Immigration Shocks and (Mis)Concerns about Crime: Evidence from Chile[1]

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Abstract

The world has experienced unprecedented migration movements since 2010. In this context, unsubstantiated claims about a causal connection between immigration and crime have become common in politics. In this research note, we examine whether people's concerns about crime are affected by rapid and large demographic changes (i.e., immigration shock). To answer this question, we take advantage of rich administrative data in Chile, a country that has experienced a historic influx of migrants in the past few years. Using survey data, we estimate the effect of an immigration shock at the municipality level on concerns about crime. Our analysis shows that a rapid shift in Haitian migration at the local level leads to greater concerns about crime. However, we do not find evidence that immigration shocks are affecting crime rates. People's misperceptions about immigration and crime can have relevant consequences such as contributing to the negative stereotyping of migrant communities.

Keywords: Immigration, crime, concerns, crime rates.

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Introduction

Recent immigration patterns have created important demographic transformations around the globe. Economic, political, and humanitarian crises in Syria, Venezuela, and South Sudan, to name a few, have produced massive flows of people moving to more prosperous or safer places. Even though immigration can counterbalance an aging population and increase the labor force (Coleman and Rowthorn 2004), demographic changes can also trigger anti-immigration attitudes among the local population (Dancygier and Laitin 2014). This fear of immigrants, especially in times of populist rhetoric can be strongly influenced by unsubstantiated claims about the negative impact of accepting people from less developed countries.

The politicization of immigration is a widespread phenomenon and claims about a causal connection between immigration and crime are a good example of this issue. For instance, in Latin America, the president of Brazil, Jair Bolsonaro, has made comments linking crime and immigration by saying that "the vast majority of potential immigrants do not have good intentions."[4] The former president of Argentina, Mauricio Macri, claimed that "every day between 100 and 200 new people arrive in the city (i.e., Buenos Aires), and we do not know who they are; they come with connections with drug trafficking and crime." Similarly, the president of Chile, Sebastián Piñera, has televised the expulsion of immigrants who have committed crimes,[5] and has said that he will block the country's door with a *machete* from those who come to commit crimes.[6]

[4] Haltiwanger, John, "The Brazilian Donald Trump", Business Insider, March 19th, 2019.

[5] Meganoticias."Interior concreta expulsion de 56 ciudadanos extranjeros por distintos delitos." Meganoticias, December 13th, 2019.

[6] Casas, Leonardo. "Cerrar "con machete" a inmigrantes que delinquen: lenguaje de Piñera genera críticas de la oposición." Biobio chile, January 19th, 2019.

This anti-immigration rhetoric has also been present in other regions of the world such as Western Europe (Rydgren 2008) and the United States (Ewing et al 2015).[7]

The criminalization of immigration is occurring at a moment in which crime and insecurity have emerged as one of people's top concerns across the world (Perez 2015, Curiel and Bishop 2018). As with many other social issues, previous studies have shown that people often have inaccurate perceptions about crime that do not correlate with the situation in their countries (Esberg and Mummolo 2018). Gaps between fear of crime and actual victimization rates have been well documented across different countries (Dammert and Malone 2003, Ardanaz et al. 2014). This mismatch occurs because fear of crime is not only explained by the levels of violence and delinquency, but rather by a much more complex social phenomenon involving people's economic, social, and political insecurities (Dammert and Salazar 2017).

In a context of criminalization of immigrants and misperceptions of crime, it is important to study whether people are making direct connections between immigration and crime, and whether these perceptions (if they exist) are supported by actual crime data.[8] To answer these questions, we take advantage of a novel and rich administrative dataset that includes all of the visas requested in Chile between 2014 and 2017, when the country experienced a historic influx of migrants.

[7] Native residents can also react to demographic changes by establishing links between immigration and crime. For example, evidence from Germany shows that young men migrants receive less support and are perceived as more likely to pose a security threat (Ward 2019).

[8] Previous studies have explored the impact of refugee migration on crime rates, and they have found both modest positive effects (Lange and Sommerfeld 2018) and null effects (Masterson and Yasenov 2018).

Based on our analysis, combining administrative and survey data, we show that an immigration shock, or a sudden increase in the number of visas requested, increases people's concerns about crime by 12 percentage points. However, this effect is present only with the arrival of Haitian migrants. Additionally, we demonstrate that the recent immigration shocks have not increased actual crime rates. These findings illustrate that misconceptions are mainly triggered by the migrants who look "most different" from the native population, but that these worries do not have factual support. Haitians are predominantly Black,[9] Spanish is not their native language,[10] and tend to come from more disadvantage socioeconomic backgrounds.[11]

Overall, this study provides three main contributions to the existing literature. First, understanding people's misperceptions of insecurity and crime is relevant because they can have material consequences such as creating negative stereotyping of certain migrants' communities. Second, the extant research has mainly studied the reactions of local populations to immigration through an economic lens, with a focus on economic threats (Hainmueller and Hopkins 2014). Concerns about crime, however, have been understudied. Third, most previous research has paid attention to South-North rather than to South-South migration, which generates a "geographic mismatch between academic literature and concentration of migrants" (Alrababa'h et al. 2020: 3).

[9] According to the most recent census data, 95% of Haitians are Black. Meanwhile, using census data before the immigration wave in Chile, Afro-descendants represented less than 1 percent of the population.

[10] The official languages of Haiti are Haitian Creole and French, while Chile's official language is Spanish.

[11] According to the World Bank, Haiti is the poorest country in Latin America and the Caribbean.

Immigration and Crime in Chile

Chile represents an excellent setting for our main research goal of exploring the effects of an immigration shock on concerns about crime. This country has been exposed to drastic demographic changes in recent years. Between 2009 and 2018, more than 1.8 million non-tourist visas were approved for foreign nationals. This number is large when putting it into context since Chile has only 17.5 million inhabitants, according to the 2017 census. While 140K visas were issued in 2014, by 2018 the number was more than three times larger (438K).[12] We expect visa requests can work as an adequate proxy of actual immigration because Latin American foreigners were able to enter Chile as tourists (with no visa), and then request a non-tourists visa after spending 90 days in the country. Migration from other Latin American countries was fairly easy until 2018, when the president Sebastian Piñera implemented an immigration reform that made it harder for some Latin Americans to emigrate to Chile. Now they have to request a visa before entering the country and not from within Chile as before.

The nationality of migrants has also shifted in recent decades. Previously, migrants from bordering countries (i.e., Argentina, Peru, and Bolivia) represented the largest share of newcomers. In the past five to ten years, however, non-border migration has become more common. In particular, people from Venezuela and Haiti represented a large percentage of migrants entering the country (Doña-Reveco 2018; Gobierno de Chile 2020).

In Chile, and in terms of criminal offenses, the large majority of crimes committed are against property (Mertz, 2013), and there are different programs that have attempted to curb delinquency at the local level (Frühling and Gallardo 2012). In fact, between 2008 and 2015 crime victimization rates have decreased from 31.9 to 26.4 percent. The paradox of the Chilean case is

[12] Data from Extranjeria Chile.

that over the same period, the fear of crime increased from 80.4 to 86.8 percent (Dammert and Salazar 2017). In other words, concerns about crime are disproportionate to actual crime rates.

Research Design

Studying the effects of immigration can present multiple methodological challenges. One of the most relevant is that areas often receiving migrants might get used or adapt to demographic changes and no longer react to the arrival of newcomers. As a result, using immigration rates could be misleading.

To address this methodological problem, we identify municipalities that experienced a sudden and rapid increase in the number of visa requests (non-tourist): what we call an "immigration shock." By focusing on communities that faced a substantive demographic change in a short period of time, we mitigate concerns about people in certain areas getting habituated to immigration.

Additionally, areas exposed to migratory waves might differ in both observed and unobserved characteristics to places that did not experience an abrupt demographic transformation. We rely on a generalized difference-in-differences design, which allows us to compare groups of subjects with different unmeasured characteristics by assuming that these follow a common trajectory before the treatment.

Between 2014 and 2017, Chile received a massive influx of people from Latin American countries such as Venezuela, and Haiti. We use public records from 2014 to 2017 documenting all of the visas requested, which include the municipality or *comuna* where the immigrant lives as well as the nationality of the person who has requested the visa. This allows us to compute immigration shocks at a local level and for different countries of origin.

To understand people's concerns about immigration, we use data from eleven nationally representative surveys conducted by the *Centro de Estudios Públicos* between July 2014 and September 2017. Therefore, we are merging the survey data (used to compute the outcome) with the administrative data (used to identify the exposed municipalities, and as a result, the exposed survey respondents).

Taking advantage of the fact that the administrative data provides the day in which the visa was requested, we calculate the total number of visas requested 12 months before the survey was implemented (year 1), and between 13 and 24 months before the survey was conducted (year 2). To measure changes in visa requests, we calculate the change in percentage points between each time period.[13] The mean change in the sample is a 45 percentage point increase from year 2 to year 1 at the municipality level.[14]

To identify exposed and control municipalities, we use an extreme exposures approach that is based on selecting two groups: one that was very exposed to a large increase in immigration and another that was barely or not exposed at all. As a result, we end up excluding units that were partially exposed to immigration. This methodological approach reduces sensitivity to hidden biases (Rosenbaum, 2004). In particular, when analyzing a subpopulation where the exposure effect is larger, we can do a better job of identifying the association between exposure to a particular event and the outcome (Zubizarreta et al. 2013; Visconti and Zubizarreta 2018). This approach aligns with Cochran's (1965) suggestion that an observational study should try to

[13] Percentage change: $\frac{\text{Visas year 1} - \text{Visas year 2}}{\text{Visas year 1}}$.

[14] We exclude places with less than ten visa requests in the last 24 months, as small increases in the number of visas requested (such as from 1 to 4) might be interpreted as a substantive change when this is not the case.

resemble a simple experiment where we compare two treatments that are as different as possible. In appendix A, we use all the units (rather than a subpopulation) and a continuous measure of exposure to immigration (rather than immigration shocks) and find very similar results.

When constructing the extreme exposures sample, exposed municipalities are those in which the difference in immigration between year 1 and year 2 is equal to or greater than one standard deviation above the mean (considering all of the differences between year 1 and 2). This use of increases based on standard deviation units is a common strategy when studying the political impact of shocks (e.g., Bazzi and Blattman 2014). Control municipalities are those in which the difference between year 1 and year 2 is equal to or lower than the mean. We exclude "partially exposed" municipalities where the differences were greater than the mean but lower than one standard deviation, which helps reduce sensitivity to hidden biases (Zubizarreta et al. 2013). In appendix B and C, we use ten other cutoffs (rather than one standard deviation above the mean) to identify exposed municipalities.

Using an extreme exposures approach, we construct three immigration shocks: a sharp increase in all visas (no matter the country of origin), a sharp increase in visas from people from Haiti, and a sharp increase in visas from people from Venezuela. These two Latin American countries report the largest increments in migration in Chile in recent years. In particular, when making comparisons before and after 2012, Haitian migration increased by a factor of seven and Venezuelan migration by a factor of eighteen (Gobierno de Chile, 2020). In appendix D, we use shocks from other Latin American countries.

To construct the outcome, we use the following survey question: "Which are the three problems that the government should dedicate the greatest effort to solving?" Respondents then needed to identify three problems from a list of predefined issues that remain uniform across

surveys. We generate a binary indicator for concerns about crime if a respondent mentions that crime is one of the three issues that should be addressed by the government. In our final sample, 53% of respondents identified crime as one of the three problems, showing how relevant this topic is for Chileans.

We use a generalized difference-in-differences design, which allows us to compare exposed and control groups that are different in terms of observed and unobserved characteristics, since the assumption is that both groups' outcomes move in parallel trends when there is no treatment. That is to say, we assume that unmeasured covariates are either group-specific but time-invariant or time-specific but group-invariant (Wing et al. 2018). The analysis is implemented using the OLS regression described in equation 1:

$$Y_{it} = \alpha + \beta_1 T_{it} + \beta_2 X_{it} + \sigma_m + \omega_t + \varepsilon_{it} \qquad \text{(eq.1)}$$

In this equation, Y represents the outcome of interest (i.e., crime is one of the most important issues to be addressed by the government) for subject i at survey t. T corresponds to a binary indicator that identifies whether there was a sudden immigration shock in the municipality m where subject i lives. σ_m represents municipality fixed effects and ω_t are survey fixed effects. β_1 is the coefficient of interest. We also include a set of placebo covariates X_{it} that should not be affected by the treatment (i.e., age, education, and gender). We cluster the standard errors at the municipality level. We use equation 1 in three different samples, for the three different versions of the immigration shocks: All visas (10,165 observations), Haiti (5,922 observations), and Venezuela (6,138 observations).

For the effects of an immigration shock on crime rates, we change the unit of analysis from individuals (i.e., the outcome constructed using survey data) to municipalities (i.e., the outcome constructed using visa data). We rely on the same immigrations shocks computed to learn how they impact concerns about crime, but now checking whether they have an effect on crime rates. We use crimes of "greater social connotation," which correspond to a "criminologist-bureaucratic category of offenses comprising burglary, thefts, homicides, and rape" (Hathazy 2013). We compute the crime rates 6, 12, 18, and 24 months after the immigration shocks at the municipality level.[15] As a reminder, the shocks are constructed using the date the survey was implemented. Therefore, if a survey was conducted in August 2016, we collect the visas requested one and two years before that to compute the immigration shock, and crime rates 6, 12, 18, and 24 months later than that to estimate the effect of a shock on actual crimes. To implement this analysis, we also conduct a generalized difference-in-differences design but now with the municipality and not the survey respondent as the unit of analysis. We use the OLS regression described in equation 2:

$$Y_{mt} = \alpha + \beta_1 T_{mt} + \beta_2 X_m + \sigma_m + \omega_t + \varepsilon_{mt} \qquad \text{(eq.2)}$$

In this equation, Y represents the outcome of interest (i.e., crime rates 6, 12, 18 or 24 months after the immigration shock) for municipality m at survey t. T corresponds to a binary indicator of an immigration shock. σ_m represents municipality fixed effects and ω_s are survey fixed effects. β_1 is the coefficient of interest. We also include a set of pretreatments covariates

[15] We use data on crimes known to police, which refers to the crimes reported to police and to the arrests made by police officers. This data is equivalent to the FBI's Uniform Crime Reports and is published by the *Centro de Análisis de Prevención del Delito* from the Chilean Minister of Interior and Public Security.

indicated with X_m: education, income, and health indexes generated by the United Nations Development Programme for each municipality in Chile in 2003. We cluster the standard errors at the municipality level. As in the previous analysis, we use equation 2 in three different samples, for the three different versions of the immigration shocks: All visas (885 observations), Haiti (118 observations), and Venezuela (115 observations).

Results

Figure 1 summarizes the effects of the different immigration shocks on concerns about crime. The treatment "All" refers to a rapid and large increase in the number of visas requested by people from any country in the world in the last 12 months (compared with the visas requested between 13 and 24 months before the survey). Meanwhile, the other two migration shocks correspond to rapid and large increases in the number of visas requested by people from Haiti and Venezuela. The dots are the point estimates, and we provide 95% confidence intervals.

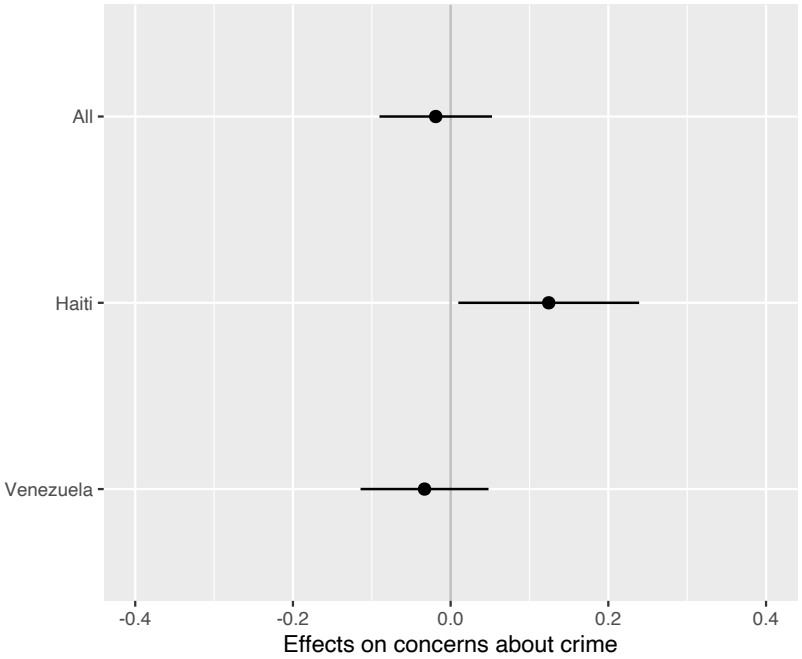

Figure 1: Impact of immigration shocks on concerns about crime

Based on Figure 1, there is only an effect when there is an immigration shock of people from Haiti. In particular, that effect is 0.124 [CI: 0.009, 0.239], which means that concerns about crime have significantly increased by 12 percentage points when there is a rapid and large arrival of people from Haiti. There is no evidence of an effect when using all the visas or Venezuela (or any of the other Latin American countries included in appendix D). We provide details about point estimates and confidence intervals in appendix E.

Are concerns about crime based on an actual increase in crime rates? Figure 2 summarizes the evidence for the effect of the aforementioned immigration shocks on crime rates 6, 12, 18, and 24 months after those shocks occurred.

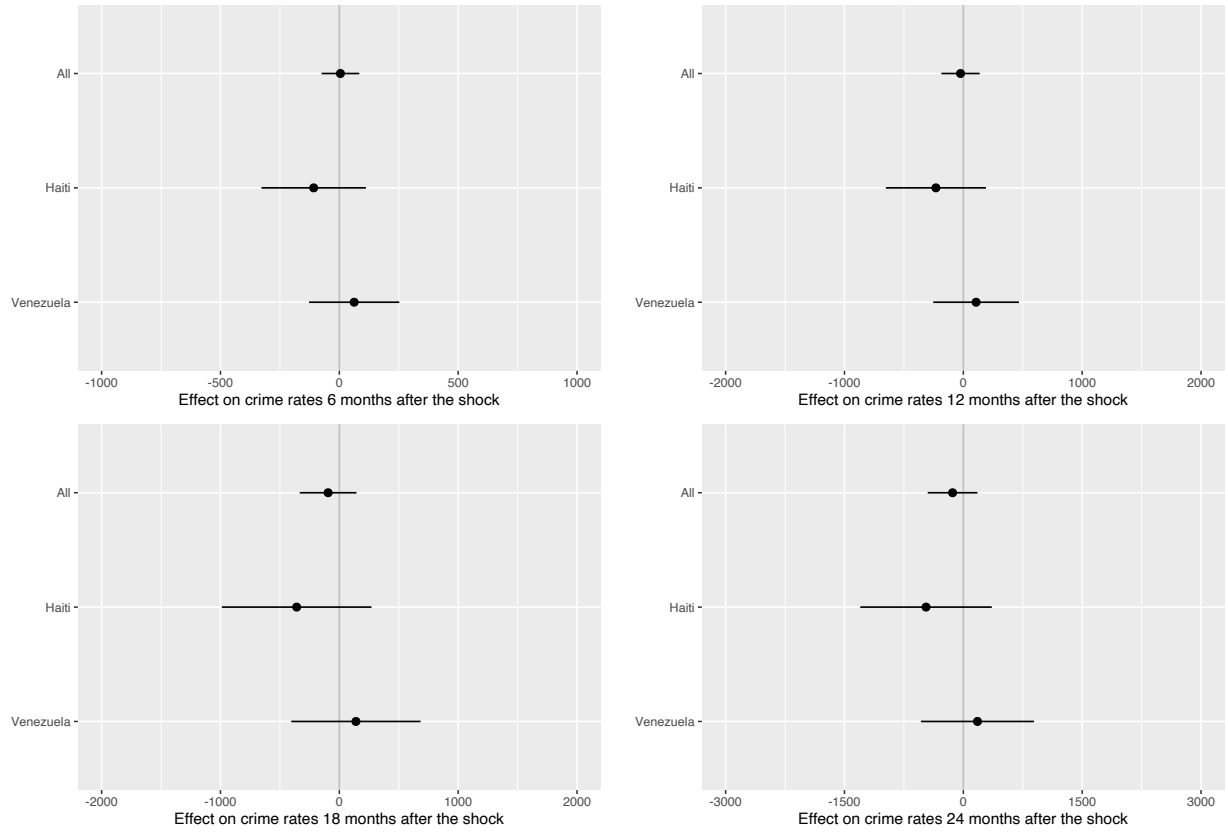

Figure 2: Impact of immigration shocks on crime rates

Figure 2 shows no evidence that immigration is affecting local crime rates. None of these effects is substantive or significant, so there is no evidence to reject the null hypothesis that immigration shocks are not affecting crime rates in Chile

Discussion and Conclusion

Although an immigration shock of people from Haiti increases Chileans' worries about crime in 12 percentage points, this shock does not affect actual crime rates. Our main goal with this research note is to provide empirical evidence regarding (mis)concerns about crime after immigration shocks. These findings can inform further research that looks into more detailed potential socio-psychological effects. In that sense, and based in our results, we suggest four mechanisms that may lead to the misperception between crime and immigration. First, the media and/or politicians' rhetoric can contribute to explaining why native residents become more concerned about crime even when crime is not increasing. Second, the social distance between the receiving communities and the "most different immigrant" could be one of the key explanations to feel threaten and hold negative stereotypes toward newcomers. Third, low-quality interactions between locals and out-group members might trigger negative feelings such as anxiety in the local population, which could make locals less accepting of foreigners and reinforce their prejudices and misconceptions. Fourth, considering contact theory (e.g., Pettigrew et al. 2007)., when language barriers prevent in- and out-group individuals from having meaningful interactions with each other, these low-quality interactions do not have the power to improve relationships between these groups. The rationale is that people that are more racially and culturally different from the native population might have a harder time trying to fight prejudice and misconceptions. In the Haitians, they are predominantly Black, from less privileged socioeconomic backgrounds, and not native Spanish speakers. As a

result, Chileans might consider them part of an out-group and have limited contact with them, which could contribute to generating unsubstantiated concerns about crime. More in-depth research is needed to test these proposed mechanisms further, particularly when the immigration dynamics is developing-developing nations.

Overall, our finding undermines the common political use of immigration as a scapegoat, particularly by populist regimes or right-wing political parties around the world. This rhetoric can be particularly harmful because it wrongly connects immigrants to crime, affecting their integration into their host communities, and facilitates the adoption of *mano dura* (iron fist) policies that erode citizens' rights and exacerbate social injustices.

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