

# Background

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## Building a Better Border: What the Experts Say

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In spite of vast policy differences in their approach to immigration reform (e.g., guest worker programs, amnesty, and criminal penalties for illegal immigration), legislation passed separately by the U.S. House of Representatives and U.S. Senate share a common strategy to increase border security. Both plans instruct the U.S. Customs and Border Protection agency (CBP) to hire thousands of Border Patrol agents over the coming years. To assist these new agents, both plans provide funding for border fences, advanced technologies to create a virtual fence, and other equipment.

A review of the social science literature on the effect of increased border enforcement on illegal immigration shows mixed results. Some studies find no effect, while others indicate a positive or negative relationship between increased border enforcement and illegal immigration.

However, the literature indicates that increased border enforcement appears to slow the flow of illegal immigrants leaving the United States. Thus, immigration law enforcement that is overly reliant on border enforcement may actually lead to an increase in the number of illegal aliens residing in the United States. One particularly comprehensive study estimates that:

- Hiring an additional border patrol agent stops roughly 771 to 1,621 individuals from coming illegally into the country.
- However, the hiring of this same agent encourages roughly 831 to 1,966 individuals to increase

### Talking Points

- Some studies on the effectiveness of increased border enforcement on illegal immigration find no effect, while others indicate a positive or negative relationship.
- However, the literature indicates that increased border enforcement appears to slow the flow of illegal immigrants leaving the United States. Thus, excessive reliance on border enforcement may lead to an increase in the number of illegal aliens residing in the United States.
- Because there is little or no cost to being apprehended by the Border Patrol, research suggests that illegal immigrants will make as many trips as necessary to cross the border successfully.
- Providing actual sanctions for illegally crossing the border and giving the Border Patrol a clear and consistent mission may be more important to securing the border than dramatically expanding the number of agents on the border.

This paper, in its entirety, can be found at:  
[www.heritage.org/research/immigration/bg1952.cfm](http://www.heritage.org/research/immigration/bg1952.cfm)

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the duration of their illegal stay in the United States.

- Thus, the effect of an additional agent is unclear, possibly resulting in a net reduction of 503 individuals or a net increase of 995 individuals residing in the United States illegally.

Other studies indicate that illegal immigrants are very intent upon crossing the border. In addition, virtually no sanctions (e.g., fines or detention) are imposed on apprehended illegal immigrants by the federal government. Because there is little or no cost to being apprehended by the Border Patrol, the research suggests that illegal immigrants will make as many trips as necessary to cross the border successfully.

Three factors significantly undermine the effectiveness of the Border Patrol:

- The disparity between incomes earned in the U.S. and in Mexico and other Latin American countries means that illegal aliens seeking a better life will always have a strong incentive to cross the border.
- The deterrent effect of drastically increasing the size of the Border Patrol will be undercut if those who are caught are not sanctioned for illegally entering the United States.
- The competing objectives of enforcing immigration law while simultaneously allowing illegal border crossings to meet labor demands also impair the agency's potential effectiveness.

While the Border Patrol's public mission is to guard the border, research indicates that the agency appears actually to relax enforcement when the demand for illegal immigrant workers is high. Providing actual sanctions for illegally crossing the border and giving the Border Patrol a clear and con-

sistent mission could be more important to securing the border than drastically expanding the number of agents on the border.

### Immigration Legislation in Congress

The House bill, the Border Protection, Antiterrorism, and Illegal Immigration Control Act of 2005 (H.R. 4437), plans to increase the number of Border Patrol agents by 2,000 annually in fiscal year (FY) 2006–FY 2010, totaling 10,000 new agents over five years. The Senate bill, the Comprehensive Immigration Reform Act of 2006 (S. 2611), would increase the number of Border Patrol agents by 3,000<sup>1</sup> in FY 2006 and by 2,400 in FY 2007–FY 2011, totaling 15,000 new agents over six years.

Both bills would send 20 percent of the net increase in agents to the northern U.S. border. They focus on enhancing the effectiveness of the Border Patrol with added technologies (e.g., unmanned aircraft) and enhanced border infrastructure. Similarly, both make efforts to create “virtual” fencing with the use of cameras, radar, satellites, and motion detectors. Their provisions call for the building of at least 370 to 700<sup>2</sup> miles of fencing along the U.S.–Mexico border. In addition, the Senate bill provides specifically for an additional 100 helicopters, 250 powerboats, GPS devices, other personal equipment, and the use of the National Guard.

Both plans follow the direction the White House has taken with tightening border security. According to the President's FY 2007 budget request, the Administration aims to increase the number of Border Patrol agents by 1,500 in FY 2007 and (along the same line of the Senate bill) has called for funds to increase the capacity of the United States to detain illegal immigrants.<sup>3</sup> Under his own authority, President George W. Bush has called for adding

1. Section 161(c) of S. 2611 replaces “2,000” in Section 101(b)(3) with “3,000.” The actual text of S. 2611 holds that Section 101(b)(2) amends Section 5202(a)(1) of the Intelligence Reform and Terrorism Prevention Act of 2004 (118 Stat. 3734). However, the amendment actually comes in Section 101(b)(3).
2. “Immigration Bills Compared,” *The Washington Post*, June 21, 2006, at [www.washingtonpost.com/wp-dyn/content/custom/2006/05/26/CU2006052600148.html](http://www.washingtonpost.com/wp-dyn/content/custom/2006/05/26/CU2006052600148.html) (June 22, 2006). Registration required.
3. Office of Management and Budget, *Budget of the United States Government, Fiscal Year 2007*, pp. 131–133, at [www.gpoaccess.gov/usbudget/fy07/pdf/budget/dhs.pdf](http://www.gpoaccess.gov/usbudget/fy07/pdf/budget/dhs.pdf) (June 22, 2006).

6,000 National Guardsmen to the U.S.–Mexico border to assist the Border Patrol.

### Review of the Social Science Literature

Since passage of the Immigration Reform and Control Act (IRCA) of 1986, social scientists have investigated the relationship between increased border enforcement on the U.S.–Mexico border and illegal immigration. In particular, this body of research has examined the impact of the amount of hours Border Patrol agents spend watching the southwestern border, called “linewatch” hours,<sup>4</sup> and the number of apprehensions on the estimated illegal immigrant flow across the southwestern border.

**Deterrence Theory.** How border enforcement affects illegal immigration can be explained through general deterrence theory, which supposes that increasing the risk of apprehension and punishment for crime deters individuals from committing crime. Nobel laureate Gary S. Becker’s seminal 1968 study of the economics of crime made the assumption that individuals respond to the costs and benefits of committing crime.<sup>5</sup> Thus, deterrence theory provides a basis for evaluating how greater border enforcement resources should reduce illegal immigration.

If the cost of crossing the border that is imposed by increased border enforcement outweighs the economic and social benefits derived from working and

living in the United States, individuals will be less likely to cross the border illegally. One factor that mitigates deterrence is the disparity between incomes earned in the U.S. and Mexico and incomes earned in other Latin American countries.<sup>6</sup>

**Border Enforcement Studies.** Estimates of the total number of illegal immigrants residing in the United States are only snapshots of a dynamic process. From historical data, it can be argued that increasing the size of the Border Patrol has had no effect, an increasing effect, or a decreasing effect on the number of illegal immigrants coming into the country. On the other hand, increased border controls appear to slow the flow of illegal immigrants leaving the country. Therefore, a strategy that involves merely increasing the level of border enforcement may lead to an increase in the number of illegal immigrants residing in the United States.

The actual number of illegal immigrants crossing the border is unknown. To compensate for these unobserved data, social scientists developed three methods to estimate the number of illegal immigrants crossing the border.

- The first method uses apprehensions as a proxy for the number of illegal border crossings.<sup>7</sup>
- The second method uses the number of apprehensions and apprehension probabilities to calculate the number of border crossings.<sup>8</sup>

4. Approximately 50 percent–70 percent of Border Patrol apprehensions result from linewatch duties. The remaining apprehensions result from non-linewatch duties, such as farm and ranch checks and inspections at bus depots, train stations, and airports, as well as other activities. See Sherrie A. Kossoudji, “Playing Cat and Mouse at the U.S.–Mexican Border,” *Demography*, Vol. 29, No. 2 (May 1992), p. 161.
5. Gary S. Becker, “Crime and Punishment: An Economic Approach,” *Journal of Political Economy*, Vol. 76, No. 2 (1968), pp. 169–217.
6. For more on the economic condition in Mexico and Central America, see Stephen Johnson, “Mexico’s Economic Progress Can Ease Migration Woes,” Heritage Foundation *WebMemo* No. 1022, March 31, 2006, at [www.heritage.org/research/immigration/wm1022.cfm](http://www.heritage.org/research/immigration/wm1022.cfm).
7. Gordon H. Hanson and Antonio Spilimbergo, “Illegal Immigration, Border Enforcement, and Relative Wages: Evidence from Apprehension at the US–Mexico Border,” *The American Economic Review*, Vol. 89, No. 5 (December 1999), pp. 1337–1357; Gordon H. Hanson and Antonio Spilimbergo, “Political Economy, Sectoral Shocks, and Border Enforcement,” *The Canadian Journal of Economics*, Vol. 34, No. 3 (August 2001), pp. 612–638; and Pia M. Orrenius and Madeline Zavodny, “Do Amnesty Programs Reduce Undocumented Immigration? Evidence from IRCA,” *Demography*, Vol. 40, No. 3 (August 2003), pp. 437–450.
8. Thomas J. Espenshade, “Does the Threat of Border Apprehension Deter Undocumented US Immigration?” *Population and Development Review*, Vol. 20, No. 4 (December 1994), pp. 871–892.

- The third method uses individual-level survey data of migration patterns of Mexicans to estimate border crossings.<sup>9</sup>

While these studies analyze the effect of the Border Patrol on illegal aliens crossing the U.S.–Mexico border, they do not address the number of illegal immigrants who violate their visas and stay in the United States.

*Apprehensions as a Proxy for Illegal Immigrant Flow.* Because the number of illegal immigrants crossing the border cannot be observed directly, researchers have developed ways to estimate the number of illegal border crossings. One approach for estimating the effectiveness of the Border Patrol is to use the number of apprehensions as a proxy for the number of illegal crossings under the assumption that the two measures are positively correlated, meaning that these figures move in tandem.

Using apprehension figures as a proxy for the number of illegal border crossings is problematic. First, and most obvious, the number of apprehensions, while correlated with illegal crossings, still does not provide researchers with actual knowledge of the number of border crossings.<sup>10</sup> Second, apprehension aggregate data do not distinguish individuals caught making their first trip from

those making their second, third, and fourth trips.<sup>11</sup> Third, the number of apprehensions is dependent on the effort and effectiveness of Border Patrol agents in apprehending illegal immigrants at any given time.<sup>12</sup>

Using the apprehension proxy approach and monthly data from 1968 to 1996, Gordon H. Hanson of the University of California, San Diego, and Antonio Spilimbergo of the International Monetary Fund found that increasing Border Patrol linewatch hours is associated with an increase in total apprehensions.<sup>13</sup> A 1 percent increase in linewatch hours is associated with a 0.53 percent to 1.23 percent increase in apprehensions.<sup>14</sup> The higher elasticity of 1.23 percent suggests that there may be increasing returns in border enforcement.<sup>15</sup> In another study examining monthly data from 1970 to 1996, these authors found the relationship between time spent watching the border and total apprehensions to be statistically insignificant, meaning that the relationship was not statistically different from zero.<sup>16</sup>

In a study by Pia M. Orrenius of the Federal Reserve Bank of Dallas and Madeline Zavodny of Agnes Scott College, the relationship between linewatch hours and apprehensions is inconsistent.<sup>17</sup>

9. Manuela Angelucci, "U.S. Border Enforcement and the Net Flow of Mexican Illegal Migration," Institute for the Study of Labor, *IZA Discussion Paper* No. 1642, June 2005, pp. 1–39; Katharine M. Donato, Jorge Durand, and Douglas S. Massey, "Stemming the Tide? Assessing the Deterrent Effects of the Immigration Reform and Control Act," *Demography*, Vol. 29, No. 2 (May 1992), pp. 139–157; Christina Gathmann, "The Effects of Enforcement on Illegal Markets: Evidence from Migrant Smuggling Along the Southwestern Border," Institute for the Study of Labor, *IZA Discussion Paper* No. 1004, January 2004, pp. 1–65; Kossoudji, "Playing Cat and Mouse at the U.S.–Mexican Border"; and Douglas S. Massey and Audrey Singer, "New Estimates of Undocumented Mexican Migration and the Probability of Apprehension," *Demography*, Vol. 32, No. 2 (May 1995), pp. 203–213.
10. Donato *et al.*, "Stemming the Tide? Assessing the Deterrent Effects of the Immigration Reform and Control Act."
11. *Ibid.*
12. Thomas J. Espenshade, "Using INS Border Apprehension Data to Measure the Flow of Undocumented Migrants Crossing the U.S.–Mexico Frontier," *International Migration Review*, Vol. 29, No. 2 (Summer 1995), pp. 545–565.
13. Hanson and Spilimbergo, "Illegal Immigration, Border Enforcement, and Relative Wages: Evidence from Apprehension at the US–Mexico Border."
14. *Ibid.*, p. 1350.
15. *Ibid.*, p. 1351. The higher elasticity is considered to be a more reliable estimate because the underlying model accounts for the possible endogenous relationship between linewatch hours and apprehensions.
16. Hanson and Spilimbergo, "Political Economy, Sectoral Shocks, and Border Enforcement."
17. Orrenius and Zavodny, "Do Amnesty Programs Reduce Undocumented Immigration?"



Using monthly data from 1969 to 1996, Orrenius and Zavodny found that increases in linewatch hours were associated with increases in apprehensions. However, when the data were limited to 1977 to 1996, the relationship was statistically insignificant, meaning that the impact of linewatch hours on apprehensions is statistically indistinguishable from zero.

*Developing Aggregate Estimates of Illegal Immigrant Flow.* Thomas J. Espenshade of Princeton University estimates that the annual inflow of illegal immigrants from 1977 to 1988 is approximately 2.2 times the annual number of apprehensions during that period.<sup>18</sup> His calculations of the number of border crossings are based upon the known number of monthly apprehensions and monthly apprehension probability estimates. Using this methodology, Espenshade shows that IRCA lowered the estimated inflow of illegal immigrants during the first year of implementation.<sup>19</sup> However, the deterrent effect did not continue into the following years. Similarly, monthly probabilities of apprehension are not associated with this inflow of illegal immigration.

*Modeling Illegal Crossings Based on Individual Survey Data.* Several studies avoid the problems associated with using apprehensions and border crossing estimates by using individual-level surveys of residents of Mexican communities, such as the Mexican Migration Project (MMP). Using the MMP data, Manuela Angelucci of the University of Arizona directly measured the effect of border controls on the inflow, outflow, and net change in illegal immigration.<sup>20</sup> Linewatch hours are consistently associated with reductions in the inflow and outflow of illegal immigrants. A 1 percent increase in linewatch

hours reduces illegal migration by 0.71 percent.<sup>21</sup> For the outflow of illegal aliens, a 1 percent increase in linewatch hours is associated with a 1.56 percent decrease in returns from illegal trips to the United States.<sup>22</sup>

Translating the number of additional linewatch hours into additional border agents, Angelucci finds that hiring an additional Border Patrol agent stops roughly 771 to 1,621 individuals from coming into the country illegally. However, this same agent encourages roughly 831 to 1,966 individuals to increase the duration of their illegal stay in the United States. The effect of an additional agent is unclear, possibly resulting in anywhere from a net reduction of 503 individuals to a net increase of 995 individuals residing in the United State illegally.

Also using MMP data from 1978 to 1998, Christina Gathmann, a post-doctorate fellow at Stanford University, shows that increases in border linewatch hours had no statistically measurable effect on illegal border crossings.<sup>23</sup> However, a threefold increase in linewatch hours is associated with a 17 percent to 31 percent increase in border smuggler prices. This finding suggests that as the presence along the border increases, the value of the services these “coyotes” provide will rise as well. Gathmann concluded that sixfold increases in the Border Patrol’s budget from 1986 to 1998 had little effect on deterring illegal immigration.

Using a different Mexican community survey, Katharine M. Donato of Rice University and her coauthors find that in the years after IRCA was implemented, there was no statistically significant effect on the probabilities of apprehension, taking a first border crossing, or repeat migration.<sup>24</sup> In

18. Espenshade, “Using INS Border Apprehension Data to Measure the Flow of Undocumented Migrants Crossing the U.S.–Mexico Frontier.”

19. Espenshade, “Does the Threat of Border Apprehension Deter Undocumented US Immigration?”

20. Angelucci, “U.S. Border Enforcement and the Net Flow of Mexican Illegal Migration.”

21. *Ibid.*, p. 26.

22. *Ibid.*, p. 30.

23. Gathmann, “The Effects of Enforcement on Illegal Markets: Evidence from Migrant Smuggling Along the Southwestern Border.”

24. Donato *et al.*, “Stemming the Tide? Assessing the Deterrent Effects of the Immigration Reform and Control Act.”

addition, the implementation of IRCA did not appear to affect the costs of illegal border crossings or the probability of using a border smuggler. More important, the number of attempted border crossings of survey respondents was always greater than their number of apprehensions, suggesting that they continued their crossing attempts until they eventually succeeded.

Analysis of the National Survey of Emigration to the Northern Frontier and to the United States from 1974 to 1978 by Sherrie A. Kossoudji of the University of Michigan reveals three important factors that influence illegal immigration.<sup>25</sup> First, illegal immigrants with past apprehensions choose to stay longer in the United States on their return trip. Once in the United States, individuals who previously failed to escape the grasp of the Border Patrol will opt to stay longer. Second, illegal immigrants with past apprehensions are more likely to be apprehended again on their return trips than are those that have not been apprehended before. Third, a previous apprehension, counterintuitively, is associated with a quicker return attempt to the United States from Mexico.

Kossoudji reasons that an apprehension reduces the net profitability of crossing the border. This is especially true if the illegal migrant borrowed funds to pay for the trip north (e.g., coyote fees) that must be reimbursed regardless of the success or failure of the trip. Working in the United States will allow the immigrant to pay off the debt faster than will working in Mexico. Thus, the apprehended migrant has a strong incentive to attempt another return to the United States as quickly as possible.

In support of Kossoudji's theory, the average apprehended migrant returned to Mexico stays in the country for a shorter period of time, and once inside the United States, the average migrant stays

in the United States longer than do those without a previous apprehension.<sup>26</sup> "An apprehension," Kossoudji concludes, "almost necessitates an immediate return to the United States."<sup>27</sup>

Douglas S. Massey of Princeton University and Audrey Singer of the Brookings Institution used survey data from 22 Mexican communities from 1965 to 1992 to evaluate the impact of border enforcement changes due to the IRCA.<sup>28</sup> Apprehensions initially increased during the first two years of IRCA implementation, but the effect was inconsistent for the remaining years.

*Economic Factors Influencing Border Enforcement.* Hanson and Spilimbergo's analysis of the number of apprehensions by the Border Patrol found that price increases in low-skilled sectors are associated with decreases in linewatch hours.<sup>29</sup> Specifically, price changes in fruits, vegetables, and livestock are negatively associated with border linewatch hours. For example, a 1 percent increase in livestock prices is associated with a 0.66 percent decrease in linewatch hours. Housing starts in the West are negatively associated with border enforcement as well. The authors conclude that these findings suggest that Border Patrol officials relax enforcement when the demand for illegal immigrant workers is high.

### The Impact of Additional Border Patrol Agents

Manuela Angelucci's analysis appears to be the most suitable for estimating the impact of increasing the Border Patrol.<sup>30</sup> First, Angelucci uses the Mexican Migration Project database that contains individual migration information from 71 communities in 13 different Mexican states between 1987 and 1998. Survey data collected from a population that contains illegal immigrants are likely to yield more accurate estimates of illegal immigration

25. Kossoudji, "Playing Cat and Mouse at the U.S.-Mexican Border."

26. *Ibid.*

27. *Ibid.*, p. 174.

28. Massey and Singer, "New Estimates of Undocumented Mexican Migration and the Probability of Apprehension."

29. Hanson and Spilimbergo, "Political Economy, Sectoral Shocks, and Border Enforcement."

30. Angelucci, "U.S. Border Enforcement and the Net Flow of Mexican Illegal Migration."

than are analyses based on apprehension data.

However, the border crossing estimates by Angelucci are remarkably similar to the estimates by Espenshade. Espenshade estimated that the annual inflow of illegal immigrants is approximately 2.2 times the annual number of apprehensions.<sup>31</sup> On average, 1,323,000 illegal immigrants per year are estimated to have crossed the border. The annual average number of illegal immigrants obtained from MMP data is about 95 percent of Espenshade's figure.<sup>32</sup> Second, Angelucci's study recognizes that increased numbers of Border Patrol agents influence not only the inflow of illegal immigrants, but also the outflow of illegal immigrants.

For FY 2006, the U.S. Department of Homeland Security estimates that the cost to hire, train, and equip one additional Border Patrol Agent is \$179,221, with an additional \$8,734 in tuition charged by the Federal Law Enforcement Training Center.<sup>33</sup> Thus, the total cost of a new Border Patrol agent is \$187,955. (See Table 1.) While new hires enter at the GS-5 or GS-7 level, the Department of Homeland Security's estimate is calculated at the GS-11 level to capture the future promotion of new hires.

Using the DHS estimated cost of hiring an additional Border Patrol agent (\$187,955), the cost of deterring one additional illegal immigrant is calculated in Table 2. The average annual increase in linewatch hours, as estimated by Angelucci, is 77,500 hours.<sup>34</sup>

Estimated Cost to Hire, Train, and Equip One Border Agent	
Salaries and benefits	\$56,768
Travel and transportation	\$2,628
Infrastructure costs	\$16,578
Pre-employment costs	\$21,087
Basic agent training	\$23,118
Federal Law Enforcement Training Center tuition	\$8,734
Personal equipment and supplies	\$10,601
Uniform costs	\$1,119
Vehicle costs	\$18,803
Other equipment and support costs	\$28,519
<b>Total</b>	<b>\$187,955</b>

**Source:** Letter from Pamela Turner, Assistant Secretary for Legislative Affairs, Department of Homeland Security, to the Honorable Mike Rogers, Chairman of the Subcommittee on Management, Integration and Oversight, Committee on Homeland Security, U.S. House of Representatives, June 17, 2005.

Angelucci assumes that the average Border Patrol agent works 2,000 hours per year (40 hours per week, 50 weeks per year) and that all 2,000 hours are spent on linewatch duty. Based on her regression analyses, one additional agent performing 2,000 linewatch hours annually deters 771 to 1,621 illegal immigrants and reduces the outflow of illegal immigrants by 831 to 1,996 individuals. Thus, the net change in illegal immigrants residing in the United States ranges from a decrease of 503 to an increase of 955 individuals.

Adding 1,000 new Border Patrol agents is anticipated to deter 971,000 to 1,404,000 individuals from crossing the border illegally and reduce the number of illegal immigrants leaving the United States by 901,000 to 1,966,000 individuals. Thus, the net change in illegal immigrants residing in the

31. Espenshade, "Using INS Border Apprehension Data to Measure the Flow of Undocumented Migrants Crossing the U.S.–Mexico Frontier."

32. Angelucci, "U.S. Border Enforcement and the Net Flow of Mexican Illegal Migration," p. 18.

33. Letter from Pamela Turner, Assistant Secretary for Legislative Affairs, Department of Homeland Security, to the Honorable Mike Rogers, Chairman of the Subcommittee on Management, Integration and Oversight, Committee on Homeland Security, U.S. House of Representatives, June 17, 2005.

34. Angelucci, "U.S. Border Enforcement and the Net Flow of Mexican Illegal Migration," p. 33.

Table 2

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## Estimating the Cost of Deterring Illegal Immigrants Through the Hiring of Additional U.S. Border Patrol Agents

### 1. The Effect of Adding One More Agent

	Best-Case Scenario	Worst-Case Scenario
Illegal Immigrants Kept Out	1,404	971
Illegal Immigrants Kept In	901	1,966
Net Decrease In the Illegal Immigrant Population: (Kept Out) - (Kept In)	503	-995

This means that adding one more Border Patrol agent is associated with a 995-person increase in the illegal immigrant population.

### 2. The Effect of Adding 1,000 More Agents (1,404 X 1,000 = 1,404,000)

	Best-Case Scenario	Worst-Case Scenario
Illegal Immigrants Kept Out	1,404,000	971,000
Illegal Immigrants Kept In	901,000	1,966,000
Net Decrease In the Illegal Immigrant Population: (Kept Out) - (Kept In)	503,000	-995,000

This means that adding 1,000 more Border Patrol agents is associated with a 995,000-person increase in the illegal immigrant population.

### 3. The Costs

Assumed Cost to Hire, Equip, and Train One Additional Agent (DHS)	\$187,955	
Total Cost to Hire, Equip, and Train 1,000 Additional Agents	\$187,955,000	
	Best-Case Scenario	Worst-Case Scenario
The Cost of a One-Person Decrease in the Illegal Immigrant Population	\$374	Not Possible

This is the Department of Homeland Security's estimate of the cost of hiring, equipping, and training an additional Border Patrol agent.

Under the Worst-Case Scenario, adding additional Border Patrol agents is never associated with a decrease in the illegal immigrant population. In fact, this model associates border enforcement with a net increase.

**Note:** The effect of adding 1,000 agents assumes a linear trend, which might not be the case. The literature suggests that adding additional agents will demonstrate increasing returns. However, after a certain increase in agents, this relationship will most likely reach an inflection point and yield decreasing returns. The cost of a one-person decrease in the U.S. undocumented population will fluctuate with changes in the returns of an additional agent.

**Source:** Calculations based on Manuela Angelucci, "U.S. Border Enforcement and the Net Flow of Mexican Illegal Migration," Institute for the Study of Labor (IZA), IZA Discussion Paper No. 1642, June 2005, and Letter from Pamela Turner, Assistant Secretary for Legislative Affairs, Department of Homeland Security, to the Honorable Mike Rogers, Chairman of the Subcommittee on Management, Integration and Oversight, Committee on Homeland Security, U.S. House of Representatives, June 17, 2005.

United States ranges from a decrease of 503,000 to an increase of 995,000 individuals.

At a cost of \$187,955 to deploy a new Border Patrol agent, hiring 1,000 new agents would cost \$187,955,000. Under the best-case scenario, the

cost of decreasing the illegal immigrant population by one person is \$374. Under the worst-case scenario, adding additional agents is never associated with a decrease in the illegal immigrant population, so cost estimates are not quantifiable.



The estimates in Table 2 are linear, meaning that the first additional agent is assumed to have the same marginal effect as the 500th additional agent deployed on the border. The effect of adding 1,000 agents assumes a linear trend, which might not be the case. Hanson and Spilimbergo's analysis indicates that adding additional agents will demonstrate increasing returns,<sup>35</sup> so these estimates may understate the deterrent effect of large increases in Border Patrol agents. However, after a certain increase in agents, this relationship will most likely reach an inflection point and yield diminishing returns. The cost of a one-person decrease in the illegal alien population will fluctuate with changes in the returns of an additional agent.

### Policy Conflicts and the Border Patrol

The presence of multiple competing objectives can conflict with the successful application of any public policy.<sup>36</sup> The Border Patrol's sensitivity to commodity prices and housing starts is strong evidence that the Border Patrol has been tasked with conflicting goals.<sup>37</sup> When government agencies cannot reconcile competing objectives, bureaucrats need to make trade-offs.<sup>38</sup> Responding to economic demand, the Border Patrol appears to relax enforcement for periods of time. The competing objectives of enforcing immigration law while simultaneously allowing illegal border crossings to

meet labor demands work to impair the potential effectiveness of the Border Patrol.

The conflicting mission of the Border Patrol may mean that the studies reviewed in this paper underestimate the effectiveness of border enforcement. One lesson evident in criminology studies on the effectiveness of domestic policing in the United States is that increased hiring of police officers is less important than how officers are deployed. Deterring crime is likely to depend more on deploying officers where serious crime is concentrated and at times when the probability of occurrence is high.<sup>39</sup> Greater resolve in securing the U.S.–Mexico border by the executive branch with the financial resources already allocated may matter more than significantly increasing Border Patrol agents and only half-heartedly enforcing the law.

**Bottom Line.** While an improved deployment of Border Patrol agents will likely lead to higher apprehension rates, these efforts probably will have little impact on deterrence if those caught are not sanctioned for illegally entering the United States. Virtually no sanctions (e.g., fines, detention) are imposed on apprehended illegal immigrants by the federal government. Once apprehended, nearly all detained illegal immigrants sign a voluntary departure form and are returned to Mexico.<sup>40</sup> In 1998, there were 1.6 million apprehensions, and only 1.25 percent of these cases were prosecuted.<sup>41</sup> For the overwhelming majority of illegal immigrants,

35. Hanson and Spilimbergo, "Illegal Immigration, Border Enforcement, and Relative Wages: Evidence from Apprehension at the US–Mexico Border."

36. Giandomenico Majone and Aaron Wildavsky, "Implementation as Evolution" in Jeffrey L. Pressman and Aaron Wildavsky, eds., *Implementation* (Berkeley: University of California Press, 1984), pp. 163–180.

37. Hanson and Spilimbergo, "Political Economy, Sectoral Shocks, and Border Enforcement."

38. Evelyn Z. Brodtkin, "Implementation as Policy Politics," in Dennis J. Palumbo and Donald J. Calista, eds., *Implementation and the Policy Process* (New York: Green Press, 1990), pp. 3–17.

39. Lawrence W. Sherman, "Policing for Crime Prevention," in Lawrence W. Sherman, Denise Gottfredson, Doris Mackenzie, John Eck, Peter Reuter, and Shawn Bushway, eds., *Preventing Crime: What Works, What Doesn't, What's Promising* (Washington, D.C.: U.S. Department of Justice, Office of Justice Programs, 1997), and Lawrence W. Sherman and John E. Eck, "Policing for Crime Prevention," in Lawrence W. Sherman, David P. Farrington, Brandon C. Welsh, and Doris Layton MacKenzie, eds., *Evidence-Based Crime Prevention* (London: Routledge, 2002), pp. 295–329.

40. Espenshade, "Using INS Border Apprehension Data to Measure the Flow of Undocumented Migrants Crossing the U.S.–Mexico Frontier."

41. Gathmann, "The Effects of Enforcement on Illegal Markets: Evidence from Migrant Smuggling Along the Southwestern Border," p. 33.

the cost of being apprehended is merely the value of a day lost working in the United States.<sup>42</sup>

Given that the one-time costs of traveling to the U.S.–Mexico border have already been incurred, illegal immigrants do not face lower incentives to attempt another border crossing.<sup>43</sup> Despite increasing border enforcement, the large difference in wages between the United States and Mexico means that individuals will still have strong incentives to migrate illegally.<sup>44</sup> Consider that the U.S. minimum hourly wage is \$5.15 per hour, while the minimum daily wage in Mexico is \$4.50.<sup>45</sup> Similarly, the minimum daily wage in Honduras ranges between \$3.24 and \$5.17 depending on the worker's occupation.<sup>46</sup> Thus, illegal immigrants determined to enter the United States will likely repeat border crossings until they are successful because the penalty for doing so is low.

As Congress considers ways to add thousands of new Border Patrol agents, policies that will make the hiring, training, and deploying of new agents more efficient need to be considered.

*First*, the hiring of thousands of new Border Patrol agents mandated in the House and Senate proposals means that the U.S. Customs and Border Protection agency will have to expand and improve upon its recruiting process. CBP should model its recruiting efforts on the U.S. armed services, which have to attract tens of thousand of new recruits each year.

*Second*, CBP should consider hiring private security firms to provide well-trained security personnel to help guard the nation's borders. Private security firms may offer short-term and long-term solutions. In the short term, private security firms can fill in the gaps on the border while the Border Patrol works to meet the hiring thresholds mandated by Congress. If private security firms can

deploy border agents in a more cost-effective manner, then Congress should consider the use of private border agents as a long-term solution to enhancing border security.

*Third*, Congress should consider providing CBP with additional means to train new agents. Adding thousands of new agents in a few years, as mandated by both the House and Senate bills, may not be feasible without expanding the training capacity of the Border Patrol Academy and the Federal Law Enforcement Training Center. Allowing CBP to develop partnerships with law enforcement academies operated by state and local governments, universities, and private agencies could significantly assist the agency in meeting its hiring goals mandated by Congress.

## Conclusion

Both the House and Senate immigration proposals instruct the U.S. Customs and Border Protection agency to hire thousands of Border Patrol agents over the coming years. A review of the social science literature on the effectiveness of increased border enforcement on illegal immigration shows mixed results. Some studies find no effect, while others indicate a positive or negative relationship between increased border enforcement and illegal immigration.

However, the literature indicates that increased border enforcement appears to slow the flow of illegal immigrants *leaving* the United States. Thus, immigration law enforcement that is overly reliant on border enforcement may actually lead to an increase in the number of illegal aliens residing in the United States.

Because there is little or no cost to being apprehended by the Border Patrol, research suggests that illegal immigrants will make as many trips as nec-

42. *Ibid.*

43. Espenshade, "Using INS Border Apprehension Data to Measure the Flow of Undocumented Migrants Crossing the U.S.–Mexico Frontier."

44. Kossoudji, "Playing Cat and Mouse at the U.S.–Mexican Border."

45. Johnson, "Mexico's Economic Progress Can Ease Migration Woes."

46. U.S. Department of State, *Country Reports on Human Rights Practices 2005*, March 8, 2006, at [www.state.gov/g/drl/rls/hrrpt/2005/61732.htm](http://www.state.gov/g/drl/rls/hrrpt/2005/61732.htm) (July 13, 2006).

essary to cross the border successfully. Three factors significantly undermine the effectiveness of the Border Patrol. First, the disparity between incomes earned in the U.S. and Mexico and other Latin American countries means that illegal aliens seeking a better life will always have a strong incentive to cross the border. Second, the deterrent effect of drastically increasing the size of the Border Patrol will be undercut if those who are caught are not sanctioned for illegally entering the United States. Third, the competing objectives of enforcing immigration law while simultaneously allowing illegal border crossings to meet labor demands also impair the agency's potential effectiveness.

While the Border Patrol's public mission is to guard the border, research indicates that the agency appears to relax enforcement when the demand for illegal immigrant workers is high. Providing actual sanctions for illegally crossing the border and giving the Border Patrol a clear and consistent mission may be more important to securing the border than dramatically expanding the number of agents on the border.

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