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Transit Migration and Crime: Evidence from Colombia

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Transit Migration and Crime: Evidence from Colombia

Abstract

This paper investigates the effect of Venezuelan transit migration on crime rates in Colombia. We exploit the reopening of the Venezuela-Colombia border in 2016, which has led to a surge in transit migration, and geospatial information about the distinct routes through which the migrants crossed Colombia. Employing a difference-in-differences approach and propensity score matching, we find that transit migration increased property crime rates in crossed municipalities, with both native Colombians and Venezuelan refugees seeing higher victimization rates. Violent crimes remained unaffected. This is the first study to document a link between transit migration and crime.

JEL-Codes: K42, F220.

Keywords: transit migration, crime, migration.

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Transit Migration and Crime: Evidence from Colombia

By RAMÓN REY , GÜNTHER G. SCHULZE[‡] AND NIKITA ZAKHAROV

I. Introduction

International refugee crises, and their domestic repercussions in the receiving countries, are at the center of public policy debates in the host countries. In particular, several studies have analyzed the effect of immigration on crime levels in host countries,¹ Migration has risen sharply – the total number of refugees worldwide has almost tripled from 10.5 million in 2012 to 29.4 million in 2022 (UNHCR, 2023, p. 9) – and will likely continue to rise. However, the surge in migration flows, such as those from Latin America to the US and from Africa to Europe, affects not only the final destination countries but increasingly also the countries that migrants transit through. Despite this, there is little empirical research on the repercussions for these transit nations. Our paper fills this gap by examining the impact of exposure to Venezuelan transit migration on property and violent crimes in Colombia.

Transit migration is likely to have a different effect on crime levels than migration into the final destination country. First, the temporary nature of the stay restricts interactions between the in-group and out-group, hindering cooperative behavior — a contrast to the potential for integration during a more permanent stay (Allport et al., 1954). Consequently, both transit migrants and residents may face lower internal barriers to committing crimes against each other. Second, transit migrants have lower opportunity costs of crime. They may have limited resources and face limited chances of earning legal income; at the same time, their risk of getting caught (and a potential loss of reputation) is lower as they are just passing through. This may make them more inclined to com-

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¹*Inter alia*, Spenkuch (2014), Chalfin (2015), Masterson and Yassenov (2021), Maghularia and Uebelmesser (2023), Dehos (2021), Huang and Kvasnicka (2019), Kayaoglu (2022), Jung (2023), and Knight and Tribin (2023).

mit crimes. Third, transit migrants, especially when walking on the road, may be more vulnerable than migrants residing in houses and having a network of friends and fellow migrants supporting them. This might make them more prone to becoming victims of crime relative to settled migrants.

We analyze the effect of transit migration on crime in the Venezuelan-Colombian context. We use a unique policy intervention - the reopening of the Venezuela-Colombia border in July 2016 after it had been closed for nearly a year following a firefight between guerrilla groups and Venezuelan armed forces. This event resulted in a sudden and large influx of Venezuelan refugees escaping their country's severe economic and political crisis by walking across Colombia through distinctive routes until they reached their destination across the border with Ecuador.

We employ a difference-in-differences approach with propensity score matching, comparing crime rates of municipalities crossed by Venezuelan walkers with those matched municipalities not crossed before and after the reopening of the border. We find a differential increase in property crimes in crossed municipalities after the reopening of the border, with both Venezuelans and Colombians reporting higher victimization rates. Homicide and sexual assault rates did not change.

We make the following contributions to the literature. First and foremost, we are the first to analyze the effect of transit migration on crime. Despite its high and still growing importance, transit migration has not received much attention.² Due to the unique policy intervention analyzed, we are able to clearly identify the causal effect of transit migration on crime. Second, our paper contributes to the literature on migratory shocks and their effect on crime. Yet, almost all analyses on the migration-crime nexus have focused on developed countries as host countries for refugees. This omission is surprising given that middle- and low-income countries accommodate 76% of the world's refugees (UNHCR, 2023, p. 2). In contrast, our focus is on a developing country, Colombia, with a population of 50 million and 2.5 million refugees.³

The paper proceeds as follows. Section 2 reviews the literature, Section 3 provides the context. Section 4 describes the data. Section 5 details the methodology and presents the results. Section 6 concludes.

II. The literature

There is no consensus on a possible migration-crime link in the existing literature. Butcher and Piehl (1998) find no correlation between immigration and crime using panel data for forty-three metropolitan areas in the U.S. during the 1980s. Spenkuch (2014) analyzes this relationship at the U.S. county level from 1980 to 2000, finding that a 10% increase in the share of immigrants led to ca. 1.2% increase in property crime rates and no

²There are only two papers analyzing transit migration, however with very different foci: Hangartner et al. (2019) show in the Greek context that exposure to transit migration makes people more hostile towards immigrants. Ajzenman et al. (2022) find a decreased willingness to take entrepreneurial risks, heightened anti-immigrant sentiment, and reduced trust in governmental institutions by Europeans near transit routes. While the studies focus on changes in attitudes, we study actual criminal behavior that might give rise to such attitudinal changes.

³The five countries hosting the most refugees are Turkey (3.6 million), Iran (3.4 million), Colombia (2.5 million), Germany (2.1 million), and Pakistan (1.7 million), (UNHCR, 2023, p. 2)

effect on violent crimes. Chalfin (2015) documents a decline in crime rates due to Mexican immigration into the US. Masterson and Yassenov (2021) show that the halting of the resettlement of refugees in the US has not led to a change in crime levels. Bianchi et al. (2012) study Italian provinces from 1990 to 2003 and find that immigration increased the incidence of robberies. Piopiunik and Ruhose (2017) find that the immigration wave of people from the former USSR with German ancestors into Germany has increased crime levels significantly, especially in areas with poor labor market conditions. Lange and Sommerfeld (2018) provide similar evidence: immigration of asylum seekers in Germany increased crime moderately, with individuals facing lower probabilities of being given asylum status having higher inclinations to commit crimes. In contrast, Huang and Kvasnicka (2019) report that the 2015 immigration wave into Germany has not led to higher victimization rates of Germans. Dehos (2021) sees no effect of immigration on crime for asylum seekers, but a positive impact on property crimes and fraud for recognized refugees in Germany. Maghularia and Uebelmesser (2023) use panel data for 391 German administrative districts between 2003 and 2016 and find no correlation between immigration and crime. For the U.K. Bell et al. (2013) find a modest positive effect of asylum seekers on property crimes and a small negative effect of economic migrants from A8 countries.⁴ Alonso-Borrego et al. (2012) show that the immigration wave into Spain 1999-2009 has increased crime moderately and that the effect depends on cultural proximity and educational profile of the different migrant groups. Kayaoglu (2022) examine Syrian refugee waves into Turkey and find that they did not affect crime rates. Jung (2023) shows that crime levels in South Korea increase with the number of foreign residents, especially for violent crimes.

Knight and Tribin (2023) is the only other study that investigates the impact of Venezuelan migration on crime in Colombia. Yet, their focus lies on how Venezuelan refugees *settling* in Colombia affect homicide rates; they find no overall effect, but note increased victimization among Venezuelans closer to the border. In contrast to their study - and all other existing studies - we investigate the effect of *migrants traversing the country* on crime. While both papers use the reopening of the border, their approach employs distance to the border crossings as instrument for the number of Venezuelan migrants residing in Colombia. In contrast, we utilize a difference-in-differences approach comparing municipalities crossed by migrants and a matched set of uncrossed municipalities before and after the border opening, leveraging information on migration routes. We thus consider both papers complementary to each other.

With the exception of Kayaoglu (2022) and Knight and Tribin (2023), all studies focus on how migration affects the crime rates of high-income host countries. None of the contributions address transit migration. We study transit migration in a developing country.

⁴A8 countries are Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia.

III. Venezuelan migration

Venezuela saw a turn towards socialism and economic centralization with the victory of Hugo Chávez in 1999. Re-distributive policies and state transfers under his administration coincided with historically high oil prices up until his death in 2013, after which his successor, Nicolás Maduro, took control of the government amidst accusations of vote tampering (Lopez and Watts, 2013). The political crisis preceded an economic collapse due to mismanagement and falling oil prices a year later (Vera, 2015), seeing inflation rates of 62.2% in 2014 rising to 255% in 2016, while real GDP contracted by 22% during the same period according to official statistics (BCV, 2020). Furthermore, survey data reported that for 2016, 81.77% of households in the country were below the poverty line, 33.37 percentage points more than in 2014 (Landaeta-Jiménez et al., 2016). Such deteriorating living conditions became the main push factors for Venezuelans, triggering the largest migration crisis in the history of the region (Kurmanaev, 2019).

By 2018, at the peak of the crisis, the economic collapse had displaced 2.6 million Venezuelans out of a total population of 30 million, disproportionately impacting Colombia, which itself has a population of 50 million. In that same year, ca. 1.1 million Venezuelans crossed into Colombia; more than 750 thousand crossed the southern border into Ecuador.⁵ In response to the crisis, the Colombian government relaxed entry requirements and approved a special residence permit program, which remains in place for Venezuelans that entered the country before November 2019. As of August 2023, it is estimated that 7.71 million Venezuelans have left their country, 2.89 million of whom reside in Colombia.⁶

Our paper exploits the closing and reopening of the Venezuela-Colombia border during the first year of the economic crisis. In August 2015 three Venezuelan soldiers and a civilian were injured in a firefight against Colombian paramilitary forces near the border, prompting the Maduro administration to close the main crossing between both nations. A state of emergency by the Venezuelan government followed after increasing diplomatic tensions, extending the lockdown to the rest of the border in September of the same year and deporting more than 1,000 Colombians, stating that the region had been infiltrated by smugglers and criminal gangs (BBC, 2015).⁷ The border reopened in July 2016 after negotiations between both countries to normalize the situation and allow trade to flow again (DW, 2016). Figure 1 shows how the closing of the border led to a decline in Venezuelans entering Colombia, followed by a sharp and sustained increase after the reopening. This trend is also observed for Venezuelans who crossed the south border of Colombia with Ecuador, suggesting that refugee flows increased to Colombia, but also through Colombia toward the neighboring country.

The routes that Venezuelan refugees traverse by foot on their way through Colombia and

⁵<https://public.tableau.com/app/profile/migraci.n.colombia/viz/TablasdeSalidas2018/Inicio>

⁶<https://www.r4v.info/en/document/r4v-latin-america-and-caribbean-venezuelan-refugees-and-migrants-region-aug-2023>

⁷Venezuela saw the introduction of targeted price controls in 2003, and their expansion to most goods in 2013. Gasoline had historically been subsidized by the state as well. During the economic crisis, these goods were resold at international prices for profit in the border region.

on-wards to Ecuador can be clearly identified (Migración-Colombia (2018) and Cruz-Roja-Colombiana (2020)). This allows for the identification of - treated - municipalities crossed by the refugee flows. Panel A of Figure 2 shows a map highlighting all the crossed municipalities, while Panel B presents the percentage point increase in the municipality’s share of Venezuelans between census years 2005 and 2018.

IV. Data

We constructed a panel data set of 1,122 Colombian municipalities for the period 2012 to 2019. This period corresponds to the time when migration data was first available until the year before the COVID-19 pandemic. More recent years are omitted due to pandemic-related confounders.

A. Walkers’ routes

Migración-Colombia (2018), a department under the country’s foreign affairs ministry, and Cruz-Roja-Colombiana (2020) published maps that delineate with high precision the main routes taken by Venezuelan walkers traversing Colombia. Leveraging ArcGIS data on these maps, we identify every municipality intersected by these routes, creating a binary indicator that denotes whether a municipality is crossed and thus is exposed to transit migration flows or not.

B. Crime statistics

The Oral Accusatory Criminal System (SPOA, 2023a,b) serves as Colombia’s Attorney’s General Office crime database. It collects incidents reported by the population and classifies them as criminal action, their crime category, and the number and nationality of victims. We collect this information for reported robberies, sexual assaults, and homicides, omitting from the analysis incidents not deemed as criminal after their reporting and those involving more than one type of crime.⁸ We take the log of municipalities’ reported crime cases per 100,000 inhabitants + 1 and the victim counts for Venezuelans and Colombians per 100,000 of their respective populations + 1. This approach ensures that the analysis accounts for the proportionality of victimization, considering that an increase in the Venezuelan population would naturally lead to a rise in victims.⁹

⁸Incidents that fall under two or more crime categories are counted once for each category. We omit them from the analysis to avoid double counting. These represent 2.6% of all registered incidents.

⁹The Venezuelan population in Colombia went from 23,573 in 2014 to 1,771,237 in 2019. For that same period, Venezuelan reported victims went from 179 to 3,530 for the types of crime analyzed.

The National Police of Colombia provides detailed and high-frequency crime statistics. However, a change in methodology and the introduction of a digital platform for reporting crimes in 2017 made these data inconsistent for our period of study. The change in methodology involves incorporating SPOA (2023a,b) unique cases into the national police’s internal data, after which it is then published as their official statistics. We thus utilize the SPOA (2023a,b) dataset, which independently publishes its crime statistics prior to the merging, ensuring consistency across the observation period (Rodríguez-Ortega et al., 2018).

C. Venezuelan population in Colombia

In order to control for the proportionality of Venezuelan victimization, given the sudden increase in their population, we require yearly data on Venezuelans residing in each Colombian municipality, which is unavailable. To address this, we devise a measure of Venezuelan residents per municipality using data from the 2005 and 2018 censuses obtained from the National Administrative Department of Statistics (DANE, 2020), and reports on the Venezuelan migrant population by Migración Colombia (2020).

First, census data provide information on immigrants' municipality of residence, country of birth, and year of arrival. This allows us to estimate the Venezuelan population in Colombia at both the national and municipal levels for 2005 and 2018, forming the basis for calculating the distribution of Venezuelans across municipalities in both years. Subsequently, we obtained the total population of Venezuelans in Colombia from the reports by Migración Colombia, which cross-reference records from the System of Foreigners' Registration Information (SIRE in Spanish), Special Stay Permit (PEP in Spanish), migratory entries, and the 2018 National Population and Housing Census to provide an accurate estimate of the total Venezuelan population in Colombia for the period 2014-2019.

With information on how Venezuelans are distributed across Colombian municipalities and on how many there are in total, we estimate the stock of Venezuelans per year and municipality by multiplying both terms:

$$VR_{i,t} = VR_{c,t} * \frac{CensusVR_{i,2018}}{CensusVR_{c,2018}}$$

where VR represents Venezuelan residents and $Census VR$ corresponds to the Venezuelans registered in the 2018 census. The sub-indices i , c , and t correspond to municipality, Colombia, and year, respectively. Our approach assumes that Venezuelans will migrate to where other Venezuelans already live, taking the distribution of Venezuelans obtained from the 2018 census as constant over time. To support this, we regress the 2018 distribution on that of 2005 and obtain a high adjusted R^2 of 0.76.

Our estimates correspond to the period 2014-2019 since official statistics on the Venezuelan population in Colombia began in 2014. This means that victimization rates by nationality, explained in the previous section, are also limited to this period.

D. Matched characteristics

A series of demographic and income characteristics of the municipalities are considered for propensity score matching. Glaeser and Sacerdote (1999) find that more populated cities have higher crime rates; therefore, we use the log of the municipality's population. Data are obtained from the DANE (2020) population projections. Bianchi et al. (2012) observe that urban areas report higher rates of property crimes relative to rural areas. Consequently, we include the share of the municipality's population living in urban areas

obtained from the Municipality Observatory of the Center for the Study of Economic Development (CEDE, 2023).

Bianchi et al. (2012) identify a similar association when considering a city’s GDP. This information is unavailable for Colombian municipalities, yet the literature has extensively used night light satellite data as a proxy for economic activity (Elvidge et al., 1997; Sutton and Costanza, 2002; Doll et al., 2006; Ghosh et al., 2010; Henderson et al., 2012; Hodler and Raschky, 2014; Kammerlander and Schulze, 2023). We follow the same approach by utilizing pre-filtered night light emissions from the annual masked average radiance obtained from Visible Infrared Imaging Radiometer Suite products (Elvidge et al., 2021), and calculating the average per-capita night light intensity in each Colombian municipality as a proxy for GDP. We also include the log of the municipal government’s yearly total income per capita from CEDE (2023) as a proxy for local state capacity.

V. Empirical approach and results

A. Identification

The approach relies on the closing of the border between Colombia and Venezuela in August 2015 and its reopening in July 2016. The latter event led to a steep increase in Venezuelan walkers entering Colombia to either stay or eventually cross to Ecuador by traveling across specific routes. This provides both temporal and geographic variation to be exploited as the treatment in a difference-in-differences setting with the following estimation equation:

$$(1) \quad \text{crime}_{i,t} = \beta_0 + \beta_1 * \text{crossed}_i * \text{post2016}_t + \alpha_i + \gamma_t + \epsilon_{i,t}$$

where $\text{crime}_{i,t}$ denotes the log of the number of robberies, homicides, or sexual assaults per 100,000 inhabitants + 1 in municipality i for year t . In further specifications, we test Venezuelan and Colombian victim rates per 100,000 of their respective populations. Both crossed_i and post2016_t are binary indicators where 1 indicates if municipality i is crossed by any route taken by Venezuelan walkers and the period after the reopening of the border in 2016, respectively. α_i and γ_t denote municipality and year fixed effects. Lastly, ϵ_{it} refers to the robust standard errors clustered at the municipality level. Our parameter of interest is β_1 , which captures the variation of crime or victimization rates after 2016 in municipalities crossed relative to those not crossed, depending on the specification. We hypothesized that β_1 will be significantly positive because refugees are more vulnerable to crime (Knight and Tribin, 2023), or because the opportunity costs of crime are lower for transit migrants (see Section 1).

To establish causality, the difference-in-differences approach requires the treatment and control groups to be comparable while showing a common trend for the outcome variable before treatment. To satisfy these conditions, we first do a nearest neighbor propensity score matching (PSM) with no replacement for crossed (treated) and not crossed (control) municipalities based on pre-treatment averages of the log of the total population, share

of population in urban areas, night light intensity per-capita, log of total income per-capita and log of crime per 100,000 inhabitants. This is done separately for each type of crime to compare municipalities with similar pre-treatment rates of a particular crime. This results in three matched samples: one for municipalities with similar robbery rates, another with similar sexual assault rates, and the last with similar homicide rates. We then calculate the crime and victimization rate trends for the matched crossed and not crossed municipalities, shown in Figure 3.

B. Results

The baseline results for the matched sample are shown in Table 1, where specifications 1-3 correspond to the sample matched by robbery rates, 4-5 by sexual assaults, and 7-9 by homicides. All specifications omit 2016 since the treatment happened in the middle of the year. The fewer observations for specifications looking at victimization rates by nationality are due to the Venezuelan population estimates only being available for 2014-2019 and to municipalities with no Venezuelan population.

First, when examining robbery rates per 100,000 inhabitants, transit migration reports a coefficient of 0.20, indicating that, on average, municipalities crossed by transit migrants register 22.1% higher robbery rates relative to those not exposed to transit migration flows.¹⁰ When considering victimization rates, we observed that natives in crossed municipalities experienced 32.3% higher robbery victimization rates per 100,000 Colombians. At the same time, Venezuelans faced an even steeper rise, with victimization rates per 100,000 Venezuelans being 39.1% higher. Violent crime and victimization rates do not vary significantly between crossed and not crossed municipalities after the migration shock.

C. Robustness

We perform a set of robustness checks to assess the stability of our findings. Initially, we scrutinize whether the outcomes are unaffected by the presence of Venezuelan residents, as the municipalities situated to the northeast of Colombia also house Venezuelan residents (refer to Figure 2). Subsequently, we check for outliers driving the results by excluding the five most populous municipalities in Colombia¹¹ from the sample before matching. Our results remain consistent in both examinations, which can be found in Table B1 and Table B2 of the online appendix, respectively.

Lastly, we investigate whether the outcomes in Table 1 are driven by the chosen matching methodology. We utilize kernel and radius propensity score matching methods in Table B3 and Table B4, respectively, and find that our results are again consistent. Interestingly, both methods find that both overall sexual assaults and those where the victim was Colombian increased significantly in crossed municipalities after the reopening of the border.

¹⁰The magnitude is calculated as $e^{\beta_i} - 1$ given that crime rates are expressed in logs.

¹¹The most populous municipalities in Colombia, in decreasing order, are Bogotá, Medellín, Cali, Bucaramanga, and Cartagena.

VI. Conclusion

Our research investigates transit migration, a long omitted dimension in the literature of migration and crime. We exploit Venezuelan refugees' routes when crossing through Colombia after the reopening of the border between both countries in 2016, finding that municipalities exposed to transit flows see more property crimes than those not crossed. We further show that the increased crime impacts both native Colombians and refugee Venezuelans, while violent offenses remain unchanged.

Our study diverges from the conventional focus of the literature on high-income host countries. Instead, by examining the developing country of Colombia, we provide evidence within a more common context to that seen in the largest refugee hosting societies.

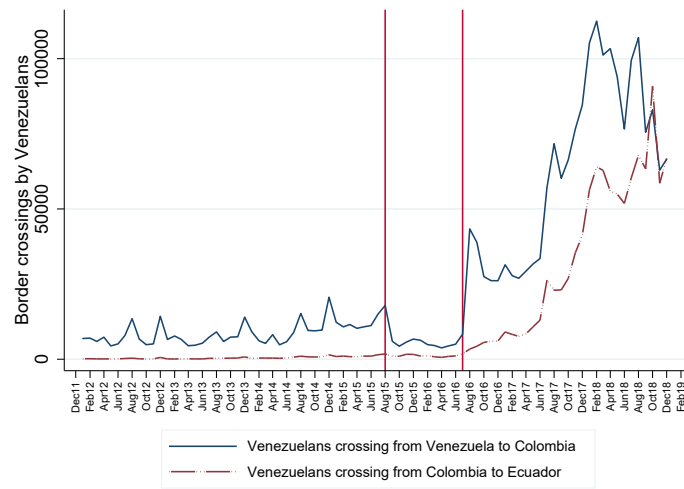
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Figure 1. Registered border crossings by Venezuelans

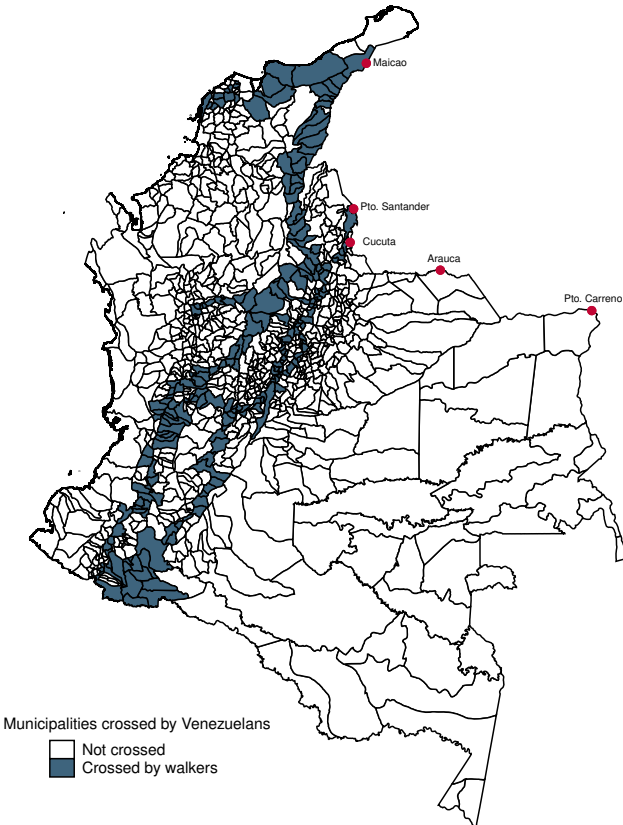


Note: In panel a, the red vertical lines indicate the border's closing and reopening. These correspond to August 2015 and July 2016, respectively.

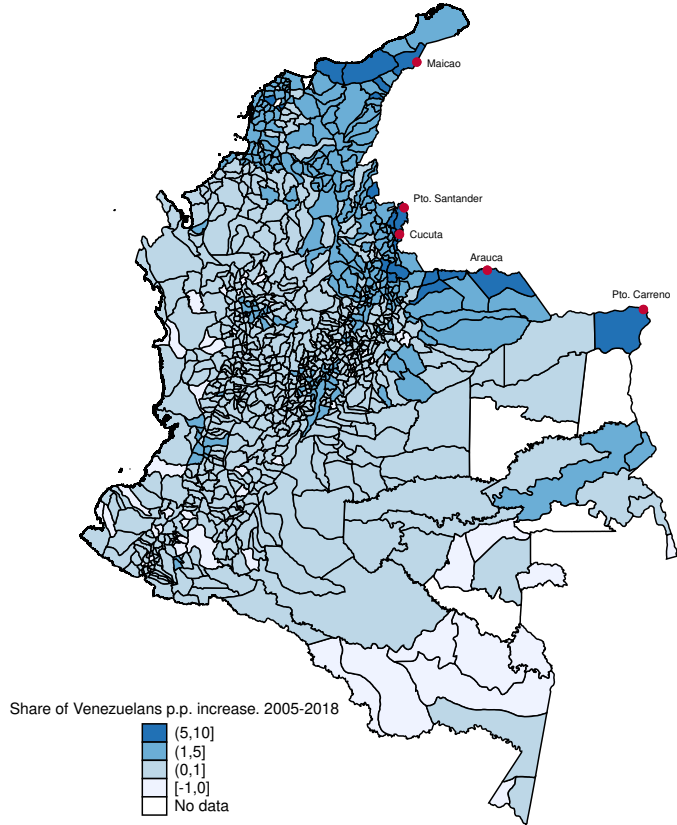
Source: Migración Colombia (2018)

Figure 2. Routes and settlers

Panel A: Municipalities crossed by refugee routes

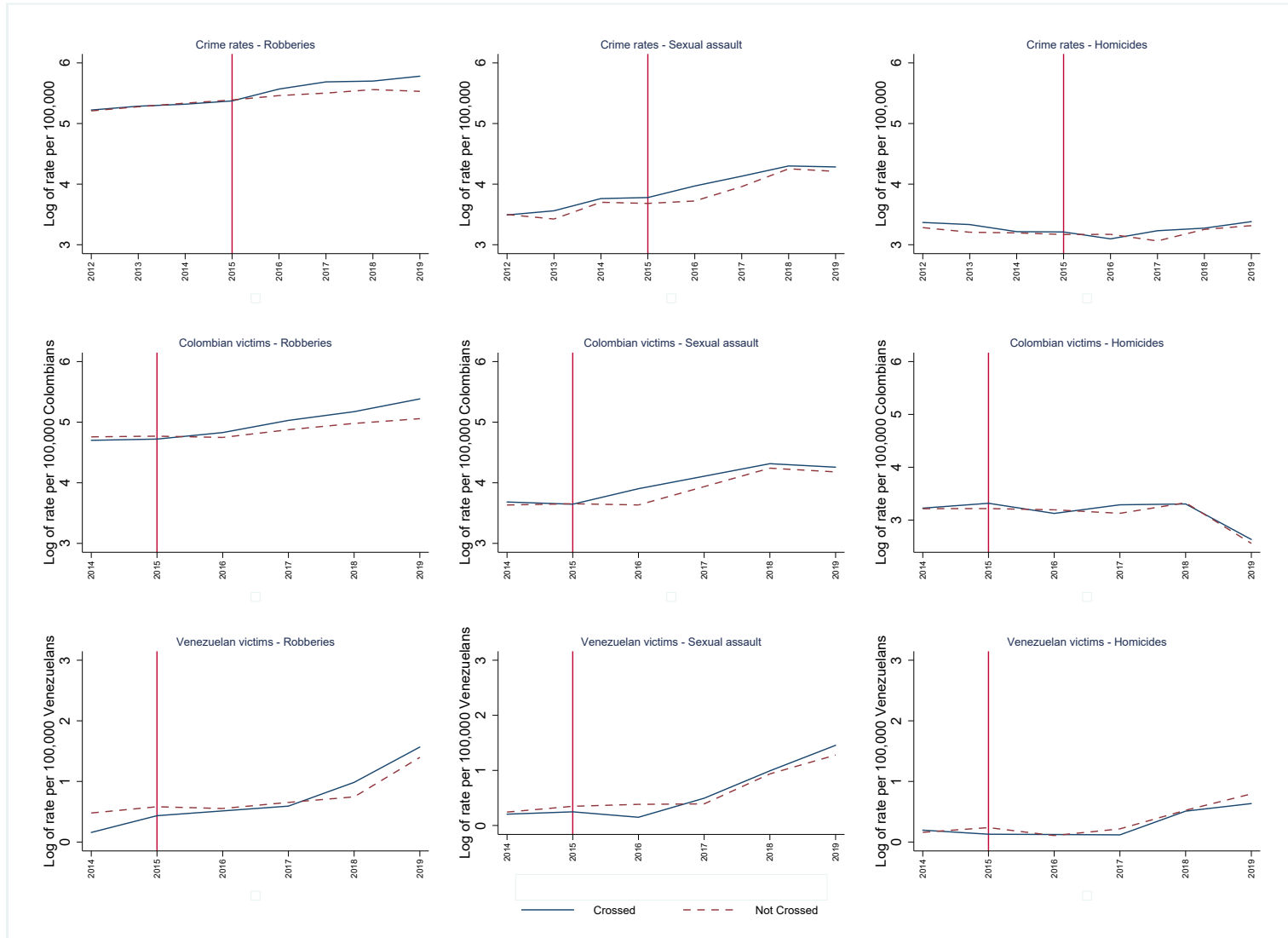


Panel B: Increase in the share of Venezuelans. 2005-18



Source: Migración Colombia (2018), Red Cross Colombia, and DANE.
 Note: Dots indicate the five main border crossings between Colombia and Venezuela.

Figure 3. Common trends by type of crime and victim nationality



Note: The vertical line marks the year previous to the reopening of the border to properly visualize the trend divergence.

Table 1— Transit migration

Dep. Var:	Robberies			Sex. assault			Homicides		
	(1) Rate	(2) Col. Victim	(3) Ven. Victim	(4) Rate	(5) Col. Victim	(6) Ven. Victim	(7) Rate	(8) Col. Victim	(9) Ven. Victim
Crossed*2016	0.19*** (0.05)	0.28*** (0.09)	0.35** (0.15)	0.03 (0.06)	0.09 (0.07)	0.18 (0.15)	0.02 (0.07)	0.01 (0.09)	-0.05 (0.11)
Observations	2,800	2,000	1,940	2,842	2,030	1,980	2,884	2,060	2,015
Municipalities	400	400	388	406	406	396	412	412	403
Mun. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Robust standard errors clustered at municipality level.

Col. victim and Ven. victim refer to the reported cases of a type of crime per 100,000 Colombian or Venezuelan inhabitants, respectively. These are only available for the period 2014-2019, while Columns 1, 4 and 7 cover the period 2012-2019.

Columns 1-3 use matching weights obtained from PSM using the log of robbery rates, the log of the municipality's population, the share of the population living in urban areas, the log of the municipality's income per capita, and nightlight intensity per capita. Columns 4-5 use sexual assault rates instead of robberies, and columns 6-9 use homicides.

The sample omits 2016 since the reopening of the border occurred in the middle of that year.

ONLINE APPENDIX A - PSM BALANCE

Table A1— Pre-treatment descriptive statistics - Robbery weights

	(1)	(2)	(3)	
	Municipalities not crossed	Municipalities crossed	diff.	t-stat
	mean/sd	mean/sd		
Log robberies	5.30 (1.08)	5.30 (1.06)	0.00	(0.04)
Log population	10.04 (1.07)	10.01 (0.97)	0.04	(0.77)
Urbanization	0.52 (0.25)	0.52 (0.25)	-0.00	(-0.24)
Log income pc	13.80 (0.64)	13.79 (0.46)	0.01	(0.39)
Nightlight pc	0.02 (0.05)	0.02 (0.03)	-0.00	(-0.65)
Observations	400	400		

Table A2— Pre-treatment descriptive statistics - Sexual assault weights

	(1) Municipalites not crossed mean/sd	(2) Municipalities crossed mean/sd	(3)	
			diff.	t-stat
Log sexual assault	3.58 (1.03)	3.65 (1.03)	-0.07	(-1.40)
Log population	10.14 (1.07)	10.03 (0.98)	0.11*	(2.17)
Urbanization	0.50 (0.26)	0.52 (0.25)	-0.03*	(-2.02)
Log income pc	13.80 (0.45)	13.78 (0.46)	0.01	(0.52)
Nightlight pc	0.02 (0.04)	0.02 (0.03)	-0.00	(-1.94)
Observations	406	406		

Table A3— Pre-treatment descriptive statistics - Homicides weights

	(1) Municipalites not crossed mean/sd	(2) Municipalities crossed mean/sd	(3)	
			diff.	t-stat
Log homicides	3.21 (1.30)	3.28 (1.20)	-0.07	(-1.12)
Log population	10.09 (1.07)	10.05 (1.00)	0.03	(0.66)
Urbanization	0.53 (0.25)	0.53 (0.26)	-0.00	(-0.12)
Log income pc	13.79 (0.43)	13.78 (0.45)	0.01	(0.51)
Nightlight pc	0.02 (0.03)	0.02 (0.03)	-0.01***	(-4.12)
Observations	412	412		

Table B1— Transit migration and residents

Dep. Var:	Robberies			Sex. assault			Homicides		
	(1) Rate	(2) Col. Victim	(3) Ven. Victim	(4) Rate	(5) Col. Victim	(6) Ven. Victim	(7) Rate	(8) Col. Victim	(9) Ven. Victim
Crossed*2016	0.20*** (0.05)	0.26*** (0.08)	0.33** (0.15)	0.03 (0.07)	0.10 (0.07)	0.13 (0.15)	0.04 (0.08)	0.01 (0.09)	-0.05 (0.11)
Observations	2,000	2,000	1,940	2,030	2,030	1,980	2,060	2,060	2,015
Municipalities	400	400	388	406	406	396	412	412	403
Share of Ven.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mun. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: See Table 1 Share of Venezuelan residents is included as a control, making the period of observation 2014-2019.

Table B2— 5 most populated municipalities omitted

Dep. Var:	Robberies			Sex. assault			Homicides		
	(1) Rate	(2) Col. Victim	(3) Ven. Victim	(4) Rate	(5) Col. Victim	(6) Ven. Victim	(7) Rate	(8) Col. Victim	(9) Ven. Victim
Crossed*2016	0.19*** (0.06)	0.19** (0.08)	0.28* (0.15)	0.10 (0.06)	0.19** (0.07)	0.07 (0.15)	0.09 (0.09)	0.07 (0.09)	-0.07 (0.12)
Observations	1,990	1,990	1,950	2,020	2,020	1,965	2,050	2,050	2,000
Municipalities	398	398	390	404	404	393	410	410	400
Share of Ven.	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mun. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: See Table 1 and Table B1.

Municipalities Bogotá, Medellín, Cali, Bucaramanga, and Cartagena are dropped from the sample prior propensity score matching methods.

Table B3— Kernel matching

Dep. Var:	Robberies			Sex. assault			Homicides		
	(1) Rate	(2) Col. Victim	(3) Ven. Victim	(4) Rate	(5) Col. Victim	(6) Ven. Victim	(7) Rate	(8) Col. Victim	(9) Ven. Victim
Crossed*2016	0.16*** (0.04)	0.15** (0.06)	0.38** (0.18)	0.09* (0.05)	0.14** (0.06)	0.19 (0.17)	-0.00 (0.05)	-0.01 (0.07)	-0.03 (0.11)
Observations	7,686	5,490	5,185	7,686	5,490	5,185	7,665	5,475	5,170
Municipalities	1,098	1,098	1,037	1,098	1,098	1,037	1,095	1,095	1,034
Mun. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

See Table 1.

Table B4— Radius matching

Dep. Var:	Robberies			Sex. assault			Homicides		
	(1) Rate	(2) Col. Victim	(3) Ven. Victim	(4) Rate	(5) Col. Victim	(6) Ven. Victim	(7) Rate	(8) Col. Victim	(9) Ven. Victim
Crossed*2016	0.16*** (0.04)	0.16** (0.06)	0.37** (0.18)	0.09* (0.05)	0.14** (0.06)	0.21 (0.17)	-0.00 (0.05)	-0.02 (0.07)	-0.04 (0.11)
Observations	7,686	5,490	5,185	7,686	5,490	5,185	7,665	5,475	5,170
Municipalities	1,098	1,098	1,037	1,098	1,098	1,037	1,095	1,095	1,034
Mun. FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

See Table 1.