Death at the Border: Efficacy and Unintended Consequences of US Immigration Control Policy

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With the start of the 2001 fiscal year on 1 October 2000, the United States entered the eighth year of a major experiment using enhanced border enforcement to gain control over unauthorized immigration and to reduce it.¹ The experiment was made possible by two key policy shifts that began in 1993. The first was a decision by the newly installed Clinton administration to “get serious” for the first time about border enforcement. This determination took the form of a large, sustained increase in the budget of the Immigration and Naturalization Service (INS), especially the funds allocated to border enforcement (see Figure 1), which has continued under President George W. Bush. The total INS budget for the 2002 fiscal year is $5.5 billion—more than triple what it was in 1993. The Border Patrol has more than doubled in size since 1993, with 9,212 agents on the payroll in fiscal year 2000. By the end of FY 2003, the authorized strength of the Border Patrol will be about 11,000. The INS is now the second-largest federal law enforcement agency, following the Federal Bureau of Investigation, which had 11,428 agents on duty in FY 2000.

The second key decision made by the Clinton administration was to concentrate the new resources it was providing for border control along a small number of relatively short segments of the border—the corridors that traditionally had been most heavily used by would-be illegal entrants. This strategy seems to have come into being partly because of strategic planning in the INS and other federal agencies and partly because of individual bureaucratic initiative at the local level. Early in 1993, President Clinton’s Of-
Office of National Drug Control Policy commissioned a study of new methods to increase border security from the Sandia National Laboratories, a federal government–supported facility devoted to research for the military. The study (Sandia National Laboratories 1993) recommended that the Border Patrol focus on preventing illegal entries, deterring them rather than trying to apprehend them at the border or in the interior of the country as clandestine "entrants without inspection." This recommendation subsequently became the strategic underpinning of the "prevention-through-deterrence" policy that was embraced by the INS throughout the Clinton administration. The Sandia report recommended various measures to increase the difficulty of illegal entry, including the installation of multiple physical barriers, and the use of advanced electronic surveillance equipment.

At about the same time, the regional Border Patrol supervisor in El Paso, Texas, Silvestre Reyes (now a Democratic Congressman representing a district that includes El Paso) devised a new enforcement strategy for his sector. His idea was to station Border Patrol agents in closely spaced vehicles, right along the Rio Grande, and keep them there continuously, intimidating would-be illegal entrants. With only half-hearted approval from his INS superiors in Washington, Reyes implemented his strategy. It had dramatic short-term results, causing apprehensions to plummet by 76 percent in fiscal year 1994. An academic study of the El Paso initiative found that it was mainly deterring unauthorized "commuter migrants" living in the adjacent border city of Ciudad Juárez who had been commuting daily by foot to service jobs in El Paso, rather than long-distance migrants from the interior of Mexico, who continue to cross outside of the urbanized El
Paso area with the help of professional “guides” or who simply chose to enter at other, unfortified points along the border (Bean et al. 1994). Choosing not to wait for a serious evaluation or for INS apprehension statistics for subsequent years, members of Congress, local officials, and much of the mass media touted the apparent success of the El Paso experiment, and the INS quickly found itself under great pressure to replicate it in San Diego and other “main gates” for illegal entrants. In sum, the El Paso experiment set off a chain of policy decisions, leading to the adoption of a strategy of “concentrated border enforcement” operations along the Mexico–US border. The strategy calls for:

—Thousands of additional Border Patrol agents, stationed in a few, narrow corridors.
—High-intensity, stadium-type lighting (both portable and stationary units).
—Ten-foot-high steel fencing, constructed by welding together Vietnam War–surplus corrugated steel landing mats, along 76 miles of the Southwest border as of May 2001.
—Permanently mounted and mobile infrared night scopes or “thermal imaging devices,” which detect migrants by their body heat and enable the Border Patrol to dispatch its agents and vehicles precisely to those places where illegal entries have been made.
—Large numbers of motion-detecting sensors, buried in the ground near the border.
—Remote video surveillance systems linked to in-ground sensors, so that as soon as a sensor is tripped a nearby video camera automatically pivots to survey the area.
—New road construction along the border, to give the Border Patrol greater access and mobility.
—A computerized system of biometric scanning, called “IDENT.” In this system, each illegal migrant who is apprehended is photographed, and his photo, fingerprints, biographical data, and the date and location of his apprehension are entered into a data base. The data base is supposed to enable the INS to detect repeat entrants, especially those who have criminal records.

Some of the above-mentioned hardware and technology are old, dating back to the Vietnam War (e.g., the infrared night scopes); some parts are new (e.g., the “IDENT” system). The critical difference between the Clinton administration’s border enforcement strategy and that of previous administrations is that it concentrated the new resources being provided to the Border Patrol along just a few segments of the Mexico–US border.

This effort to fortify the “main gates” of illegal entry focused initially on the El Paso, Texas area. “Operation Hold-the-Line” (originally dubbed “Operation Blockade” until Mexican government protests prompted a re-
naming) was started there in September 1993. "Hold-the-Line" covers a 20-mile stretch of the border within the El Paso metropolitan area.

The second of the INS's concentrated border enforcement operations was "Operation Gatekeeper" in the San Diego sector. Launched in October 1994, "Gatekeeper" was implemented in three stages: In Phase I, most of the new resources were deployed on the westernmost, 14-mile segment of the border, running from the Pacific Ocean to the Otay Mesa port of entry. In Phase II, the operation was extended eastward to Tecate, into the mountains of East San Diego County. Phase III extended "Gatekeeper" across the San Diego County line into Imperial County, all the way to Yuma, Arizona. Next came "Operation Safeguard," intended to improve control along the 300 miles of international border in Arizona. Launched in 1994, "Safeguard" did not receive significant resources until 1999, when it became clear that the INS did not have enough assets in place in Arizona to stem the tide of illegal migrants who were no longer entering through California. Finally, "Operation Rio Grande" was launched in 1997 to secure the south Rio Grande Valley of Texas.

The efficacy of concentrated border enforcement

The most commonly used indicator of the efficacy of border controls in the United States is the number of apprehensions being made by the Border Patrol along the Southwest border. Throughout implementation of the concentrated border enforcement strategy, the INS has insisted that a drop in apprehensions will signify that the show of force at the border is deterring migrants from attempting to enter the United States.

Most immigration scholars regard Border Patrol apprehensions as a highly imperfect statistical proxy for the volume of illegal immigration but continue to use it, in combination with other indicators, because it provides a long time series (continuous data from 1951 to the present) and covers the entire Southwest border. Apprehensions statistics overstate the actual flow of persons because the data represent events (i.e., apprehensions) rather than persons, who may make multiple entry attempts on a single trip to the border, being apprehended several times in the process. We do not know what the inflation factor is, however, because the INS thus far has declined to release any of the data on recidivism (repeat entries by apprehended illegals) being collected through the IDENT system. On the other hand, apprehensions data underestimate the flow because of the large number of unauthorized migrants who manage to enter without detection. Some evidence suggests that the probability of apprehension has increased significantly since 1993 if illegal entry is attempted in one of the most heavily fortified areas. For example, in a sample of 345 unauthorized migrants interviewed in San Diego County in 1996, those who entered before January
1995 made an average of 1.42 crossing attempts before gaining entry into the United States, while those who entered during the first half of 1996 made 1.63 attempts (Cornelius 1998a: 130). By the late 1990s, however, the majority of would-be undocumented migrants and the people-smugglers who assist them had learned to avoid these heavily fortified areas. Thus, the borderwide “getaway ratio” (illegal migrants who avoid apprehension on a given trip to the border as a fraction of total migrants attempting illegal entry) may still be in the historical range of 70–80 percent, despite the post-1993 border enforcement buildup.

Apprehensions rose steadily along the Mexico–US border from FY 1994 through FY 2000 (see Table 1). The FY 2000 total surpassed the record of 1,615,844 apprehensions along the Southwest border set in fiscal year 1986, when Mexican migrants were rushing to the border in hopes of qualifying for one of the legalization programs included in the US Immigration Reform and Control Act of 1986. Altogether, apprehensions along the Southwest border rose by 68 percent during the seven-year period in which the Clinton administration’s concentrated border enforcement strategy was implemented. Some portion of this increase is attributable to the border

### Table 1  US Border Patrol apprehensions of illegal migrants along the Southwest border, fiscal years 1994–2000

<table>
<thead>
<tr>
<th>Border Patrol sector</th>
<th>FY 94</th>
<th>FY 95</th>
<th>FY 96</th>
<th>FY 97</th>
<th>FY 98</th>
<th>FY 99</th>
<th>FY 00</th>
<th>Percent change FY94–FY 00</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>San Diego</td>
<td>450,152</td>
<td>524,231</td>
<td>483,815</td>
<td>283,889</td>
<td>246,092</td>
<td>182,248</td>
<td>151,681</td>
<td>–66</td>
</tr>
<tr>
<td>El Centro</td>
<td>27,654</td>
<td>37,317</td>
<td>66,873</td>
<td>146,210</td>
<td>226,580</td>
<td>225,290</td>
<td>238,126</td>
<td>761</td>
</tr>
<tr>
<td>Total</td>
<td>477,806</td>
<td>561,548</td>
<td>550,688</td>
<td>430,099</td>
<td>472,672</td>
<td>407,538</td>
<td>389,807</td>
<td>–18</td>
</tr>
<tr>
<td>Arizona</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yuma</td>
<td>21,211</td>
<td>20,894</td>
<td>26,310</td>
<td>30,177</td>
<td>76,195</td>
<td>93,386</td>
<td>108,747</td>
<td>413</td>
</tr>
<tr>
<td>Tucson</td>
<td>139,473</td>
<td>227,529</td>
<td>305,348</td>
<td>272,397</td>
<td>387,406</td>
<td>470,449</td>
<td>616,346</td>
<td>342</td>
</tr>
<tr>
<td>Total</td>
<td>160,684</td>
<td>248,423</td>
<td>331,658</td>
<td>302,574</td>
<td>463,601</td>
<td>563,835</td>
<td>725,093</td>
<td>351</td>
</tr>
<tr>
<td>Texas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>El Paso</td>
<td>79,688</td>
<td>110,971</td>
<td>145,929</td>
<td>124,376</td>
<td>125,035</td>
<td>110,846</td>
<td>115,696</td>
<td>45</td>
</tr>
<tr>
<td>Marfa</td>
<td>13,494</td>
<td>11,552</td>
<td>13,214</td>
<td>12,692</td>
<td>14,509</td>
<td>14,953</td>
<td>13,689</td>
<td>1</td>
</tr>
<tr>
<td>Del Rio</td>
<td>50,036</td>
<td>76,490</td>
<td>121,137</td>
<td>113,280</td>
<td>131,058</td>
<td>156,656</td>
<td>157,178</td>
<td>214</td>
</tr>
<tr>
<td>Laredo</td>
<td>73,142</td>
<td>93,305</td>
<td>131,841</td>
<td>141,893</td>
<td>103,433</td>
<td>114,004</td>
<td>108,973</td>
<td>49</td>
</tr>
<tr>
<td>McAllen</td>
<td>124,251</td>
<td>169,101</td>
<td>210,553</td>
<td>243,793</td>
<td>204,257</td>
<td>169,115</td>
<td>133,243</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>340,611</td>
<td>461,419</td>
<td>622,674</td>
<td>636,034</td>
<td>578,292</td>
<td>565,574</td>
<td>528,779</td>
<td>55</td>
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<tr>
<td>Southwest border</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>979,101</td>
<td>1,271,390</td>
<td>1,507,020</td>
<td>1,368,707</td>
<td>1,516,680</td>
<td>1,537,000</td>
<td>1,643,679</td>
<td>68</td>
</tr>
</tbody>
</table>

SOURCE: US Immigration and Naturalization Service.
enforcement buildup itself (each additional Border Patrol agent on the line will boost apprehension statistics). On the other hand, the increased use of professional people-smugglers in response to stiffer border enforcement has reduced the probability of apprehension, at least for migrants who make "assisted" crossings. Given these countervailing factors and absent INS data on recidivism among apprehended illegals, it is not possible to determine whether there was a real increase in the number of persons attempting to enter the United States illegally during the 1994–2000 period, net of the increase in apprehensions that can be attributed to stronger enforcement.

Fiscal year 2001 brought a decline of 25 percent in apprehensions along the Southwest border. The reasons for the decline are unclear. Border Patrol officials take it as proof that fewer illegal entries are occurring, because unauthorized migrants are (finally) being deterred by concentrated border enforcement. Other explanations are equally plausible, however. Most importantly, fewer unauthorized migrants were at risk of apprehension in FY 2001 because they stayed in the United States rather than return to Mexico for year-end holidays. Some may have been deterred from returning to Mexico by the increased cost and risk of reentry to the US (a result of the concentrated border enforcement strategy), others by concern that they might jeopardize their chances of securing legalization under the Legal Immigration Family Equity (LIFE) Act passed by Congress on 21 December 2000. Qualifying immigrants had until 30 April 2001 to file applications for legalization under LIFE and could not travel abroad while their application was pending without special permission from INS. Immigrant communities throughout the United States were also swept in 2001 by rumors of a new, broader amnesty, believed to be part of an immigration reform package being negotiated by President Bush and Mexico's new President, Vicente Fox (see, for example, Rodríguez 2001). As was the case with the general amnesty program enacted by Congress as part of the Immigration Reform and Control Act of 1986, it was widely expected that uninterrupted residence in the United States would be a requirement for eligibility.

Other possible explanations for the 2001 decline in apprehensions include optimism about economic and social progress in Mexico under the democratically elected Fox government (although consumer confidence within Mexico actually declined during the first half of 2001—Reforma 2001); the US economic slowdown, which may have dampened expectations for finding employment in the United States; fears of bioterrorism and heightened border security in response to the terrorist attacks of September 11, 2001 (Smith and Ellingwood 2001b); and more undetected crossings by unauthorized migrants through legal US ports of entry. This last explanation is supported by INS data showing a recent doubling of cases of apprehension at the San Ysidro, California border crossing involving immigrants hiding in car trunks and secret compartments. There has also been an upsurge in attempted entries by persons (especially women and children) using false
documents. Waits to cross the border at San Ysidro and other busy ports of entry have lengthened significantly as INS inspectors must screen vehicles and pedestrian crossers more rigorously (Taylor 2001). Whatever the combination of factors that may have reduced Border Patrol apprehensions in FY 2001, it is too early to tell whether the decline will persist. Claims that the US border enforcement strategy is succeeding as a deterrent to new potential unauthorized migrants are premature. Moreover, total apprehensions for FY 2001 still exceed the level recorded in the pre-concentrated border enforcement era by several hundreds of thousands.

An indisputable consequence of concentrated border enforcement operations has been the spatial redistribution of illegal entry attempts. The disaggregated apprehension statistics since FY 1994 (Table 1) suggest the magnitude of this rechanneling effect. The share of apprehensions occurring in California and Texas, where most of the new Border Patrol resources have been deployed, has dropped, while the percentage of apprehensions occurring in Arizona has soared. Apprehensions along the Arizona segment of the border rose by 351 percent between 1994 and 2000. In the Tucson sector alone, over 616,000 apprehensions were made in the 2000 fiscal year—up 31 percent from 1999, up 59 percent from two years ago, and over 170 percent higher than five years ago. In contrast, the San Diego sector accounted for only 9 percent of borderwide apprehensions in the 2000 fiscal year, compared with over 40 percent before Operation Gatekeeper. In FY 2001, apprehensions in the San Diego sector reached a 25-year low. This reflects the fact that migrants and people-smugglers have shifted their routes eastward, well beyond San Diego County. Reviewing these trends, the US General Accounting Office (2001: 28) concluded: “Although illegal alien apprehensions have shifted, there is no clear indication that overall illegal entry into the United States along the Southwest border has declined.”

Other consequences of concentrated border enforcement

In addition to rechanneling the flow of illegal migrants, the current US border enforcement strategy has significantly raised the cost and physical risks associated with illegal entry. These should not be treated as “unintended” consequences, since they were an integral part of the INS’s “prevention through deterrence” strategy from its inception. Indeed, the theory underlying the strategy was that raising the cost, the physical risk, and the probability of apprehension on each entry attempt would eventually discourage the migrant and cause him (or her) to return to the location of origin. Better yet, the prospective unauthorized US-bound migrant would be deterred from leaving his home community in the first place.

Clearly, the border control strategy implemented since 1993 has raised the cost of illegal entry for a large proportion of migrants. Fees charged by
coyotes—the professional people-smugglers who guide migrants across the border, help them to avoid the Border Patrol, and transport them in trucks or vans to safe houses and eventually to places in the interior of the country where relatives or employers await them—have doubled, tripled, or even quadrupled, depending on the entry corridor and the services offered. An analysis of data collected in a sample of Mexican sending communities between 1985 and 1996 (Reyes and Johnson 2000) found that coyote fees had been rising for several years before the onset of concentrated border enforcement operations, but the shift to this new strategy of border enforcement reinforced the trend. The median fee had risen to $700 by 1996. In the pre-Operation Gatekeeper era, coyotes charged an average of $143 for assistance in crossing the border in the San Diego/Tijuana area; by 1995 the average fee had risen to $490 (Cornelius 1998a: 131). The INS reported in October 1997 that smugglers’ fees had doubled in many areas, in some cases increasing from $250 to $900 (US Immigration and Naturalization Service 1997). Near Douglas, Arizona, the typical charge to be smuggled across the border to Phoenix in 1999 was $150; by the summer of 2000, the fee was $800–$1,300.6 By mid-2001, smugglers operating in the San Diego and El Centro sectors were charging $1,200–$1,500 per head.7

Professional people-smugglers have not yet priced themselves out of the market, however. They now have more clients because of the increased difficulty of border crossing,8 and they can charge considerably more for their services because of the additional risks they must take and the longer trips required to get migrants to their destinations. Migrants take more time to save up what they need to pay a coyote, or they borrow more money from relatives already based in the United States—the latter being the most common way of financing long-distance unauthorized Mexican migration to the United States. In this sense, the US economic boom of the 1990s increased the affordability of coyote services. Even without such assistance, the increase in smugglers’ fees along the Mexico–US border since 1994 has not been of such a magnitude that it would deter economically rational migrants from making the trip (Andreas 2001: 117; Spener 2001: 155). Migrants with jobs waiting for them in the United States can earn enough in a short period of employment to cover the increase.

A genuinely unintended consequence of the new border enforcement strategy has been a higher rate of permanent settlement among undocumented migrants in the United States. Like the rise in coyote fees, this trend predates the concentrated border enforcement strategy (Cornelius 1998a: 136–139; Marcelli and Cornelius 2001: 122); but that strategy appears to have accelerated it. Multivariate analysis shows that border enforcement, as measured by the cost of coyotes adjusted for inflation, has a strong negative effect on the probability of returning to one’s home country, at least among Mexican males. During the period of tougher border enforcement,
the probability of return has declined to levels significantly below what was experienced in earlier periods. For example, when the median coyote cost was $237, 50 percent of Mexican male migrants returned to Mexico after two years in the United States; when the coyote cost was $711, only 38 percent returned to Mexico after two years of US residence (Reyes and Johnson 2000). By making it more costly and difficult to gain entry illegally, the US government has strengthened the incentives for permanent settlement in the United States. Thus it is entirely possible that the current strategy of border enforcement is keeping more unauthorized migrants in the United States than it is keeping out.9

Another consequence of concentrated border enforcement has been a sharp increase in the number of migrants who die trying to gain entry (see Table 2). From 1994 through mid-2001, approximately 1,700 deaths were reported to the Mexican Consulates along the Southwest border. The US Border Patrol did not systematically compile statistics on migrant deaths until FY 1998. It has reported that 1,013 migrants died trying to cross the Southwest border illegally between October 1997 and 1 June 2001 (US General Accounting Office 2001: 25). As shown in Table 2, the incidence of deaths rose in tandem with the intensification of border enforcement in California, Arizona, and Texas. The available data understate the actual number of fatalities, since they reflect only migrants whose bodies were recovered by the Border Patrol and authorities on the Mexican side of the border in a given year; unknown numbers of additional bodies lie undiscovered in the mountains and deserts. Moreover, the magnitude of underreporting undoubtedly has increased, as concentrated border enforcement operations in urbanized areas of California and Texas pushed illegal border-crossers into progressively more remote areas.10

### TABLE 2   Deaths among unauthorized border-crossers, total Southwest border and California, Arizona, and Texas segments of the border, by calendar year, 1994–2000

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>23</td>
<td>61</td>
<td>59</td>
<td>89</td>
<td>147</td>
<td>113</td>
<td>140</td>
<td>1994–2000: 509</td>
</tr>
<tr>
<td>Arizona</td>
<td>—</td>
<td>—</td>
<td>7</td>
<td>26</td>
<td>12</td>
<td>44</td>
<td>90</td>
<td>1996–2000: 1,186</td>
</tr>
<tr>
<td>Texas</td>
<td>—</td>
<td>—</td>
<td>21</td>
<td>34</td>
<td>170</td>
<td>201</td>
<td>269</td>
<td>1996–2000: 1,181</td>
</tr>
<tr>
<td>Southwest border total</td>
<td>—</td>
<td>—</td>
<td>87</td>
<td>149</td>
<td>329</td>
<td>358</td>
<td>499</td>
<td>1996–2000: 474</td>
</tr>
</tbody>
</table>

NOTE: Data are from the Mexican Ministry of Foreign Relations. They include deaths occurring on the Mexican side of the mountains, deserts, canals, and rivers that straddle the Southwest border. For Arizona and Texas, there are no migrant death statistics before 1996. Data drawn from Vital Statistics registries in US border counties (see Eschbach et al. 1999; Eschbach, Hagan, and Rodriguez 2001a), while providing a longer time series, are an inadequate substitute for the data reported in this table, since they neither identify the immigration status of the decedent nor specify whether death occurred as the result of an attempted illegal entry into the United States.
Calendar year 1994 can be used as a baseline for this analysis because none of the 23 fatalities recorded along the Mexico–California border in that year occurred after 1 October, the launching date for Operation Gatekeeper. Most of these deaths were the result of traffic accidents caused by migrants’ running across freeways immediately after crossing the border in the urbanized San Diego area and being hit by high-speed vehicles—a long-standing source of migrant deaths. Thus, the effect of the concentrated border enforcement strategy on migrant mortality can only be detected in 1995 and subsequent years. Some portion of the increase in fatalities from 1995 to 2000 can be attributed to a rising volume of unauthorized Mexico-to-US migration during that period; however, the per-year increases in mortality are much larger than the increases in Border Patrol apprehensions. And even as apprehensions, borderwide, declined by 25 percent in FY 2001, migrant deaths declined by only 13 percent. In California’s Imperial Valley (the El Centro Sector), the incidence of migrant deaths rose by 14 percent in FY 2001, despite a 27 percent decline in apprehensions in that sector.\footnote{\add{There is no citation for this note.}}

The most convincing evidence that concentrated border enforcement is largely responsible for the rise in migrant mortality is the change in causes of death among unauthorized border-crossers that can be observed since 1994 (see Figure 2). Most migrant deaths along the Mexico–California border between 1995 and 2000 (308 of them) were the result of “environmental causes”: hypothermia (freezing to death in the mountains), dehydration, or heat stroke (after days of trudging through the desert).

\begin{figure}
\centering
\includegraphics[width=\textwidth]{fig2}
\caption{Causes of death among unauthorized border-crossers, Mexico–California border, 1994–2000}
\end{figure}

\textit{NOTE:} Data shown exclude unknown-cause cases.
\textit{a}None of these deaths occurred after 1 October, the date on which Operation Gatekeeper began. See text.
\textit{SOURCE:} Data from Mexican Consulates.
Another 177 migrants died by drowning, mostly in the All American Canal, an aqueduct for agricultural irrigation that parallels the Mexico–US border for 53 miles near Calexico in Imperial County. The canal averages 21 feet deep and at some places is as wide as a football field. Its undercurrent is deceptively strong (15–20 miles per hour). Moreover, the lancheros (boatsmen) who ferry would-be illegal entrants across the canal in rubber rafts in groups of eight or more for a fee often overload the rafts, which capsize and dump their human cargo into the canal. Others drown by attempting to float into the United States on inner tubes via the New River, which flows from south of the border into California. The New River is one of the world’s most contaminated waterways—so polluted with industrial wastes and typhoid, cholera, and hepatitis bacteria that the Border Patrol refuses to send agents into it to rescue drowning migrants. Where the New River flows under a bridge, migrants must float submerged, holding their breath, through a 30-foot-long culvert. Drowning is, in fact, the most frequent cause of death among migrants in the El Centro sector. This, too, is a direct consequence of the concentrated border enforcement strategy: migrants entering via the All American Canal and the New River are seeking to avoid the worst of a scorching, multi-day trek through the desert.

The incidence of migrant deaths along the Mexico–California border resulting from traffic accidents and homicides remained essentially stable from 1995 to 2000, while deaths from environmental factors and drowning increased sharply, together accounting for 78 percent of total deaths. Borderwide cause-of-death statistics compiled by the US Border Patrol from FY 1998 through mid-2001 show a similar pattern: 76 percent of migrant deaths for which a cause was known were attributed to heat, cold, and drowning (US General Accounting Office 2001: 25). Unquestionably, concentrated border enforcement has made illegal crossings more dangerous.

A key indicator of the success of Operation Gatekeeper in pushing would-be illegal entrants steadily eastward from the urbanized area of San Diego into the mountains and deserts is the changing spatial distribution of migrant deaths. In calendar year 1995, with Operation Gatekeeper not fully implemented, most migrant deaths were still occurring in the San Diego sector (see Panel A of Figure 3). In 1996, corresponding with Phase II of Gatekeeper, deaths dropped sharply in the heavily fortified coastal area and moved into the mountains of East San Diego County (Panel B). In 1997, as Gatekeeper’s Phase III pushed migrant traffic into the Imperial Valley, we see an upsurge of deaths in the El Centro–Calexico area (Panel C). In 1998, the death toll resulting from dehydration in the desert and drowning in the All American Canal near Calexico continued to mount (Panel D). In 1999, as the Border Patrol sent more agents to fortify the El Centro sector, the frequency of migrant deaths increased in the Yuma, Arizona area (Panel E). In 2000 (Panel F) numerous deaths were still occurring in the El Centro
FIGURE 3  Spatial distribution of migrant deaths, Southwestern Mexico–US border, 1995–2001

A

B

- Approximate location of a Mexican death (some Central & South American)
- Border area blocked by fencing
- Diverted migration route due to fencing, lighting, and other tactics
and Yuma sectors, but many more fatalities do not appear on the map, since they occurred in central Arizona and Texas. The redistribution of migrant fatalities into the Arizona desert is even more evident in the data from the first half of 2001 (see Panel G). Illegal entries in Arizona have shifted away from larger border towns like Nogales and Douglas, which the Border Pa-
trol has fortified with reinforced steel fencing and more agents. Migrants now pass mostly through outlying rural areas, where the only obstacle to illegal entry is likely to be a few strands of barbed wire strung on three-foot-high stakes (M. Thompson 2000).

If migrants attempt to cross in such terrain, they expose themselves to life-threatening environmental conditions. For example, a hike over the
Tecate Mountains in East San Diego County can take two days. If migrants traverse this mountainous region between mid-October and mid-April, there is at least a 50 percent probability that they will encounter sub-freezing temperatures if not snow, conditions for which they are totally unprepared. Migrants entering through the Imperial Valley desert must walk a minimum of 20–30 miles before reaching a major roadway. During the summer, temperatures in this desert average 112°F and frequently reach 120°F in daytime. It is physically impossible for migrants to carry enough water to prevent dehydration during the two-day trek through the Imperial desert; indeed, many are dehydrated by the time they reach the Mexico–US border, having hiked for a day and a half from a bus stop in the Mexican interior.

The spatial redistribution of migrant deaths since 1994 is an impressive demonstration of the Border Patrol’s capacity to herd unauthorized border-crossers into increasingly inhospitable and dangerous areas. But higher physical risk has not translated into a strong deterrent effect. Doris Meissner, INS Commissioner during the Clinton administration, acknowledged: “We did believe that geography would be an ally for us. It was our sense that the number of people crossing through the Arizona desert would go down to a trickle once people realized what [it’s] like” (quoted in Borden 2000). Other INS officials told the General Accounting Office that “as the traffic shifted, they did not anticipate the sizable number that would still attempt to enter
through these harsh environments” (US General Accounting Office 2001: 24). The GAO concluded: “Although INS has realized its goal of shifting illegal alien traffic away from urban areas,...rather than being deterred from attempting illegal entry, many aliens have instead risked injury and death by trying to cross mountains, deserts, and rivers” (ibid.: 3).

Would-be illegal migrants are generally aware of the physical risks of today’s clandestine entry routes, and they clearly experience them. A survey of 262,989 apprehended migrants returned to Mexico by the US Border Patrol from December 1999 to May 2000 found that 70 percent felt they had been exposed to some type of physical risk during their illegal entry attempt. Of these migrants, 36 percent had experienced extreme heat or cold and 35 percent had suffered from lack of water or food (Santibáñez Romellón 2000). Still, they persist.12

Expected but unrealized labor market effects

Among the most appropriate indicators for measuring the efficacy of concentrated border enforcement are certain kinds of changes in the US labor market: fewer immigrant workers (especially the undocumented) being employed and higher average wages for workers in traditionally immigrant-dominated sectors of the economy. Thus, if the current border enforcement strategy were succeeding, we should see tighter labor markets resulting from shortages of undocumented immigrant workers in those industries where employers have come to rely on them. There should also be upward pressure on wage scales in industries and regions where undocumented immigrants have previously clustered. None of these predicted labor market effects has materialized thus far.

Data compiled by Reyes and Johnson (2000) from the survey of National Agricultural Workers conducted annually by the US Departments of Agriculture and Labor show that the percentage of undocumented immigrants among farm workers has increased continuously during the period of tighter border enforcement. The number of Mexican nationals employed in various low-level service occupations (e.g., private household workers, food preparation and food services, cleaning and building service jobs) increased far more than the number of non-Mexican workers in such jobs during the period 1993–98. There was also a sharp increase in the proportion of Mexicans among construction workers in the United States from 1993 to 1999. If the proportion of Mexico-born workers is taken as a rough proxy for illegal immigrants,13 these findings are inconsistent with the notion that the concentrated border enforcement strategy has been effectively deterring illegal entrants. There is no evidence that the strategy has produced shortages of illegal immigrants in agriculture, construction, low-level service occupations, or the supply of day laborers for landscaping and construction work.14
Further corroboration comes from a 1996 survey of San Diego County employers who use immigrant labor, conducted by the Center for US-Mexican Studies at the University of California-San Diego. The survey found that only 8 percent of employers had noticed any decrease in the number of immigrant jobseekers showing up at their businesses during the first 18 months of Operation Gatekeeper. In fact, more than one out of five employers had experienced an increase in immigrant jobseekers (Cornelius 1998a: 130).

On the wage front, several studies by economists have shown that tougher border enforcement is not benefiting workers in the form of upward pressure on wage scales, especially for farm workers and low-wage service workers (Reyes and Johnson 2000). Recent research also shows that changes in levels of border enforcement are not followed by changes in wages in US border regions, suggesting that, whatever its effect on the flow of illegal migrants, stiffer border enforcement has little impact on US wages (Hanson and Spilimbergo 1999; Hanson, Robertson, and Spilimbergo 1999).

Discussion and conclusions

To demonstrate that the current US strategy of border enforcement is reducing illegal entries by deterring them (the INS's "prevention-through-deterrence" strategy), we would need evidence that (1) because of the new hazards they face, would-be illegal entrants are being deterred from leaving their home communities for the border; and (2) those who nevertheless proceed to the border are abandoning their efforts at illegal entry after one or more apprehensions by the US Border Patrol and returning to their place of origin. There is as yet no evidence from high-emigration communities in Mexico that appreciable numbers of potential first-time unauthorized migrants are delaying or abandoning their plans to migrate (see, for example, Cornelius 1998b).

Nor is there more than anecdotal evidence that apprehended migrants already at the border are becoming so discouraged that they are returning to their home communities. In fact, most migrants are not "giving up" after their first, second, third, fourth, or even fifth apprehension. Consistent with the behavior of several previous generations of Mexican migrants to the United States, they just keep trying to enter until they succeed. Repeatedly apprehended migrants are not being prosecuted by the INS unless they are found to have been previously deported (as a result of a formal, judicial deportation proceeding) or to have committed a serious non-immigration-related crime. The INS lacks the detention capacity and the federal courts lack the time to pursue routine cases of illegal entry recidivism. In one Border Patrol station visited by the author in July 2000, the "IDENT" system was programmed to flag only those apprehended migrants who had been caught 25 or more times since the system became operational in the mid-1990s. Even those cases were not being prosecuted except under special circumstances (e.g., a previous arrest record for migrant smuggling).
It is significant that the massive border enforcement buildup since 1993 has been paralleled by a further decline in the never-substantial US government effort to enforce immigration control laws in the workplace. Since Congress passed the Immigration Reform and Control Act of 1986, employers who “knowingly” hired immigrants unauthorized to work in the United States have been subject to substantial fines and, in the worst cases, criminal penalties. Enforcement of these “employer sanctions” has never risen above a token level, however. In 1990, barely 8 percent of INS enforcement resources were devoted to workplace raids (Juffras 1991). By 1998, only 2 percent of the INS enforcement effort was being devoted to worksite inspections (US General Accounting Office 1999a). The number of INS cases involving potential violations of the 1986 employer sanctions law declined steadily during the 1990s, from 14,311 cases in FY 1990 to 5,211 cases in FY 1996 (Center for Immigration Studies 1997: 20–21). The number of fines imposed for violations dropped from 7,115 in FY 1998 to just 178 in FY 2000. In the same period, the number of unauthorized migrant workers arrested in workplace enforcement actions dropped from 13,875 to 953 (Peterson 2001). Since then, workplace investigations have virtually ceased.

In recent years the INS has taken the position that worksite enforcement is not a cost-effective method of immigration control, given the weakness of the employer sanctions provision of the 1986 immigration law. But another consideration was articulated by an INS official, who explained why the agency had carried out “Operation Vanguard,” a 1999 investigation of the meatpacking industry in Nebraska and Iowa, without making any raids on plants: “We don’t want to have a negative impact on the production capabilities of these companies.”

The unstated subtext is that most members of Congress are not concerned about the absence of workplace enforcement; indeed, many of their constituents and campaign contributors would become very upset if the INS ever became serious about worksite inspections. But actions by Congress since 1993 demonstrate that it does care a great deal about border enforcement, and secondarily about the deportation of “criminal aliens” (those who have been convicted of non-immigration-related crimes). The inevitable consequence of the Congressionally driven pattern of resource allocation for immigration control is that the typical illegal immigrant who enters without detection and finds employment within the country has an annual probability of being apprehended of between 1 and 2 percent (Espenshade 1994: 872; Espenshade 1995). As a senior INS official put it, an undocumented immigrant is at little risk in the US interior, “unless an employer turns a worker in, and employers usually do that only to break a union or prevent a strike” (quoted in Uchitelle 2000).

Meanwhile, border-crossing deaths continue to mount. The Border Patrol routinely blames people-smugglers who callously abandon migrants in
the mountains and deserts if they lag behind or run out of water, and notes that its agents rescued 2,454 migrants from almost certain death during the 2000 fiscal year as part of its “Border Safety Initiative.”17 Coyotes have, indeed, been taking greater risks with their human cargo since concentrated border enforcement operations were implemented; but they still have a strong financial incentive to deliver migrants safely to their relatives or employers in the United States, since customarily the bulk of their fee is paid only upon arrival in the place of destination. “Migrants rely upon them because the service of a smuggler makes it more likely that they will ‘arrive alive’ in San Antonio, Houston, or Dallas” (Spener 2001: 155).

Mexico’s President, Vicente Fox, has declared the high death toll resulting from US concentrated border enforcement operations to be “unacceptable,” but his proposed alternative—a ten-year or longer process of deepening the North American Free Trade Agreement to permit free labor mobility along the lines of the European Union—has been harshly criticized by US politicians and opinion-leaders and appears to have no constituency in the Congress. George W. Bush and Al Gore both promised during their 2000 presidential campaigns that they would pursue the current strategy of border enforcement “more humanely,” but neither offered specifics on how this could be accomplished. The Bush administration has reportedly promised the Fox government that it would conduct a “review” of the concentrated border enforcement strategy, as part of a larger agreement on Mexico–US migration (Smith and Ellingwood 2001). However, the domestic politics of immigration control in the United States could lock in concentrated border enforcement for the foreseeable future, particularly given the conflation of border control and anti-terrorism strategy following the attacks of September 11, 2001. The strategy has many staunch supporters in Congress, and the Bush administration remains committed to it. The President’s FY 2002 budget contains an additional $172 million and 1,206 new Border Patrol positions to bolster the INS’s border enforcement strategy (US Immigration and Naturalization Service 2001).

With that strategy left intact, and strengthened, none of the policy proposals under consideration by the US and Mexican governments in 2001 for regularizing the migratory flow could be expected to reduce migrant deaths appreciably. Any temporary worker program of the magnitude that Congress is likely to approve will be able to accommodate only a small fraction of the first-time Mexican migrants who seek access to US employment in the foreseeable future, especially since the bulk of the visas would go to unauthorized migrants already working in the United States. Permanent legalization would be granted selectively to unauthorized Mexicans, primarily on the basis of their length of employment in the United States.

Meanwhile, Mexican government efforts to prevent unauthorized emigration to the United States through certain “high-risk” areas on the Mexican
side of the border—pledged to the US government as a quid pro quo for a new guestworker program (Smith and Ellingwood 2001a)—would force migrants to cross in areas posing an even higher risk. Experienced border observers expect smugglers to respond by taking migrants deeper into the desert. In short, nothing in the "grand bargain" on migration being negotiated by the US and Mexican governments would place significantly fewer unauthorized migrants at risk, and some measures would do exactly the opposite.

One must keep in mind that the rise in migrant deaths from 1994 to 2000 occurred during a period of robust economic growth in Mexico, with GDP growth in the range of 5–7 percent per year. By 2001, Mexico’s economy had been thrown into recession by an economic slowdown in the United States. There is a clear potential for much greater loss of life at the border, if a sustained downturn in Mexico’s economic performance were to compel larger numbers of economic refugees to join the flow of Mexicans migrating for reasons of economic improvement or family reunification. Forcing a substantially larger Mexico-to-US migratory flow, containing a higher proportion of economically desperate people, to detour around the concentrated border enforcement operations now in place (with others possibly to be added) would inevitably increase border-crossing deaths.

Over the longer term, Mexico’s changing demographic circumstances should do more to reduce the flow of unauthorized migrants to the United States than any US government strategy of border enforcement. By 2010, the number of new job seekers entering Mexico’s labor market could be between 500,000 and 550,000 per year, compared with 1 million or more new job seekers in the mid-1990s (Martin 2000). It would be unrealistic, however, to expect emigration pressures in Mexico to disappear by the end of the decade, unless the current real wage differential of at least 8:1 between the United States and Mexico is substantially reduced. This might happen as a consequence of the deepening of NAFTA or some combination of trade integration and successful macroeconomic policies in Mexico. In addition, the Mexican government would have to implement major new programs of targeted investment to stimulate the creation of more and better-paid jobs in high-emigration areas. But only when Mexico’s shrinking labor pool forces Mexican employers to raise wages are we likely to see the gap in real wages and family incomes begin to narrow appreciably.

Against this background, the mounting cost of the current US border enforcement strategy in human lives raises some fundamental issues. INS officials have estimated that it may take another 7–10 years, 3,200–5,500 more Border Patrol agents, and $450–$560 million in additional technology to fully implement the agency’s Southwest border control strategy (US General Accounting Office 2001: 7, 10). Even assuming Congressional approval of such continued infusions of manpower, hardware, and technology, is there reason to believe that the strategy can ever succeed as an ap-
approach to immigration control, absent the political will in Congress and the country as a whole to do what is necessary to strengthen enforcement of immigration laws in the workplace? Are the conceivable benefits of the strategy offset by such unintended consequences as greater permanent settlement of unauthorized migrants in the United States and a booming people-smuggling industry? If the answers to such questions are elusive, not just the efficacy but the morality of a strategy of immigration control that deliberately places people in harm’s way should be debated.

Notes

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2 In the second and third years of the El Paso operation, apprehensions crept upward again, reaching 38 percent of the pre-FY 1994 level by mid-1996. Over the seven-year period from FY 1994 through FY 2000, apprehensions made in the El Paso sector increased by 45 percent, although apprehensions in FY 2000 were less than half the level of FY 1993. By the late 1990s, many unauthorized migrants who before 1993 would have crossed at El Paso had been diverted to Arizona and the southern Rio Grande Valley.

3 On public pressures in support of stepped-up border enforcement in the San Diego area, see Navarro (2001) and Nevins (2000, 2001).

4 For a catalogue of resources deployed for one of the concentrated border enforcement operations, see US Immigration and Naturalization Service (1998).

5 The INS has been taken to task by the US General Accounting Office for failure to analyze the data that have been collected through the IDENT system since 1995. The GAO insists that these data “could be used to determine the number of aliens Border Patrol agents have arrested...how many times they have been arrested trying to enter illegally, and what shifts in illegal entry attempts...have occurred over time along the Southwest border” (US General Accounting Office 2001: 29).

6 Carlos Carrillo, Assistant Chief Border Patrol Agent, Tucson sector, quoted in Thompson (2000).

7 Author’s interviews with US Border Patrol officials, El Centro sector, California, 27 July 2001. Some migrants seeking work in southern California were paying an additional charge of several hundred dollars to raietos, drivers who transport migrants whose coyotes have deposited them on the US side of the border in remote parts of Arizona or the Calexico/El Centro area of California to urban destinations in southern California, bringing migrants’ total tab for coyote and raietos services to $2,000.

8 Field research conducted in San Diego County revealed that the proportion of unauthorized migrants using the services of coyotes increased from 42 percent in the period before January 1995 to 52 percent among those entering during the first six months of 1996, coinciding with the implementation of Operation Gatekeeper (Cornelius 1998a: 131). B
Border Patrol officials interviewed by the author in the El Centro sector of California in July 2001 reported that the vast majority of illegal crossings, especially by “first-timers,” are now organized by coyotes.

9 This interpretation is consistent with the work of Massey (1998) and Massey and Espinosa (1997).

10 As Eschbach, Hagan, and Rodríguez (2001b: 8) have noted: “Redirection of flows from urban to rural crossing points is likely to lead also to a redirection to causes and places of death that decrease the probability that a death will be discovered and registered.”

11 Data from US Border Patrol for the 12-month period ending 10 August 2001. More than 80 migrant deaths had been recorded in the El Centro sector through the end of August 2001, with a full month left to go in FY 2001, exceeding the 76 deaths reported in all of FY 2000.

12 As The New York Times reported, from a vantage point on the Mexico—Arizona border, “It is clear that the increase in [the number of Border Patrol] agents along the United States side of the border has not stopped immigrants from their illegal crossings. It has caused them to cut new channels through more perilous areas” (G. Thompson 2000).

13 Recent INS estimates of the flow of undocumented migrants to the United States suggest that Mexican nationality is useful in this way. The INS has estimated that 88 percent of male migrants from Mexico and 73 percent of female Mexican migrants who entered the US in 1996 were undocumented, compared with 53 percent of males and 34 percent of females from the rest of the Western Hemisphere, and 20 percent of males and 15 percent of female entrants from the rest of the world (Warren 2000).

14 On the highly elastic supply of migrant day laborers in southern California, see Valenzuela (2000, 2001, forthcoming).

15 Explaining the failure of employer sanctions, former INS Commissioner Doris Meissner observed: “There really is not any reliable way for employers to comply with the law” (quoted in Peterson 2001).

16 Quoted in Hagenbaugh (1999). Another explanation was offered by former INS Associate Commissioner Robert Bach: “It is just the market at work, drawing people to jobs, and the INS has chosen to concentrate its [interior enforcement efforts] on aliens who are a danger to the community” (quoted in Uchitelle 2000).


18 The US government has often paid lip service to the “developmental approach” to controlling unauthorized immigration from Mexico, but the time frame needed to create attractive alternatives to emigration in the source communities—probably 10–15 years, at minimum—exceeds what is tolerable to most US politicians. Nor is the US government likely to provide significant financial support for targeted development assistance in Mexico. As a senior US official involved in US–Mexico migration talks in the summer of 2001 put it, the Bush administration “is not in the realistic position of providing massive support to Mexico. We’re no longer in the business of Marshall Plans” (quoted in Schrader 2001).

References


Thompson, Morris. 2000. “Driven into the desert: Border crackdown has forced more would-be migrants to risk dangerous treks across remote areas,” The Orange County Register, 28 July.


