

# Illegal Immigration and Enforcement Along the U.S.–Mexico Border: An Overview

Pia M. Orrenius

**T**his article evaluates the determinants of illegal Mexico–U.S. migration and gives an overview of the enforcement and policy responses to date.

*Pia M. Orrenius is an economist in the Research Department of the Federal Reserve Bank of Dallas.*

The U.S.–Mexico border is experiencing an era of unparalleled trade and exchange. But at a time when legal flows of goods and people are at historical highs, so are illegal cross-border flows of undocumented migrants. Illegal immigration from Mexico became more common in the late 1960s, following the end of the Bracero Program in 1964. The Bracero Program allowed Mexican guest workers to work legally in the United States. Over the past three decades, illegal immigration along the Southwest border has increased, and enforcement efforts have intensified as a result. Border apprehensions have grown from 200,000 in 1970 to more than 1.5 million in 1999.

The cumulative impact of this immigrant flow is a sizable illegal immigrant population. The undocumented immigrant population from Mexico was estimated at 3.1 million in 1997.<sup>1</sup> Mexicans make up about 60 percent of the total undocumented population of the United States, and Central Americans from El Salvador, Guatemala, Honduras, and Nicaragua make up another 13 percent (U.S. INS 1999). Whereas some undocumented immigrants arrive legally and simply overstay their tourist visas, the majority of illegal Mexican and Central American immigrants residing in the United States cross the border without documents. It is estimated that the net inflow of illegal immigrants from Mexico, excluding short-term cyclical migrants, averaged about 202,000 immigrants per year between 1987 and 1996.<sup>2</sup>

This article evaluates the determinants of illegal Mexico–U.S. migration and gives an overview of enforcement and policy responses. Many observers, noting the large number of illegal immigrants, have concluded that border enforcement provides little deterrent. Some research supports this view. Singer and Massey (1998) show declining apprehension rates along the border in the 1980s and early 1990s. Other research shows that apprehended migrants simply attempt additional border crossings until they succeed—also suggesting increased enforcement has little impact (Kossoudji 1992).

On the other hand, there is evidence increased border enforcement is correlated with falling wages for young males in Mexican border cities (Hanson, Robertson, and Spilimbergo 1999). This could imply that tougher border enforcement has the effect of trapping would-be immigrants on the Mexican side of the border. Publicized reports about the increase in migrant deaths also imply that tougher border enforcement sends migrants on circuitous routes into the United States (Nevins 2000, Rosenblum

Figure 1  
**Mexico–U.S. Migration Rate, 1965–95**



SOURCE: Mexican Migration Project.

2000). In this article, I explore the timing and pattern of substitution among border-crossing sites. I also look at developments in the smuggling (coyote) industry, such as changes in smuggler use rates and smugglers' fees, to assess the effectiveness of border enforcement over the past thirty-five years.

Migration is the outcome of both push factors within Mexico and pull factors in the United States. Migrant family networks and smugglers have facilitated illegal immigration, while wage and employment differentials have encouraged it. Although early border enforcement had little impact, more recent efforts are having an effect. Early enforcement attempts fueled an increase in the demand for smugglers, with no corresponding rise in coyote prices. Only the most recent enforcement initiatives, most significantly Operations Hold-the-Line and Gatekeeper, have been successful in reversing the thirty-year decline in smugglers' fees and moving migrants to remote crossing points. Risks have risen along with smugglers' fees, as reflected in an increasing number of crossing-related deaths since 1995. In light of these developments, I conclude that now is a good time for Mexican and U.S. policymakers to consider a bilateral labor and migration agreement.

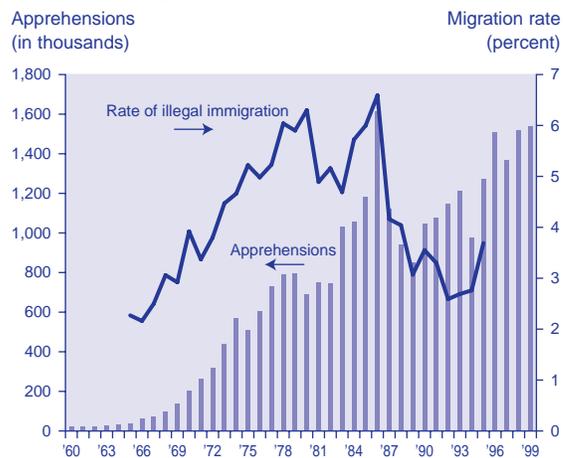
#### ILLEGAL IMMIGRATION: DATA SOURCES AND TRENDS

To get an idea of the changes in illegal immigration on the Southwest border, I rely on two data sources. The first is the Mexican Migration Project (MMP 1999), collected in western Mexico between 1987 and 1997. Western Mexico—particularly the states of Michoacán,

Jalisco, and Guanajuato—is a traditional source of U.S.-bound migrants. The MMP survey asks randomly sampled heads of households for family, job, and migration histories.<sup>3</sup> The migration rate is depicted in Figure 1 and includes both legal and illegal trips. As shown, migration rates more than doubled between 1965 and 1995, rising from 3.7 percent to 7.5 percent by the end of the sample period. Sustained increases in migration are associated with the 1970s and the mid-1980s, with an all-time peak of almost 10 percent reached in 1988.

The other data source on illegal immigration is Immigration and Naturalization Service (INS) data on the number of illegal aliens apprehended by the Border Patrol each year. Although apprehensions also reflect the intensity of enforcement, discussed in detail below, the time series shown in Figure 2 is largely consistent with the migration patterns observed in the household survey data in Figure 1. Apprehensions rose from about 21,000 in 1960 to more than 1.5 million in 1999, with steep increases in the 1970s, in the mid-1980s leading up to the Immigration Reform and Control Act (IRCA), and again in 1994–96. For comparability, I also plot the rate of illegal immigration in the MMP sample for the years available. Illegal immigration in the MMP sample is highly correlated with apprehensions up until the early 1990s. As households drop out of the MMP data (households are sampled only once) or are legalized through amnesty under IRCA, the sample becomes less representative. This problem becomes more severe after 1991.

Figure 2  
**Border Patrol Apprehensions and  
 Illegal Immigration, 1960–99**



SOURCES: Immigration and Naturalization Service; Mexican Migration Project.

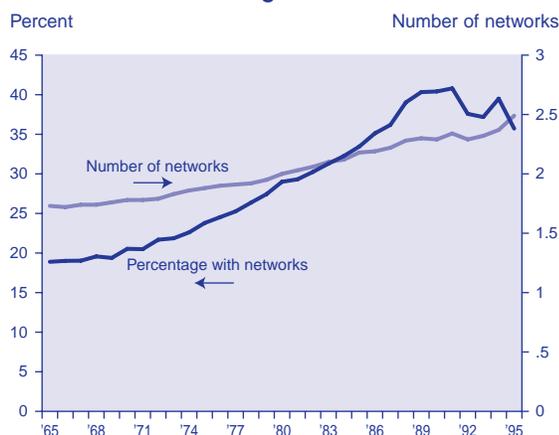
## ORIGINS AND DETERMINANTS OF MEXICO–U.S. MIGRATION

### The Bracero Program

Large-scale immigration from Mexico has its roots in the Bracero Program, a guest-worker program started in 1942 (Massey et al. 1987). It arranged for the temporary legal immigration of workers from Mexico to the United States, in part to cover U.S. labor shortages resulting from World War II. Following the war, however, U.S. farmers and fruit and vegetable growers successfully lobbied the government to extend the program through the 1950s. It was not until 1964 that organized labor's call for an end to foreign contract labor was heeded and the Bracero Program was abandoned (Calavita 1992).

From 1942 to 1964, the Bracero Program brought in an average of more than 200,000 workers annually (Calavita 1992). The majority of braceros were concentrated in Texas, California, Arkansas, Arizona, and New Mexico. When the bracero agreement was terminated in 1964, it was under a cloud of controversy, and consequently no worker exchange was put in its place. The program's abrupt end eventually resulted in a new era of largely illegal immigration from Mexico. The new era had a slow start, in part because of strong economic growth in Mexico in the 1960s. Also, in 1965, Mexico instituted a border industrialization program that has become known as the maquiladora program, specifically intended to create jobs for laid-off migrants.<sup>4</sup> Nevertheless, by the early 1970s, the movement of Mexican migrants to the United States was accelerating again.

Figure 3  
Access to Sibling Networks  
and Number of Sibling Networks, 1965–95



SOURCE: Mexican Migration Project.

### Determinants of Illegal Immigration

The resumption of illegal immigration following the end of the Bracero Program illustrates the power of economic and social factors. The links formed between employers, recruiters, and migrant workers during the Bracero period lowered the costs and risks of migrating to the United States for work (Massey et al. 1987). Key factors such as networks and the availability of people smugglers known as “coyotes” allow migration to rise. The underlying determinants of Mexico–U.S. migration, however, are the higher wages and job availability in the United States. The policy backdrop is also important. Laws that exist but are not enforced, such as IRCA employer sanctions, signal tolerance for illegal immigration.

### Networks

Although economic factors such as wage differentials are considered paramount, they cannot be acted upon if migration costs are prohibitive. A first-time illegal migrant must overcome significant fixed costs to obtain information about the destination and how to make a successful trip.<sup>5</sup> Immigration researchers have found networks—family members and friends with migration experience—as the most common way in which this crucial information is transmitted to the potential migrant.

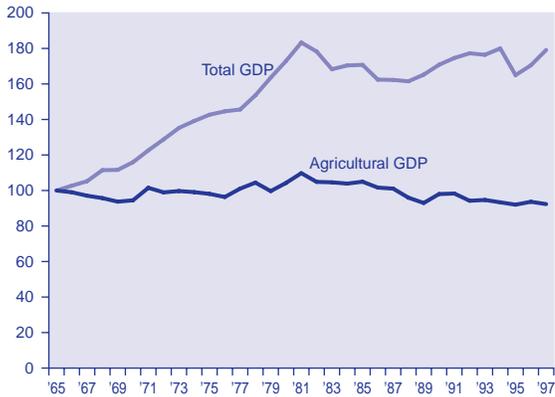
The Bracero Program laid the foundation for mass illegal immigration partly through the creation of networks and the dissemination of information pertinent to Mexico–U.S. migration and employment in U.S. labor markets. Since then, networks have continued to expand, as Figure 3 shows for sibling networks (defined as having a sibling with U.S. migration experience). Nineteen percent of MMP households had access to at least one sibling network in 1965, whereas 41 percent had access in 1991. These same households averaged 1.7 sibling networks in 1965 and 2.3 in 1991. Moreover, an increasing proportion of sibling networks settled permanently in the United States over this period. In other words, both the quantity and quality of migrant networks are changing.

### Smugglers

Along with migrant networks, the availability of people smugglers, or coyotes as they are commonly called, makes the cross-border trip possible for many undocumented immigrants. Coyotes can be hired in a migrant's hometown or along the border and typically accompany the migrant to his ultimate destination.<sup>6</sup> The smuggler's fee, or “coyote price,” rep-

**Figure 4**  
**Total and Agricultural Mexican GDP, 1965–97**

Index, 1965 = 100 (GDP per capita)



SOURCES: Instituto Nacional de Estadística, Geografía e Informática; Banco de México.

resents a major cost of illegal immigration. Interestingly, despite increased enforcement, coyote prices were on a steep downward trend during most of the sample period. By 1994, coyote prices averaged about \$300—one-third of 1965 prices. (Coyote prices are discussed in more detail below.)

The most important reasons for the falling coyote prices were the development of infrastructure and free entry into the coyote industry. Construction of infrastructure such as roads and airports and the growth of twin cities along the border, such as Tijuana/San Diego and Ciudad Juárez/El Paso, made the border more accessible to travelers from Mexico's interior. Before 1930, for example, only two railways connected central Mexico with the U.S. border, and no major roads connected the Mexican interior with any U.S. border city (Scott 1982). Most roads linking the interior to the border were built between 1940 and 1960. Similarly, the expansion of commercial air transport during these years was dramatic. As a result, travel times were significantly shortened, allowing coyotes to charge less for their services.

Another factor in falling coyote prices has been free entry into the industry. In theory, any migrant who has undertaken an illegal border crossing can use the experience to work as a coyote. This implies that as illegal immigration became more commonplace, more and more migrants entered the smuggling trade.<sup>7</sup> More competition among suppliers pushed prices lower.

### Wages

With networks and coyotes in place, the costs of illegal immigration have decreased suf-

ficiently to allow potential migrants to respond to changing factors such as relatively low Mexican wages and economic downturns. Massey and Espinosa (1997) and Orrenius (1999) provide a comprehensive look at determinants of Mexico–U.S. migration. Economic downturns cause unemployment in cities, depress agricultural prices in the countryside, and make loans difficult to repay. Figure 4 plots Mexican GDP per capita (total GDP and agricultural GDP) since 1965. The apparent surge in Mexican emigration in the mid-1980s is consistent with declines in real income at that time. Mexican manufacturing wages tell a similar story and, in 1999, were still below the peak levels reached in 1981. Agricultural sector output, although less volatile than national output, fell throughout the latter half of the sample period.

### Insurance and Capital Markets

Figure 4 suggests that low incomes and intermittent downturns or economic crises act as push factors and generate out-migration. However, one strand of literature argues that simply the risk of recession can also generate emigration in good times. This theory emphasizes the need to insure the household's income against negative local shocks by coordinating the migration and remittances of particular household members in good and bad times (Stark and Bloom 1985). Underdeveloped capital markets also make borrowing difficult or impossible for many Mexicans. In surveys, migrants often cite the need for capital to start a business, build a house, repay a loan or fund a medical procedure as a major reason for migrating to the United States.

### Immigration Policy

Policies in both home and host countries also affect the dynamics of migration. In Mexico, the government's failure to generate consistent economic growth and stable financial institutions leads to higher emigration. In the United States (and many other countries), simply restricting immigration to below the global demand for visas creates an incentive for foreigners to illegally immigrate. Other U.S. policies, such as the generosity of public assistance programs and the availability of health care, also have an impact. The two most significant U.S. policies enacted in recent years, however, are the Immigration Reform and Control Act (IRCA) and the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA).

IRCA was passed in 1986 in response to increasing illegal immigration in the mid-1980s. Economic conditions worsened in Mexico in the

**Figure 5**  
**Illegal Crossings, 1965–96**



SOURCE: Mexican Migration Project.

early 1980s, and by 1983 both the migration rate and apprehensions began to rise. IRCA sought to deter illegal immigration by allocating more funds to the INS and border enforcement, imposing sanctions on employers who knowingly hired undocumented workers, and creating an agricultural guest worker program (H-2A). IRCA also offered amnesty to agricultural workers and long-term U.S. residents. The IRCA amnesty ultimately legalized nearly three million illegal immigrants—about two-thirds of them from Mexico.

In the short term, IRCA's passage is correlated with an increase in total immigration but a lowering of both the illegal immigration rate in the MMP data and the number of border apprehensions (*Figure 2*) (Bean, Edmonston, and Passel 1990; Orrenius 2000). IRCA may have failed to stem illegal immigration in the medium to long term in part because employer sanctions are rarely enforced and the guest worker program is too small and narrow to fill employers' and migrant workers' needs. The short-run effects may have been the result of legalizing the usual stream of illegal immigrants, many of whom cycle regularly between the United States and Mexico. *Figure 5* shows the dramatic impact the IRCA amnesty had on migrants in the MMP sample, reducing the percentage of illegal crossings from 77 percent in 1986 to 29 percent in 1989.

Passed ten years after IRCA's implementation, IIRIRA followed up on some IRCA provisions by further increasing penalties on smugglers as well as illegal entrants. IIRIRA also mandated a doubling of the Border Patrol by 2001, increased penalties on document fraud, streamlined deportation proceedings, limited judicial review of deportation orders, and made

false attestation of citizenship punishable by up to five years in prison. Meanwhile, welfare reform legislation passed in 1996 denied illegal immigrants and many legal immigrants access to most public benefits. IIRIRA has probably not had a strong effect on the volume of illegal immigration, but it has made adjustment to legal status more difficult for illegal aliens residing here. The welfare reform and denial of benefits such as food stamps have mostly affected legal immigrants.

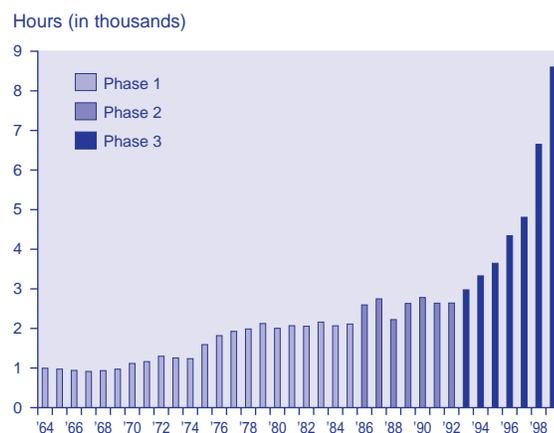
### EVALUATING RECENT TRENDS IN BORDER ENFORCEMENT

U.S. authorities responded to rising illegal immigration by increasing enforcement. As shown in *Figure 6*, enforcement hours (measured by the number of hours Border Patrol agents spend on linewatch duty) grew in three phases over this period (Dunn 1996). In this section, each enforcement phase is reviewed with regard to its likely effect on the probability of apprehension. Coyote use rates, coyote prices, and migrant crossing patterns are proxies for enforcement efficacy.

#### Three Phases of Enforcement

In early enforcement efforts, up until 1986, linewatch hours lagged the influx of migrants. Hours rose in the late 1970s when, in the face of rising illegal immigration, the Carter administration approved increased INS funding (Rosenblum 2000). Much of the additional money went to hardware and equipment. In the next phase, during the Reagan administration, border and immigration issues took on heightened urgency, and the passage of IRCA in 1986 marked a turn-

**Figure 6**  
**Border Patrol Linewatch Hours, 1964–99**



SOURCE: Immigration and Naturalization Service.

ing point for border enforcement and for immigration policy more generally. A large portion of the 33 percent increase in INS funding was earmarked for the Border Patrol, and the effect on linewatch hours is apparent in Figure 6. Congress also strengthened penalties against migrant smugglers.

As illegal immigration began to grow again in the early 1990s, yet another enforcement initiative was undertaken. The third phase of enforcement, which started in 1993 and used site-specific crackdowns, marked by far the biggest increase in linewatch hours. The objective was to make illegal immigration costly by diverting illegal traffic out of border cities and away from roads and buildings (U.S. GAO 1999b). Agents took up fixed positions along commonly used paths within urban areas. Along with fencing and surveillance equipment, this forced illegal migrants away from densely populated areas. Once in remote areas, the illegal aliens could be more easily spotted and detained by the Border Patrol.<sup>8</sup>

The strategy was first implemented in El Paso (Operation Hold-the-Line), then in 1994 in San Diego (Operation Gatekeeper) and Nogales, Arizona (Operation Safeguard), and last in 1997 in South Texas (Operation Rio Grande). As a result, between 1993 and 1997, the budget for enforcement along the Southwest boundary more than doubled. The number of Border Patrol agents rose from 4,200 in 1994 to 7,700 in 1999 (U.S. GAO 1999a).

### The Evidence on Smuggler Use Rates and Smuggling Fees

To deter illegal immigration, heightened border vigilance must raise the costs migrants face. This is usually done by increasing the probability of apprehension (but can also be accomplished by raising other risks to the migrant such as the probability of injury or death). Has the probability of being apprehended, and hence the cost and risk to the migrant, increased during the enforcement periods under study?

Apprehension probability cannot be directly measured because the number of illegal immigrants attempting crossings is unknown.<sup>9</sup> Apprehensions could be rising because of increased numbers of immigrants and not because of increased probability of capture. An alternative measure of changes in the probability of apprehension is changes in related variables not directly affected by the volume of illegal immigration, for example, illegal immigrants' propensity to hire coyotes. Migrants should be more

Figure 7  
Smuggler Use Rates and Fees, 1965–97



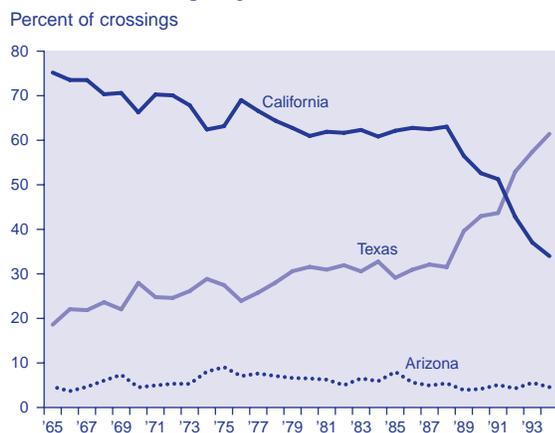
SOURCE: Mexican Migration Project.

likely to use a coyote when they perceive a higher chance of apprehension from attempting a crossing on their own. Another related variable is the price coyotes charge. Coyote prices should rise with apprehension probabilities, all other things the same, since the risk to the smuggler increases with the likelihood of getting caught.

The bars in Figure 7 plot the percentage of illegal immigrants in the survey data that hired coyotes in each year. Coyote use increased steeply in 1970 and trended upward for the rest of the decade. By 1979, more than 70 percent of illegal immigrants in the sample were hiring coyotes. After leveling off in the early 1980s, coyote use rates trended slightly upward in the early years of IRCA (1986–1990). This pattern provides some evidence that, despite the increase in overall illegal immigration, costs to migrants rose during the first two enforcement phases. Figure 7 also illustrates, however, that increases in the supply of smugglers outpaced increases in the demand for smugglers, since prices fell despite higher use rates. In real terms (1994 dollars), the median reported coyote price fell from more than \$900 in 1965 to about \$300 in 1994. By 1996–1997, however, the coyote price trended upward again. Higher post-1994 prices are consistent with an impact of heightened enforcement on smuggling fees.

Coyote use rates peak in the survey data in 1996. Because the MMP sample becomes thinner at the end of the sample period, the last data point is slightly less reliable. In any case, anecdotal evidence supports the premise that by 1995, the border had become much harder to cross. In fact, the most recent border initiative, the series of site-specific crackdowns start-

**Figure 8**  
**Border Crossings by State, 1965–94**



SOURCE: Mexican Migration Project.

ing with Operations Hold-the-Line and Gatekeeper, has probably been the most successful enforcement effort to date. For the first time, anecdotes of border crossers being apprehended with such frequency that they turn back, giving up their hopes of reaching the United States, are common. Enforcement hours and apprehension statistics are at all-time highs and coyote prices are increasing for the first time in more than thirty years.

**The New Enforcement Strategy and the Change in Crossing Sites**

Another telling sign that recent crack-downs are a deterrent is the disruption of long-standing border-crossing patterns. Immigrants today shun formerly popular crossing points in California in favor of Texas and Arizona. Within states, the change is also noticeable. In California, migrants choose to cross the harsh deserts of El Centro rather than risk a crossing south of San Diego. In Texas, migrants are less likely to attempt an El Paso crossing, preferring to cross farther south in Texas through Laredo, McAllen, Brownsville, and most recently, Del Rio.

**Interstate Reallocation of Migrants**

As home to most of the U.S. border with Mexico, Texas historically has been the primary site of economic and cultural exchanges between the two countries. In 1900, the population of California was only half that of Texas, and the California–Mexico border was largely unpopulated (Lorey 1999). After the Depression, however, California overtook Texas in both economic and population growth. An enormous westward migration ensued, within both the United States and Mexico, with the majority of

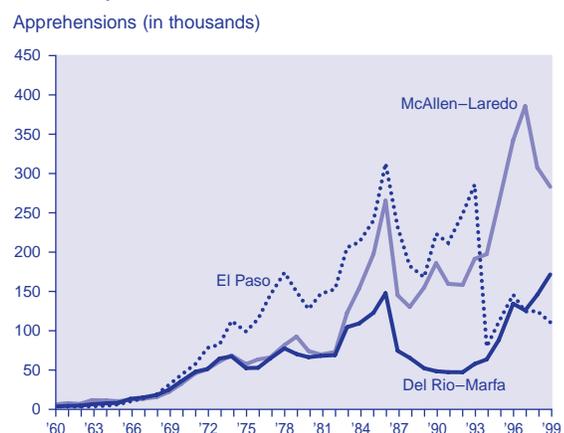
movers headed toward California. In Mexico, cities along the way, such as Mexicali and Tijuana, began to grow.

From the survey data in Figure 8, we can see that from one-half to three-fourths of all border crossings between 1965 and 1990 were into California. Following IRCA, there was a decline in the fraction of crossings into California and a corresponding increase in the propensity to cross into Texas. These trends intensified following the implementation of Operation Gatekeeper. Gatekeeper also led to increased crossings into Arizona, although this fact is not obvious from patterns in the MMP data (it is clear from the INS apprehensions data). The empirical trends are consistent with the interpretation that, with the enactment of IRCA and Gatekeeper, border enforcement in California became more effective than Texas enforcement. Border crossers responded by shifting to Texas and Arizona.

**Intrastate Reallocation of Migrants**

Within Texas the changes are equally striking. Looking at the data in Figure 9, the increase in Texas crossings beginning in 1990 is almost entirely concentrated in the El Paso sector. The resumption of crossings in El Paso following IRCA was an important factor in the decision to implement Operation Hold-the-Line. The data reveal the impact of the 1993 crack-down with a 75 percent decrease in apprehensions within one year. The subsequent rise in apprehensions in the other Texas sectors, however, suggests migrants responded by crossing farther south. The change in preferred border-crossing sites is particularly noticeable following

**Figure 9**  
**Border Patrol Apprehensions by Texas Sectors, 1960–99**



SOURCE: Immigration and Naturalization Service.

the December 1994 peso crash. Apprehensions in the McAllen–Laredo sector rose to unprecedented levels after 1995.

### **Border-Crossing Deaths**

A specific intention of the new border enforcement strategy has been to eliminate illegal alien traffic from city centers. The consequence has been to divert migrants into more sparsely populated areas. Illegal immigrants today cross through inhospitable terrain and expose themselves to dangerous climactic extremes far more than they did ten or twenty years ago. Critics of the border offensives claim that injuries and deaths along the border are at an all-time high as a result. Rosenblum (2000) cites the number of crossing-related deaths at 324 in 1999, up from single digits before 1995. Deaths are believed to have numbered 388 in 2000. The Mexican estimate is 430.

### **POLICY IMPLICATIONS OF ILLEGAL IMMIGRATION**

Policymakers face difficult choices on the issue of immigration. Just as the individual migrant faces costs and benefits from migrating, host (home) countries experience costs and benefits from immigration (emigration). Host countries often fight illegal immigration to minimize the fiscal burden of immigrants, to limit workplace competition for natives, and to heed native concerns about issues ranging from immigrant assimilation to cultural and linguistic erosion. At the same time, policymakers have come to understand migrant workers' role in a growing economy. In the U.S. case, authorities seem unwilling to incur the economic consequences of ending illegal immigration. Consequently, IRCA-imposed sanctions against employers who hire undocumented workers are rarely enforced. Moreover, the INS has largely abandoned its former tactic of work-site raids, and its de facto policy since 1997 has been "once you are in, you are in."<sup>10</sup>

The outcome of the two opposing forces has been a steady stream of illegal aliens. Foreign policy toward Mexico seems to imply, however, that large and sudden changes in that stream are undesirable. The loan bailout of 1995 was partly defended on the grounds that it would slow the Mexican out-migration resulting from the peso's 1994 crash. IRCA was similarly intended to defend against the fallout of Mexico's debt crisis in the 1980s. NAFTA proponents also argued that improved economic conditions, attained through trade, would generate less emigration from Mexico.

On the Mexican side, policymakers face a different dilemma, although there are pros and cons to Mexico–U.S. migration for Mexico as well. The out-migration of Mexican citizens brings in \$4 billion to \$7 billion in remittances each year, with funds flowing to some of the country's most poverty-stricken areas. Emigrants are the third-largest source of foreign reserves after trade and tourism. Emigration has reduced the pressure on politicians in handling economic crises at the local and national levels. However, Mexico has lost millions of working-age men and women to the United States. At the local level, the impact of mass emigration has been severe in places. Villages and towns have been depopulated. In years of economic growth, labor markets have had to adjust, partly through the rising labor force participation of women.

For Mexican policymakers, the best-case emigration scenario might be a population of emigrants who leave in bad times, remit lots of cash, and come home in good times to work, invest, and run businesses. The policy implication is for Mexico to foster closer ties with the emigrant community and encourage the United States to allow more border-crossing mobility. This view is seemingly shared by Mexican President Vicente Fox, who proposes a renewal of bilateral migration agreements with the United States and suggests a border that would allow for the freer movement of both people and goods. One perverse outcome of the border crackdown and other U.S. immigration laws has been to discourage illegal immigrants who used to cycle in and out from returning home (Orrenius 2000). From both countries' perspectives, a program incorporating temporary, work-based migration of Mexicans to the United States may prove the most beneficial arrangement (Orrenius and Viard 2000).<sup>11</sup> This would limit the fiscal impact on U.S. taxpayers and allow Mexican migrant workers to keep their Mexican residences and cycle freely between the two countries.

### **CONCLUSION**

Since World War II, boundaries between Mexico and the United States have diminished. A hundred years ago, wage differences were as large as they are today, yet there was virtually no migration between the two countries. Exchange of people and goods was limited by distance, the lack of roads and airplanes, a paucity of information, and linguistic and cultural differences. Today, after fifty years of large-

scale migration and settlement, the scenario is vastly different, and Mexico–U.S. trade and migration have grown significantly. The response to trade has been positive, but the response to illegal immigration has been a corresponding increase in the intensity of border enforcement.

Early enforcement efforts in the 1970s and 1980s were largely ineffectual. They succeeded in raising coyote use rates among migrants, which created a flourishing smuggling industry offering a steadily decreasing fee schedule. The more recent enforcement initiatives have been successful, however, resulting in higher coyote prices and possibly higher rates of discouraged migrants who give up trying to cross the border. Additional evidence is the change in migrant crossing patterns. When one site has been chosen for a crackdown, the effect has been almost immediate, as migrants have responded by crossing elsewhere. Migrants currently shun formerly popular crossing points such as San Diego and El Paso in favor of more remote routes. The inter- and intrastate reallocation of migrants is apparent in both INS apprehensions data and Mexican survey data. Unfortunately, as border-crossing options have been reduced, migrants are risking more to make it to the United States. The result has been a record number of crossing-related deaths.

The controversy over border enforcement's impact on illegal immigration has led naturally to more debate on the larger question, namely the costs and benefits of illegal immigration. There are policy instruments that would allow both countries to garner the benefits of Mexico–U.S. migration while mitigating the costs. One of these is the development of bilateral migrant worker agreements that would provide for the legal and temporary entry of Mexican workers into the U.S. labor market.

## NOTES

The author would like to thank Gordon Hanson for providing the enforcement data, Jason Saving for his comments on an earlier draft, Jennifer Afflerbach for careful editing, and Border Patrol Supervisory Agent LeRoy Schleinkofer for sharing his experiences and insight.

- <sup>1</sup> This number does not include the estimated 2.8 million illegal immigrants who were given legal residency under the 1986 amnesty provision of the Immigration Reform and Control Act. See the report entitled "Annual Estimates of the Unauthorized Immigrant Population Residing in the United States

and Components of Change: 1987–1997,"

<http://www.house.gov/lamarsmith>.

- <sup>2</sup> The number of entries into the Mexican-born unauthorized-resident population is estimated at 330,000 per year. (See the report referenced in footnote 1). The difference is due to emigration, status adjustment, deportation, and death.
- <sup>3</sup> The migration history includes number, timing, and destination of trips; legal status on trip; mode of crossing (alone, with family, or with smuggler); and amount of smuggler's fee. The sample is selected on male household heads aged 15–65.
- <sup>4</sup> Initially, maquiladoras largely employed female workers. As a result, the border industrialization program did little to help employ displaced braceros (Gruben 1990).
- <sup>5</sup> In an expected utility framework, the risk-averse migrant suffers disutility from the uncertainty surrounding a trip to an unknown destination and involving an illegal border crossing. The perceived risks are therefore a migration deterrent.
- <sup>6</sup> Spener (forthcoming) describes the smuggler's role and methods in more detail.
- <sup>7</sup> The increased drug trade in the 1980s may have lured more people into the smuggling trade.
- <sup>8</sup> According to agents, this strategy has worked less well where vegetation hides the migrant—as in Laredo and the lower Rio Grande Valley.
- <sup>9</sup> Despite these difficulties, Singer and Massey (1998) developed estimates of the probability of apprehension. They find that the average (1965–92) probability of apprehension is 0.33 and that apprehension probabilities peaked in the late 1970s but have declined since.
- <sup>10</sup> Internal enforcement since 1997 has focused on the apprehension and deportation of criminal immigrants.
- <sup>11</sup> The guest worker program proposed by Sen. Phil Gramm incorporates some of these ideas, including issuing temporary visas to Mexican nationals working illegally in the United States.

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