

April 15, 2010

**LOOKING FOR A QUICK FIX:
The Rise and Fall of the Secure Border Initiative's High-Tech Solution to Unauthorized
Immigration**

The Secure Border Initiative (SBI), launched by the Department of Homeland Security (DHS) in 2005, is a cautionary tale of the dangers inherent in seeking a technological quick fix to the problem of unauthorized immigration. SBI calls not only for fencing the U.S.-Mexico border in the literal sense, but constructing a “virtual fence” as well. Since physical fencing can be climbed over, broken through, or dug under, it is complemented in SBI by a system of cameras and sensors—known as “SBI-net”—that will, in theory, alert the Border Patrol whenever an unauthorized border crossing occurs. However, SBI has not gone according to plan. Hundreds of miles in new fencing and vehicle barriers have been erected at the border at a cost of \$2.4 billion, but there is no evidence this is enhancing border security or deterring unauthorized immigrants. And SBI-net has been plagued by persistent technical problems, shoddy testing, and missed deadlines since the Boeing Corporation received over \$1 billion worth of DHS contracts to develop it.

From a policy perspective, a crucial problem with SBI is that it has been pursued in the absence of immigration reform. SBI was meant to be the enforcement counterpart to some sort of substantive immigration reform, which has yet to take place. As a result, SBI's quest for a high-tech means of stopping unauthorized immigrants from crossing the border has proceeded even as the dysfunctional U.S. immigration system has remained unfixed. Much of SBI's efforts are therefore devoted to intercepting and deterring unauthorized immigrants who wouldn't be unauthorized if not for the decades-long failure of the U.S. immigration system to respond to changes in U.S. labor demand and the natural human desire for family reunification. This isn't to say that technologies such as those envisioned in SBI have no place in securing the border against individuals attempting to enter the country clandestinely who might represent a genuine threat to national security or public safety. But this important task would be much easier were border-security personnel not spending most of their time and resources tracking down unauthorized job seekers and people looking to reunite with family members already in the United States.

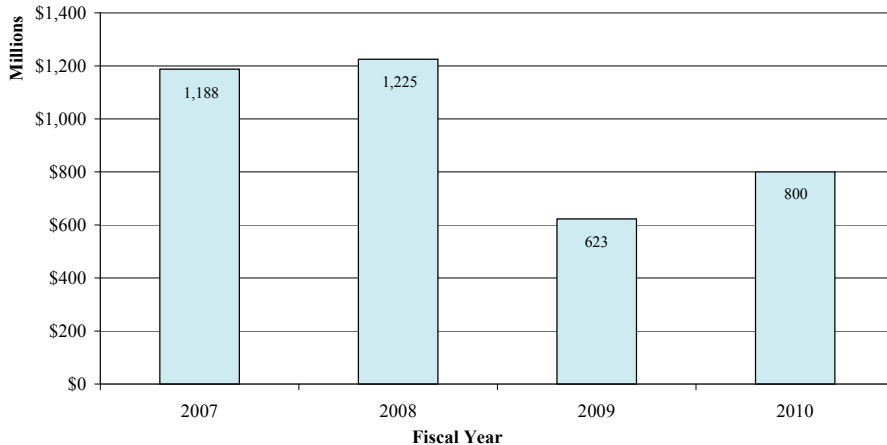
The Secure Border Initiative (SBI)

When SBI was announced by the DHS on November 2, 2005, its goal was “to achieve operational control of both the northern and southern border within five years.” This rather ambitious goal was to be achieved through a variety of means, including a general ramping up of immigration enforcement both along the borders and in the interior of the country; ending the

“catch and release” of unauthorized immigrants from countries other than Mexico; and expanding immigration-detention capacity and the “expedited removal” process. However, the centerpiece of SBI was increased investment in “tactical infrastructure” along the border (fences and vehicle barriers), together with the development and deployment of new, “smarter” technologies such as thermal imaging, ground radar, and Unmanned Aerial Vehicles that would allow Border Patrol agents to detect the unauthorized entry of immigrants into the United States (“SBI-net”).¹

According to the Government Accountability Office (GAO), “since fiscal year 2005, SBI has received funding amounting to over \$3.7 billion. Approximately \$1.1 billion has been allocated to SBI-net and \$2.4 billion to tactical infrastructure.”² Under SBI, spending by DHS on “border security fencing, infrastructure, and technology”—which encompasses both SBI-net and SBI Tactical Infrastructure—totaled \$1.2 billion in FY 2007 and again in FY 2008, \$623 million in FY 2009, and \$800 million in FY 2010 {Figure 1}.³

Figure 1: DHS Budget for Border Security Fencing, Infrastructure & Technology, FY 2007-2010



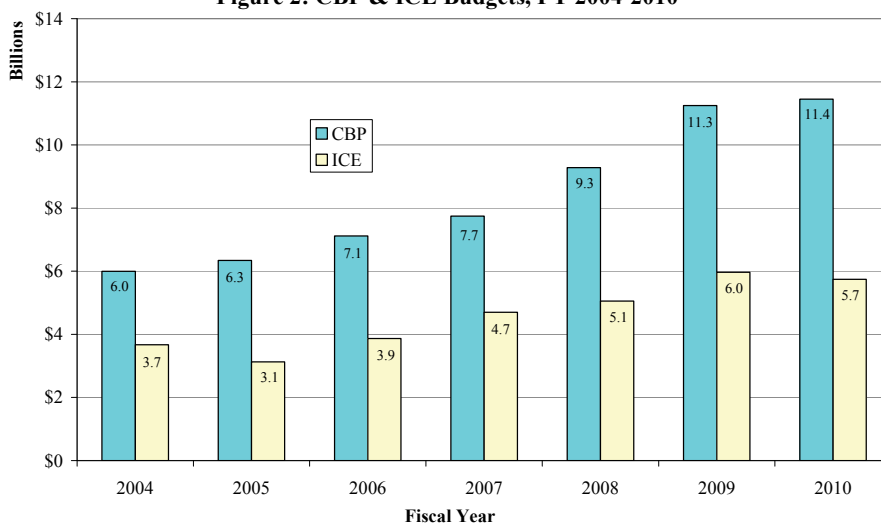
Source: U.S. Department of Homeland Security, *FY 2009 Budget Details*, p. 27; U.S. Department of Homeland Security, *Congressional Budget Justification FY 2011*, p. 728.

SBI was intended to be “the enforcement complement to the Temporary Worker Program that President Bush proposed” in 2004.⁴ However, neither a new temporary worker program nor any other element of comprehensive immigration reform materialized, meaning that SBI has been implemented within the context of the same broken immigration system which has plagued the United States for decades.

Heightened Border and Interior Enforcement

There is no doubt that immigration enforcement in general has been on the rise since the announcement of SBI, both at the border and throughout the country. Since FY 2004, the budgets of U.S. Customs and Border Protection (CBP) and U.S. Immigration and Customs Enforcement (ICE)—the border-enforcement and interior-enforcement components of DHS—have increased dramatically. CBP’s budget grew from \$6 billion in FY 2004 to \$11.4 billion in FY 2010, while ICE’s budget increased from \$3.7 billion to \$5.7 billion over the same period {Figure 2}.⁵

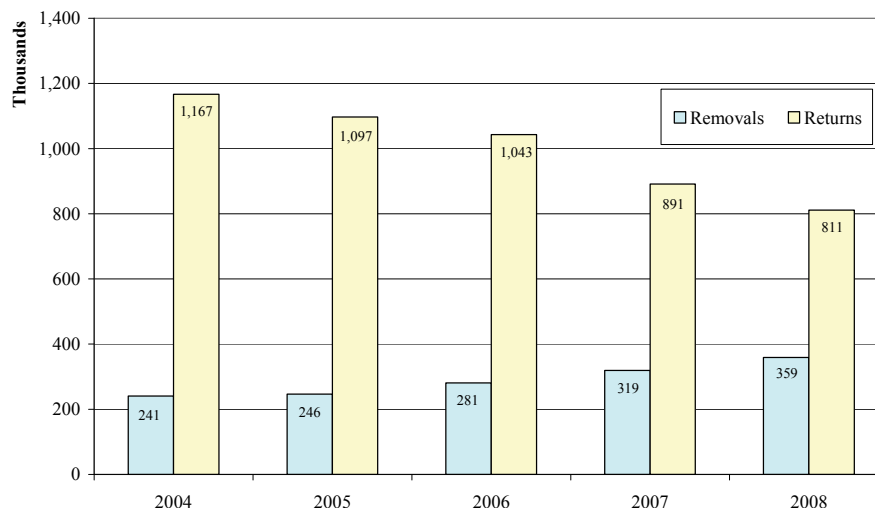
Figure 2: CBP & ICE Budgets, FY 2004-2010



Source: U.S. Department of Homeland Security, *Budget-in-Brief* for Fiscal Years 2005, 2006, 2007, 2008, 2009, 2010 and 2011.

At the same time, the number of immigrants “removed” (deported) from the United States has increased, while the number allowed to “voluntarily return” (primarily to Mexico) has dropped {Figure 3}.

Figure 3: Removals and Returns from the United States, 2004-2008



Source: U.S. Department of Homeland Security, *2008 Yearbook of Immigration Statistics*, Table 36.

Ending “Catch and Release”

When an immigrant is apprehended by the U.S. Border Patrol, his or her fingerprints are checked against the combined databases of DHS and the Federal Bureau of Investigation (FBI) to reveal if the immigrant is subject to any outstanding criminal warrants or has a criminal record, and to determine his or her country of origin. If the immigrant is from Mexico (or Canada) and does not have any outstanding warrants, is not a convicted felon, and has not previously been formally “removed” or deported from the United States, he or she can be “voluntarily returned” home. If an immigrant with a clean record is what the Border Patrol terms an Other Than Mexican (OTM), he or she is placed in removal proceedings (unless the OTM in question is from one of

the primarily Arab, Muslim, or South Asian countries designated by the federal government as being of “special interest” to U.S. national security, in which case the Border Patrol must first conduct several other security checks).

The Border Patrol then contacts the Office of Deportation and Removal at ICE to determine if detention space is available for the immigrant to be held during the removal process. If there is no available space, as was usually the case until recently, then the immigrant is issued a “Notice to Appear” before an immigration judge on a specified date and released on his or her own recognizance. Most immigrants who are issued a Notice to Appear do not do so. In FY 2004, roughly two-thirds failed to appear before an immigration judge. As a result, critics dubbed the practice “catch and release.”⁷ On July 14, 2006, DHS announced the end of “catch and release” for OTMs.⁸

Expansion of “Expedited Removal” Authority

Putting an end to the policy of “catch and release” has involved not only an increase in the detention capacity of ICE, but also an expansion of the “expedited removal” process by which arriving immigrants are removed from the United States *without* the opportunity for a hearing before an immigration judge. Immigrants who come here without proper documentation can be summarily excluded from the United States by an immigration officer unless they express a fear of persecution if returned home, in which case they are supposed to be referred to an asylum officer who determines if that fear is “credible.” Immigrants placed into expedited removal are subject to mandatory detention.⁹ Expedited removal was originally applied only to immigrants arriving at ports of entry.¹⁰ But it was expanded on September 14, 2005, to include immigrants apprehended by the Border Patrol between ports of entry along the southwest border—and, on January 30, 2006, to immigrants apprehended along the northern border.¹¹

Fencing the Border: SBI Tactical Infrastructure

SBI has involved a massive increase in spending on the construction of fences and vehicle barriers along the 2,000-mile U.S.-Mexico border. As described by the Congressional Research Service, the U.S. Border Patrol “uses three main types of barriers along the border: primary fencing immediately on the international border, Sandia fencing behind the primary fencing, and vehicle barriers meant to stop vehicles, but not people on foot, from traversing the border.”¹² According to the GAO, “as of June 2009, CBP had completed 633 of the 661 miles of fencing it committed to deploy along the southwest border.” However, “despite a \$2.4 billion investment” in fences and vehicle barriers under SBI, “their impact on border security has not been measured.” GAO recommends that “the Commissioner of CBP conduct a cost-effective evaluation of the impact of tactical infrastructure on effective control of the border.”¹³

“Smart” Technology: SBI Network (SBInet)

In conjunction with physical barriers such as fences, and more agents on the ground, SBI relies heavily upon so-called “smart” technology (such as thermal imaging, ground radar, and motion detectors) to detect unauthorized border crossings. Known as the SBI Network (or SBInet), this high-tech endeavor is described by the GAO as “a multibillion dollar program that includes the

acquisition, development, integration, deployment, and operation and maintenance of surveillance technologies to create a ‘virtual fence’ along the border, as well as command, control, communications, and intelligence (C3I) technologies to create a picture of the border.” The aim of the C3I technologies is “to produce a common operating picture (COP)—a uniform presentation of activities within specific areas along the border. Together, the sensors, radar, and cameras are to gather information along the border and transmit this information to COP terminals located in command centers and agents’ vehicles.”¹⁴

However, SBInet has not gone smoothly. According to a 2010 GAO report, “since March 2008, the number of new SBInet defects has increased faster than the number of defects that have been fixed, which is not a trend that is indicative of a maturing system.”¹⁵ On March 16, 2010, Homeland Security Secretary Janet Napolitano froze SBInet funding, pending the outcome of a comprehensive review of the program.¹⁶

SBI Tactical Infrastructure: Fences to Nowhere

The fencing boom called for in SBI was facilitated in part by the REAL ID Act of 2005, which authorized DHS to waive any and all “legal requirements,” such as environmental laws, that might stand in the way of fence construction. DHS exercised this new authority on April 1, 2008, by waiving environmental and land-management laws in California, Arizona, New Mexico, and Texas in order to “facilitate additional pedestrian and vehicle fence construction, towers, sensors, cameras, detection equipment, and roads.”¹⁷ The Secure Fence Act of 2006 directed DHS to build 850 miles in additional fencing along the southern border—although the bill did not appropriate any funds for this purpose.¹⁸

The construction of a fence along the border with Mexico is a monumentally expensive endeavor of dubious effectiveness in stopping unauthorized immigration. According to a 2009 report from the Congressional Research Service (CRS), the U.S. Army Corps of Engineers “predicted that the costs of constructing a double layer fence consisting of primary fencing and Sandia fencing would range from \$1.2 million to \$1.3 million a mile, excluding the costs of land acquisition (although “DHS predicts that the San Diego fence will have a total cost of \$127 million for its 14-mile length when it is completed—roughly \$9 million a mile”). The Corps of Engineers also predicted that the 25-year life cycle cost of a border fence would range from \$16.4 million to \$70 million per mile depending on the amount of damage sustained by the fencing.” In other words, a fence along all 2,000 miles of the southwest border would cost *at least* \$2.5 billion to build, plus anywhere from \$33 billion to \$140 billion to maintain over the following two-and-a-half decades, depending upon how many breaches the fencing sustains which must be repaired.¹⁹

As the GAO notes, the effectiveness of the new border fencing built under SBI has yet to be evaluated.²⁰ However, data from other sources does not bode well in this regard. For instance, a research team led by Wayne Cornelius, Director of the Center for Comparative Immigration Studies at the University of California, San Diego, has found that while unauthorized migrants from Mexico may be caught on their first attempt at crossing the border, they have an almost 100 percent chance of eventual success—particularly if they enlist the services of a *coyote*, or people smuggler.²¹ Moreover, as border enforcement is tightened *between* ports of entry along the southwest border, more migrants are being smuggled *through* ports of entry (sealed in a

compartment within a vehicle, or as a passenger with false or borrowed documents).²² In addition, anywhere from 25 percent to 40 percent of currently unauthorized immigrants came to the United States on valid visas and then remained when those visas expired.²³ Fencing is unlikely to have any impact on unauthorized immigration through these channels.

SBI-net: Poor Results at a High Cost

In September 2006, CBP awarded a contract to the Boeing Company to develop and deploy SBI-net technologies. One of Boeing's first tasks was Project 28: a \$20.6 million effort to secure 28 miles of border in Sasabe, Arizona. As described by the GAO, "Boeing was to provide, among other things, mobile towers equipped with radar, cameras, and other features, a COP that communicates comprehensive situational awareness, and secure-mounted laptop computers retrofitted in vehicles to provide agents in the field with COP information." Although Boeing delivered the cameras and radars on time, "the software that Boeing selected for the COP was intended to be used as a law enforcement dispatch system and was not designed to process and distribute the type of information being collected by the cameras, radars, and sensors." According to the GAO, "it was taking too long for radar information to display in command centers and newly deployed radars were being activated by rain or other environmental factors, making the system unusable."²⁴

Border Patrol officials told the GAO that Project 28 "was not an optimal system" and that it was "designed and developed by Boeing with minimal input from the intended operators of the system, including Border Patrol agents." For instance, Border Patrol agents reported that "they would have found the laptops mounted into agent vehicles safer and easier to use if they were larger and manipulated by a touch screen rather than with a pencil-shaped stylus, as using a stylus to manipulate the screen while driving is impractical."²⁵ Boeing submitted three "corrective action plans" to fix these and other defects, and on February 22, 2008, DHS "accepted" Project 28 as having met its contractual requirements, even though CBP officials said that the project "did not fully meet their expectations"²⁶ and "will not be replicated."²⁷

Despite Boeing's underwhelming performance on Project 28, it continued to play a prominent role in the development of SBI-net technology. As of February 15, 2008, Boeing had been awarded various "task orders" by CBP in addition to Project 28 that were worth roughly \$1.1 billion. Technologies coming out of these other projects were to eventually replace Project 28 technologies and to be gradually deployed along the entire southwest border, starting in Yuma, Tucson, and El Paso.²⁸ As described by the GAO, "SBI-net surveillance systems are to be acquired through the purchase of commercially available products, while the COP systems involve development of new, customized systems and software. Together, both categories are to form a deployable increment of SBI-net capabilities, which the program office refers to as a 'block.' Each block is to include a release or version of the COP. The border area that receives a given block is referred to as a 'project.'"²⁹ The GAO reports that Boeing and CBP are applying the "lessons learned" from Project 28 and seeking greater input from Border Patrol agents in the development of new systems.³⁰

However, according to the GAO, the "scope and timing of planned SBI-net deployments and capabilities have not been clearly established, but rather have continued to change since the

program began.” For instance, as of December 2006, “the SBIInet System Program Office planned to deploy an ‘initial’ set of capabilities along the entire southwest border by late 2008 and a ‘full’ set of operational capabilities along the southern and northern borders (a total of about 6,000 miles) by late 2009.” By March 2008, however, “it planned to deploy SBIInet capabilities to just three out of nine sectors along the southwest border—Tucson Sector by 2009, Yuma Sector by 2010, and El Paso Sector by 2011.” Moreover, the GAO found that “the SBIInet program office is not effectively managing its testing activities.” For example, “as of July 2008, agency officials reported that component-level tests had not been completed and were not scheduled to occur” on “Block 1” for the Tucson Sector. Instead, CBP officials were accepting “contractors’ self-certification that the components meet functional and performance requirements.”³¹

Throughout 2009, deadlines for the deployment of Block 1, which was supposed to occur in two locations within the Tucson Sector (TUS-1 and AJO-1), continued to be pushed back.³² As of January 2010, according to the GAO, “the TUS-1 system is scheduled for government acceptance in September 2010, with AJO-1 acceptance in November 2010.” In addition, the GAO concluded that “SBIInet test procedures were generally not executed as written. Specifically, about 70 percent of the procedures for key test events were rewritten extemporaneously during execution because persons conducting the tests determined that the approved procedures were not sufficient or accurate.”³³

Moreover, “the number of new SBIInet defects that have been discovered during testing has increased faster than the number that has been fixed.” The GAO noted that “such an upward trend is indicative of an immature system and can indicate a failure to meet system specifications. This is particularly problematic for SBIInet because DHS expects final system acceptance in early February 2010.” Among the five most significant SBIInet defects identified by the GAO that delayed its initial deployment in the TUS-1 and AJO-1 sectors were: “(1) the radar circuit breaker frequently tripped when the radar dish rotated beyond its intended limits, (2) COP workstations frequently crashed, (3) towers swayed beyond tolerable limits during adverse weather conditions, (4) radar clutter (i.e., false detections) occurred in adverse weather conditions, and (5) blurry camera images.” These problems and others “caused delays, extended testing, and required time and effort to fix.” And the problems kept multiplying.³⁴

On March 16, 2010, Homeland Security Secretary Janet Napolitano issued a statement noting that “the system of sensors and cameras along the Southwest border known as SBIInet has been plagued with cost overruns and missed deadlines.” As a result, she said, DHS is “freezing all SBIInet funding beyond SBIInet Block 1’s initial deployment to the Tucson and Ajo regions” until an assessment she ordered in January is complete.³⁵

The Failings of Enforcement Without Reform

The SBI effort to construct both a real and a virtual fence across the southwest border with Mexico has fallen victim in part to its own unrealistic expectations. It is wishful thinking to imagine that 2,000 miles of border land (let alone 6,000) can be “operationally secured” in just a few years, even under the best of circumstances. However, SBI is also a victim of the failure to implement immigration reform, which was intended to complement SBI’s drive to “secure the

border” with fencing and high-tech monitoring. The idea was that securing the border would be a much more feasible task once the unauthorized migration of workers and family members was channeled into legal avenues by the creation of realistic immigration limits. But that has yet to happen. As a result, most of our border-security initiatives, be they high-tech or low-tech, ensnare job seekers and people trying to join their loved ones in the United States rather than individuals who are actually a danger to the public. This is an enormous waste of resources, and makes finding that one needle in the haystack—that one person who actually is a threat—all the more difficult.

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Endnotes

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