campaigns (Dolezal et al., 2012), we gain insights from politicians’ daily communication strategies. This approach aligns with the dynamic approach to party and elite politics advocated by scholars like Gessler and Hunger (2022) and Hopmann et al. (2012), although they rely on party press releases.

Furthermore, by focusing on individual legislators, we can gain a deeper understanding of the complex dynamics within political parties, beyond a simplistic portrayal of parties as monolithic entities (Meyer and Wagner, 2021). By analyzing the individual voices and perspectives expressed on Twitter rather than parties’ statements are able to capture any divergence that may exist within parties, and across time.

Specifically, we collected tweets from legislators spanning the period of 2013 to 2021, covering legislatures before, during, and after the impact of immigration. This comprehensive collection of Twitter data provides a thorough and current understanding of the perspectives and positions held by political parties in Peru and Chile. The dataset was obtained using the Twitter API,<sup>14</sup> resulting in a total of 1,528,362 tweets from 223 legislators in Chile and 1,481,671 tweets from 295 legislators in Peru (see details of the data in ??).<sup>15</sup> Our analysis included various types of tweets, such as retweets, quotes, and replies, and it contains information on the date and time of posting and the user’s Twitter handle.

We examined responses to the immigration crisis among party families by classifying them using CHES:LA data. Legislators were classified as belonging to a leftist party if the party’s ideological score was below 4, and as belonging to a rightist party if it was above 7. The remaining category represents the center. Parties that were not included in CHES:LA were dropped from the analysis.<sup>16</sup>

Finally, we complement the data on politicians’ rhetoric with Census data to proxy the exposure to immigration flux. In particular, to estimate the causal effect, we use a shift-share instrument strategy (similar to Ajzenman, Dominguez, and Undurraga, 2023), and to compute the changes in the share of immigration, we use 2007 data. For Peru, we rely on the 2007 and 2017 National Census. For Chile, we rely on the 2002 and 2017 National Census. Given that we lacked data for 2002, we updated the population using residence permits to compute the shares in 2007. Using this data, we could compute the shares for 2007 and the stock of immigrants in 2017 at the electoral district level. Figure 4a shows the share of the population on different regions in Chile and Perú that have arrived from a foreign country in the period 2012-2017.

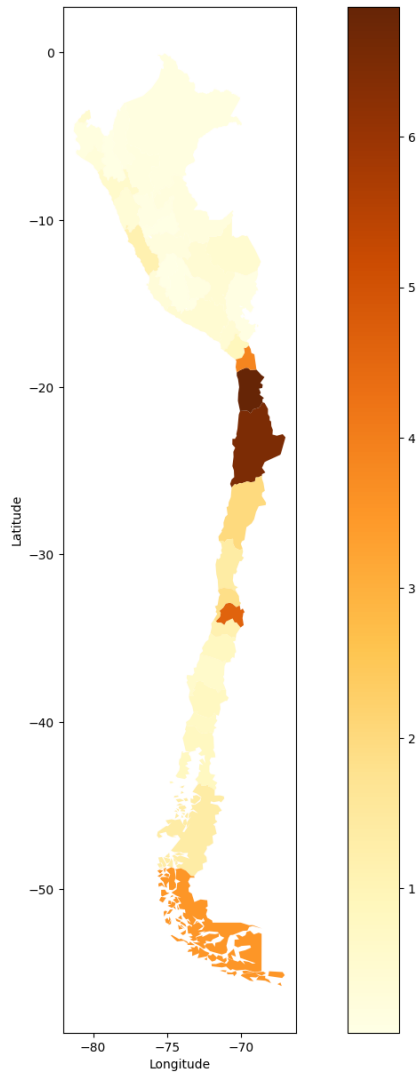
We also incorporate data on bilateral flows of international migrants from 45 countries, as recorded by the UN Population Division. This dataset is crucial for analyzing the global migration patterns and their impact on Peru and Chile, providing a broader context to the immigration trends observed in the national censuses.

<sup>13</sup>This source of data has demonstrated potential in measuring politicians’ attitudes (Waisbord and Amado, 2017).

<sup>14</sup>We collected the data between November and December of 2023, before Twitter’s new policy restricting academic API came into effect

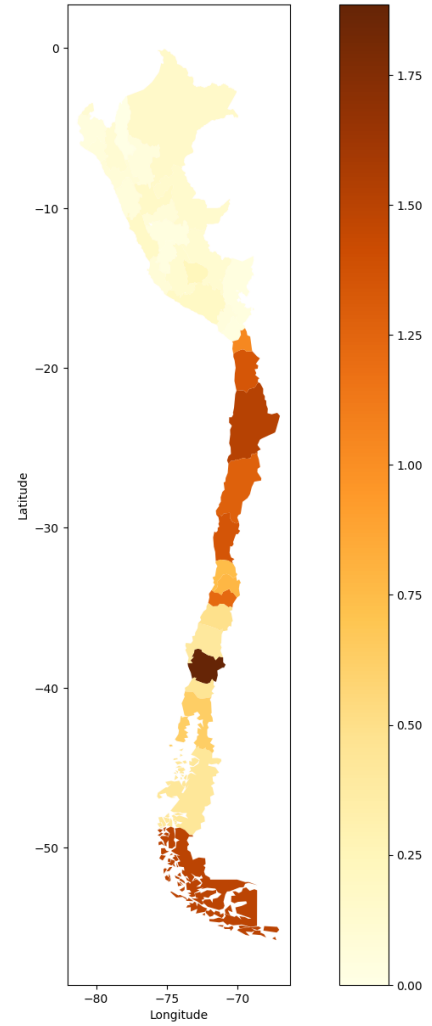
<sup>15</sup>In our sample, we have data representing 94% of the legislators elected during the analyzed period in Peru and 88% in Chile.

<sup>16</sup>See appendix 9.2.1 for the list of parties included in the analysis



(a) New Immigrants in the period 2012-17

Note: This map shows provinces in Chile and Perú. The colors illustrate the share of the population on different regions in Chile and Perú that have arrived from a foreign country in the period 2012-2017. Source: 2017 census for Chile and Perú.



(b) Share of Tweets discussing immigration in 2018

Note: This map shows provinces in Chile and Perú. The colors illustrate the share of the posts by legislators representing the different regions in Chile and Perú that refer to immigration. Source: authors calculations.

Figure 4: Comparison of New Immigrants and Immigration-Related Tweets

### 4.3 Identifying Immigration Statements

We identify immigration-related tweets using an adapted dictionary approach, which combines close reading of politicians’ statements, machine learning techniques, and frequently used words by the public to reference immigration. Initially, we compiled a list of relevant keywords related to immigration, such as “immigrant,” “migrant,” “refugee,” “asylum seeker,” and so on (refer to Appendix 9.3). These keywords were used to filter tweets by identifying those that contained at least one of the specified terms.<sup>17</sup>

Next, we employed natural language processing techniques to expand our dataset. We trained a Naive Bayes Classification Model to identify similar tweets to those already classified by the dictionary. Additionally, we searched for tweets mentioning individuals from Venezuela. It is worth noting that discussions about Venezuela in the region extend beyond the issue of migration, so careful evaluation was necessary.

We then proceeded to hand-code all tweets pertaining to immigration in one country to assess the accuracy of our selection and ensure that only relevant statements were included in our analysis.<sup>18</sup> Through this process, we identified word combinations that may refer to immigration and words that should not be included in our dictionary. Consequently, we created an updated dictionary of single words and word pairs to extend the analysis to other countries.

Finally, we applied the updated dictionary to the remaining countries and had two independent coders evaluate a sample of 500 tweets per country. The accuracy of classification exceeded 0.85 in all cases, indicating a high level of accuracy in identifying tweets related to immigration while excluding unrelated content. As a final step, we refined the dictionary based on misclassified cases, which involved removing irrelevant classifications such as “migrating birds,” among others.

The process for detecting immigration-related tweets can be summarized as follows:

1. Design a general dictionary with a limited number of words.
2. Apply the dictionary to one specific case (Peru).
3. Utilize the data obtained to train supervised machine learning models in order to minimize false negatives, thereby improving the identification of immigration-related tweets.
4. Redefine the dictionary by including additional relevant words.
5. Handcode all tweets related to immigration in one entire country involving three annotators.
6. Refine the dictionary further based on cases of false positives, ensuring that only relevant statements are included.
7. Apply the dictionary to all countries under investigation.
8. Hand code a sample of 500 tweets related to immigration to identify any false positives, with two annotators participating in this process.
9. Revise and update the dictionary based on the findings from the previous step.
10. Apply the final version of the dictionary to all countries.

After applying these steps we were able to identify and extract a subset of tweets that

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<sup>17</sup>To ensure clarity and specificity, our initial dictionary focuses on terms directly related to immigration and excludes specific terms like “Venezuelan” by itself.

<sup>18</sup>Three annotators were involved in coding the tweets, and any discrepancies were thoroughly re-evaluated.



are likely to be discussing immigration. This generated a subset of 2,086 tweets related to immigration in Peru and 6,123 tweets related to immigration in Chile. Figure 4b shows share of the posts by legislators representing the different regions in Chile and Perú that refer to immigration. We can see that in Chile there is a concentration on tweets about immigration in the north. In Perú, the highest concentration is in Lima. The discussion about immigration was more relevant in Chile than in Perú.

#### 4.4 Measurements: Legislators’ Rhetoric

This paper examines the dynamics of immigration discourse among members of Congress in Chile and Peru through multiple dimensions. To capture the dynamic response of politicians, we utilize text-based tools to analyze Twitter statements. Our methodology involves a two-step quantitative text analysis approach to construct relevant measures. We analyze the salience of immigration, measured by the frequency of tweets about immigration relative to total statements. We then utilize the set of immigration-related tweets to examine how parties framed their positions. We employ three distinct approaches to determine whether politicians addressed various issues within the realm of immigration and whether they employed specific ideological frameworks when discussing these issues. First, we classify immigration statements into pro and anti, then we estimate legislators’ ideological scores, and finally, we identify latent topics.

##### 4.4.1 Measuring Pro and Anti-Immigration Positions

Since dictionaries and sentiment analysis may hide whether legislators are supporting or opposing immigration, we use OpenAI’s API (Chat-GPT 3.5) to classify statements about immigration into pro or anti.<sup>19</sup> The classification system was designed to capture the nuanced expressions within the tweets, including irony, negation, and the specific use of language, which are critical for understanding the implicit and explicit sentiments expressed by the legislators.

The classification of tweets was conducted along a spectrum from “Highly Pro-Immigration” (+2) to “Highly Anti-Immigration” (-2), with intermediate categories for less emphatic support or opposition, and a neutral category for tweets that did not advocate for or against immigration policies.<sup>20</sup> Each tweet was assigned a score from -2 to 2, where -2 and -1 indicated anti-immigration sentiments, and 1 and 2 indicated pro-immigration sentiments. For the purposes of our analysis, we simplified the classification into three main categories: pro-immigration, neutral, and anti-immigration, without using the nuanced variations within these ranges.

This unstructured approach allows us to quantitatively assess each statement, ensuring that each tweet was evaluated comprehensively based on its content, context, and implications. Out of 8,851 tweets from Chile and Peru, 6,131 were classified as pro-immigration, 2,586 were classified as anti-immigration and 1,349 were classified as neutral.<sup>21</sup>

<sup>19</sup>The prompt we used is available upon request.

<sup>20</sup>Specifically, the categories highly pro-immigration (2) and pro-immigration (1) refer to tweets that advocate for immigration, ranging from strong endorsements to subtle support; Neutral (0), comprises tweets that discuss immigration without a clear pro or anti stance; finally, the anti-immigration (-1) and highly anti-immigration (-2) categories include tweets expressing opposition to immigration, from mild concerns to strong opposition.

<sup>21</sup>We validated with RA this methods. RAs classified 1,376 tweets that we compared with OpenAI. Overall, OpenAI’s API response agreed with the RA 70% of the time. We consider further improvements could increase the accuracy of this method.

#### 4.4.2 Measuring Legislators' Ideological Score

To unpack whether political leaders revise their language and ideological framing we estimate an ideological score per each tweet following [Le Pennec \(2021\)](#). This measure indicates to what degree a tweet of a politician is similar to the corpus of other tweets of the parties considered as left-wing or right-wing. This method builds on the *Wordscores* method ([Laver, Benoit, and Garry, 2003](#)).

We computed the frequencies  $p_w^R$  and  $p_w^L$  that represent how frequent a word  $w$  is in all the tweets in the left or right

$$p_w^i = \frac{\sum_{j \in ic_{wj}}}{\sum_{j \in im_j}}$$

where  $c_{wj}$  is the counts of word  $w$  in statement  $j$ , and  $m_j$  is the total number of words of statement  $j$ . We estimated these frequencies in a year basis, allowing right-left to vary the way they expressed over time. We also performed this analysis for the tweets that were not classified as discussing immigration issues.

Using these frequencies, we can compute the right-wing score of each word  $w$ :

$$s_w = \frac{p_w^R}{p_w^R + p_w^L} - \frac{p_w^L}{p_w^R + p_w^L} \quad (1)$$

A tweet  $j$  score  $S_j$ , representing the parties' positioning in the left-right axis is calculated by:

$$S_j = \frac{\sum_w p_{wj} \times s_w}{S_R} \quad (2)$$

where  $S_R$  is the score of the aggregation of all the tweets of the right-wing group.<sup>22</sup> Thus, the score of a tweet is not limited to a specific range, but a score of -1 represents an average tweet from the left, while a score of 1 represents an average tweet from the right. In both cases, these scores are estimated by utilizing the vocabularies associated with the left and right wings for tweets not related to migration.

As an alternative to this ideological measure, and based on discussions related to public opinion and the implementation of public policies, such as transitory permits for Venezuelans to work and the requirement of criminal records for entry, we examine three associated frames when discussing immigration: Venezuela, crime, and employment. To identify tweets related to these topics, we employed dictionaries of key words.<sup>23</sup>

#### 4.4.3 Measuring Legislators' Framing and Content of Immigration Statements: Unsupervised Topic Analysis

To explore specific narratives in tweets concerning immigration, we employ unsupervised machine learning methods, enabling an unbiased approach without imposing any predefined structure. This analysis seeks to identify the underlying semantic structure and latent themes within the discourse on immigration by analyzing the co-occurrence of words in political statements.

<sup>22</sup>This is done to preserve the distance between the reference texts ([Martin and Vanberg, 2008](#)).

<sup>23</sup>Refer to the appendix 9.2.4 for details on the dictionaries. Table 9.6 presents the percentage of tweets for each framework.

To achieve this, we employ two distinct methods.

First, we employ a clustering technique that leverages HuggingFace transformers and TF-IDF, as demonstrated (BERTopic, [Grootendorst, 2022](#)), to identify the underlying semantic structure and latent themes within the discourse of immigration. BERTopic, built upon the Bidirectional Encoder Representations from Transformers (BERT) architecture, offers an advanced approach to extracting and categorizing latent topics from textual data. Unlike conventional methods, BERTopic captures contextual relationships between words, resulting in more coherent and interpretable topics. We perform clustering using Hierarchical Density-Based Spatial Clustering of Applications with Noise (HDBSCAN). Once clusters are established, we employ the OpenAI API to retrieve topic representations from the documents within each cluster and identify keywords for each cluster. The language is set to 'multilingual,' and the number of topics is automatically determined by the algorithm.

Specifically, we implemented an automatic topic reduction process by utilizing HDBSCAN to cluster our topics based on their c-TF-IDF (centrality Term Frequency-Inverse Document Frequency) representations. By applying HDBSCAN, we group topics exhibiting significant thematic similarities while preserving distinct, unrelated topics. To generate topic labels for candidate documents and keywords, we utilize Chat GPT. Finally, to minimize the number of outliers for each cluster, the algorithm calculates the c-TF-IDF representation and employs cosine similarity to identify the best matching c-TF-IDF topic representation.

In light of the novelty of the previous method, we also examine the same question using non-negative matrix factorization (NMF), a matrix decomposition technique that captures the significance of individual words within a corpus, thus reducing the complexity inherent in high-dimensional text data. To enhance the accuracy of our approach, we incorporate log-based term frequency-inverse document frequency (TF-IDF) as a weighting factor.<sup>24</sup> We set the number of clusters to 4 and analyze the clusters of tweets identified within ideological families concerning the topic of immigration, as well as for each of the structured topics (crime, employment, and Venezuela).

To summarize some of the measures discussed in this section, see [Table 1](#).

Table 1: Descriptive Statistics for Tweets (2018-2020)

Country	Tweets	Imm (% of Tweets)	Pro-Imm (% of Imm)	Anti-Imm (% of Imm)	Venezuela (% of Imm)	Socialism (% of Imm)
Chile	457294	0.47%	74.93%	12.72%	13.41%	1.90%
Peru	319998	0.21%	63.07%	21.17%	46.86%	4.23%
Total	777292	0.37%	72.15%	14.73%	21.40%	2.45%

#### 4.5 Measurement: Regional Exposure to the Immigration Shock

To estimate the effect of new immigrants' arrival on different dependent variables we proxy  $\Delta imm_p = \frac{NewImmigrants_p}{Population_p}$ , which refers to the ratio of immigrants that arrived in the country in the last 5 years on the electoral district of the member of the congress  $p$  and the population in that electoral district. Given immigrants could be relocating to specific electoral districts with

<sup>24</sup>For additional insights on NMF, refer to works such as [Wang et al. \(2012\)](#), [O'Callaghan et al. \(2015\)](#), or studies that have previously utilized NMF in the analysis of political speeches, such as [Greene and Cross \(2017\)](#).

specific characteristics that also explain the behavior of the politicians, we used a shift-share instrumental variable:

$$\widehat{\Delta imm}_{p,12-17} = \sum_n \theta_{p,07}^n \times \Delta \log(imm)_{10-17}^n \quad (3)$$

The shares for each country  $n$  at the politician’s district  $p$ :  $\theta_{p,07}^n$  were computed for 2007. The flows of people,  $\Delta \log(imm)_{10-17}^n$ , were computed for a few top-sources (Argentina, Bolivia, Brazil, China, Colombia, Ecuador, Haiti/Japan, Peru, Spain, the United States, and Venezuela) to other LAC countries (excluding Chile and Peru).

## 5 The Increasing Salience of the Immigration Issue

To analyze the increased prominence of the immigration issue among legislators in Peru and Chile, we examined the average frequency of tweets related to immigration per year (in relation to all tweets). The initial series of graphs presents the predicted probability of generating tweets about immigration from 2013 to 2021. As stated in hypothesis 1, we expect an increase in the salience of this topic following the massive arrival of Venezuelans. Additionally, as indicated by hypothesis 2, we anticipate that this increase will occur across all party families, which means we should not be able to discern whether a particular party family discusses the topic more or less than others.

Figure 5 demonstrates a noticeable increase in the salience of politicians’ statements related to immigration over the specified period, indicating that all parties reacted to the crisis; none of them chose to dismiss the topic. Prior to the arrival of the first wave of immigration, political leaders largely overlooked the issue, as evidenced by probabilities close to 0 in 2013. However, after the first wave of immigration in 2016, the topic began gaining traction, reaching its peak in 2018. For instance, in that year, Chilean center parties dedicated approximately 1.5% of their tweets to discussing the topic. Putting these results into context, Chilean legislators averaged 5.1 tweets per day on the topic of immigration, while their Peruvian counterparts posted an average of 1.5 tweets per day.

In Chile, as depicted in the first set of plots, the salience increase is steeper than the Peruvian parliamentary elites. We can observe that all party families react to the crisis in the short term and subsequently reduce the coverage of the issue, although there are still some differences among them. Notably, the center (Christian Democrats) stands out for leading the coverage of the issue starting in 2016, surpassing their counterparts from other party families in a statistically significant manner. This distinction became even clearer in 2018 when they almost doubled the coverage of both the left and the right. It is also interesting to note that both the left and the right reach similar levels at their peak. Additionally, an intriguing element is that in 2021, which coincides with the electoral campaign period, after all party families lowered the salience of the issue, the topic resurfaces predominantly within the right party family. This second peak does not appear to be in response to a new influx of immigrants, as immigration levels in Chile have remained stable since 2019 (see Figure 1).

The second plot pertains to Peru, where all parties increased the salience of immigration.

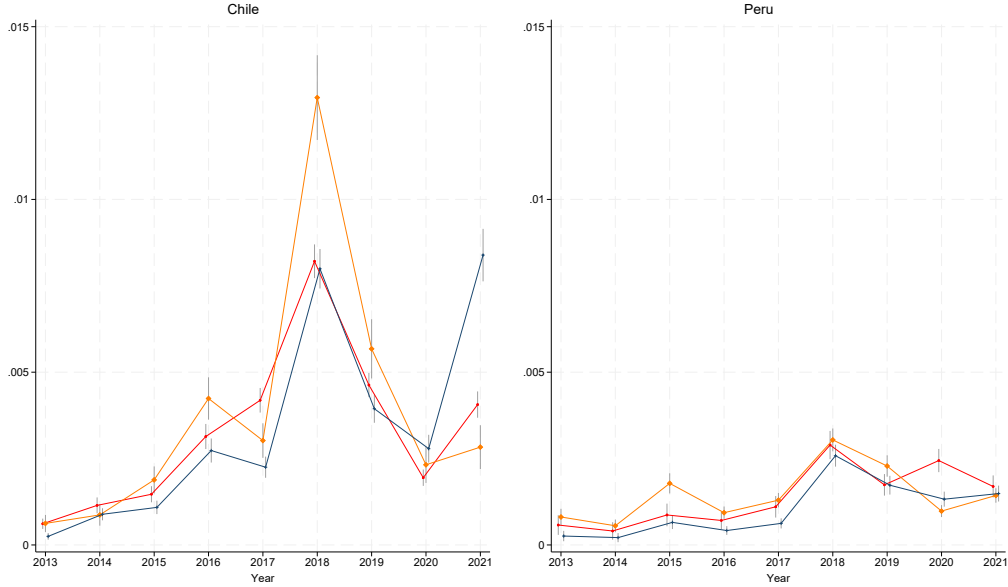


Figure 5: Immigration salience per year in Chile and Peru

Note: the DV is the salience of immigration operationalized as the ratio of statements about immigration to the total number of public statements made. To compute these means, a control using the length of the tweet was used. Robust standard errors were computed, Left, Center and Right are defined as discussed in subsection 4.2. Source: Authors' own elaboration based on data retrieved from Twitter

However, unlike in Chile, none of the party families stands out. At the peak of the topic, all of them exhibited similar levels of salience, and after 2018, the topic lost its predominance. It is worth noting that the coverage of the issue at its peak is more than three times lower than in Chile, which is noteworthy considering that Peru has received more than three times the number of Venezuelan immigrants.

## 6 How do Political Elites address Immigration issues?

We will now redirect our focus from merely engaging with the immigration topic to analyzing how legislators frame their statements on immigration within different party families to test hypothesis 4 about the role of ideology. To accomplish this, we employ four tools. We utilize Wordscores techniques to understand better how these different frameworks are employed, allowing us to uncover the ideological cues embedded in the language of immigration, as compared to the language used when discussing non-immigration-related topics. Then, we explored common frames (employment, crime, and Venezuela) and their usages across party families. Third, we looked at pro and anti-immigration stances. Lastly, we explore the underlying themes by party families using unsupervised machine learning tools.

### 6.1 Parties, and Ideological Cues of Immigration

We have shown graphically that all party families increased the salience of the issue. Are there any differences in salience between the party families?

VARIABLES	(1) Immigration	(2) Socialism + Imm	(3) Venezuela + Imm	(4) Pro-Imm	(5) Anti-Imm	(6) Net
Left	0.058 (0.091)	-3.287* (1.700)	-5.071 (4.388)	13.603** (5.304)	-14.286*** (3.919)	27.889*** (8.367)
Observations	243	189	189	189	189	189
R-squared	0.296	0.370	0.440	0.326	0.349	0.342
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Denominator	Total	Immigration	Immigration	Immigration	Immigration	Immigration

Robust standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2: Party families and framing of the immigration issue

To do that, we estimate the following model

$$Y_p = \alpha + \beta left_p + \gamma X_p \quad (4)$$

Table 2 shows that we cannot reject the null hypothesis regarding difference on the salience of the issue (column 1). However, do the left and the right frame the issue similarly? We find that the left-wing, on average, displays 3.3 p.p. fewer tweets about immigration, on which they also talk about socialism, communism, or similar words. They also show 13.6 p.p. more on the share of tweets about immigration that show a pro-immigration statement and 14.3 p.p. less of tweets with an anti-immigration statement. Therefore, while we refute the hypothesis that a party family owns the issue, we do see they address it differently.

Do legislators use ideological cues when covering immigration? Did legislators adjust their rhetoric in response to the immigration shock? To answer these questions, we define to use the ideological score of statements as our dependent variables.<sup>25</sup> We present means of the score for each year and party family for tweets about immigration and the rest of the topics in Figure 6. If tweets about immigration do not incorporate ideological cues from other topics, we would observe that their scores tend to be closer to 0. However, if such cues exist, the scores would deviate from 0, leaning towards their respective ideological positions (-1 for the left wing and 1 for the right wing).

Figure 6 illustrates the ideological score on the y-axis, ranging from left (negative scores) to right (positive scores). The x-axis represents the party families from left to right. Each party year is compared by the model's estimates for statements unrelated to immigration, denoted by red diamonds, and statements addressing immigration, represented by green circles. The x-axis within each party family displays the estimations for each year, spanning from 2015 to 2021.

Several insights can be gleaned from this figure. Firstly, when examining the overall levels of ideological scores by party family, it becomes clear that each party family is associated with different levels. For example, in the first plot representing Chile, the overall score of immigration statements made by legislators from the right parties is higher compared to those from the center parties, and there is even a greater disparity with the left parties. Intuitively, this indicates that politicians rely on ideological cues to convey their ideas, shedding light supporting hypothesis

<sup>25</sup>This score was calculated based on statements' similarity with the language used by left-wing or right-wing legislators (as reviewed in Section 4.4.2)

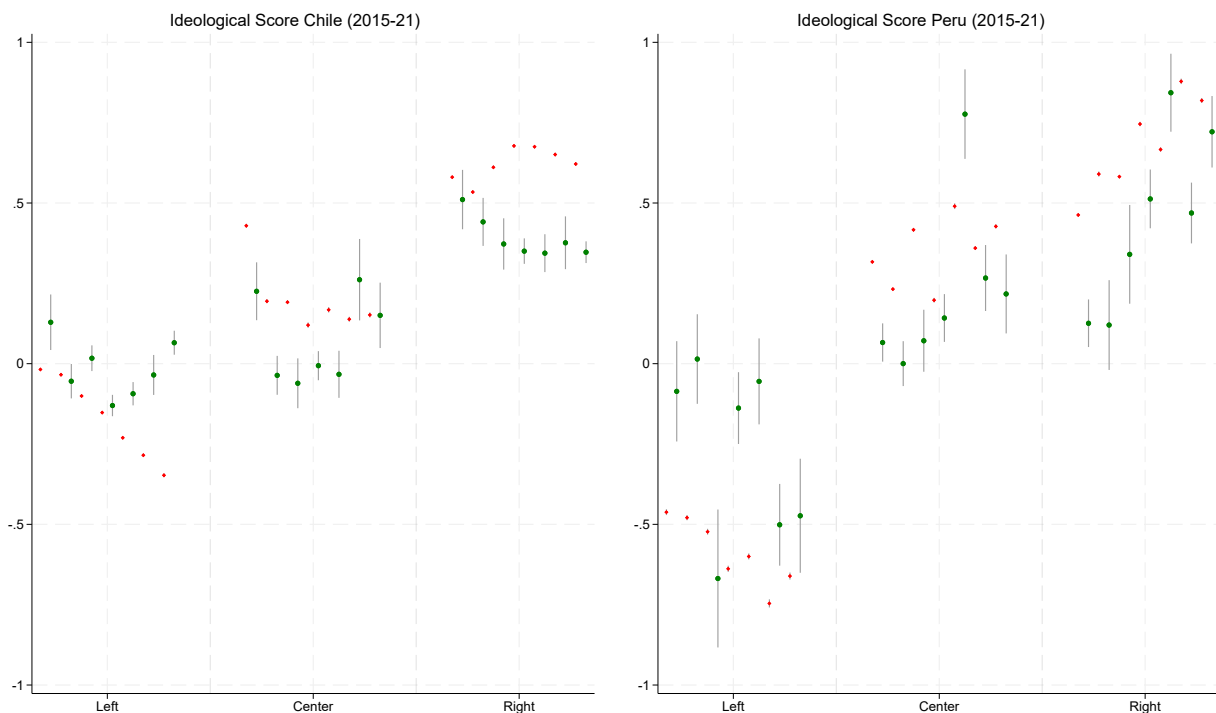


Figure 6: Ideological Score for Immigration and non-immigration issues by party by year  
 Note: The DV of this analysis is the ideological score (-1 left, 1 right) per year and per ideological party family. The Green estimate represents the ideological score of immigration statements, while the Red estimates represent the ideological score of non-immigration statements. The data points represent the estimations by year, starting in 2015 and finishing in 2021. Estimations are performed controlling by the length of the tweet. Source: Authors' own elaboration based on data retrieved from Twitter.

#### 4.

Secondly, if we shift our focus to the dynamics and changes over time, we can examine the gap between the ideological scores of non-immigration issues and those related to immigration. This dynamic appears to unfold differently in Chile compared to Peru. In Chile, we observe an increasing gap for both left-wing and right-wing legislators, particularly among the former. For instance, on the left side, while the statements of politicians concerning non-immigration issues demonstrate a growing presence of leftist ideological cues over time, we observe the opposite trend regarding immigration. In other words, it seems that left-wing legislators are employing language less characteristic of the left-wing when addressing the immigration issue. Starting in 2018, after a significant influx of immigrants, the leftist ideological cues appear to have merged with non-left-wing language, indicating a shift towards more moderate language in Chile. However, the levels still differ from those of the right wing. On the right side, the increase in this gap (i.e, use of language less characteristic of the right) began in 2016 but remains stable after the initial shock.

Regarding the dynamics in Peru, the second plot reveals minimal changes in the gap between the ideological scores of non-immigration issues and immigration issues on the left side. If anything, we observed the opposite trend in 2020-2021. In contrast to the left, the right and center exhibit a significant rightward shift in immigration and non-immigration issues following the migratory shock. To illustrate this change, let's focus on the ideological score estimates for statements made by the right in 2015. Here, we can observe a substantial gap between



the ideological scores of non-immigration issues and immigration statements. However, this gap diminishes, and the estimates in 2021 are nearly identical. This reflects a radicalization of speeches rather than moderation, as seen in Chile.

Overall, this analysis highlights that ideological cues are employed when referring to immigration. However, in Chile, these cues have become less distinct over time, with a greater use of right-wing language among left-wing legislators, and a somewhat similar trend among right-wing legislators. In Peru, there is a notable radicalization of language in the center and right, instead of moderation. Therefore, the right-wing parties in Peru appear to communicate using clear right-wing language rather than adopting ideological cues from other party families.

## 6.2 The Role of Exposure to Immigration on Representation

One plausible explanation for these observed changes could be that regions exposed to a substantial influx of immigrants, including both frontier and capital cities, inherently would exhibit a greater inclination to engage in discourse regarding immigration. These areas tend to experience more direct and immediate consequences, such as shifts in demographics, economic dynamics, and increased cultural diversity. Consequently, it appears reasonable to expect that individuals within these communities, who are more directly affected by this immigration influx, are more likely to view immigration as a salient and pressing concern. As a result, politicians representing these areas should be more inclined to address immigration-related matters. To investigate this, we first stratified our analysis by region (see [subsection 9.4](#)). However, we did not observe any significant differences across regions until 2021.

To further test the role of exposure to immigration for representation we estimate the following model.

$$Y_{p,18-20} = \beta_0 + \beta_1 \Delta imm_{p,12-17} + \gamma X_{pt} + \varepsilon_{pt} \quad (5)$$

where  $p$  refers to each politician,  $\Delta imm_p = \frac{NewImmigrants_p}{Population_p}$  refers to the ratio of immigrants that arrived in the country in the last 5 years, estimated using the shift-share instrument described before in [subsection 4.5](#).<sup>26</sup>

[Table 3](#) shows no significant effect of exposure to the influx of immigrants on the greater salience of immigration, nor on the total number of tweets. This finding suggests that legislators are not necessarily reacting to the immigration influx based on its immediate consequences or representation purposes within their electoral districts. Instead, it implies that other factors, such as the interplay among political parties, might be driving their priorities. We further explore these correlations over time and across different party families, with detailed estimations presented in [subsection 9.4](#).

### 6.2.1 The Role of Exposure to Immigration on the Framing of the Issue

From the analysis of salience, we learned that exposure to immigration does not explain the increase in salience, but we do not know whether it triggers a certain framing of the issue. Do legislators in an electoral district with a larger impact of the immigration influx speak more

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<sup>26</sup>As a control variable, we use Party dummies, the Gender of the politician, the Number of representatives in that Electoral District, and the Total number of Tweets from that politician.

VARIABLES	Immigration Tweets (%)	(sum) Total Tweets
Share Imm	0.052 (0.033)	-84.024 (130.034)
Observations	242	242
R-squared	0.213	0.183
Controls	Yes	Yes
F-stat	20.93	21.14

Robust standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3: Effects of exposure to immigration on legislators' salience of immigration.

Notes: The table displays results of IV estimates on the tweets from members of the congress in 2018 and 2019. The definition of each variable is in [section 4](#). The dependent variable are the share of tweets related to immigration in column 1, and the total number of tweets in column 2. All regressions include the Gender of the politician, the Number of representatives in that Electoral District, and the Total number of Tweets from that politician as controls. p-values are in parentheses. F-stat indicates the F statistic of the first stage.

against immigration?

[Table 4](#) shows that legislators from districts more impacted by the immigration shock are more likely to make pro-immigration statements. An increase of 1 percentage point (p.p.) in the share of immigrants in an electoral district causes a politician to increase their share of pro-immigration statements by 3.9 p.p. (5.4% of the mean).<sup>27</sup> Meanwhile, the use of framing, such as referencing the political crisis in Venezuela or socialism, is not related to the actual exposure to immigrants. These results may suggest that once legislators are in contact with the experiences of immigrants, they may politicize the issue less in terms of anti-socialism or anti-Venezuela rhetoric, instead focusing on defending immigrants' rights.

VARIABLES	(1) Pro-Imm	(2) Anti-Imm	(3) Net	(4) Venezuela	(5) Socialism
Share Imm	3.847*** (1.400)	-1.038 (1.314)	4.885* (2.576)	0.200 (1.414)	-0.353 (0.283)
Observations	189	189	189	189	189
R-squared	0.244	0.203	0.240	0.345	0.240
Controls	Yes	Yes	Yes	Yes	Yes
F-Stat	64.82	64.82	64.82	64.82	64.82

Robust standard errors in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4: Effects of exposure to immigration on legislators' framing of the immigration issue.

Notes: The table displays results of IV estimates on the tweets from members of the congress in 2018 and 2019. The definition of each variable is in [section 4](#). The dependent variable are the share of tweets related to each category within the tweets about immigration. Thus, the sample consists of only those members of the congress that tweeted about immigration. All regressions include the Gender of the politician, the Number of representatives in that Electoral District, and the Total number of Tweets from that politician as controls. p-values are in parentheses. F-stat indicates the F statistic of the first stage.

We now analyze possible heterogeneous effects of immigration's impact across party families. [Table 5](#) shows that the impact of immigration does not seem to affect party families differently, again refuting the hypothesis about a stronger reaction from right-wing parties. The table

<sup>27</sup>The average share of immigration was 1.6%.

also indicates that legislators from left-wing parties are more likely to speak out in favor of immigration once exposed to the shock. Specifically, within left-wing candidates, an increase of 1 percentage point (p.p.) in the share of immigrants causes a left-wing politician to increase their share of pro-immigration tweets by 4.1 p.p. (5.7% of the mean). Interestingly, left-wing legislators appear to account for all the effects reported in Table 4.

VARIABLES	(1) Immigration	(2) Pro-Imm	(3) Anti-Imm	(4) Net	(5) Venezuela	(6) Socialism
Right*share Imm	0.036 (0.026)	1.748 (1.792)	0.367 (1.859)	1.381 (3.521)	0.386 (1.429)	-0.197 (0.300)
Left*share Imm	0.001 (0.036)	4.142** (1.819)	-1.139 (0.891)	5.280** (2.508)	-0.044 (1.901)	0.104 (0.240)
left	0.100 (0.141)	11.624 (7.469)	-11.920** (5.907)	23.544* (12.129)	-7.494 (5.239)	-2.950** (1.501)
Observations	243	189	189	189	189	189
R-squared	0.109	0.078	0.095	0.100	0.245	0.025
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Denominator	Total	Immigration	Immigration	Immigration	Immigration	Immigration
F-Stat	21.87	22.04	22.04	22.04	22.04	22.04

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5: Effects of exposure to immigration on legislators’ framing of the immigration issue across party families.

Notes: The table displays results of IV estimates on the tweets from members of the congress in 2018 and 2019. The definition of each variable is in section 4. The dependent variable is the share of tweets in 2018 and 2019 for each member of the congress (column 1). In columns 2-6, the dependent variable are the share of tweets related to each category within the tweets about immigration. Thus, the sample consists of only those members of the congress that tweeted about immigration. All regressions include the Gender of the politician, the Number of representatives in that Electoral District, and the Total number of Tweets from that politician as controls. p-values are in parentheses. F-stat indicates the F statistic of the first stage.

## 7 Topics Within Immigration

So far, we have demonstrated that legislators have heightened the saliency of the immigration issue following the immigration shock. They have seamlessly integrated this issue into their agenda through the use of ideological cues that enable them to establish differentiation. Moreover, the regional exposure to immigration only seems to have affected leftist legislators, triggering a defense of immigration. We now employ two unsupervised machine learning techniques to gain a more comprehensive understanding of the observed ideological differentiation highlighted in the previous section. These methodologies allow us to derive insights from the text data without imposing predetermined structures.

In what follows, We examine the distribution of party families across various topics. If parties assign equal importance to each topic, we would anticipate a similar distribution across clusters. Conversely, a disparate distribution would signify divergence among party families in the aspects of the immigration issue they address. We begin our analysis by implementing clusterization with BERTopic modeling and subsequently replicate the investigation using NMF to underscore the robustness of our conclusions.

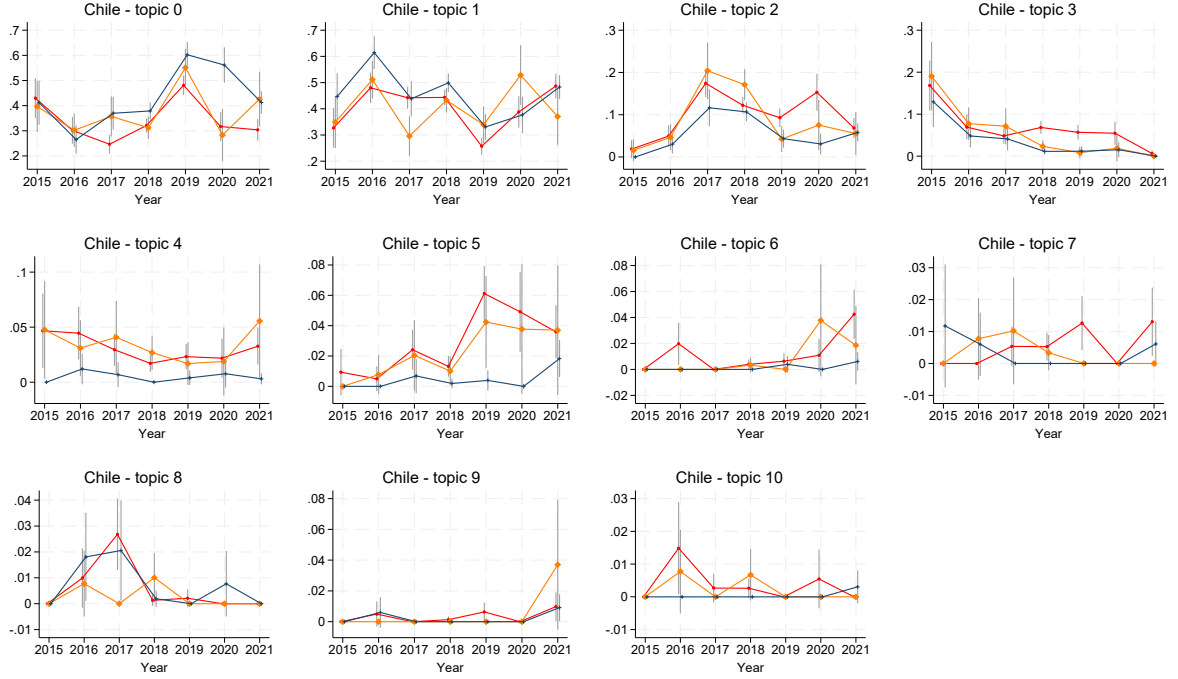
## 7.1 BERTopic

BERTopic automatically generates several topics. For both countries, the algorithm described in [subsubsection 4.4.3](#) has determined 11 topics. Figures [Figure ??](#) and [Figure 8](#) visually illustrate the distinct clusters and their distribution across party families.

Across most of the issues, we discern divergence, at least for some years, in the emphasis placed on each topic by different party families. This observation aligns with our theoretical expectations, suggesting a propensity for differentiation rather than the diffusion of ideological cues. Only a handful of exceptions exist where party families show a lack of differentiation over any given period in the discussion of each topic. For instance, one such case is the discussion around the Pope’s appeal to provide refuge and sanctuary to refugees and immigrants within churches, a topic discussed among Peruvian legislators.

In Chile, right-wing legislators prominently engage in discussions regarding the impact of Venezuelan immigrants (topic 0), initially spearheading the discourse on regulations (topic 0). However, from 2019 onwards, all parties partake in this discourse, potentially linked to debates over immigration restrictions. Intriguingly, despite their heightened attention to the Venezuelan crisis, they allocate the least attention to immigrants from Haiti, which could reflect a strategy against the socialist Venezuelan government. Conversely, the left and center are at the forefront of discussions concerning social issues and immigrant women’s rights (topic 5). They also voice opposition against immigrant hostility and hate crimes (topics 4 and, more recently, topic 7).

Figure 7: Salience of each topic in Chile across party families



References. Red: Left, Orange: Center, Blue: Right. Note: the DV is the salience of each operationalized as the ratio of statements about each of the topics to the total number of public statements made about Immigration. To compute these means, a control using the length of the tweet was used. Robust standard errors were computed. Left, Center and Right are defined as discussed in subsection 4.2. Topics: 0: “Venezuelan immigrants in Chile and their impact on the country’s migration policies”, 1: “La crisis migratoria y la política del gobierno sobre los derechos de los niños y los inmigrantes en el país, junto con el proyecto de ley de migración extranjera en proceso en el gobierno”, 2: “Haitian Migration Crisis in Chile”, 3: “Palestinian refugees and their situation in Israel and other countries”, 4: “Xenophobia and its implications”, 5: “Social Issues and Women’s Rights”, 6: “Vacunación de migrantes en situación irregular y su impacto en la salud pública”, 7: “Hate Crimes and Anti-Immigrant Sentiment in Germany”, 8: “Migration and its Impact on European Countries”, 9: “Migrant Camp Fire and Education Blame”, 10: “Immigration history and experiences of Italians and Germans from Trieste to Yugoslavia, and the impact on their lives” Source: Authors’ own elaboration based on data retrieved from Twitter.

Moving to Peru, a similar pattern emerges. Right-wing Peruvian legislators take the lead in debating the impact of the Venezuelan migratory impact on the country (topic 0). Meanwhile, the left and center drive discussions on defending immigrant rights (topic 1) and condemning foreigner discrimination (topic 2). The left also uniquely addresses the issue of violence and human rights violations against female immigrants.

In summary, the right largely concentrates on crisis impact and its regulation, while the left focuses on immigration rights and societal concerns, especially those affecting vulnerable immigrant groups, such as women’s rights.

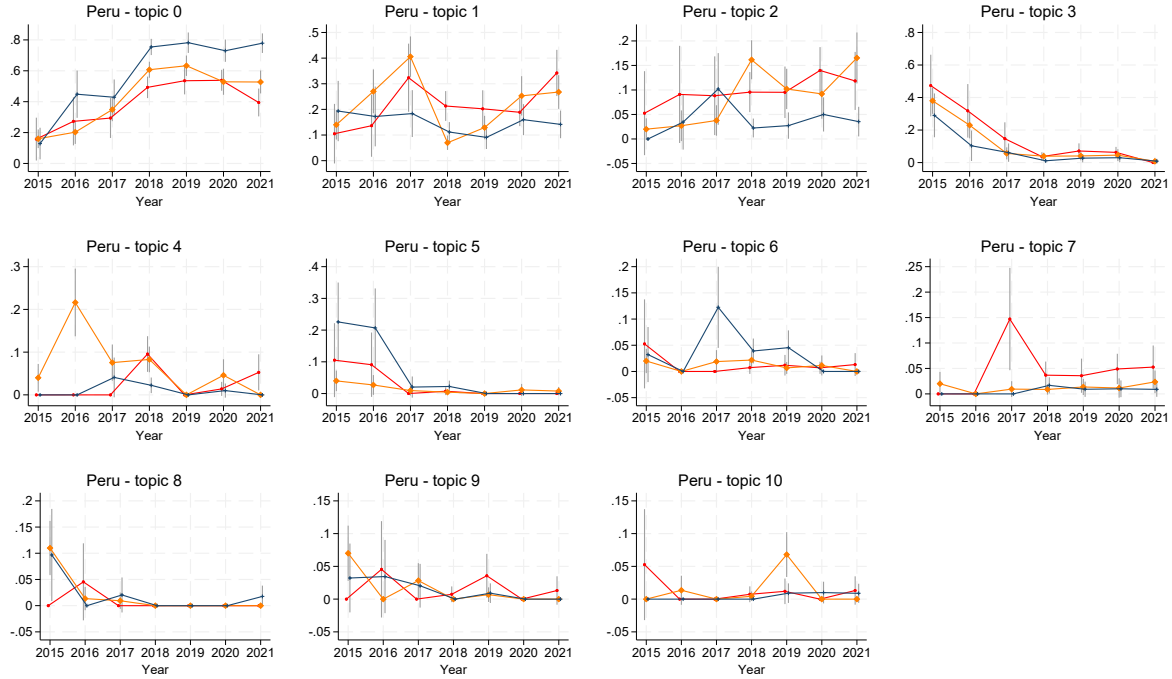


Figure 8: Salience of each topic in Peru across party families

References. Red: Left, Orange: Center, Blue: Right. Note: the DV is the salience of each operationalized as the ratio of statements about each of the topics to the total number of public statements made about Immigration. To compute these means, a control using the length of the tweet was used. Robust standard errors were computed. Left, Center and Right are defined as discussed in [subsection 4.2](#). Topics: 0: “Venezuelan migration to Peru and its impact”, 1: “Política migratoria y derechos de los migrantes”, 2: “Xenophobia and discrimination against foreigners and citizens, including racism, homophobia, and misogyny”, 3: “Crisis de refugiados en Europa y el mundo”, 4: “Donald Trump’s Immigration Policy”, 5: “Crisis de refugiados en Alemania y Europa”, 6: “Japanese-Peruvian Friendship and Immigration Anniversary”, 7: “Women’s Rights and Violence Against Migrant Women”, 8: “Syrian and Afghan refugees fleeing to Europe, living conditions, and humanitarian efforts”, 9: “papa francisco pide acojan refugiados, familia, inmigrantes y migrantes en iglesias de europa”, 10: “cities prepared for migration and urban planning” Source: Authors’ own elaboration based on data retrieved from Twitter.

## 7.2 NMF

To further demonstrate the use of a diverse set of perspectives within each party family, we proceed to present the results of the NMF analysis.<sup>28</sup> [Table 6](#) shows the latent topics pertaining to immigration and the specific roles played by individual party factions.

Beginning with the examination of Chile, the most frequently discussed topic, labeled as number 1, centers around immigrants’ rights. Looking at the most representative words of this cluster, migrants’ rights are a relevant part of it. This topic is predominantly associated with the left, but we still observe a relatively slightly minor presence of other party families, followed by the center, and then the right. The second-largest topic, labeled as number 4, encompasses terms like crisis, politics, government, and specific cities such as Antofagasta (where a significant number of immigrants reside). The right-wing party family leads this topic, and we note a greater disparity compared to the left, and an even more pronounced difference with the center. The third topic, labeled as number 2, primarily led by the center, revolves around the issue of Venezuela, with words such as refugees, millions, against, Venezuela, and Maduro appearing frequently. The smallest topic, also led by the center but largely discussed by the

<sup>28</sup>We first look at all the immigration statements, then subset by ideological party family and finally subset by the topics of Venezuela, employment, and crime. For detailed results on the latter one, please refer to the appendix from [Table 9.12](#) to [Table 9.20](#).

right, touches upon illegal immigration and the possibility of expulsion, as well as broader international immigration concerns like those associated with Trump.

Chile					Peru			
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
	personas	pais	chile	antofagasta	maduro	migratoria	machismo	paises
	nuestro	contra	piñera	niños	como	sobre	campanía	derecho
	este	chilenos	expulsion	senador	esta	millones	todos	alemania
	inmigracion	millones	trump	esta	venezuela	miles	discriminacion	como
	derechos	refugiados	diputado	gobierno	migrantes	unidos	como	acnur
	como	dictadura	para	crisis	pais	estados	para	campo
	pais	maduro	sobre	nueva	para	politica	belmont	niños
	migracion	venezuela	pais	sobre	peruanos	donald	racismo	migrantes
	para	chile	ilegales	politica	peru	trump	contra	para
	migrantes	venezolanos	inmigrantes	migratoria	venezolanos	inmigrantes	xenofobia	refugiados
%	48.5	17.7	14.6	19.2	60.9	12.8	12.9	13.3
Left (%)	50.0	18.8	12.7	18.5	53.6	13.0	15.4	18.0
Center (%)	48.5	20.1	17.9	13.5	53.4	16.1	16.7	13.9
Right (%)	46.0	14.9	15.8	23.2	78.1	8.3	5.8	7.8
Distance L-R	4.0	3.9	-3.1	-4.8	-24.4	4.6	9.6	10.2

Table 6: Topic Analysis - NMF 4 clusters regarding Immigration statements

Note: The columns show the most probable words within each topic, and the topic distributions among the party families by country.

The analysis of clusters for Peru reveals that the largest topic, encompassing over 60% of the statements –topic 1– predominantly revolves around Venezuela, evident from the two explicit mentions and the inclusion of Maduro. The Peruvian right-wing party family overwhelmingly leads this topic. The remaining three topics are relatively similar in size. Topic 4, led by the left, receives the least coverage from the right. Similar to the topic led by the left in Chile, this topic emphasizes rights, referring to refugees, children, and mentioning the United Nations High Commissioner for Refugees (ACNUR in Spanish), among other aspects. Topic 3, led by the center but closely followed by the left, exhibits a substantial gap with minimal attention from the right. This topic incorporates references to xenophobia, racism, or discrimination, as well as a mention of Belmont, the former mayor of Lima, where left and center legislators confronted his xenophobic rhetoric. Lastly, topic 2 encompasses general references to the migration crisis, such as millions, while also touching upon international processes indicated by words like Donald Trump and the United States.

Overall, these clusters of topics support the hypothesis of differentiation, as different party families focus on distinct topics and approaches when discussing immigration. While all party families address immigration, the left highlights rights, whereas right-wing legislators emphasize the crisis and politics, particularly in Peru with a strong emphasis on the Venezuelan crisis. An important difference between these countries, which reinforces previous findings, is that the polarization regarding these topics appears to be more pronounced in Peru, evident from the greater disparity in topic coverage by topics between the left and right. This observation aligns with the radicalization trend depicted in Figure 6.

To gain further insight into the frameworks employed by different party families, we now present the clusters generated when examining party families separately. If the narratives parties are discussing are similar, we should see some overlap on the most representative words of the different clusters that compose each party family corpus of tweets.

Table 7 shows the clusters for Chile. As previously demonstrated, the left’s primary focus lies on rights, emphasizing migrants’ humanity (topic 1, 41%). They also address politics and acknowledge the existence of a crisis (topic 3). Their third-largest topic pertains to other



instances of immigration issues, evident from references to Trump’s policies, children in cages, and conflicts such as Palestine or Israel (topic 4). The smallest topic (number 2) centers around the Venezuelan crisis, including mentions of Maduro and references to dictatorship, while also incorporating terms like humanitarianism. Conversely, right-wing legislators in Chile primarily focus on safety, regulatory policies, and maintaining order (topic 1). The second-largest topic revolves around immigrants, with the prominent use of terms like illegal and illegals. Topics 2 and 3 address the Venezuelan crisis, employing terms such as dictatorship, Maduro, and emphasizing the scale of the crisis by mentioning “millions.”

Turning our attention to [Table 8](#), we observe a similar pattern for Peru, indicating that the left’s main topic encompasses women, Peruvians, and Venezuelans, capturing the overall immigration shock (topic 1). The second-largest topic opposes xenophobia, evident from words like discrimination, xenophobia, and mentions of Belmont, among others (topic 2). Topic 3 addresses immigrants as refugees, displaced individuals, and emphasizes human rights, specifically mentioning national organizations focused on refugee rights. Similarly to left-wing politicians in Chile, but to a lesser extent (10%), a proportion of immigration statements in Peru appear to relate to international issues and opposition to Donald Trump’s migration policies. In contrast, right-wing legislators in Peru primarily focus on the Venezuelan crisis, positioning Venezuelans as fellow victims of Maduro’s regime failure (topic 1). The second-largest topic includes references to xenophobia, with immigrants being referred to as people (topic 3), which is also reflected in topic 4 with mentions of solidarity, rights, children, and women.

When examining the subset of immigration discussions specifically related to Venezuela in both countries, we observe clear differentiation between the left and the right (refer to [Tables 9.12, 9.15, and 9.16](#)). In Chile, the left’s topic includes terms such as crisis or humanitarianism (topic 1), while the right’s topic incorporates opposition leaders like Guaido and requests for asylum (topic 2) as shown in [Table 9.12](#). In Peru, this differentiation is even more pronounced, with the right clearly distinguishing itself in topic 1, which focuses on Venezuelans as “brothers” escaping from Maduro’s regime. On the other hand, the Peruvian left speaks out against xenophobia (topic 4). When looking at these cluster stratified by party family we see Chilean’s right covering immigration while also making stance about Venezuela denoted by words such as communism, and political prisoners (topic 4, in [Table 9.15](#)).

Similarly, when examining the employment subset, we observe references to rights, people, and women, as well as mentions of order, safety, regulation, and the inclusion of citizens from the host country (refer to [Tables 9.14, 9.19, 9.20](#)).

<i>Chile</i>							
Left				Center			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
migrante todos este migracion pais como personas derechos para migrantes	dictadura colombia chilenos humanitaria crisis pais maduro venezuela chile venezolanos	pacto migracion proyecto crisis nueva politica gobierno sobre migratoria inmigracion	como millones israel años palestinos trump niños para refugiados inmigrantes	nuestro gobierno esta migracion inmigracion politica pais haitianos migratoria para	somos nuestro delincuencia chile niños como sobre hijos piñera inmigrantes	refugiados simchile chilenos claudioarriagad carolinagoic están derechos contra como migrantes	miles democratica pueblo dictadura refugiados maduro sobre venezuela venezolanos chile
41.00	16.62	22.44	19.94	36.53	17.33	24.00	22.13
				Topic 1	Topic 2	Topic 3	Topic 4
				proceso regular ordenada segura nuestro extranjeros pais migracion para migrantes	mayoria chilenos millones contra esta venezuela dictadura maduro chile venezolanos	presidente derechos gobierno esta niños crisis sobre nueva politica migratoria	miles bachelet tema chile para ilegales sobre ilegal inmigrantes inmigracion
				37.32	15.19	19.24	28.25

Table 7: Topic Analysis - NMF 4 clusters regarding Immigration statements by ideological party family  
Source: Authors' own elaboration based on data retrieved from Twitter.

<i>Peru</i>							
Left				Center			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
peruanos pais mujeres esta como venezolanos sobre peru para migrantes	tambien discriminacion belmont delincuentes pais dice todos venezolanos contra xenofobia	internacional crisis como pueblo contra desplazados historia acur para refugiados	rechazo mocion niños humanos donald derechos contra trump migratoria politica	sobre venezolana esta venezuela pais migrantes para peruanos peru venezolanos	unidos latinos politica para pais miles millones donald trump inmigrantes	este para porque machismo contra como belmont esta racismo xenofobia	tienen extranjero casi desde para solo ciudades como campo refugiados
56.36	16.36	16.16	10.71	58.04	14.69	16.36	10.77
				Topic 1	Topic 2	Topic 3	Topic 4
				hermanos todo venezuela como esta maduro pais peruanos peru venezolanos	ahora congresoperu aniversario japon peru peruano amistad años inmigracion japonesa	países extranjeros gran xenofobia sobre migrantes personas migraciones inmigrantes para	pero derecho miles niños fueron solidaridad mujeres como mundo refugiados
				60.69	6.52	25.72	7.07

Table 8: Topic Analysis - NMF 4 clusters regarding Immigration statements by ideological party family  
Source: Authors' elaboration based on Twitter data.

Finally, when examining the clusters within the intersection of crime and immigration, clear and differentiated topics emerge. In both countries, the left is associated with terms such as xenophobia, racism, hate, human rights, opposing the criminalization of immigrants, and recognizing migrants as individuals, indicating a controversial stance regarding the portrayal of immigrants as criminals (refer to Topic 1 and 4 in Chile, and Topic 2 in Peru in Table 9.13). Conversely, right-wing legislators in both countries emphasize illegal actions or individuals, organized crime, drug trafficking, crimes, and delinquents (topics 2 and 3 in Chile, and topic 1 in Peru). Notably, one of the greatest gaps between left and right party families is evident in the context of crime and immigration, particularly in topic 2 in Chile and topic 1 in Peru, both led by right-wing legislators. For a more detailed examination of the differences by party family within the crime framework, please refer to Tables 9.17 and 9.18.

To sum up, beyond the increase in the issue’s salience, we have demonstrated that after incorporating this new issue, politicians use ideological signals and relate the problem to different topics. We have presented evidence of this differentiation which is robust to different modeling strategies (wordchore, Bert, NMF), which demonstrates strong support for hypothesis 4 regarding parties’ strategies differentiating rather than accommodating and diffusing with each other areas. These results are novel to the study of immigration, as previous work generally focuses on the effect of radical-right parties pushing other party families to accommodate their moderate to anti-immigration positions.

## 8 Conclusion

In this paper, we have sought to understand how unexpected events like migratory shocks, which introduce completely new issues to the agenda, affect the political behavior of party leaders. Our analysis of the immigration discourse in Chile and Peru reveals several key findings. First, following such disruptive phenomena, there has been a notable increase in the salience of immigration across all political parties, indicating a growing recognition of its significance as a societal issue. Importantly, neither party family can claim exclusive ownership of the immigration debate, as it transcends ideological lines.

Furthermore, our examination of the textual data using ideological scores and unsupervised machine learning techniques allows us to delve deeper into the common frameworks employed by the parties. Our work has demonstrated the parties maintain differentiation through their use of ideologically-infused language and different topics. In particular, left-leaning legislators place a strong emphasis on rights, humanitarianism, and opposition to xenophobia. They consistently portray immigrants as deserving of recognition and protection, rejecting the narrative of criminalization. On the other hand, right-wing parties tend to prioritize issues of safety, regulatory policies, and order. They are more likely to discuss illegal actions, organized crime, and present immigrants through a security lens. They are also more likely to emphasize Venezuelan immigrants as victims escaping a failing socialist regimen.

Overall, our investigation has highlighted that immigration remains a highly divisive issue within the political landscape of Chile and Peru, particularly influenced by ideological orientations. Despite public affirmations supporting immigration by right-wing presidents, our findings

indicate that right-wing legislators frequently express more anti-immigration sentiments. Additionally, our analysis introduces a novel insight into the role of representation in districts heavily impacted by immigration, referred to as shocked districts. This challenges previous findings such as those discussed in the literature, suggesting a positive relationship between the size of the immigrant population and pro-immigration attitudes among politicians. Moreover, we observed that this effect comes mostly from left-wing legislators, underscoring the significant impact of local demographics on political discourse.

Looking forward, the study suggests several promising directions for further research. There is a need to enhance the accuracy and depth of sentiment classification in political discourse. Adopting advanced methodologies such as BERTopic could offer more refined insights into the subtleties of political communication. Exploring additional measures of ideological polarization on tweets in Spanish could deepen our understanding of how immigration influences discourse and policy. Furthermore, extending the analysis to cover a broader timeframe would help identify long-term trends and changes in the political treatment of immigration. Finally, there is still some work to do to include detailed sociodemographic profiles of immigrants, which could significantly improve the reliability and depth of our conclusions. These steps will not only refine the existing analysis but also enhance our understanding of the dynamic interplay between political ideologies, local demographic changes, and public discourse on immigration.

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## 9 Online Appendix

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### 9.1 Policies

País	Fecha	Institución	Descripción	Fuente
Chile	02/2022	Ministerio de Relaciones Exteriores	Conformación de una mesa de trabajo junto al gobierno de Bolivia, subvención y adopción de las medidas presentadas por ACNUR como el Plan Regional de Respuesta para Refugiados y Migrantes Venezolanos	<a href="https://www.minrel.gob.cl/noticias-antiores/situacion-migratoria-en-la-macro-zona-norte-de-chile">https://www.minrel.gob.cl/noticias-antiores/situacion-migratoria-en-la-macro-zona-norte-de-chile</a>
Chile	05/2023	Cámara de diputados y Ministerio del Interior	Disposición de las FF.AA en la frontera de la macro zona norte por 3 meses	<a href="https://www.bcn.cl/leychile/navegar?idNorma=1189669&amp;idParte=10410548">https://www.bcn.cl/leychile/navegar?idNorma=1189669&amp;idParte=10410548</a>
Chile	07/2023	Ministerio del Interior y seguridad pública	Política nacional de migración y extranjería donde se aplican enfoques transversales para el control como la identificación biométrica, nuevos requisitos para residencia, desarrollo económico, integración, reunificación familiar, etc.	<a href="https://serviciomigraciones.cl/wp-content/uploads/2023/07/PNM-VERSION-EJECUTIVA.pdf">https://serviciomigraciones.cl/wp-content/uploads/2023/07/PNM-VERSION-EJECUTIVA.pdf</a>
Ecuador	10/2022	Agencias internacionales	Documento de agencia humanitaria que explica la evolución de las políticas para migrantes basicamente en control y registro, mientras que las políticas de asistencia son mayoritariamente abarcadas por el Grupo de Trabajo para Refugiadas y Migrantes (GTRM) de la UN	<a href="https://www.undp.org/es/latin-america/publicaciones/migracion-y-politica-migratoria-en-el-ecuador-en-el-periodo-2000-20211">https://www.undp.org/es/latin-america/publicaciones/migracion-y-politica-migratoria-en-el-ecuador-en-el-periodo-2000-20211</a>

Ecuador	06/2022	Presidencia de Ecuador	el Estado otorgó una amnistía migratoria a todas las personas que hubieran quedado en situación irregular e inició un proceso de regularización extraordinario dirigido únicamente a la población venezolana	<a href="https://www.gob.ec/sites/default/files/regulations/2022-09/decreto-ejecutivo_no.436.20220503163733.20220503163738%20%281%29.pdf">https://www.gob.ec/sites/default/files/regulations/2022-09/decreto-ejecutivo_no.436.20220503163733.20220503163738%20%281%29.pdf</a>
Ecuador	2018	Ministerio de Relaciones Exteriores y Movilidad Humana	Plan Nacional de Movilidad Humana	<a href="https://www.cancilleria.gob.ec/wp-content/uploads/2018/06/plan_nacional_de_movilidad_humana.pdf">https://www.cancilleria.gob.ec/wp-content/uploads/2018/06/plan_nacional_de_movilidad_humana.pdf</a>
Perú	2017	Ministerio de Relaciones Exteriores	Política Nacional Migratoria 2017-2025	<a href="http://transparencia.rree.gob.pe/index.php/datos-generales-11/13-normas-emitidas-por-la-entidad/133-decretos-supremos-ds/2017-5/10116-ds-n-015/file">http://transparencia.rree.gob.pe/index.php/datos-generales-11/13-normas-emitidas-por-la-entidad/133-decretos-supremos-ds/2017-5/10116-ds-n-015/file</a>
Perú	2019	Agencias internacionales	Estudio sobre el perfil socio económico de la población venezolana y sus comunidades de acogida: una mirada hacia la inclusión	<a href="https://www.observatoriovenezolanodemigracion.org/noticias/politica-migratoria-cambiante-del-estado-peruano-ha-dificultado-la-inclusion-de-inmigrantes-venezolanos">https://www.observatoriovenezolanodemigracion.org/noticias/politica-migratoria-cambiante-del-estado-peruano-ha-dificultado-la-inclusion-de-inmigrantes-venezolanos</a>
Perú	2018	Presidencia del Perú y Ministerio del Interior	Políticas para el control e identificación: requisitos para el PTP y calidad migratoria Especial Residente.	<a href="https://www.acnur.org/fileadmin/Documentos/BDL/2017/11018.pdf">https://www.acnur.org/fileadmin/Documentos/BDL/2017/11018.pdf</a>
Perú	2017	Alcaldía de San Juan de Miraflores	Creación del albergue más grande de Lima para personas venezolanas migrantes	<a href="https://perureports.com/meet-first-venezuelan-neighborhood-lima/6000/">https://perureports.com/meet-first-venezuelan-neighborhood-lima/6000/</a>
Perú	2020	Presidencia del Perú y Ministerio del Interior	cambio del PTP al Carné de Permiso Temporal de Permanencia (CPP) para personas con residencia irregular, en la práctica la población beneficiada fue baja.	<a href="https://busquedas.elperuano.pe/normaslegales/decreto-supremo-que-aprueba-medidas-especiales-excepcionale-decreto-supremo-n-010-2020-in-1895950-4/">https://busquedas.elperuano.pe/normaslegales/decreto-supremo-que-aprueba-medidas-especiales-excepcionale-decreto-supremo-n-010-2020-in-1895950-4/</a>
Perú	2021	Presidencia del Perú y Ministerio del Interior	Facilidad para la regulación migratoria a niños, niñas y adolescentes y ampliación del carné de extranjería para incluir a personas extranjeras que cuenten con una solicitud para acceder a la calidad migratoria de residente.	<a href="https://cdn.www.gob.pe/uploads/document/file/1813182/DS%2002-2021-IN.pdf.pdf?v=1618708384">https://cdn.www.gob.pe/uploads/document/file/1813182/DS%2002-2021-IN.pdf.pdf?v=1618708384</a>

## 9.2 Politicians' attitudes towards Immigration in Latin America

In Latin America, there are two important sources of information on the perceptions and attitudes of political elites. PELA-USAL (Alcantara, 2022) is a survey of legislators applied since 1994.<sup>29</sup> On the other hand, there is the CHES:LA project (Martínez-Gallardo et al., 2022), which is a survey of experts on the programmatic and ideological positions of the parties. Although both projects are important, they present important limitations for the purposes of this project. The main limitation is the static nature of the surveys and important limitations in their cov-

<sup>29</sup>Including Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela

erage. PELA-USAL has recently included questions on legislators’ position on migration issues only in Peru but not Chile <sup>30</sup>.

From CHES: LA we observe that there is some correlation between the attitudes of the parties and their migration positions (see tables in appendix 9.2.1). Moreover, CHES:LA survey relies on expert opinions of political parties rather than legislators’ views and rhetoric, which limits what we can learn from their position and dynamics regarding the impact of Venezuelan immigration. Our work contributes by providing a more dynamic coverage of the issue and analyzing direct statements from legislators.

### 9.2.1 CHES: LA

	L-R Ideol.	Immigration Position	Saliency
Evolución Política	7.33	6.92	3.69
Partido Comunista de Chile	1.22	1.69	4.31
Partido Demócrata Cristiano	5.00	4.58	3.31
Partido Humanista	1.65	1.22	4.73
Partido Radical Socialdemócrata	3.88	3.75	3.91
Partido Socialista de Chile	3.11	2.58	3.77
Partido por la Democracia	3.61	2.67	3.62
Renovación Nacional	7.11	7.58	4.21
Revolución Democrática	2.28	1.38	4.00
Unión Demócrata Independiente	8.94	9.00	4.21

Table 9.2: Parties Chile

	L-R Ideol.	Immigration Position	Saliency
Acción Popular	6.13	6.22	3.40
Alianza para el Progreso	6.93	6.44	3.50
Avanza País	7.50	6.40	4.50
Frente Amplio	2.00	4.60	4.27
Frente Popular Agrícola del Perú	4.79	5.75	2.80
Fuerza Popular	7.80	7.70	5.00
Juntos por el Perú	2.50	4.17	4.50
Partido Aprista Peruano	7.27	7.00	5.00
Partido Democrático Somos Perú	7.00	6.14	4.00
Partido Morado	6.07	4.30	4.00
Partido Popular Cristiano	7.93	6.11	4.45
Perú Libre	0.67	8.83	6.50
Podemos Perú	6.47	7.00	5.18
Renovación Popular	9.83	9.33	7.17
Unión por el Perú	2.42	6.90	5.20

Table 9.3: Parties Peru

Note: The ideological position goes from 1 (extreme left) to 10 (extreme right). Position on immigration is a 10 point scale going from 1 (welcoming) to 10 (restrictive). Immigration saliency is also a 10 point scale going from 1 (low) to 10 (high). Source: Author’s own elaboration based on CHES:LA

Table 9.4 provides a summary of the attitudes of seven Peruvian political parties towards immigration-related issues.<sup>31</sup> While most parties agree on accepting immigrants from war-torn countries and granting them equal rights, there is divergence when considering social costs. Parties such as FA and FP demonstrate reluctance towards pro-immigration attitudes, as indicated by their higher means in prioritizing employment for natives over immigrants and concerns about immigrants taking advantage of social services. In contrast, NP stands out as the most supportive party, even when social costs are considered. It is important to note that FA represents the extreme left while FP represents the extreme right of the political spectrum in Peru (Table 9.5)

### 9.2.2 PELA-USAL

PELA-USAL survey provides detailed information on legislators’ attitudes toward a range of issues. This survey asked questions about immigration to members of Congress in only one of

<sup>30</sup>We did a descriptive analysis with the data from PELA-USAL. See appendix 9.2.2

<sup>31</sup>For additional details, refer to Table 9.2.3 in the Appendix, which contains other measures of tendencies and ranges per question.

the two cases examined: Peru, and only for the most recent wave. We analyzed this wave to gain insight into legislators’ attitudes more directly. The questions cover four areas: acceptance of immigrants from war-torn countries, granting the same rights to immigrants, prioritizing employment for native-born individuals over immigrants, and the perceived impact of immigrants on social services. The responses were given on a scale from 1 to 5, with 5 being the most favorable view on each item. We utilized the responses to these questions to develop an index to measure the parliamentary elites’ stance on immigration

Table 9.4: Summary statistics.

	Accept immigrants countries at war		Immigrants and natives same rights		Natives have preferences over employment		Immigrants take advantage social security		Immigration Favorability Index	N
	Mean	Sd	Mean	Sd	Mean	Sd	Mean	Sd		
APRA	5.0	0.00	5.0	0.00	2.3	2.31	2.3	2.31	3.67	3
AP	4.0	0.00	4.3	0.58	2.7	2.08	2.0	1.00	3.67	3
FA	4.3	1.21	4.2	1.17	4.2	0.98	3.0	1.79	2.42	6
PPK	4.0	1.34	3.9	1.30	2.7	1.27	2.3	1.68	3.50	11
APP	4.8	0.41	5.0	0.00	2.8	1.83	2.5	1.76	3.33	6
NP	3.5	1.52	4.2	1.60	2.3	1.03	1.8	0.98	3.92	6
FP	4.1	0.93	4.2	0.95	3.3	1.60	3.0	1.48	2.91	36
<div style="display: flex; justify-content: space-between; width: 100%;"> <span>1-5, 5 - strongly agree</span> <span>1-5, 5 pro-immigration</span> </div>										

APRA = Alianza Popular Revolucionaria Americana; AP = Acción Popular; FA = Frente Amplio; PPK = Peruanos Por el Kambio; APP = Alianza Para el Progreso; NP = Nuevo Perú; FP= Fuerza Popular  
Source: Author’s own elaboration based on PELA-USAL survey (2017).

Table 9.4 provides a summary of the attitudes of seven Peruvian political parties towards immigration-related issues.<sup>32</sup> While most parties agree on accepting immigrants from war-torn countries and granting them equal rights, there is divergence when considering social costs. Parties such as FA and FP demonstrate reluctance towards pro-immigration attitudes, as indicated by their higher means in prioritizing employment for natives over immigrants and concerns about immigrants taking advantage of social services. In contrast, NP stands out as the most supportive party, even when social costs are considered. It is important to note that FA represents the extreme left while FP represents the extreme right of the political spectrum in Peru (Table 9.5).

Following a principal exploratory components analysis, we categorized the questions into two factors based on the perceived cost of immigration. The first factor encompasses questions related to the basic rights of immigrants, while the second factor covers questions related to the social costs of immigration, such as employment and social services.<sup>33</sup>

The figure below shows the correlation matrix for the four questions.

The table below 9.2.2 shows the average of the indexes by party. The first index, Index 1, consists of four questions that pertain to immigration. Index 2 consists of two questions

<sup>32</sup>For additional details, refer to Table 9.2.3 in the Appendix, which contains other measures of tendencies and ranges per question.

<sup>33</sup>After comparing different ways to combine these variables, we evaluated the effectiveness of our index by analyzing the standard deviations, and we selected the one with the largest standard deviation (Index 3, 0.51). The selection was based on which index had the higher discriminatory power in determining differences in party attitudes. A detailed description of the index construction can be found in the Appendix 9.2.2

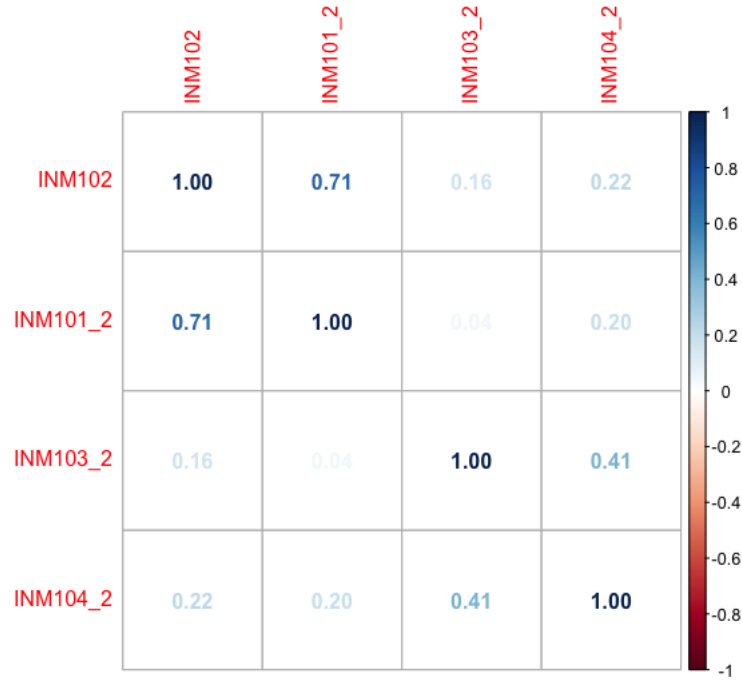


Figure 9.1: Correlation matrix

specifically related to the basic rights of immigrants (IMM1, IMM2). Index 3 (IMM3, IMM4), in turn, encompasses two questions that address the potential social costs associated with immigration. An analysis of the standard deviations of the three indexes was performed, with the results revealing that Index 3 had the largest standard deviation (0.51) among the four indexes. This indicates that Index 3 has a higher discriminatory power in determining differences in party attitudes, as it is able to differentiate better among them.

Party	Index1	Index2	Index3
APRA	4.33	5.00	3.67
ACCION POPULAR	3.92	4.17	3.67
EL FRENTE AMPLIO POR JUSTICIA, VIDA Y LIBERTAD	3.33	4.25	2.42
PERUANOS POR EL KAMBIO	3.73	3.95	3.50
ALIANZA PARA EL PROGRESO DEL PERU	4.12	4.92	3.33
NUEVO PERU	3.88	3.83	3.92
FUERZA POPULAR	3.53	4.18	2.91

### 9.2.3 Descriptive Data

	PELA-USAL (2021)			CHES (2020)				
	Ideology	Immigration	Regulated Economy	Ideology	Immigration	Immigration Saliency	Galtan	Economic liberalism
APRA	4.33	3.67	5.33	7.47	7.00	5.00	7.47	7.27
AP	5.33	3.67	6.67	5.60	6.22	3.40	6.73	6.13
FA	1.67	2.42	4.50	1.93	4.60	4.27	3.40	2.00
PPK	5.82	3.50	7.91	5.62	5.50	5.00	4.25	5.54
APP	5.00	3.33	6.50	7.14	6.44	3.50	7.47	6.93
NP	2.33	3.92	3.83					
FP	6.14	2.01	7.24	8.53	7.70	5.00	9.00	7.80
	1-10, 10 extreme right	1-5, 5 favorability	1-10, 10 pro-market	1-10, 10 extreme right	1-10, 10 favors restrictive policy	1-10, 10 great importance	0-10, 10 traditional	1-10, 10 extreme right

Table 9.5: Party family data

Source: Authors' own elaboration based on PELA, and CHES databases.

### 9.2.4 Related topics

	Chile				Peru			
	Immigration	Venezuela	Crime	Employment	Immigration	Venezuela	Crime	Employment
Left	0.35	1.20	3.26	6.80	0.17	0.56	5.18	8.85
Center	0.36	1.04	2.39	7.88	0.15	0.76	3.31	6.23
Right	0.30	1.17	3.31	9.18	0.12	1.34	3.63	6.49
Total	0.33	1.17	3.15	7.85	0.14	0.93	3.83	6.89
	Within Immigration Tweets				Within Immigration Tweets			
Left		14.3	5.6	10.0		25.6	10.2	12.2
Center		14.1	4.2	10.7		30.2	7.0	9.1
Right		17.1	5.4	10.4		53.7	7.0	10.4
Total		15.2	5.3	10.2		36.0	7.8	10.3

Table 9.6: Summary Descriptives

Note: The numbers refer to percentages. Source: Authors' own elaboration based on data retrieved from Twitter

## 9.3 Dictionaries

This section presents the construction of dictionaries to identify the immigration issue. We begin with a minimum dictionary (refer to Table Table 9.7), followed by the incorporation of combinations of two words, as indicated in Table Table 9.8. Finally, we include combinations of three words (see Table Table 9.9).



**Word 1**

migrantes  
 inmigrantes  
 inmigrante  
 xenofobia  
 refugiados  
 migratoria  
 inmigracion  
 migrante

Table 9.7: Minimum initial dictionary

Table 9.8: Dictionary with combination of two words

<b>Word 1</b>	<b>Word 2</b>
#yosoyvenezolano	años
antecedentes	extranjeros
antimigratoria	derechos
antimigratoria	presidente
años	inmigracion
años	japonesa
campo	extranjero
cancilleriaperu	migratoria
cancilleriaperu	venezolanos
chile	venezolanos
ciudadanos	extranjeros
ciudades	extranjero
conmemoracion	japonesa
crisis	huyen
crisis	migratoria
derechos	migrantes
emigrar	millones
escapan	miles
exodo	maduro
extranjero	migracion
extranjero	migratorias
extranjero	venezolanos
extranjeros	migraciones
extranjeros	socialismo
extranjeros	venezolanos
extranjeros	xenofobia
familias	inmigrantes
familias	migrantes

familias	migratoria
familias	venezolanos
frontera	migracionespe
frontera	migratoria
frontera	venezolanos
hermanos	huyen
huyen	maduro
huyen	venezolano
huyen	venezolanos
inmigracion	japonesa
inmigracion	migracion
inmigrantes	pais
inmigrantes	paises
internacional	migrante
internacional	refugiados
japonesa	marco
japonesa	migracion
migracion	solo
migracion	todas
migracion	venezolana
migracion	venezolanos
migraciones	personas
migraciones	situacion
migraciones	trabajo
migraciones	venezolanos
migrantes	niños
migrantes	pais
migrantes	personas
migrantes	situacion
migrantes	trump
migrantes	venezolano
migrantes	venezolanos
migrantes	venezuela
migratoria	niños
migratoria	paises
migratoria	personas
migratoria	politica
migratoria	trump
migratorias	puede
migratorias	solo
migratorias	todas
miles	refugiados

niños	trump
pais	xenofobia
países	refugiados
personas	refugiados
peruanos	venezolana
peruanos	venezolanos
peruanos	xenofobia
argentinos	venezolana
argentinos	venezolanos
argentinos	xenofobia
chilenos	venezolana
chilenos	venezolanos
chilenos	xenofobia
ecuatorianos	venezolana
ecuatorianos	venezolanos
ecuatorianos	xenofobia
colombianos	venezolana
colombianos	venezolanos
colombianos	xenofobia
problemas	venezolana
puede	venezolanos
trabajo	venezolanos
venezolana	venezolanos

Table 9.9: Dictionary with combination of three words

Word 1	Word 2	Word 3
frontera	peru	venez
peruanos	salud	venezolanos
perú	educaci	venez
frontera	cerr	venez
permiso	renovable	trabajo
peru	venezolanos	lleg
delinc	frontera	venez
trabaj	peruan	venez
venezol	recibir	peru
venezol	ingres	frontera
venezol	salud	frontera
venezol	golp	miraflores
venezol	norte	frontera
venezol	peruan	dialogo
venezol	peruan	explot

venezol	peru	labor
venezol	fronter	ecuado
peru	colombianos	expuls
frontera	colombianos	ingres
frontera	miner	ilegal
extra	mineros	ecuador
refugio	venezo	frontera
peru	venezolanos	proteger
peru	venezolanos	porcentaje
peru	venezolanos	hermandad
peru	venezolanos	turista
peru	venezolanos	calidad
gracias	venezolanos	apoyar
miles	venezolanos	apoyar
argentina	venezolanos	peruanos
afect	venezol	peruano
crimin	venezol	fronte
trabaj	venezol	solid
preocupan	venezol	peruanos
trabajo	venezol	visas
nacionalizar	venezol	peru
brazos	venezol	peru
llegad	venezol	peru
bienvenid	drama	venezolanos
trabaja	reconstru	venezolanos
venezol	chile	protest
venezol	chile	captur
venezol	chile	acogi
venezol	chile	llegan
venezol	chile	joven
venezol	peru	comunidad
venezol	exilio	ppkamigo
venezol	apoyemos	peru

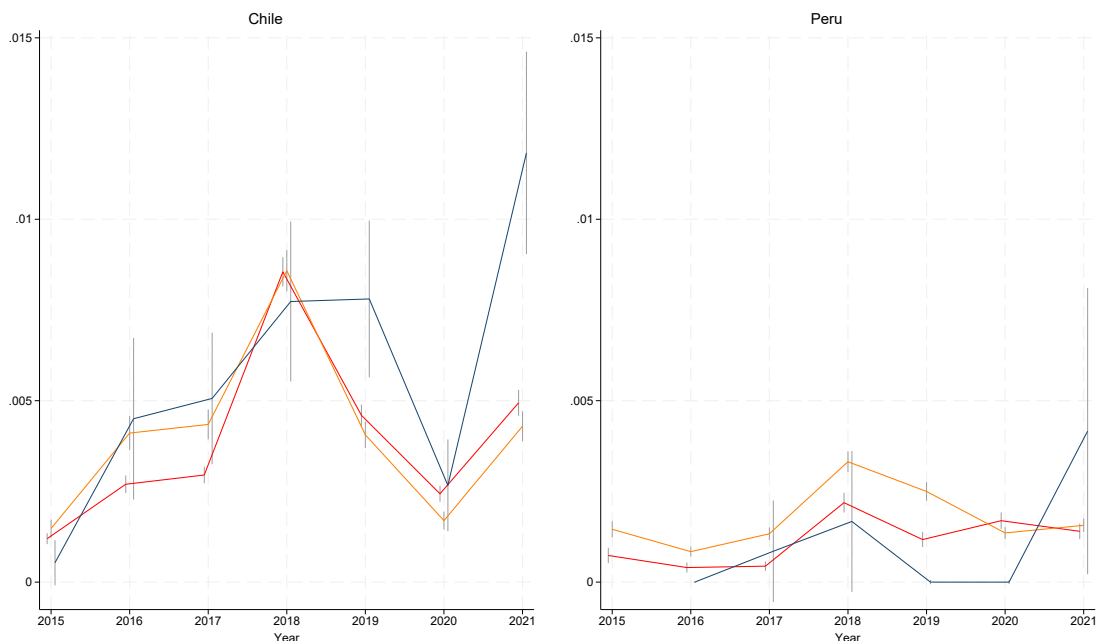
## 9.4 Geographical Variation

As someone could argue that the differences may only be given by certain regions, we implemented a stratified analysis to understand whether we can identify any variations by region. Immigration may concern people more when they directly interact with immigrants. The majority of immigrants choose to live in capital cities, but they also spend some time in border cities. Due to these concerns, politicians representing these regions may address the issue more frequently than their counterparts.

However, in [Figure 9.2](#), we do not see significant differences between legislators representing the capital city and those representing other parts of the country, regardless of whether they represent border cities or not.

The most notable difference appears to relate to the last year in our sample when we observe an increase in the salience of this issue among politicians representing border cities in both Chile and Peru.

Figure 9.2: Immigration Saliency per year in Chile and Peru for Different Regions



References: Orange (Capital city), Blue (cities in the border) and Red (Other regions). Note: the DV is the saliency of immigration operationalized as the ratio of statements about immigration to the total number of public statements made. To compute these means, a control using the length of the tweet was used. Robust standard errors were computed, Left, Center and Right are defined as discussed in [subsection 4.2](#). Source:

Authors' own elaboration based on data retrieved from Twitter

## 9.5 Dynamics of Immigration Saliency Across Parties

Thus far, our analysis has revealed that all party families have exhibited similar trends in their response to the topic. However, it remains unclear whether this response is solely attributable to the phenomenon itself or if there is an interplay between party families. [Gessler and Hunger \(2022\)](#), in their analysis of European countries, find that parties on the left and center tend to release more statements when extreme right-wing parties focus on the immigration issue. We adopt their approach to examine whether the number of tweets from parties on the left and center positively correlates with increased saliency within right-wing parties. <sup>34</sup>

Our analysis involves constructing a monthly panel dataset, with each party as the unit of observation. The dependent variable in this analysis is the number of tweets by the center and the left (or, alternatively, the right and the center), while the independent variables consist

<sup>34</sup>Similar to [Gessler and Hunger \(2022\)](#), we employ the Arellano-Bond model, which assumes a serial autocorrelation structure and includes lagged dependent variables.

	Peru All	Peru 2017-21	Peru 2013-16	Chile All	Chile 2017-21	Chile 2013-16
Tweets on Immigration (lag 1)	0.14*** (0.05)	0.28*** (0.03)	0.09* (0.06)	0.38*** (0.04)	0.27 (0.19)	0.36*** (0.05)
Tweets on Immigration (lag 2)	0.08* (0.05)	-0.04 (0.04)	0.08** (0.04)	0.09** (0.03)	0.09* (0.05)	0.05 (0.03)
Saliency Immigration Left $\times$ Right	6.33* (3.26)	6.21 (4.94)	5.38* (3.21)	4.30*** (1.41)	3.85** (1.83)	4.43*** (1.40)
Saliency Immigration Left (lag) $\times$ Right	-1.00 (0.95)	-1.64 (1.34)	-1.31 (0.87)	-1.67*** (0.46)	1.69 (2.13)	-1.59*** (0.46)
Saliency Immigration Left $\times$ Center	9.40** (4.12)	12.50* (6.63)	9.47** (4.04)	11.46*** (4.04)	33.23*** (1.51)	10.08*** (0.43)
Saliency Immigration Left (lag) $\times$ Center	-2.45*** (0.93)	2.07* (1.20)	-1.78*** (0.61)	-4.16*** (0.50)	-8.57* (5.10)	-3.42*** (0.47)
Tweets	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00** (0.00)	0.00** (0.00)	0.00 (0.00)
Trend	0.02* (0.01)	0.04 (0.05)	0.03*** (0.01)	0.01 (0.02)	0.07 (0.07)	-0.01 (0.01)
Constant	-0.97*** (0.24)	-0.54** (0.21)	-1.91*** (0.64)	-1.14 (0.85)	-1.21** (0.57)	0.74 (2.15)
Observations	1,036	410	626	985	405	580
Number of Party	11	10	11	10	9	10

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 9.10: Regression results for left and center parties' tweets about immigration

of the saliency of the immigration topic (measured as the percentage of immigration-related tweets among all tweets) within the right-wing parties (or alternatively, the left-wing parties). We interact this measure of saliency with a dummy variable indicating whether the legislator is a member of a party on the left or the center (or alternatively, the center and the right). Additionally, we control for the total number of tweets and public opinion, which we proxy using the Google Trends Index for each country with the keyword 'Venezuelans.'

Table 9.10 reveals that in both countries, center parties exhibit a positive correlation in the number of tweets they post related to immigration within right-wing parties. This holds across all years, including pre-shock (2013-16) and post-shock (2017-2021) periods. However, this correlation weakens or becomes non-significant when considering tweets by left-wing legislators.

Similarly, Table 9.11 demonstrates that in both countries, center parties display a positive contemporaneous correlation in the number of tweets they post concerning the saliency of immigration within left-wing legislators. This correlation remains consistent across all years, pre-shock years (2013-16), and post-shock years (2017-2021). As with the previous table, this positive correlation is weaker or even non-significant in the case of Peru when examining the number of tweets by right-wing legislators.

In summary, this section shows that party families in both countries do not independently address the immigration issue, and there is a correlation between them.

	Peru All	Peru 2017-21	Peru 2013-16	Chile All	Chile 2017-21	Chile 2013-16
Tweets on Immigration (lag 1)	0.16*** (0.05)	0.27*** (0.08)	0.11** (0.05)	0.36*** (0.05)	0.29 (0.22)	0.31*** (0.05)
Tweets on Immigration (lag 2)	0.02 (0.02)	-0.02 (0.06)	0.01 (0.02)	0.04 (0.05)	-0.00 (0.11)	0.01 (0.06)
Saliency Immigration Left $\times$ Right	7.56 (4.70)	8.56 (5.81)	6.74 (4.45)	11.60*** (3.57)	12.41*** (3.52)	11.90*** (3.44)
Saliency Immigration Left (lag) $\times$ Right	-1.00* (0.58)	-0.76 (0.85)	-1.26*** (0.46)	-3.64** (1.54)	-3.98 (3.18)	-2.48* (1.43)
Saliency Immigration Left $\times$ Center	7.23** (3.45)	7.70* (4.32)	7.31** (3.40)	18.11*** (0.60)	37.41*** (3.67)	17.91*** (0.31)
Saliency Immigration Left (lag) $\times$ Center	-2.45** (1.06)	1.05 (0.68)	-2.20** (0.99)	-7.01*** (0.94)	-14.45** (6.68)	-4.75*** (0.83)
Tweets	0.00*** (0.00)	0.00** (0.00)	0.00*** (0.00)	0.00*** (0.00)	0.00 (0.00)	0.00 (0.00)
Trend	0.02* (0.01)	0.23** (0.10)	0.04*** (0.01)	0.04* (0.03)	0.23** (0.12)	0.03 (0.02)
Constant	-1.24*** (0.37)	-0.84*** (0.31)	-2.02*** (0.69)	-2.41 (1.50)	-1.56** (0.71)	-0.80 (5.28)
Observations	929	389	540	525	225	300
Number of Party	9	9	9	5	5	5

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 9.11: Regression results for right and center parties' tweets about immigration

## 9.6 NMF

	<i>Chile</i>				<i>Peru</i>			
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
	frontera	guaido	exodo	rector	hermanos	articulo	venezuela	ministro
	visa	tienen	regimen	primer	huyen	solidaridad	argentina	venezolano
	migratoria	ingreso	chilenos	muchos	esta	este	peru	extranjeros
	esta	migrantes	chileno	chilenos	migrantes	oportunidades	muchos	olivos
	migrantes	venezuela	nicolas	bello	maduro	para	libertad	trabajo
	venezolanos	diputado	gobierno	inmigrantes	para	inmigracion	millones	delincuentes
	humanitaria	asilo	venezolanos	venezolano	venezuela	peru	somos	como
	crisis	pide	dictadura	como	venezolanos	sobre	chile	venezolanos
	venezuela	venezolanos	contra	nuestro	peru	migracion	venezolanos	xenofobia
	para	chile	maduro	pais	pais	venezolana	peruanos	contra
%	<b>38.4</b>	<b>20.9</b>	<b>24.0</b>	<b>16.7</b>	<b>43.0</b>	<b>13.2</b>	<b>19.7</b>	<b>23.9</b>
Left (%)	42.6	20.3	21.2	15.9	35.1	14.9	21.6	28.4
Center (%)	35.1	18.0	27.9	18.9	34.7	16.7	20.7	27.9
Right (%)	33.3	23.2	25.7	17.7	53.1	9.9	18.5	18.5
Distance L-R	<b>9.3</b>	<b>-2.9</b>	<b>-4.6</b>	<b>-1.8</b>	<b>-18.0</b>	<b>5.0</b>	<b>3.1</b>	<b>9.8</b>

Table 9.12: Topic Analysis - NMF 4 clusters regarding Immigration & Venezuela statements

<i>Chile</i>					<i>Peru</i>			
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
	contra	aprobo	exponen	para	urresti	personas	dice	seguridad
	estado	casa	inmigracion	extranjeros	bien	frente	decir	horas
	odio	ingreso	delitos	comision	danielurrestil	sobre	todos	peruanos
	este	orden	tiene	tienen	trabajo	entre	hace	delincuentes
	como	crimen	solo	criminalizar	maduro	ddhh	este	ciudadanos
	racismo	organizado	delincuentes	chilenos	peru	internacional	delincuencia	acciones
	xenofobia	ilegal	pero	gobierno	olivos	contra	contra	extranjeros
	chile	inmigracion	quienes	contra	como	mujeres	discriminacion	nuestro
	para	narcotrafico	delincuencia	migracion	delincuentes	migrantes	delincuente	para
	violencia	migraciones	inmigrantes	migrantes	venezolanos	violencia	xenofobia	pais
%	<b>42.3</b>	<b>9.3</b>	<b>22.9</b>	<b>25.4</b>	<b>38.7</b>	<b>23.8</b>	<b>16.1</b>	<b>21.4</b>
<b>Left (%)</b>	51.6	3.8	18.5	26.1	17.5	42.9	15.9	23.8
<b>Center (%)</b>	37.1	2.9	34.3	25.7	45.2	8.1	27.4	19.4
<b>Right (%)</b>	27.6	21.8	26.4	24.1	60.5	18.6	0.0	20.9
<b>Distance L-R</b>	<b>24.0</b>	<b>-18.0</b>	<b>-8.0</b>	<b>2.0</b>	<b>-43.0</b>	<b>24.3</b>	<b>15.9</b>	<b>2.9</b>

Table 9.13: Topic Analysis - NMF 4 clusters regarding Immigration & Crimen statements



Chile					Peru			
	Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
	derechos	control	chilenos	hace	hace	laborales	casualidad	tienen
	personas	proceso	segura	pero	urresti	xenofobia	buen	estan
	gran	extranjeros	ordenada	todos	danielurrest1	peru	vida	ciudadanos
	como	haitiano	proyecto	esta	gobierno	sino	tiene	migraciones
	mujeres	diputado	migraciones	venezuela	pais	migrante	millones	ministra
	trabajadores	haitianos	trabajo	pais	olivos	peruano	gran	ahora
	sobre	laborales	turismo	inmigracion	delincuentes	solo	porque	jovenes
	este	trabajar	migracion	ejemplo	como	nuestros	todo	venezolanos
	trabajo	inmigrantes	migratoria	venezolanos	trabajadores	migrantes	venezuela	peruanos
	migrantes	para	laboral	chile	venezolanos	para	peru	trabajo
%	29.5	24.4	23.8	22.4	20.6	40.7	13.4	25.4
Left (%)	31.8	24.2	19.9	24.2	15.4	60.0	4.6	20.0
Center (%)	30.6	28.2	22.4	18.8	27.8	39.2	11.4	21.5
Right (%)	25.7	22.2	30.4	21.6	18.5	21.5	24.6	35.4
Distance L-R	6.0	1.9	-10.5	2.5	-3.1	38.5	-20.0	-15.4

Table 9.14: Topic Analysis - NMF 4 clusters regarding Immigration & Employment statements

<i>Chile</i>							
Left				Center			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
migrante	dictadura	pacto	como	chilenos	quedar	llamo	venezolana
todos	colombia	migracion	millones	miles	refugiados	consulado	mundo
este	chilenos	proyecto	israel	nuestra	ingreso	perdio	inmigrantes
migracion	humanitaria	crisis	años	democratica	crisis	humanidad	forma
pais	crisis	nueva	palestinos	dictadura	minrel	venezolana	como
como	pais	politica	trump	sobre	ayuda	hijo	primer
personas	maduro	gobierno	niños	maduro	situacion	fuera	chilenos
derechos	venezuela	migratoria	para	venezolanos	humanitaria	tacna	venezolano
para	chile	sobre	refugiados	venezuela	venezolanos	gobierno	pais
migrantes	venezolanos	inmigracion	inmigrantes	chile	para	chileno	nuestro
41.26	16.53	22.10	20.11	49.55	22.52	11.71	16.22
				Topic 1	Topic 2	Topic 3	Topic 4
				todos	mayoria	venezolana	comunismo
				libertad	ddhh	cuba	gobierno
				esta	dictador	crisis	presos
				democracia	venezolanos	responsabilidad	sobre
				pais	miles	visa	dice
				alimentos	chilenos	esta	pais
				este	gobierno	migratoria	venezolanos
				venezuela	contra	democratica	perseguidos
				venezolanos	dictadura	venezuela	politicos
				chile	maduro	para	inmigrantes
				29.96	32.07	28.69	9.28

Table 9.15: Topic Analysis - NMF 4 clusters regarding Immigration & Venezuela statements by ideological party family

<i>Peru</i>							
Left				Center			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
esto	presidente	migratoria	somos	contra	venezolanos	desafios	todos
solo	genero	internacional	tienen	huyen	5yjdylnfi	universidad	xenofobia
dice	esta	maduro	otros	migrantes	refugio	migratoria	como
como	este	opinion	estan	maduro	pedido	oportunidades	urresti
delincuentes	problema	peru	gobierno	chile	multipartidario	para	venezolanos
pais	para	humanitaria	pero	pais	cancilleriaperu	inmigracion	danielurrestil
esta	peru	crisis	trabajadores	venezuela	martinidalgo	peru	trabajo
para	sobre	migrantes	trabajo	peru	canaln	sobre	para
venezolanos	venezolana	refugiados	venezolanos	venezolanos	rppnoticias	migracion	delincuentes
xenofobia	migracion	venezuela	peruanos	peruanos	exitosape	venezolana	olivos
34.81	17.78	23.70	23.70	51.00	4.78	19.52	24.70
				Topic 1	Topic 2	Topic 3	Topic 4
				gobierno	r1sgtipaph	esta	listos
				sobre	receta	pais	sumarse
				esta	recaudo	delincuentes	ciudadanos
				venezuela	habitantes	todo	entre
				pais	poniendo	pueblo	ministro
				migrantes	dilapidadas	exodo	tenemos
				peruanos	pequeño	como	tambien
				para	vera	huyendo	extranjeros
				peru	obligados	huyen	medicos
				venezolanos	emigrar	maduro	contra
				60.19	4.94	25.31	9.57

Table 9.16: Topic Analysis - NMF 4 clusters regarding Immigration & Venezuela statements by ideological party family

*Chile*

Center							
Left				Right			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
estado	sienten	matanza	relacion	delincuencia	libre	politica	gobierno
sobre	miedos	instalarse	xenofobia	visto	convivencia	lenguaje	familia
esta	sustos	peligro	inmigracion	involucrado	xenofobia	chilenos	venezolanos
genero	lenguaje	exhibia	vincular	delitos	asegure	delincuencia	haitiano
mujeres	ayuda	terrorista	entre	solo	sana	tienen	santa
chile	inaceptable	asesino	piñera	quienes	compromiso	para	violencia
migrantes	criminalizar	zelandia	culpa	vinculen	hw9njr0sc	educacion	delincuentes
para	migracion	nuestro	inmigrantes	sanciones	todosomomigrantes	este	delincuencia
contra	chilenos	fascismo	migracion	exponen	racismo	migrantes	quienes
<b>violencia</b>	<b>sector</b>	<b>odio</b>	<b>delincuencia</b>	<b>zamuio</b>	<b>sumamos</b>	<b>migracion</b>	<b>inmigrantes</b>
<b>68.15</b>	<b>7.01</b>	<b>7.01</b>	<b>17.83</b>	<b>60.00</b>	<b>17.10</b>	<b>14.20</b>	<b>8.50</b>
				<b>migraciones</b>	<b>delincuentes</b>	<b>asesinato</b>	<b>contra</b>
				<b>11.49</b>	<b>43.68</b>	<b>10.34</b>	<b>34.48</b>

Table 9.17: Topic Analysis - NMF 4 clusters regarding Immigration & Crime statements by ideological party family

*Peru*

Center							
Left				Right			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
discriminacion	durante	pcmperu	palestina	banda	huyendo	solidaridad	nefasta
para	sexual	estandares	petroleo	esta	tiene	socialista	entre
peruanos	frente	significa	irak	debe	paises	hdesotoperu	consecuencia
parte	entre	jvipdijnop	yanqui	para	estoy	pais	pedir
esta	mujer	migratoria	olvidan	bien	seguridad	vienen	millon
extranjeros	para	esto	bancadafaperu	delincuentes	hambruna	gran	6v6lbqap7i
pais	contra	personas	vizcarra	criminal	manera	solo	acuerdo
venezolanos	migrantes	criminalizacion	derechos	peru	para	sino	infilten
xenofobia	violencia	derecho	humanos	maduro	migrantes	problema	delincuencia
<b>delincuentes</b>	<b>mujeres</b>	<b>ddhh</b>	<b>trump</b>	<b>venezolanos</b>	<b>violencia</b>	<b>dice</b>	<b>antecedentes</b>
<b>42.86</b>	<b>31.75</b>	<b>15.87</b>	<b>9.52</b>	<b>53.49</b>	<b>23.26</b>	<b>16.28</b>	<b>6.98</b>

Table 9.18: Topic Analysis - NMF 4 clusters regarding Immigration & Crime statements by ideological party family

<i>Chile</i>							
Left				Center			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
como	salud	migracion	estamos	citar	mmonckeberg	muchos	aprobacion
pais	cultura	derechos	sobre	para	culpables	trabajo	arley
venezuela	ambiente	jesuita	gente	comision	ksykrvjdob	trabajan	jpilowsky
inmigracion	noscausamosnosunimos	servicio	turismo	propuesta	biobio	haitianos	feliz
ejemplo	pensionados	sobre	laboral	interior	capaces	trabajar	hace
inmigrantes	pueblos	este	proyecto	ministro	tiempo	inmigrantes	bien
trabajar	originarios	gran	senador	migraciones	explicaciones	sobre	chilena
venezolanos	educacion	como	insulza	trabajo	prometieron	chile	ejemplo
chile	vivienda	trabajo	migraciones	efectos	empleos	para	nacionalidad
para	mujeres	migrantes	migraciones	laborales	sido	migrantes	inmigracion
<b>42.37</b>	<b>6.36</b>	<b>28.81</b>	<b>22.46</b>	<b>14.12</b>	<b>7.06</b>	<b>67.06</b>	<b>11.76</b>
Right				Topic 1	Topic 2	Topic 3	Topic 4
				pais	humanitarias	proceso	migraciones
				ministro	paradojal	muestras	chilenos
				esta	causas	honestamente	debe
				sobre	recibir	bienvenidos	necesita
				venezolanos	siento	para	regular
				inmigrantes	abierto	respetar	laboral
				migrantes	defensores	aportar	turismo
				chile	viene	leyes	segura
				trabajo	ultimos	regularizacion	ordenada
				para	criticas	trabajar	migracion
				<b>73.10</b>	<b>2.92</b>	<b>8.19</b>	<b>15.79</b>

Table 9.19: Topic Analysis - NMF 4 clusters regarding Immigration & Employment statements by ideological party family

<i>Peru</i>							
Left				Center			
Topic 1	Topic 2	Topic 3	Topic 4	Topic 1	Topic 2	Topic 3	Topic 4
hermanos	esto	condiciones	vecinos	declaratoria	venezolanos	huyeron	relaciones
restringir	para	mercado	todos	emergencia	gente	familiares	comision
tienen	trabajar	laborales	como	proyecto	venezuela	quita	mesa
pais	personas	laboral	urresti	nuestro	entrevista	ellos	trabajo
gobierno	mujeres	donde	danielurresti1	rolandoruizap	como	peruanos	puno
estau	contra	esta	trabajo	correligionario	peru	miles	migraciones
jovenes	sobre	explotacion	para	interno	trabajo	venezolano	inmigrantes
trabajadores	migrantes	sino	delincuentes	retorno	familias	tienen	sobre
venezolanos	peru	peruano	olivios	migrante	empleo	cuantos	trata
	derechos	problema	venezolanos	formal	migrantes	dicen	personas
<b>35.38</b>	<b>27.69</b>	<b>26.15</b>	<b>40.51</b>	<b>10.13</b>	<b>39.24</b>	<b>10.13</b>	<b>20.00</b>

Table 9.20: Topic Analysis - NMF 4 clusters regarding Immigration & Employment statements by ideological party family