

**Migration away from Crime:  
Evidence from the Mexican Family Life Survey\***

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## **Migration away from Crime: Evidence from the Mexican Family Life Survey**

Crime in Mexico was highly concentrated in certain states for many years, but appears to be spreading out recently from these traditional strongholds. According to President Fox's Sexto Informe (2006), the national crime rate remained stable at about 14.9 crimes per 1000 people between 2000 and 2005. However, low-crime states in the center of the country such as Guanajuato, Aguascalientes, Hidalgo, Puebla and San Luis Potosí experienced increased crime rates while high-crime states, such as el Distrito Federal (Mexico City) and Baja California Norte saw declines. Mexican and U.S. media reports have also increasingly highlighted crime in Mexico as well as details of the fight to curtail it, not least of all President Calderón's recent wide scale efforts targeting drug traffickers and police corruption. It is notable in the media coverage that more and more crime incidents are reported to be occurring in regions of the country that have traditionally been relatively safe, kidnappings and murders in Michoacán for example. Incidentally, these low-crime, relatively poor states in the center of the country are also traditional migrant-sending states. There has been large-scale migration out of this region for decades, with migrants heading both to domestic and U.S. destinations (Massey et al, 1987).

More violence and personal insecurity stemming from the apparent spread of crime from large urban areas to smaller and more remote cities and towns in Mexico could have implications for out-migration. Yet, few researchers have looked into the relationship between crime and migration, perhaps owing to the paucity of reliable data on victimization and, in the case of Mexico, to the fact that migration has largely been considered the outcome of socio-economic drivers, such as migrant networks and low wages (Massey and Espinosa, 1997; Hanson and

Spilimbergo, 1999). There is, nonetheless, a larger literature that links *violence* to migration and which typically focuses on countries experiencing civil war and political repression, such as several Central American countries in the late 1970s and early 1980s. Morrison and May (1994) found that violence in post-revolutionary Guatemala was a significant factor in explaining migration. Likewise, Jones (1989) found that, while economic factors were the most crucial factors driving migration, political disturbance and violence also played an important role in explaining the spike in net emigration rates from El Salvador in the early 1980s. Finally, other authors, while recognizing the links between violence and migration, have emphasized the endogeneity of crime vis-à-vis demographic events, such as residential mobility, migration and residential segregation (South and Messner, 2000).

There are many reasons why it is important to understand how crime and violence affect Mexican mobility and migration to the U.S. First, immigrant outcomes and their impact on the economy depend on the factors that bring them to the U.S. To the extent that migration is not purely driven by labor market factors, crime-led migrants, like refugees, may have lower employment rates and lower earnings than their economic counterparts upon arrival to the host country (Cortes, 2004). Second, if migration is not driven by growth in labor demand, there are fewer offsets for any wage and fiscal impacts migrants may impose on native workers and taxpayers. In this regard, Bauer et al. (2000) argue that natives may view immigration more favorably when immigrants respond to ‘labor market needs’.

## **Theoretical Framework**

Crime may drive migration if, *ceteris paribus*, individuals view safety as a normal good and the expected losses from exposure to criminal activity as a “bad”. Under such circumstances, they will prefer to reside in low-crime over high-crime areas and may choose to migrate accordingly. At relatively low levels of criminal activity, migration may not take place because moving costs exceed the expected losses from exposure to crime. However, beyond a given threshold, further increases in criminal activity may elicit a migration response.

As noted above, exposure to criminal activity imposes a cost on individuals. Specifically, crime victims—through psychic costs or lost property—may have lower productivity, earn lower incomes and enjoy a lower level of consumption, all of which result in a lower quality of life. Of course, one does not have to be a crime victim to be made worse off by crime. High levels of criminal activity impose a cost on bystanders as they have to divert funds away from consumption or productive uses towards increased security in the form of enhanced policing, alarm systems or security cameras. In this regard, criminal activity creates inefficiencies by diverting funds from their most productive use.

In any event, whether it is through direct victimization or spending on public and private safety, crime ultimately lowers individuals’ utility. Consequently, individuals may choose to migrate if the difference between their expected utilities from residing in a safe relative to an unsafe area exceeds migration costs.<sup>1</sup> Of course, each individual’s willingness to move will depend on a variety of demographic, family, regional and time-related factors that we will account for when modeling the migration response to exposure to criminal activity. In particular, we will pay close to attention to gender differences as women, in particular single women, are

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<sup>1</sup> Morrison and May (1994) rely on a similar utility maximization framework to study the impact of violence.

both more likely to be victimized and less able to defend themselves and, therefore, more vulnerable to criminal activity.

### **Data, Methods and Preliminary Findings**

We use the two waves of the Mexican Family Life Survey (MxFLS) to study whether crime victimization among Mexicans affects their propensity to migrate within Mexico or to the U.S. The MxFLS is a large-scale, multi-purpose, nationally-representative longitudinal survey of Mexican households.<sup>2</sup> The baseline survey, conducted in 2002, interviewed all adult members of over 8,400 households in 150 communities and included demographic, income and employment, migration and crime victimization questions. Households were interviewed again in 2005. Exploiting the longitudinal structure and national representativeness of the Mexican Family Life Survey, we have measures of migration both pre and post crime and are able to address concerns that taint estimates from cross-sectional studies—we can control for (time-invariant) unobserved characteristics that are potentially correlated with both crime and migratory behavior.

Several additional attributes of these data make them ideal for addressing the link between crime and migration. Among all adult respondents, approximately 16 percent report having been the victims of crime in the past. For each one of these incidents, the MxFLS records the timing and type of crime. With regard to migration, about 4 percent of adult respondents have moved for more than one year to another location after age 12 (i.e. permanent movers), and an additional 19 percent moved for less than twelve months during the past two years (i.e.

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<sup>2</sup> For a more detailed description, see Rubalcava and Teruel (2006).

temporary movers). Importantly, MxFLS includes domestic and international moves and, when migrating to the U.S., it collects information on both legal and undocumented migrants –a critical feature because 80 percent of Mexican migrants to the U.S. are believed to enter without proper documentation (Passel, 2006).

We focus on households in which at least one member has been the victim of a crime and compare the migration tendencies of their members to the ones exhibited by individuals belonging to households without any crime victims. In particular, we will estimate limited dependent variable models of the likelihood of migrating that, in addition to information on household victimizations, control for a host of observable personal, family, regional and time related characteristics –including migrant networks and community fixed effects. We will also use a difference-in-difference technique and instrumental variables to help address the issue of the endogenous nature of crime and migration, where more crime may come about as a result of migration.

We expect criminal behavior and, in particular, household victimizations to elicit migration, particularly temporary migration among females. In our preliminary descriptive analysis, we find that a higher fraction of respondents declare having moved permanently (8 percent versus 6 percent) and, even more so, temporarily (42 percent versus 38 percent) if anybody in their households had been previously victimized. Furthermore, more than 60 percent of all these temporary and permanent moves occur within 4 years of the first victimization of a household member. These descriptive statistics do not, however, take into account a variety of personal, family, regional and time-related factors potentially driving the individual's decision to

migrate. Again, our regression analysis will account for these factors as well as for the endogeneity of household level victimizations.

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