About the Author

Christina Gathmann is a Post-Doctoral Fellow at the Department of Economics at Stanford University, a Visiting Scholar of the Stanford Center for International Development (SCID) at Stanford University and a research fellow of the Institute for the Study of Labor (IZA). She earned her PhD from the University of Chicago in 2004. Her research interests are in labor economics, applied econometrics, public economics and industrial organization. Christina’s current work focuses on the effects of government policies in transition economies and the functioning of illegal markets.

Does Deterrence Work? U.S. Border Enforcement, Migrant Smuggling, and Illegal Migration

Christina Gathmann

An estimated 300,000 permanent and another 1.3 million temporary immigrants enter the United States illegally each year. The U.S. government has responded largely by increasing resources for border enforcement in order to deter potential illegal immigrants and apprehend those trying. The evidence on the success of this enforcement strategy is mixed at best and makes it worthwhile to consider other policy options. One attractive alternative is to introduce legal permits for temporary immigration. This would raise government revenues, provide better working conditions for temporary immigrants, and eliminate the migrant smuggling market that the current policy has made such a profitable business in the past.

Efforts to stem illegal migration along the Southwestern border with Mexico have increased dramatically over the past decades. Figure 1 shows that the budget of the border patrol increased sixfold after the Immigration and Control Act of 1986. This made the Border Patrol Unit the fastest growing federal agency during the 1990s. Likewise, the hours border patrol agents spent patrolling tripled. In 1975, there was one patrol officer for every 1,000 feet. Has the strategy succeeded? Figure 1 suggests that apprehensions have not increased following the border build-up. But although apprehension data are widely used in the public debate, they are a very unreliable measure.1 The actual effectiveness of the policy depends crucially on how the incentives of potential illegal immigrants respond to border enforcement.

The Illegal Border Crossing Market

The almost 2,000-miles long Mexican border with the United States is the main point of entry for illegal immigrants. Of the 1.2 million apprehensions reported each year, 97 percent occur at the Southwestern border. Illegal immigration, especially from Mexico and other Central American countries, has a long tradition driven by geographic

\[1\] Apprehensions fail to account for migrants never caught at the border, but count multiple attempts of the same person. The first underestimates, the second overestimates the number of illegal migrants entering the United States. Finally, if enforcement deters many illegal migrants, apprehensions could actually fall.
Punishment. In addition, immigrants could find jobs limited Almost Prior the 1983 coyotes Alternatively, 227. however, shifted immigrants from they the price change reflects the especially 1989 t a and a.

Most illegal immigrants rely on smugglers to help them enter the United States. As experts, smugglers have superior information about where and when to cross the border without detection by the border patrol. Immigrants call them “coyotes” because, like their animal counterparts, they leave no trace — or so illegal immigration. P

Alternatives to the Current Enforcement Policy: Temporary Legal Permits The empirical findings highlight how difficult illegal immigration flows are to disrupt. Why? First, because illegal immigrants can avoid the border patrol by crossing in remote areas where enforcement is low. Estimates suggest that a further doubling of the number of border patrol agents might be necessary to monitor all border sectors. Second, because net gains from employment in the United States are large. Illegal immigrants from Mexico report, for example, that they treble their wages if they work illegally in the United States. Although stricter enforcement no doubt raised the costs of illegal immigration, it has not eliminated incentives to migrate. One might question whether any feasible level of enforcement could do so given large earning differentials and mild punishments upon apprehension.

This raises another question: Is there a better way to regulate temporary, and potentially permanent, illegal immigration to the United States? First, the U.S. government could punish those apprehended more harshly. This would raise further the costs of illegal immigration. However, it would be a costly measure for the U.S. taxpayer: Imprisoning the 1.3 million apprehended immigrants for only 30 days each would cost $2.42 billion. It also seems like over-reaction given that illegal entry is viewed as a minor crime. A second option would be to impose fines upon apprehension. As before, this would increase immigration costs, but probably would not eliminate illegal immigration incentives. Another disadvantage is that it might further increase the payments to illegal coyotes. Furthermore, border patrol expenditures would have to remain at very high levels.

The third and most promising alternative would be to introduce temporary legal permits. The legal permit has several advantages over the current enforcement policy: It would considerably improve the conditions for immigrants entering the United States temporarily. It would eliminate the risk of dying while crossing the border. In addition, immigrants could find jobs with better working conditions than those currently occupied by illegal immigrants. A legal permit would also largely eliminate the illegal market for migrant smuggling, which border enforcement has made such a profitable business in the past.

Finally, the permit would unburden the government budget in three ways. It would raise revenues from selling the permit, from tax payments by temporary immigrants in legal jobs and reduce the cost of border enforcement. Compared to the current policy, legal permits would transfer wealth from coyotes to the U.S. taxpayer, and in addition benefit temporary immigrants.

Setting a price for the permit would have to account for both the net gains from working in the United States and the remaining option to enter illegally. For example, a lower bound would be the $530 price charged by coyotes. If the number of people entering the United States remains the same as under the current policy, this would create revenues of $700 million annually. The market-clearing price could, however, be substantially higher. Higher prices might, however, induce some potential immigrants with a low willingness to pay for the permit to enter illegally. It could therefore be necessary to supplement the legal permit with harsher punishment for illegal immigrants.

Almost two decades after the Immigration and Control Act, the empirical success of tighter enforcement is sufficiently mixed to make consideration of alternative policies worthwhile. Temporary legal permits seem the most promising of the feasible alternatives. One major advantage of permits is that they would not add to costs, but instead ease the burden on the U.S. taxpayer.

References

\[2\] All numbers are in 2001 prices.

\[3\] Alternatively, the United States could fix the number of temporary permits similar to the quota system for permanent immigrants. If the number of permits is much lower than the demand for the temporary permit, incentives for illegal migration could again arise and need to be addressed accordingly.
immigrants to walk through long stretches of desert, which increases time costs and expenditures on coyote services. These add up to additional immigration costs of $200 to $250 per person.

But the real cost increase is even higher, because this calculation ignores the additional health risks facing illegal immigrants today. The death toll along the Southwestern border has increased more than sixfold between 1994 and 2000 alone. Currently, more than 500 illegal immigrants die each year during their attempts to cross the border, mostly due to hypothermia, drowning, or heat stroke. The actual death toll could be substantially higher, as these numbers include only bodies found by Mexican police or the U.S. border patrol.

Alternatives to the Current Enforcement Policy: Temporary Legal Permits

The empirical findings highlight how difficult illegal immigration flows are to disrupt. Why? First, because illegal immigrants can avoid the border patrol by crossing in remote areas where enforcement is low. Estimates suggest that a further doubling of the number of border patrol agents might be necessary to monitor all border sectors. Second, because net gains from employment in the United States are large. Illegal immigrants from Mexico report, for example, that they treble their wages if they work illegally in the United States. Although stricter enforcement no doubt raised the costs of illegal immigration, it has not eliminated incentives to migrate. One might question whether any feasible level of enforcement could do so given large earnings differentials and mild punishments upon apprehension.

This raises another question: Is there a better way to regulate temporary, and potentially permanent, illegal immigration to the United States? First, the U.S. government could punish those apprehended more harshly. Higher prices might thus induce some potential immigrants with a low willingness to pay for the permit to enter illegally. It could therefore be necessary to supplement the legal permit with harsher punishment for illegal immigrants.

Almost two decades after the Immigration and Control Act, the empirical success of tighter enforcement is sufficiently mixed to make consideration of alternative policies worthwhile. Temporary legal permits seem the most promising of the feasible alternatives. One major advantage of permits is that they would not add to costs, but instead ease the burden on the U.S. taxpayer.

References


Effects of Stricter Enforcement: Empirical Results

Estimates show that the border build-up deterred only 10 percent of temporary illegal immigrants from making a trip to the United States. The deterrence effect for permanent illegal immigrants is even lower. This implies that instead of 1.3 million, about 1.17 million temporary illegal immigrants enter the United States illegally each year—a decline of merely 130,000.

Since 1986, enforcement also raised the prices coyotes charge by 17 to 30 percent, or $45 to $80. The effect is surprisingly small after including controls for the economy and individual and community characteristics. Under perfect competition, the price change reflects the additional risk of apprehension coyotes face. This calculation shows that the risk of apprehension rose by only 5 percent during the 1990s.

Stricter enforcement, however, shifted immigrants from popular crossing areas to more remote areas in Arizona and New Mexico. Prior to 1986, the majority of illegal immigrants crossed the border in the San Diego or El Paso sectors, especially in the urban areas of San Diego and El Paso. After 1986, the proportion of immigrants entering through other sectors increased from 39 to 58 percent. Crossing in remote areas often requires proximity, limited possibilities for legal entry, and large differences in economic wealth. Punishment of those caught at the border has traditionally been mild. Almost 99 percent of illegal immigrants apprehended are simply deported without further punishment. The remaining 1 percent face a hearing or prosecution in U.S. courts, but prison terms remain the exception.

Most illegal immigrants rely on smugglers to help them enter the United States. As experts, smugglers have superior information about where and when to cross the border without detection by the border patrol. Immigrants call them “coyotes” because, like their animal counterparts, they leave no trace—or so illegal immigrants hope. Prior to 1986, coyotes charged on average $530 for a crossing, which was equivalent to three weeks of paid work as an illegal immigrant. Overall, illegal immigrants pay at least $700 million to coyotes each year.

Tightener enforcement raises the probability of apprehension by the border patrol and thus the overall costs of illegal immigration. Potential illegal immigrants can respond to tighter enforcement in several ways: First, they can refrain from illegal immigration. Alternatively, they can rely more heavily on coyotes to ferry them across the border. Finally, they can change routes to avoid enforcement, which traditionally has been concentrated around major cities.
About the Author

Christina Gathmann is a Post-Doctoral Fellow at the Department of Economics at Stanford University, a Visiting Scholar of the Stanford Center for International Development (SCID) at Stanford University and a research fellow of the Institute for the Study of Labor (IZA). She earned her PhD from the University of Chicago in 2004. Her research interests are in labor economics, applied econometrics, public economics and industrial organization. Christina’s current work focuses on the effects of government policies in transition economies and the functioning of illegal markets.

Does Deterrence Work? U.S. Border Enforcement, Migrant Smuggling, and Illegal Migration

Christina Gathmann

An estimated 300,000 permanent and another 1.3 million temporary immigrants enter the United States illegally each year. The U.S. government has responded largely by increasing resources for border enforcement in order to deter potential illegal immigrants and apprehend those trying. The evidence on the success of this enforcement strategy is mixed at best and makes it worthwhile to consider other policy options. One attractive alternative is to introduce legal permits for temporary immigration. This would raise government revenues, provide better working conditions for temporary immigrants, and eliminate the migrant smuggling market that the current policy has made such a profitable business in the past.

Efforts to stem illegal migration along the Southwestern border with Mexico have increased dramatically over the past decades. Figure 1 shows that the budget of the border patrol increased sixfold after the Immigration and Control Act of 1986. This made the Border Patrol Unit the fastest growing federal agency during the 1990s. Likewise, the hours border patrol agents spent patrolling tripled. In 1975, there was one patrol officer for every 1,000 miles of border, but by 1998, the number had increased to one patrol officer for every 1,000 feet. Has the strategy succeeded? Figure 1 suggests that apprehensions have not increased following the border build-up. But although apprehension data are widely used in the public debate, they are a very unreliable measure. The actual effectiveness of the policy depends crucially on how the incentives of potential illegal immigrants respond to border enforcement.

The Illegal Border Crossing Market

The almost 2,000-miles long Mexican border with the United States is the main point of entry for illegal immigrants. Of the 1,2 million apprehensions reported each year, 97 percent occur at the Southwestern border. Illegal immigration, especially from Mexico and other Central American countries, has a long tradition driven by geographic

Footnote:
1 Apprehensions fail to account for migrants never caught at the border, but count multiple attempts of the same person. The first underestimates, the second overestimates the number of illegal migrants entering the United States. Finally, if enforcement deters many illegal migrants, apprehensions could actually fall.