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Prone to Crime?**

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ABSTRACT

Refugee Admissions and Public Safety: Are Refugee Settlement Areas More Prone to Crime?*

According to United Nations High Commissioner for Refugees, the number of refugees worldwide rose to 21.3 million in 2015. Yet, resistance to the welcoming of refugees appears to have grown. The possibility that refugees may commit acts of terrorism or engage in criminal behavior has served as fuel for the Trump Administration's position in 2017. Is there any basis for these fears? We exploit the variation in the geographic and temporal distribution of refugees across U.S. counties to ascertain if there is a link between refugee settlements and local crime rates or terrorist events in the United States. We fail to find any statistically significant evidence of such a connection.

JEL Classification: F22, J61, J68

Keywords: refugees, crime, United States, terrorism

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1. Introduction

According to the United Nations High Commissioner for Refugees (UNHCR), the number of refugees worldwide rose to 21.3 million in 2015. Conflicts, political upheaval, deteriorating security and grinding poverty have contributed to the growing flow of refugees around the world, particularly from the Middle East, Africa and Asia. Most recently, following the five-year-old civil war, the focus has been on Syria, even though Afghans escaping the Taliban war and Eritreans fleeing forced labor preceded the flow of Syrians in their search for safety and freedom. According to UNHCR (2016), the war in Syria has resulted in 4.6 million refugees and 6.6 million internally displaced individuals. These numbers are the largest in decades and have resulted in controversy regarding the long-term implications for refugee-receiving countries (Del Carpio and Wagner, 2015).

In 2016, the situation became untenable as thousands of refugees awaited resettlement in overflowing refugee camps with individuals unable to return home and with no prospects for settlement elsewhere. Due to their relative proximity to Syria, European and Middle Eastern countries had been bearing the brunt of this humanitarian crisis.¹ In response, former President Obama reiterated the commitment of the United States to contribute more by raising the overall annual admissions quota to 110,000 for 2017, a nearly 60 percent increase over 2015 admission

¹ While the United States runs large settlement programs, most refugees tend to go to countries that share a border with their home country. For example, about 95 percent of refugees from Afghanistan go to Pakistan and Iran. There were approximately eleven million refugees in 2013, according to the UNHCR (2014). The Middle East and North Africa have approximately 2.63 million refugees. Asia hosts 3.5 million refugees, and Africa 2.9 million refugees (UNHCR, 2013). Thus, the vast majority of refugees (nearly 90 percent in 2013) are hosted by low- and middle-income countries.

levels.² At the conclusion of the 2016 fiscal year, the United States had resettled 84,955 refugees,³ making progress on its commitment to raise refugee admission and playing a more prominent role in accommodating refugees.⁴

With the new administration in 2017, however, the United States has completely changed its course of action regarding its admittance policy for new refugees. Only one week into President Trump's term, the executive order: *Protecting the Nation from Terrorist Attacks by Foreign Nationals*, mandated a 120-day suspension the U.S. refugee program along with a 90-day ban for admissions of any national from a list of countries, thought to be a risk for producing terrorists – namely: Iran, Iraq, Libya, Somalia, Sudan, Syria, and Yemen (Davis, 2017; National Public Radio, 2017)⁵. The executive order singled out Syrians as being subject to the ban indefinitely, while allowing for an exception for certain religious minorities in Syria (believed to refer to Christian Syrians). This has been interpreted as introducing a religious test for access to refugee status (Shear and Cooper, 2017). In addition, the numerical 2017-refugee admission ceiling of 110,000 was cut by more than half to 50,000 by President Trump's order.

The competing visions of the Obama and Trump presidencies have launched a national discussion concerning the role of the United States in addressing the global refugee crisis and the pros and cons to doing so. Should the United States step up, maintain, restructure or close the refugee program? The main point of contention in this discussion is with respect to crime and

² See: <http://www.migrationpolicy.org/article/us-meets-2016-syrian-refugee-admission-goal-opposition-new-resettlement-mounts>

³ See: <https://www.state.gov/j/prm/ra/admissions/index.html>

⁴ See: http://www.huffingtonpost.com/entry/refugees-us-germany-comparison_us_55f73b32e4b0c2077efbc52e and Capps, R., & Newland, K. (2015). *The integration outcomes of US refugees: Successes and challenges*. Migration Policy Institute.

⁵ In a subsequent order, Iraq was left off the list of banned nations (Glenn Thrush, "Trump's New Ban Halts Travelers from 6 Nations, *New York Times*, March 7, 2017, p. A1.)

national security, with a number of individuals voicing concerns that refugees will raise crime levels and put settlement areas at risk for terrorist activities.⁶

We test this hypothesis. Specifically, we exploit the geographic and temporal variation in the distribution of refugees across U.S. counties to ascertain whether there is a link between U.S. refugee settlements and crime. Using county-level data from the Refugee Processing Center in the Bureau of Population, Refugees and Migration at the Department of State from 2006 through 2014, we assess whether refugee placements are tied to the crime reports collected from the Uniform Crime Reporting Program (UCR), as well as to terrorist incidents gathered from the Global Terrorism Database (GTD).

Given the ongoing refugee crises around the world and the increasingly restrictive policy regarding the admission of refugees, gaining a better understanding of the facts is essential in order to devise immigration policies that address native concerns, avoid the misrepresentation of the refugee phenomenon, and is not used for political opportunism.

2. Background on the U.S. Refugee Program

How does the refugee resettlement process work in the United States? First, migrants have to fit the refugee definition in section 101(a)(42) of the Immigration and Nationality Act. The requirement implies that an individual cannot return to their country of nationality due to a well-founded fear of persecution because of their religion, race, political opinion or membership in a social group. They must be outside their country of nationality when they apply for refugee status, but not in the U.S. and must have been referred to the U.S. program –generally, by the UNCHR

⁶ While welcoming refugees had been phrased in terms of a collective security issue, this commitment did not sit well with a number of officials, specifically in terms of accepting Syrian refugees. In November 2015, CNN reported that 31 U.S. governors were opposed to settling Syrian refugees in their states. According to a new poll by The Associated Press-NORC Center for Public Affairs Research, fifty-two percent of those interviewed say refugees pose a great enough risk to further limit their entry into the United States (March 2017). See: <http://www.apnorc.org/news-media/Pages/Poll-Americans-divided-on-admitting-refugees.aspx>

(Mossad, 2016). This triggers a lengthy investigative process (carried out by the U.S. Citizenship and Immigration Services or USCIS) involving interviews to determine eligibility and stringent security checks. The length of this process will vary from case to case, with the U.S. Department of State estimating it to take from 18 to 24 months since the referral to U.S. authorities by UNCHR.^{7,8}

Once a refugee is determined to be eligible for admission into the United States, the USCIS refers them to one of nine resettlement agencies (*e.g.* U.S. Conference of Catholic Bishops, International Rescue Committee, or the Hebrew Immigrant Aid Society). The agency works with their affiliates located across the United States to find a spot for the refugee. The objective is to place refugees where they can more easily adjust, and where the conditions are best for their successful social and economic integration. The location of other family members and the concentration of communities that speak the refugee's language are two variables that agencies pay special attention to when determining where to geographically place refugees.⁹ In addition, the Office of Refugee Resettlement works with local agencies to place refugees and provide them with services, including language instruction, job training, job placement services, housing and health care.

Refugees must apply for legal permanent residency (LPR) status after being present in the U.S. as refugees for one year. After four years of LPR status, the refugee may then apply for naturalization. While applying for LPR status after being present in the United States as a refugee

⁷ See: <https://www.state.gov/j/prm/ra/admissions/index.htm>.

⁸ Refugees are often confused with asylum seekers. Asylum seekers are international migrants who apply for asylum, or protection as a refugee, after entering the country in which they petition for asylum. In essence, asylum seekers are people who have left their home country and whose claims for refugee status have not yet been evaluated. The country they are in must determine whether they meet the grounds for being considered an asylee. Asylum seekers who are denied asylee status usually must leave the destination country and are deported back to their origin country.

⁹ See: <https://www.rescue.org/topic/refugees-america#how-does-the-resettlement-process-work>

for one year is required, it is not necessary that the individual applies to change their status from LPR to a U.S. citizen (www.state.gov/j/prm/releases/factsheets/2017/266447.html). That said, an advantage to citizenship is that it protects individuals from deportation should they commit a crime.¹⁰

3. Related Literature

While there is a wider literature examining the criminal involvement of immigrants,¹¹ to our knowledge, this is the first paper examining the criminal involvement of refugees in the United States. However, possibly due to their larger refugee flows, there is a literature examining the criminal involvement of refugees or individuals of alike legal status in a few European countries. For instance, focusing on a large wave of asylum seekers settling in the United Kingdom in the 1990-2000 period, Bell, Fasani and Machin (2013) explore if crime rates are related to asylee inflows within the same jurisdictions. They conclude that, while violent crime is unaffected by asylum inflows, there is a very slight upward bump to property crime. The authors note that these refugees had relatively few economic opportunities, as they were barred from working for six months. This may have raised their propensity to commit property crimes relative to immigrants with immediate work-eligibility.¹²

¹⁰ See: <http://www.nolo.com/legal-encyclopedia/grounds-deportability-when-legal-us-residents-can-be-removed.html>

¹¹ Instead of focusing on refugees, a number of studies have either examined the role of legal status on migrants' criminal involvement (*e.g.* Mastrobuoni and Pinotti 2015, Pinotti 2017, or Freedman, Owens and Bohn (forthcoming)), or on the overall link between immigration flows and criminal activity. Within this latter group, much of the work has been focused on Europe (*e.g.* Bianchi, Buonanno and Pirotti 2012, Nunziata 2015, or Piopiunik and Ruhose 2017). In the United States, Butcher and Piehl (1998) fail to find a significant link between immigration flows and crime at the city level. Spenkuch (2013), however, concludes that immigration has a small positive impact on property crime, but none on violent crime. More recently, Chalfin (2014) claims that there is little to no evidence linking immigration to crime. Only in the case of aggravated assault are crime rates lifted by immigration (Chalfin 2015).

¹² Their findings prove robust to identification checks assessing the potential biases in their estimates due to the endogenous location of immigrants. They make use of exogenous variation in the location of asylees, by virtue of the U.K.'s "dispersal policy" (*i.e.* the National Asylum Support Service chooses destinations for the settlers needing accommodations with the intent of achieving a wide geographic spread of the newcomers) to instrument for the location of migrants.

Likewise, Gehrsitz and Ungerer (2017) point to similar patterns. They document increases in non-violent crime rates associated with the recent and large 2014 and 2015 refugee influx into Germany. The uptick is modest, however, and revolves mostly around drug activity and fare dodging, and as in the United Kingdom case, is possibly related to the lack of employment opportunities for refugees over the time period of the study.

A somewhat more ominous finding is obtained using Switzerland as a refugee destination. Couttenier *et al.* (2017) conclude that asylees exposed to civil conflict or mass killings as children are more likely to commit violent crime relative to asylees from the same country, who were not exposed to the same events during their childhood. While this study does show how childhood exposure to violence might have impacts years later, it does not answer whether refugee status in itself is associated to a higher criminal proclivity. After all, natives subject to violence in childhood might also be found to be more prone to criminal activities than natives not subject to violence during childhood.

Our research also relates to an area of work that examines how refugees assimilate into labor markets. If refugees quickly find employment and do not suffer considerable income losses upon arrival to their new location, they would be less likely to engage in criminal behavior. The speed and ease of labor market assimilation of refugees has been studied in both Europe and the United States. While there is mixed evidence, on net, most studies of refugees in Europe find that initial gaps in labor market outcomes between refugees and native-born workers close faster than those of other immigrant groups when compared with their native-born counterparts. According to Dustmann *et al.* (2016), the refugee-native employment gap is initially sizable, the difference is cut in half after one decade, and is essentially non-existent after 25 years in the host country. This pattern is not observed among economic migrants, who do not catch-up with native-born as

refugees do. Other studies of European refugees also find evidence of a catch-up effect among refugees that suggests they transition quickly into new labor markets (Aiyar *et al.* 2016, Luik *et al.* 2016).¹³ Based on these findings, we would not expect a significant increase in crime resulting from refugee arrivals. In fact, crime rates could possibly decline if refugees assimilate more quickly than non-refugees do.

In the United States, Cortes (2004) finds that refugees who arrived between 1975 and 1980 fared better than their economic immigrant counterparts by 1990 in terms of earnings and English skills and attributed these gains to investment in country specific human capital. More recently, Giri (2016) focuses on age at entry and finds that wage gains are concentrated among younger refugees, who are motivated to invest in human capital and get jobs. At any rate, neither the young nor old should be more likely to resort to criminal activity compared to their non-refugee counterparts because: (1) the young fare well in the labor market, and (2) older refugees have access to social and welfare benefits that alleviate their poverty exposure. Overall, then, refugees should be less likely to suffer from negative income shocks potentially linked to engagement in criminal activity as a means to address economic needs.

4. Methodology

4.1 Conceptual Framework and Main Hypothesis

Models of criminal behavior predict that the decision to commit crime is a function of economic opportunities or lack thereof. The seminal work in this area is the study by Becker (1968) followed by Ehrlich (1973), who described the decision to commit a crime as one involving a cost-benefit analysis under uncertainty. Individuals rationally decide how to allocate their time

¹³ An exception is the study by (Bratsberg *et al.* (2014, 2016), who find evidence of increased use of social services among refugees in Norway, as opposed to increased ties to the labor market.

between legal and illegal activities. If, for example, the benefits from committing a crime outweigh the costs and are, on net, higher than the utility derived from legal earnings, individuals will choose the path of illegal pursuits. That is:

$$(1) \quad [(1-p)*U(W_c) - p*U(S)] > U(W)$$

where $U(W_c)$ represents the utility of criminal earnings or wage, p is the probability of getting caught engaging in said activities, S represents the sanctions imposed if arrested, and W is the ongoing market wage for licit work.

This basic model, which has informed numerous empirical analyses assessing the role of socioeconomic factors in guiding individuals' criminal engagement (*e.g.* Buonanno 2003), can be updated to reflect the decision-making of refugees to commit a crime, relative to that of non-refugees. Our unit of analysis is the county. In particular, because refugees immediately have access to a number of resources upon arrival, their payoff to criminal activities is likely to be lower than that non-refugees.¹⁴ That is, assuming both choose to engage in criminal activities:

$$(2) \quad \{[(1-p)*U(W_{cr}) - p*U(S_r)] > U(W_r)\} < \{[(1-p)*U(W_{cn}) - p*U(S_n)] > U(W_n)\}$$

where p is the probability of getting caught, $U(W_{cr})$ represents the utility of the wage a refugee could garner if committing a crime, S_r represents the sanctions from getting caught as a refugee, and W_r is the legal wage for refugees. The subscript 'n' denotes non-refugee individuals. According to equation (2), relative to non-refugees, refugees will display a *lower* tendency of getting involved in criminal activities. After all, they have more to lose as they face a *higher cost* (S_r) from being caught given the benefits they receive, the lengthy vetting process they have to submit themselves to, and their inability to return home. Non-refugee migrants have likely gone through a less cumbersome vetting process, or none at all, and are more likely to be able to return

¹⁴ We are assuming here that non-refugees are either native-born individuals or non-refugee migrants who have arrived in the US as possible economic migrants or for family reunification reasons.

home than their refugee counterparts. Native-born individuals have no risk of deportation. Hence, all else equal, we would expect the following relationship to hold for the various costs of committing a crime for the three groups: $S_r \geq S_{non-refugee\ immigrant} \geq S_{native}$.

Along these lines, it has been shown that the criminal propensity of immigrants is lower than that of natives. One would expect that of refugees to be even lower. Given the forced migration of refugees, it appears reasonable to assume that refugees face the largest costs and will have the lowest propensity to commit a crime, followed by other immigrants and, then, by native born individuals. In what follows, we assess whether that is, indeed, the case, by examining if the concentration of refugees is directly linked to differential criminal rates.

4.2 Empirical Model Specification

Our main goal is to learn how refugees might be influencing local crime rates, if at all. Property crimes, which account for the vast majority of crimes, have been frequently modeled using the orthodox economic model of crime participation proposed by Becker (1968) and Ehrlich (1973), with some authors applying it to explain participation in violent criminal activity (see Grogger 2000). Following the Becker/Ehrlich framework and its adaptation to the behavior of refugees and non-refugees as outlined in equation (2), we estimate the following benchmark model:

$$(3) \quad Y_{ct} = \alpha + \beta R_{ct} + (X_c^{1980} * trend)\gamma + \delta Z_{ct} + \theta_c + \vartheta_t + \varepsilon_{ct}$$

where our dependent variable (Y_{ct}) is the number of arrests per 1,000 people in county c and year t . The only exception is when examining terrorism incidents. Since they are not as common, we use a simple count variable –namely, the overall number of incidents in the county c in year t .¹⁵

¹⁵ We also experimented with Poisson and negative binomial models to accommodate the nature of the dependent variable; however, both models proved non-tractable due to the large number of county fixed-effects. As an

Our explanatory variable of interest (R_{ct}) is the number of refugees per 1,000 people in county c in year t .¹⁶ In counties with no refugee inflows, R_{ct} is set to zero.

The vector X_c^{1980} includes aggregate characteristics of each county potentially correlated with crime rates given their link to the relative economic payoff of engaging in illicit activities, such as the share of the county's population with different levels of educational attainment, as well as the county's employment rates, per capita income, per capita housing construction—a proxy for economic growth, and spending on police protection per capita. These controls, all reflective of either labor market opportunities, the economic environment in the county or police spending, help us capture the returns to illicit (W_{cr} , W_{cn}) and legal (W_r , W_n) labor market activities. Because of endogeneity concerns with county crime rates, they are all measured prior to the period under examination in 1980. To address their variability over time, they are included in the model interacted with a time trend. Finally, equation (3) also includes information on housing costs—an important contemporaneous determinant of refugee placements by agencies given the housing assistance provided to refugees during the first few months.

To conclude, the model also includes county and year fixed-effects. The county-level controls address any unobserved time-invariant characteristics potentially correlated to criminal reports, such as traditionally tougher-on-crime counties, which may impact the likelihood of

alternative, we estimated linear probability models (LPM) using an alternative dichotomous variable indicative of whether any terror event took place as our dependent variable. The results from these estimations, which are displayed in the Table B in the appendix, confirm our general findings. There is no statistically significant evidence of a link between refugee admissions and the likelihood of a terrorist event.

¹⁶ We use flows instead of stocks as refugees are only categorized as refugees for a short period. Refugees are able and likely expected to apply for naturalization after a year in the US. Most benefits, such as the Refugee Cash Assistance (RCA) program are only available to those in a refugee status for the first 8 months in the US. Afterwards, refugees may apply for additional assistance at the state level and can also apply for Medicaid, TANF and other benefits as naturalized immigrants. Thus, identifying a stock of immigrants would be difficult due to the short-term nature of refugee status. (Source: GAO Report Iraqi Refugees and Special Immigrant Visa Holders Face Challenges Resettling in the United States and Obtaining U.S. Government Employment, available at: <http://www.gao.gov/new.items/d10274.pdf>)

sanctions, p , or the intensity of sanctions: S_n and S_r . Additionally, to address macroeconomic shocks, such as the Great Recession that started in 2008 in the United States, we incorporate year fixed-effects. As such, identification comes from variation within a county over time.¹⁷ The coefficient of interest is β , which measures how an increase in the share of refugees in a given county alters local crime rates. Equation (3) is estimated using ordinary least squares (OLS) for all crimes, as well as separately for violent crimes, property crimes and the incidence of terrorism events.

4.3 Endogeneity of U.S. Refugee Settlements

At this point in the analysis, it is worth discussing one of the most notable threats to identification. Equation (3) treats the location of refugees as exogenous, which would be justified if the U.S. resettlement program selects the destinations of incoming refugees randomly. Nonetheless, these locations might be subject to endogeneity concerns if, for example, some counties are more welcoming of refugee settlements and actively seek them to revitalize certain geographic areas or sectors of their economies. If crime rates are higher in less economically active areas and refugees are placed in those areas with the hope they might help revitalize them, the impact of refugee settlements on crime could be biased upwards.

To address the possible non-random location of refugees, we employ an instrumental variable (IV) approach that exploits migrants' tendency to locate and be placed together,¹⁸ often into communities with immigrants from the refugee's geographic area to facilitate their social and economic assimilation.¹⁹ Specifically, we construct a "shift-share" prediction of the placement of

¹⁷ We do not include county-specific time trends because the number of fixed-effects would exceed the number of observations.

¹⁸ *E.g.* Bartel (1989), Munshi (2003), Card (2001) or Cortés and Tessada (2010), among many others.

¹⁹ While the settlement of refugees varies from year to year depending on the volume of applications, most refugees reside in what are considered predominantly immigrant states –namely California, New York and Texas (Krogstad and Radford 2017), which justifies using prior networks of countrymen as an instrument for their current location.

refugees from origin, o , into each county, c , in each year, t , along the lines of Altonji and Card (1991) and Card (2001). The prediction is based on the idea that refugee placement is likely to be influenced by immigration networks. In the interest of easing assimilation, agencies seek to place refugees into communities with concentrations of immigrants from similar regions/countries. The instrument is, therefore, given by:

$$(4) \quad \widehat{shift\ share_refugees}_{oct} = \varphi_{oc1980} \times refugees_{ot}$$

where $\widehat{shift\ share_refugees}_{oct}$ is the estimated number of new refugees from country of origin o in county c in year t and φ_{oc1980} is the share of all U.S. immigrants from country of origin o who resided in county c in 1980 –more than 25 years ago, and $refugees_{ot}$ is the inflow of refugees from country o in year t .

5. Data and Descriptive Statistics

5.1 Data Sources

To perform our analysis, we gather data from various sources. Because of different data restrictions, we focus on the 2006 through 2014 period. First, data on the city placements of refugees from various origins originate from the Refugee Processing Center in the Bureau of Population, Refugees and Migration at the Department of State.

In addition, measures of crime at the county level are gathered from the ICPSR’s Uniform Crime Reporting Program Data: County-Level Detailed Arrest and Offense Data (henceforth UCR).²⁰ This data is a compilation of monthly crime reports submitted to the FBI from law enforcement agencies around the country. The FBI classifies crimes into two categories: Part 1 crimes and Part 2 crimes. Part 1 crimes refer to more egregious and violent criminal activities,

²⁰ See: www.icpsr.umich.edu/icpsrweb/ICPSR/series/57

including murder, rape, robberies and aggravated assaults. Part 2 incidents refer to other criminal activities including property crimes, forgery, vice, and drug abuse. The reports provide *nationwide* counts of arrests for Part 1 and Part 2 crimes. We rely on arrest data counts since the FBI imputes values for jurisdictions within each county that provided no or only partial information. This allows us to obtain county-level measures of crime for the entire United States.²¹ Finally, it is worth noting that, unlike the National Incident Based Reporting System (NIBRS), which details each criminal incident, thus providing much richer information concerning criminal activity²², the UCR data is nationally representative.²³

The UCR dataset does not classify crime in such a way to identify which criminal acts are motivated by terrorism. Yet, much of the ongoing concern centers on the possibility that greater U.S. exposure to refugee inflows will cause a spike in acts of terrorism. In order to address this more specific concern, we construct a separate dependent variable: *terrorism incidents*, and assess if there is a link between refugee admissions and terrorism incidents in the United States. The data are derived from the Global Terrorism Database (GTD). The GTD is a product of the National Consortium for the study of Terrorism and Responses to Terrorism (START) and is headquartered at the University of Maryland. The data are obtained by identifying “terrorist incidents” via the consultation of newspapers and other media from around the world. Researchers comb these sources of information in order to categorize, date, and geographically code events that can be described as incidents of terrorism. The database tries to err on the side of inclusiveness. In order to be considered terrorism, the event must fulfill a number of conditions (see GTD Codebook,

²¹ In contrast, the offense data is less useful since the FBI only imputes crime in jurisdictions that provide partial information.

²² While the data are richer, they still do not report the nativity of the perpetrator.

²³ While the UCR data currently cover about 98 percent of the U.S. population, only 30 percent of the U.S. population is represented in NIBRS reports.

2016). The incident must be intentional, entail violence or immediate threat of violence, and it must be perpetrated by a subnational group. Next, the incident must satisfy two of the following three conditions: 1) intended to attain a political, social, religious or systemic economic goal; 2) the incident must be attempting to convey a message/intimidate a broader audience, and not only those who were impacted by the incident; 3) the incident must be outside the realm of legitimate warfare. Since the location variable is provided at the city level, we mapped incidents by city into county level data.

An additional point should be made concerning the GTD. The project to construct this database is fairly recent. Consequently, much of the series in this database is constructed using retrospective techniques. According to the START manual, there is a significant and discernible increase in the number of terror events starting in 2012. This is due to an improvement in the construction of the series at that time due to the contemporaneous nature of the data collection going forward. We address these changes in the series with the inclusion of year fixed-effects.

Finally, we account for a number of county-level characteristics in our analysis: (1) trends in county level statistics from 1980, and (2) housing price data at the (county, year) level. The former include information on educational attainment, income, employment, police enforcement and housing markets intended to capture the possible economic drivers of crime as they relate to our model of the decision to engage in criminal behavior. For all those indicators, we use county level data several decades prior to the period under examination in order to avoid any reverse causality biases. We then include these variables in the model interacted with a time trend to capture their variation over time. All the 1980 data series are obtained from the Census Bureau's

county download website. Their construction and sources are detailed in the appendix.²⁴ The series are merged to the refugee and crime data by county.

In addition to the trends in the aforementioned county level traits, we include a housing price index that varies yearly for each county to address one of the key determinants in the placement of refugees by agencies –namely, housing costs. The series, which is merged to our crime data at the (county, year) level, measures the change in the home price index (HPI) from the Federal Housing Finance Agency.²⁵ According to the FHFA, it serves as a broad measure of changes in single-family housing prices.²⁶ By having county-level time varying data on housing, we are also able to control for county characteristics that change over time related to the important and cyclical housing and construction industries. Annual county-level housing prices allow for variations in county conditions that are not being picked up by a common trend or a linear projection from 1980.

5.2 Some Descriptive Evidence

Table 1 provides some basic descriptive statistics for the sample we work with covering the 2006 through 2014 period. Our key variables are:

(a) *Total refugees by county-year*: The United States has the largest refugee resettlement program in the world and refugees are placed after an interview process that aims to find a location for the best social and economic integration. Given the large established immigrant networks in

²⁴ The excel spreadsheets were downloaded from <https://www.census.gov/support/USACdataDownloads.html#LOG>

²⁵ The data can be downloaded at:

https://www.fhfa.gov/DataTools/Downloads/Documents/HPI/HPI_AT_BDL_county.xlsxv

²⁶ In addition, the FHFA states that: “The HPI is a weighted, repeat-sales index, meaning that it measures average price changes in repeat sales or refinancing on the same properties. This information is obtained by reviewing repeat mortgage transactions on single-family properties whose mortgages have been purchased or securitized by Fannie Mae or Freddie Mac since January 1975.” (<https://www.fhfa.gov/DataTools/Downloads/pages/house-price-index.aspx>).

Texas, California, Arizona, and New York, it is not surprising that over half of the refugees placed between 2006 and 2014 resided in these four states (see Table 2). At the county-level unit of analysis, the top five counties in our sample are San Diego County (CA), Maricopa County (AZ), Fort Bend County (TX), Los Angeles County (CA), and Denver County (CO).²⁷ The overall share of refugee inflows in the United States is 0.08 per thousand or 8 refugees per 100,000 people. And while the United States has run the largest resettlement programs in the world, the share of refugees in the U.S. population is quite small.²⁸

(b) *County-level crime statistics:* The second type of data we use measures crime. The raw data are annual counts of arrests for the year at the county level. We construct ‘crime rates’ defined as the number of recorded arrests per 1,000 people. Because of the distinct nature of property and violent crimes, we distinguish between crimes associated with property offenses (*e.g.* burglary, robbery, theft), and those linked to violent crimes. Average crime rates over the 2006-2014 period (see Table 1) are at about five and a half per 1,000 people –most being property crimes, which averaged about 4.4 per one thousand inhabitants. Terror events (measured simply as the number of incidents) are quite rare in the United States. As reflected in the pie chart included as Figure 2, if any, they fluctuate between 1 and 4 at the county/year level. Given the many counties without a single terrorism event, the average at the county level is approximately 0.006 incidents over the entire period of analysis (see Table 1) –on average, approximately 15 terror incidents per year.

²⁷ Of those receiving refugees, the average number in a given county and year is 117 with a minimum of one refugee and a maximum of 3,196.

²⁸ In light of the ban on refugees from certain countries issued by the Trump Administration earlier this year, we also created a measure to assess this group separately. The banned refugee country origins listed in Trump’s first executive order were Iran, Iraq, Libya, Somalia, Syria, Sudan, and Yemen. What impact could the banning of refugees from the seven-targeted nations in President Trump’s executive order have on the refugee admission program? As shown in Table A in the appendix, a total of 36,722 refugees in 2016 originated from these 7 countries, with 48,272 originating from elsewhere in the world. Nationals from the seven barred countries made up 43 percent of total admissions in 2016.

We also distinguish counties according to their refugee inflows in Table 1. Counties with a refugee population that falls below the mean of 0.08 per thousand constitute the vast majority of counties in the United States. At a purely descriptive level, crime rates are higher in counties receiving more refugees –particularly with regards to property crimes.²⁹ However, a couple of things are worth noting. Counties with a higher concentration of refugees might also differ from their counterparts with small refugee concentrations in other regards. According to the county-level characteristics in 1980, counties with relatively larger refugee flows in our recent sample period were those with economies that were more vibrant in the past. More specifically, counties with a higher concentration of refugee flows over the 2006 to 2014 period were locations with a more educated population, a higher per capita income and higher employment rates. These counties also invested more in single and multi-family housing and police enforcement in 1980 as measured by new housing construction and police protection spending per capita. Thus, it appears important to control for the non-random placement of refugees and to purge the estimated impact of refugee placements on criminal behavior from that of county characteristics.

Secondly, a closer look at the trends in crime rates in these two sets of counties in Panels A through C in Figure 3 reveals, in fact, faster declines in crime in counties with a higher concentration of refugees than among their counterparts with fewer refugees. In fact, if we further plot crime rates against the specific refugee concentration in a given (county, year) cell and fit a regression line to the data, as in Panels A through C in Figure 4, it becomes evident that, if anything, there seems to be a negative relationship between crime rates and refugee concentrations. The pattern, however, differs for the incidence of terrorist events in Panels D in Figures 3 and 4. Terrorism incidents are rising over time. Furthermore, counties with a larger concentration of

²⁹ The differences in crime rates are all statistically significant at the 1 percent level.

refugees experience more terrorism events when compared to counties with a smaller refugee concentration. Is the increase in terrorist events over time a function of improvements in the collection of data on terrorism? And, more importantly, are the trends in terrorist incidents in counties with large versus small refugee populations suggestive of a causal link? Or is it simply the case that terrorist acts can be more easily carried out in more populated counties (typically the ones receiving most refugees) where it is easier for criminals to remain unidentified? In what follows, we address these questions and, overall, explore if the links revealed at a descriptive level persist once we account for other county level traits and time trends, as well as for the potential endogeneity of refugee placements.

6. Assessing the Impact of Refugee Settlements on Local Criminal Activity

6.1 Main Findings

Table 3 displays the results from estimating equation (3) using OLS, without taking into account the potential endogeneity of refugee placements. We first show the results using a baseline specification that only includes county and year fixed-effects to account for unobserved time-invariant county level traits, as well as for economy-wide shocks, like the Great Recession. Subsequently, we include a number of time-varying county-level traits potentially correlated with crime rates. As noted earlier, these are all measured in 1980, prior to the period under examination, to avoid reverse causality biases. To address their variability over time, they are interacted with a time trend and included in the model. Likewise, we account for housing prices as an additional factor influencing the placement of refugees. In all instances, the impact of additional refugees on criminal rates remain consistent across both model specifications, suggesting that the potential endogeneity of some of the regressors is not driving our main results.

For conciseness, we will focus our discussion on the most complete model specification. As shown in Table 3, refugee placements do not seem to be rising local violent crime rates or the likelihood of a terrorism event. However, as it has been recently found for asylees in the United Kingdom (Bell, Fasani and Machin 2013), refugee placement appear to be directly linked to property crime rates and, given that the latter account for the vast majority of crimes in any given location, to overall crime rates. The impact is, however, small. Specifically, an additional 8 refugees per 100,000 would raise property and overall crime rates by 0.2 percent –approximately one additional crime per 1,000 inhabitants.³⁰

In addition, some of the trends in county-specific traits appear to help explain local crime rates. For instance, trends in the educational attainment of the county population are statistically different from zero in our estimations. Specifically, we find that localities where the shares of the population with either some college or, in some instances, a college degree have trended upwards more rapidly than the share of the population with a high school education display lower property, violent and overall crime rates. This could be reflecting better economic opportunities and, in turn, a lesser incentive to engage in potentially lucrative illicit activities. Yet, we also find that localities where the share of the population with less than a high school education has trended upwards faster than the share of the population with a high school diploma display lower property, violent and overall crime rates. Perhaps, these are areas with a relatively older population more likely to have a lower educational attainment and, given their age, less inclined to engage in criminal activities. Other determinants display the expected signs. In particular, localities where per capita income (measured in thousands of dollars) have trended upwards display lower property and overall crime rates, as well as a lower propensity to be the victims of a terrorist event. Similarly, counties in

³⁰ The exact amount would be 0.87 additional property crimes/1000 inhabitants, and 1.29 overall crimes/1000 inhabitants.

which police expenditures per capita have trended upwards display lower property and overall crime rates.

In sum, the estimates in Table 3 suggest that areas receiving more refugees display a slightly higher property and overall crime rate. This result seems, however, at odds with the fitted regression lines in Panels A through C in Figure 4, and they could be biased if, for example, refugees are welcomed in cities that hope to foster economic growth, but currently have significantly higher crime rates, as it appears to be the case in Panels A through C of Figure 3. In those instances, the impact of refugees on the property and overall crime rates could be biased upwards.

To address that possibility, we instrument for the placement of refugees using information on the residential choices of their countrymen in the past, as described in section 4.3. The results from such an exercise are displayed in Table 4. The last rows reassure us about the suitability of the instrument being used. The F-stat from the first stage regression is larger than the recommended size of 10 (Stock and Yogo 2005) and the adjusted R-squared suggests the model does a fairly good job at predicting the share of refugees in each county by year. Additionally, the estimated coefficient from the first stage regression is positive and statistically significant, confirming the tendency for refugees to locate in areas with established networks of their countrymen.

Focusing on the estimates from the second stage regressions, we find that they generally confirm the OLS results for the violent crime rate and for the likelihood of a terrorism event. In particular, we continue to find that the share of refugees in the locality has no significant impact on either outcome. Additionally, we now find that the impact of refugee settlements on the incidence of property crimes and, in turn, the overall crime rate, is not statistically different from

zero when we address the non-random location of refugees. The results thus seem to confirm the propensity for the OLS estimates of the impact of refugees on the incidence of property crimes and the overall crime rate to be upward biased.

6.2 Robustness Checks

So far, our estimates reveal that refugee settlements do not result in higher crime rates or in a higher incidence of terrorism. These results make sense, as there is no *a priori* reason to suspect that refugees should exhibit higher levels of crime. Refugees are carefully screened before being admitted to the United States. They are likely to have relatively high levels of education given the long process they must follow in order to petition for refugee status from abroad. The refugee resettlement process, which pairs refugees to specific local resettlement agencies, is likely to facilitate the adjustment of refugees and providing them with an additional “network” and with well-connected intermediaries to help refugees navigate the settlement system and get matched in jobs that lead to successful economic adjustment. Refugees admitted to the United States often come as a family unit, and if not, can petition for family reunification visas provided that they remain in good standing. Finally, they have left everything to escape conflict, war, oppression and start anew somewhere else, and they are unlikely to be able to return to their home country in the near future. All these factors naturally imply that the cost of engaging in any criminal activity and losing refugee status is quite high.

Because the refugee population represents a relatively small share of the population in most instances, one might be concerned about the ability to detect an impact of refugee placements on overall crime rates when including localities that either do not welcome refugees or rarely do so. To address that concern, we repeat the analysis in Table 5 focusing, instead, on counties receiving a number of refugees that is above the national average in any given year. The results, displayed

in Table 5, continue to support our prior findings –namely, the fact that refugee placements do not help explain local crime rates or the likelihood of a terrorist event.

Alternatively, one might be concerned about the composition of the refugee inflow. In particular, following President Trump’s executive order from January 27, 2017, some might question whether refugees from the seven nations on the list of banned countries of origin behave differently from other refugees. To investigate this possibility, we re-estimate equation (3) using the flow of refugees originating from Iran, Iraq, Libya, Somalia, Sudan, Syria, and Yemen. Once more, we obtain qualitatively similar results (see Table 6) to those found in Tables 4 and 5. Although the coefficients and standard errors are larger owing to the very small magnitude of these flows, we continue to lack any evidence of a positive contribution of refugee inflows to local crime rates or the incidence of terrorism.

6.3 Limitations

Despite the robustness check, our analysis is limited in a number of dimensions. First, while we know the initial placement of refugees, we cannot be assured that they remain in that location. Odds are that they will stay put, at least initially. Housing stipends given to refugees, upon admission, as well as the assistance afforded by the designated resettlement agency will likely keep the refugee put. Furthermore, the networks that seem to play in placement will likely further incentivize refugees to remain even in the longer run.

A second concern that might be raised is with respect to the idea that once refugees gain LPR status, they have more protections and, therefore, might be more inclined to engage in criminal activity beyond the initial placement year. While it is true that LPRs have more rights than do individuals still under refugee status, the more significant distinction arises when an LPR obtains citizenship. In this case, bad behavior cannot result in deportation back to the home

country. That is, LPRs can be deported and returned to their home countries in the case of an egregious crime, whereas citizens cannot.

7. Summary and Conclusions

Refugee flows around the world have been on the rise in response to a growing incidence of international crises. Yet, the welcome received by refugees has varied worldwide. In the United States, growing skepticism about refugees has resulted in expressed concerns regarding their impact on public safety and the possibility that they might bring with them the terror and crime that afflicts many of their countries of origin. In this study, we attempt to take a first step at assessing if there is empirical evidence supportive of such a link. To that end, we use city-level data (mapped into county-level data) from the Refugee Processing Center in the Bureau of Population, Refugees and Migration at the Department of State from 2006 through 2014 to assess whether refugee placements are tied to county-level crime data collected from the Uniform Crime Reporting Program administered by the FBI.

The analysis, which exploits the geographic and temporal variation in the distribution of refugees across U.S. counties, reveals that, overall, refugees do not seem to have a significant impact on local crime rates. Qualitatively similar results are obtained when we limit our analysis to refugees from the seven banned countries listed in President Trump's original, January 27, 2017 executive order, *Protecting the Nation from Terrorist Attacks by Foreign Nationals*. That refugee inflows are not associated with increases in crime rates seems plausible. Refugees are carefully screened making it highly unlikely that individuals predisposed to criminal activity will pass the vetting process. Furthermore, refugees are matched to sponsoring agencies, which provide them with services to facilitate their integration into the job market. The local sponsoring agencies also likely monitor refugees, enabling them to detect and correct inappropriate behaviors early on. In sum, it is not clear why one would expect refugees that are settled through these channels to be

prone to crime and, indeed, our findings confirm that expectation. The results are also robust to focusing on counties receiving larger refugee inflows or to restricting our attention to refugees from specific national origins.

We believe these findings contribute to our understanding of the link between refugee settlements and crime –a crucial element in shaping public attitudes towards refugees and a key component of current immigration policy proposals. Given the ongoing refugee crises around the world, gaining a better understanding of the facts is essential in order to devise immigration policies that address native concerns and avoid the misrepresentation of the refugee phenomenon or political opportunism.

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Table 1: Descriptive Statistics

Variable Names	All U.S. Counties		Counties with Small Refugee Populations		Counties with Large Refugee Populations	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
Crime Rate per 1,000	5.657	3.503	5.562	3.480	6.929	3.554
Violent Crime Rate per 1,000	1.289	1.040	1.268	1.022	1.573	1.217
Property Crime Rate per 1,000	4.367	2.846	4.293	2.834	5.356	2.811
Terror Events	0.006	0.093	0.003	0.064	0.039	0.263
Refugees per 1,000	0.082	0.661	0.002	0.010	1.147	2.251
Refugees per 1,000 from Banned Nations	0.028	0.296	0.001	0.006	0.387	1.062
Housing Prices (HPI)	0.457	5.614	0.538	5.634	-0.634	5.212
<i>County Specific Characteristics in 1980:</i>						
Share with Less than HS	40.004	12.254	40.608	12.215	31.874	9.595
Share with a HS Education	34.981	7.082	34.971	7.157	35.103	5.987
Share with Some College	13.206	4.61	13.001	4.586	15.968	4.013
Share with a College Degree	11.811	5.687	11.421	5.33	17.06	7.467
Per Capita Income (in thousands)	8.204	1.998	8.115	1.922	9.402	2.536
Employment per Capita	0.235	0.115	0.228	0.109	0.331	0.146
New Housing Construction per Capita	0.138	0.212	0.135	0.214	0.181	0.172
Police Protection per Capita	0.039	0.025	0.038	0.024	0.053	0.027
Observations	22,648		21,073		1,575	

Notes: Counties are classified as ‘large’ vs. ‘small’ refugee recipients depending on whether the refugees per 1,000 is above or below the mean for all U.S. counties.

Table 2: Top Refugee Receiving States

States	Percentage
TX	21.59
CA	13.64
AZ	10.23
NY	10.23
GA	7.95
CO	6.82
IL	4.55
IN	4.55
FL	3.41
KY	3.41
MI	3.41
UT	3.41
OH	2.27
WA	2.27
MN	1.14
TN	1.14

Notes: Computed by the authors from 2006-2014 city placements of refugees as reported by the Refugee Processing Center in the Bureau of Population, Refugees and Migration at the U.S. Department of State.

Table 3: Crime Rates and the Refugee Population – OLS Results

Variable Names	All Crimes		Violent Crimes		Property Crimes		Terror Crimes	
	Baseline	Plus County Varying Controls	Baseline	Plus County Varying Controls	Baseline	Plus County Varying Controls	Baseline	Plus County Varying Controls
(Refugee/1,000 people)	0.211** (0.093)	0.157* (0.083)	0.074 (0.051)	0.052 (0.047)	0.138** (0.055)	0.106** (0.049)	0.029 (0.031)	0.024 (0.025)
Share with Less than HS in 1980*Trend		-0.012*** (0.003)		-0.006*** (0.001)		-0.005** (0.002)		-0.002 (0.002)
Share with Some College in 1980*Trend		-0.010* (0.005)		-0.004* (0.002)		-0.006* (0.004)		-0.006 (0.005)
Share with a College Degree in 1980*Trend		-0.003 (0.003)		-0.003*** (0.001)		0.000 (0.003)		0.001 (0.001)
Per Capita Income (thousands) in 1980*Trend		-0.036* (0.018)		-0.009 (0.006)		-0.026** (0.012)		-0.036* (0.018)
Employment Per Capita in 1980*Trend		0.143 (0.279)		0.027 (0.098)		0.115 (0.188)		-0.014 (0.025)
New Housing Construction Per Capita in 1980*Trend		0.114 (0.106)		0.047 (0.039)		0.067 (0.072)		0.041 (0.030)
Police Protection Per Capita in 1980*Trend		-2.165* (1.205)		-0.683 (0.426)		-1.482* (0.782)		-0.103 (0.131)
Housing Prices		-0.001 (0.005)		-0.001 (0.002)		0.000 (0.004)		-0.000 (0.001)
County Fixed-Effects	Y	Y	Y	Y	Y	Y	Y	Y
Year Fixed-Effects	Y	Y	Y	Y	Y	Y	Y	Y
Observations	22,648	22,648	22,648	22,648	22,648	22,648	22,648	22,648
Number of Clusters	2,544	2,544	2,544	2,544	2,544	2,544	2,544	2,544
Adjusted R-squared	0.810	0.821	0.846	0.856	0.817	0.824	0.424	0.446

Notes: Robust standard errors are clustered at the county level and shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Crime Rates and the Refugee Population – IV Results

Variable Names	All Crimes	Violent Crimes	Property Crimes	Terror Crimes
(Refugee/1,000 people)	0.095 (0.256)	-0.007 (0.122)	0.103 (0.173)	0.087 (0.075)
Share with Less than HS in 1980*Trend	-0.012*** (0.003)	-0.006*** (0.001)	-0.005** (0.002)	-0.002 (0.001)
Share with Some College in 1980*Trend	-0.010* (0.005)	-0.004** (0.002)	-0.006* (0.004)	-0.006 (0.005)
Share with a College Degree in 1980*Trend	-0.003 (0.003)	-0.003*** (0.001)	0.000 (0.003)	0.001 (0.001)
Per Capita Income (thousands) in 1980*Trend	-0.036* (0.018)	-0.009 (0.006)	-0.026** (0.012)	-0.004 (0.004)
Employment Per Capita in 1980*Trend	0.146 (0.287)	0.030 (0.100)	0.115 (0.193)	-0.017 (0.027)
New Housing Construction Per Capita in 1980*Trend	0.113 (0.105)	0.047 (0.039)	0.067 (0.071)	0.042 (0.031)
Police Protection Per Capita in 1980*Trend	-2.165* (1.206)	-0.683 (0.427)	-1.482* (0.782)	-0.103 (0.131)
Housing Prices	-0.001 (0.005)	-0.001 (0.002)	0.000 (0.004)	-0.000 (0.001)
County Fixed-Effects	Y	Y	Y	Y
Year Fixed-Effects	Y	Y	Y	Y
Observations	22,648	22,648	22,648	22,648
Number of Clusters	2,544	2,544	2,544	2,544
R-squared	0.821	0.856	0.824	0.444
<i>First-Stage Results</i>				
IV		2.305*** (0.183)		
F-stat		159.420		
Adjusted R-squared		0.864		

Notes: Robust standard errors are clustered at the county level and shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 5: Crime Rates and the Refugee Population for Counties with a Large Refugee Population – IV Results

Variable Names	All Crimes	Violent Crimes	Property Crimes	Terror Crimes
(Refugee/1,000 people)	0.135 (0.180)	0.069 (0.078)	0.066 (0.126)	-0.145 (0.120)
Share with Less than HS in 1980*Trend	-0.017*** (0.006)	-0.005** (0.002)	-0.012*** (0.004)	-0.007* (0.004)
Share with Some College in 1980*Trend	-0.021** (0.010)	-0.004 (0.005)	-0.016** (0.007)	-0.016* (0.009)
Share with a College Degree in 1980*Trend	-0.010* (0.005)	-0.004 (0.002)	-0.006* (0.003)	-0.000 (0.002)
Per Capita Income (thousands) in 1980*Trend	-0.028 (0.018)	-0.010 (0.009)	-0.018 (0.012)	-0.005 (0.009)
Employment Per Capita in 1980*Trend	0.216 (0.330)	0.046 (0.158)	0.170 (0.209)	0.055 (0.088)
New Housing Construction Per Capita in 1980*Trend	0.130 (0.203)	0.101 (0.079)	0.030 (0.144)	0.143 (0.089)
Police Protection Per Capita in 1980*Trend	-0.595 (0.974)	-0.431 (0.558)	-0.165 (0.590)	-0.775 (0.491)
Housing Prices	-0.003 (0.011)	-0.003 (0.004)	-0.001 (0.008)	-0.008* (0.005)
County Fixed-Effects	Y	Y	Y	Y
Year Fixed-Effects	Y	Y	Y	Y
Observations	1,575	1,575	1,575	1,575
Number of Clusters	390	390	390	390
R-squared	0.910	0.933	0.912	0.545
<i>First-Stage Results</i>				
IV			10.352*** (1.817)	
F-stat			32.450	
Adjusted R-squared			0.854	

Notes: Robust standard errors are clustered at the county level and shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Table 6: Crime Rates and the Banned Refugee Population – IV Results

Variable Names	All Crimes	Violent Crimes	Property Crimes	Terror Crimes
(Refugee/1,000 people)	0.824 (0.614)	0.334 (0.245)	0.491 (0.431)	0.357 (0.224)
Share with Less than HS in 1980*Trend	-0.011*** (0.003)	-0.006*** (0.001)	-0.005** (0.002)	-0.002 (0.001)
Share with Some College in 1980*Trend	-0.010* (0.005)	-0.004** (0.002)	-0.007* (0.004)	-0.006 (0.005)
Share with a College Degree in 1980*Trend	-0.003 (0.003)	-0.003*** (0.001)	-0.000 (0.003)	0.001 (0.001)
Per Capita Income (thousands) in 1980*Trend	-0.000* (0.000)	-0.000 (0.000)	-0.000** (0.000)	-0.000 (0.000)
Employment Per Capita in 1980*Trend	0.138 (0.283)	0.025 (0.099)	0.113 (0.190)	-0.018 (0.027)
New Housing Construction Per Capita in 1980*Trend	0.116 (0.105)	0.048 (0.039)	0.068 (0.072)	0.042 (0.030)
Police Protection Per Capita in 1980*Trend	-2.165* (1.203)	-0.683 (0.425)	-1.482* (0.781)	-0.103 (0.130)
Housing Prices	-0.001 (0.005)	-0.001 (0.002)	0.000 (0.004)	0.000 (0.002)
County Fixed-Effects	Y	Y	Y	Y
Year Fixed-Effects	Y	Y	Y	Y
Observations	22,654	22,654	22,654	22,654
Number of Clusters	2,559	2,559	2,559	2,559
Adjusted R-squared	0.820	0.856	0.824	0.439
<i>First-Stage Results</i>				
IV		2.045*** (0.192)		
F-stat		112.95		
Adjusted R-squared		0.757		

Notes: Robust standard errors are clustered at the county level and shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

Figure 1
Trend in Average U.S. Refugee Population (per 1,000 Residents)

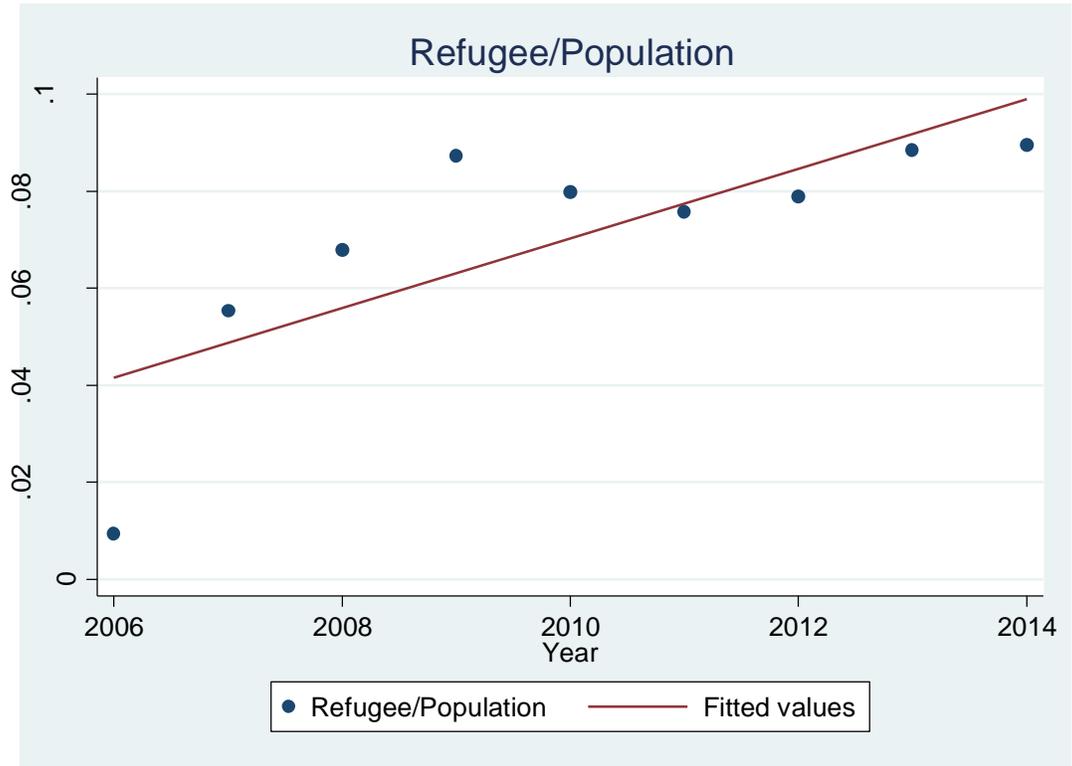
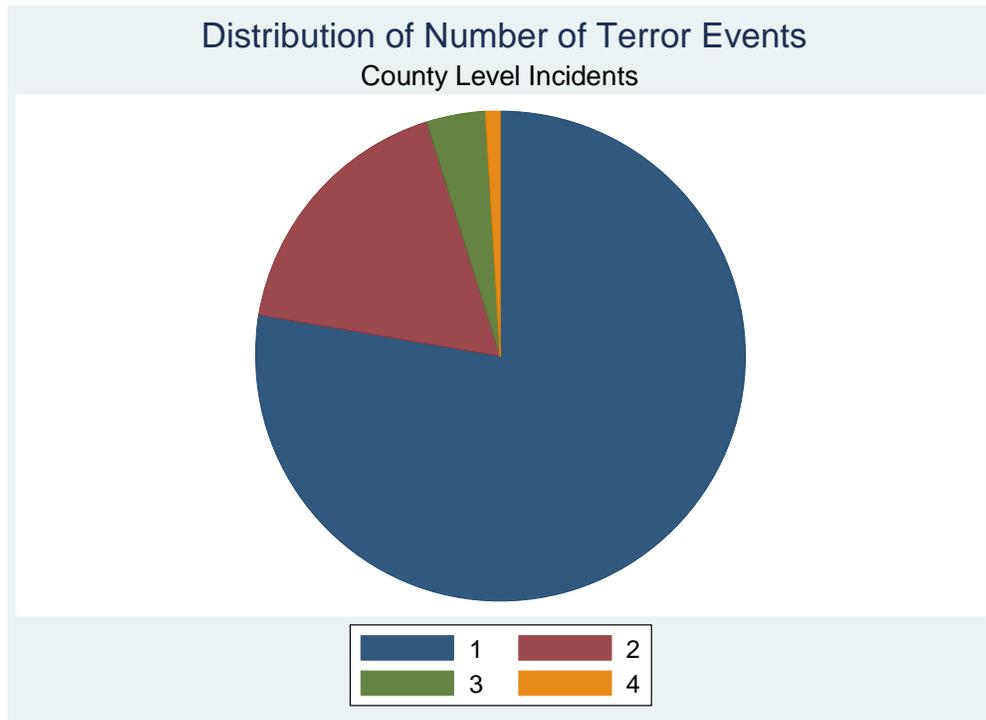
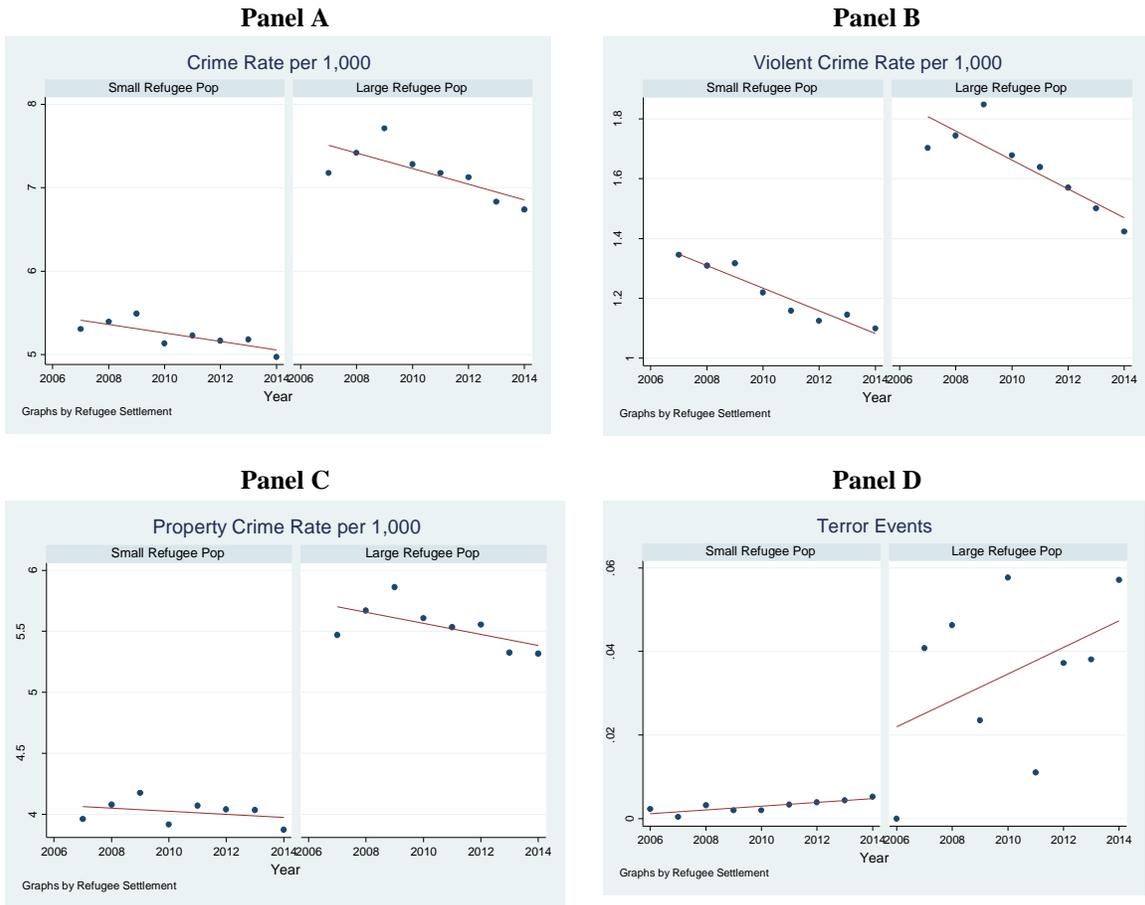


Figure 2: Number of Terror Events when Existent



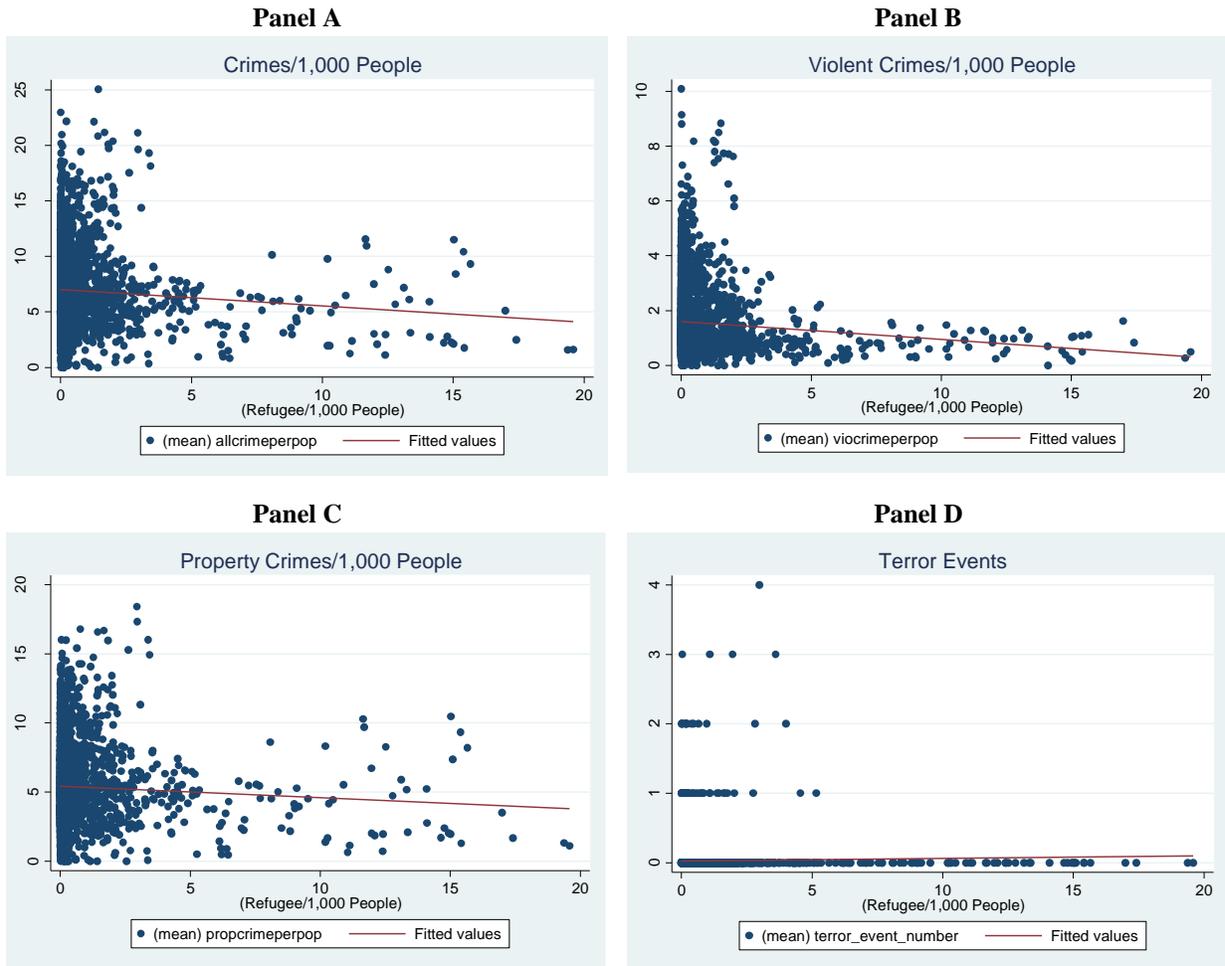
Notes: Approximately 81.4% of the counties over the period under consideration have not experienced a single terrorist incident. Therefore, this pie chart represents only 19 percent of all counties.

Figure 3:
Trends in Crime Rates in Counties with a Small versus Large Refugee Population



Notes: ‘Small’ and ‘large’ concentrations of refugees refer to being below or above the national average.

Figure 4:
Crime Rates by Refugee Concentration



Appendix

Data Sources

The historical county-level data can be grouped in to measure of educational attainment, income, employment, police enforcement and housing markets. All 1980 data series were obtained from the Census Bureau's county download website and came from various government sources:

1. The education statistics include: the percent of adults with less than a high school diploma, the percent of adults with a high school diploma only, the percent of adults completing some college (1-3 years), the percent of adults completing some college (1-3 years), and the percent of adults completing four years of college or higher. These percentages are computed using individual level data from the 1980 Census and sum to 100 at the county level.
2. As a measure of employment opportunities at the local level, we use private nonfarm employment for pay in March, 1980 from the U.S. Census Bureau-County Business Patterns database. To create a per capita series, the 1980 resident population (complete count) was used for each county. We expect a negative relationship between the employment rate per capita and crime as better labor markets raise the opportunity cost of engaging in criminal activities.
3. To proxy for the likelihood of getting caught by law enforcement, we control for expenditures for police protection per capita. The data originate from data on local government finances - direct general expenditures for police protection FY 1982 from the Census Bureau's Government Division, and we create a per capita measure. We anticipate a negative relationship between the latter and the incidence of criminal activities.
4. For a past measure of the prosperity of counties, we use per capita income. The data originate from the Department of Commerce-Bureau of Economic Analysis. We expect a negative relationship with crime as higher incomes means fewer pressing economic needs.
5. As housing is a large driver of economic growth, we also include a measure of new housing construction per capita in 1980. We use data on the valuation of new private housing units authorized by building permits 1980 (16,000-place universe) from the Construction Division of the Census Bureau to construct a per capita measure at the county level. This measure may be negatively related to crime if it captures more vibrant and growing counties.

Table A: 2016 Refugee Admissions

Somalia	Sudan	Iran	Iraq	Syria	Yemen	Libya	ROW
9,020	1,458	3,750	9,880	12,587	26	1	48,272

Source: ROW= Rest of World. Derived from Refugees Admissions Report, December 2016, <http://www.wrapsnet.org/admissions-and-arrivals/>

Table B: OLS Using Terror Events as a LDV Model – ‘Any Terror Event’

Variable Names	Baseline	Plus County Varying Controls
(Refugee/1,000 people)	0.012 (0.016)	0.010 (0.014)
Share with Less than HS in 1980*Trend		-0.001 (0.001)
Share with Some College in 1980*Trend		-0.003 (0.002)
Share with a College Degree in 1980*Trend		0.001 (0.000)
Per Capita Income (thousands) in 1980*Trend		-0.001 (0.002)
Employment Per Capita in 1980*Trend		-0.007 (0.014)
New Housing Construction Per Capita in 1980*Trend		0.021 (0.015)
Police Protection Per Capita in 1980*Trend		-0.045 (0.061)
Housing Prices		-0.000 (0.001)
County Fixed-Effects	Y	Y
Year Fixed-Effects	Y	Y
Observations	22,648	22,648
Number of Clusters	2,544	2,544
Adjusted R-squared	0.431	0.440

Notes: Robust standard errors are clustered at the county level and shown in parentheses. *** p<0.01, ** p<0.05, * p<0.1.