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Is It Time to Rethink U.S. Entry and Exit Processes?

C. Richard Neu



Homeland Security

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Preface

Created in the wake of the September 11, 2001, terrorist attacks, the Department of Homeland Security came into being with the daunting core mission of taking action to protect the United States from terrorist attack and the simultaneous requirement to continue to perform the numerous other critical functions of all its component agencies. The complexity of the department's mission was further compounded by the fact that it depended not only on the success of the department's component agencies, but also on the efforts of a national homeland security enterprise comprised of organizations at the federal, state, and local levels, both inside and outside government. That there have been challenges in carrying out this endeavor in the years since should surprise no one. However, it has also been the fortunate reality that, whatever those challenges, at the time of this writing, there have been no major terrorist attacks within the United States since 9/11.

Transitions in presidential administrations are traditionally opportunities for the country to examine national policy goals, assess how we as a nation are trying to achieve them, ask whether what we are doing is working, and make adjustments where necessary. For homeland security, the presidential transition is even more important as it is the first change in administration since the creation of the Department of Homeland Security. To contribute to policy debate during this transition and to inform future homeland security policy development, the RAND Corporation initiated an effort to reexamine key homeland security policy issues and explore new approaches to solving them.

This paper is one of a series of short papers resulting from this effort. The goal was not to comprehensively cover homeland security writ large, but rather to focus on a small set of policy areas, produce essays exploring different approaches to various policy problems, and frame key questions that need to be answered if homeland security policy is to be improved going forward. The results of this effort were diverse, ranging from thought experiments about ways to reframe individual policy problems to more wide-ranging examinations of broader policy regimes. These discussions should be of interest to homeland security policymakers at the federal, state, and local levels and to members of the public interested in homeland security and counterterrorism.

This effort is built on a broad foundation of RAND homeland security research and analysis carried out both before and since the founding of the Department of Homeland Security. Examples of those studies include:

- Brian A. Jackson, Peter Chalk, Kim Cragin, Bruce Newsome, John V. Parachini, William Rosenau, Erin M. Simpson, Melanie W. Sisson, and Donald Temple, *Breaching the*

Fortress Wall: Understanding Terrorist Efforts to Overcome Defensive Technologies, Santa Monica, Calif.: RAND Corporation, MG-481-DHS, 2007.

- Tom LaTourrette, David R. Howell, David E. Mosher, and John MacDonald, *Reducing Terrorism Risk at Shopping Centers: An Analysis of Potential Security Options*, Santa Monica, Calif.: RAND Corporation, TR-401, 2006.
- Henry H. Willis, Andrew R. Morral, Terrence K. Kelly, and Jamison Jo Medby, *Estimating Terrorism Risk*, Santa Monica, Calif.: RAND Corporation, MG-388-RC, 2005.

The RAND Homeland Security Program

This research was conducted under the auspices of the Homeland Security Program within RAND Infrastructure, Safety, and Environment (ISE). The mission of RAND Infrastructure, Safety, and Environment is to improve the development, operation, use, and protection of society's essential physical assets and natural resources and to enhance the related social assets of safety and security of individuals in transit and in their workplaces and communities. Homeland Security Program research supports the Department of Homeland Security and other agencies charged with preventing and mitigating the effects of terrorist activity within U.S. borders. Projects address critical infrastructure protection, emergency management, terrorism risk management, border control, first responders and preparedness, domestic threat assessments, domestic intelligence, and workforce and training. Information about the Homeland Security Program is available online (<http://www.rand.org/ise/security/>). Inquiries about homeland security research projects should be sent to the following address:

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Summary

The Department of Homeland Security (DHS) is tasked with the responsibility for controlling the borders of the United States in a manner that protects the U.S. homeland from terrorist attack and enforces U.S. immigration laws and customs regulations while at the same time facilitating the legitimate movements of people and goods that are essential to a modern, open economy. Among the highest priorities for DHS is establishing comprehensive, biometrically validated, and matched records of arrivals and departures for visitors to the United States. A number of statutes have defined the characteristics of entry-exit systems (including a specific requirement for biometric validation of entry and exit records and machine-readable and tamper-resistant visas), established standards for interoperability with law enforcement and intelligence databases, and set various deadlines for the implementation of the system. With the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT), DHS made substantial progress toward capturing biometrically validated records of visitor arrivals at all major airports and seaports. Also, DHS now operates biometrically enabled arrival-record systems at all relevant land points of entry (POEs)—but only in the secondary inspection areas of these POEs. Currently, identities of most visitors crossing land borders and not undergoing secondary inspection are not biometrically validated. Less progress has been made toward establishing biometrically validated records of visitor departures. DHS has initiated a number of pilot programs to test various approaches for collecting biometrically validated exit records and indicated its intention to require air and sea carriers to collect biometric information to validate departure records beginning in January 2009, but departure records—even nonvalidated records—for visitors who leave across land borders remain sketchy.

Achieving the objectives of US-VISIT—comprehensive, biometrically validated, and matched records of visitor arrivals and departures in a format that is interoperable with law enforcement and intelligence databases—clearly remains problematic. Implementing comprehensive and reliable entry-exit monitoring at land borders will be especially challenging and expensive because of the large number of travelers involved and the difficulty of creating space and facilities for biometric validation. Perhaps the time has come to revisit the stated objectives of US-VISIT, and especially the exit component of US-VISIT. What benefit will the nation derive from comprehensive and reliable exit records? From an operational perspective, will continued efforts to define, justify, and implement a system for exit monitoring constitute the best use of DHS resources?

Few would dispute the need for comprehensive and validated checking of would-be entrants to the United States. Biometric validation ensures that the person who presents himself or herself for entry at the U.S. border is in fact the person to whom a visa was issued or the holder of a valid passport from a Visa Waiver Program country. Biometric validation protects

against someone using more than one identity to enter the United States fraudulently. Matching biometric information against law enforcement or intelligence databases helps to identify criminals or suspected terrorists. And comprehensive and reliable entry records “start the clock” for visitors whose privileges to remain in the United States have specified time limits. Comprehensive but nonvalidated departure records might be beneficial for the routine enforcement of U.S. immigration laws. Matching arrival and departure records could, for example, identify individuals who have overstayed allowed visit times in the United States—those who enter the country but for whom no departure has been recorded before the required date.

Without biometric validation, of course, determined or sophisticated lawbreakers might succeed in creating false departure records. But presumably most visitors who overstay allowable times in the United States for economic or personal reasons will have neither the motivation nor the skills to defeat even a nonvalidated departure-record system. For routine enforcement of U.S. immigration law, information on departures that is comprehensive (covering departures over land borders as well as departures by air or sea) but nonvalidated (without biometric confirmation of identity) might be adequate. Avoiding the requirement to collect biometric information from departing visitors—especially at high-volume land borders—should simplify efforts to make departure records more comprehensive.

The value of comprehensive and validated exit records is much less obvious. What do these records get the nation in the way of enhanced security or better enforcement of immigration law? Advocates of more-comprehensive and more-reliable departure records argue that such records are necessary to ensure the “integrity” of the U.S. immigration process. But the meaning and practical value of integrity are seldom explained. How might U.S. officials actually use departure records? A departure record might be valuable if it suggests, for example, a date or a route of departure from the United States, which could serve as a starting place for an effort to find positive evidence that the alleged terrorist has left. Perhaps such information will constitute a useful alert for some allied country where a potential terrorist may be headed next. But even a nonvalidated departure record may suffice for these purposes, which may mean that comprehensive records are more valuable than biometrically validated records.

It may be useful to explore this subject with respect to two very different purposes for monitoring the flow of individuals into and out of the United States: (1) routine enforcement of immigration laws and (2) the protection of the U.S. homeland from specific dangerous or unwanted individuals. Each of these functions poses its own operational requirements and challenges. The analysis required to achieve insight into the sorts of questions raised here would be multifaceted. A useful first step might lie in trying to simulate the data flow that would be generated by various versions of an arrival and departure record system at different stages of its development. How many records of what sorts and from what sources would be generated? Given what we know about current patterns of entry and exit from the United States and about the accuracy of different reporting modalities (e.g., records generated by government immigration officials as opposed to forms collected and forwarded by air carriers), how successful will we be in matching arrival and departure records? How many discrepancies will occur? How will discrepancies affect the day-to-day operations of immigration and law enforcement personnel? Which kinds of visitors—from which countries, visiting for what purposes, traveling how—will prove most problematic to track?

With some understanding of how specific implementations of a record system might operate, analysts might then begin to ask how a particular system might be “gamed,” who might have an interest in defeating the system, and how likely such a person might be to succeed.

Analysts could also engage law enforcement and other officials in discussions on the basis of concrete scenarios relating to volumes and types of information in order to assess the utility of such information for various purposes and to identify opportunities to make the information more useful or cost-effective. This sort of analysis could contribute to the design and economic justification for an event-record system that the Government Accountability Office has noted as lacking from DHS planning today.

Is It Time to Rethink U.S. Entry and Exit Processes?

At its creation in 2003, the Department of Homeland Security (DHS) was assigned some daunting responsibilities, among them responsibility for controlling entry of people and goods into the United States. DHS is responsible for controlling borders in a manner that protects the U.S. homeland from terrorist attack and enforces U.S. immigration laws and customs regulations while at the same time facilitating the legitimate movements of people and goods that are essential to a modern, open economy. DHS inherited a variety of procedures, practices, and programs relating to border control along with the multiple agencies that were combined to create DHS. In the face of a serious terrorist threat, earlier practices were clearly inadequate, and DHS shouldered the burden of strengthening border-control procedures. In some cases, Congress mandated specific enhancements. In others, DHS has moved on its own authority to secure the nation's borders.

Inevitably, DHS efforts to improve some aspects of border security have progressed more rapidly than others, and the department faces continuing challenges—organizational, operational, technological, and personnel-related—as it seeks to design and implement a comprehensive and in-depth national strategy for border security.

The arrival of a new administration and with it new leadership for the department presents a natural opportunity to review departmental programs and to reorder departmental priorities. It may also constitute an occasion to review with Congress some existing legislative mandates and to ask whether these mandates still represent the most effective approaches to securing the nation's borders.

In this short paper, we discuss one important aspect of border security—managing the entry and exit of individual travelers at U.S. borders. We note longstanding difficulties in meeting legislatively mandated standards for identifying travelers and documenting their arrivals and departures. We suggest that careful review of current policies and procedures may uncover helpful modifications. We also ask whether pursuing current objectives for entry and exit processing—especially objectives established by Congress—represents the best use of DHS budgetary and managerial resources.

The US-VISIT Program

Among the highest priorities for DHS is establishing comprehensive, biometrically validated, and matched records of arrivals and departures for visitors to the United States. Customs and Border Protection processes some 400 million entries—U.S. citizens and foreign visitors—into the United States each year. Monitoring and controlling this enormous flow of people in

a manner that protects U.S. interests and simultaneously facilitates legitimate travel constitutes a major challenge.

The original legislative mandate for the development and implementation of an automated system to match records of arrivals and departures was in the Illegal Immigration Reform and Immigrant Responsibility Act of 1996.¹ A number of subsequent statutes further defined the characteristics of entry-exit systems, established standards for interoperability with law enforcement and intelligence databases, and set various deadlines for the implementation of the system. In response to the terrorist attacks of September 11, 2001, the USA PATRIOT Act of 2001² added a specific requirement for biometric validation of entry and exit records. The Enhanced Border Security and Visa Entry Reform Act of 2002³ required that the Secretary of Homeland Security and the Secretary of State issue to aliens only machine-readable and tamper-resistant visas and other travel and entry documents making use of biometric identifiers.⁴

Even before 9/11, the Visa Waiver Permanent Program Act of 2000⁵ had extended the requirement for automated entry-exit recordkeeping to foreigners traveling to the United States under the Visa Waiver Program. This act also required that all aliens applying for visa waivers have machine-readable passports containing biometric information. As subsequently amended, the act set a target of August 3, 2008, for biometrically validated exit records for visitors departing the United States by air. This target was not met.

In April 2003, the Secretary of Homeland Security renamed the entry-exit system then under development the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) program.

US-VISIT has been a major program for DHS: DHS spending to develop the program amounted to some \$1.5 billion in fiscal year (FY) 2004 through FY 2007.⁶ An additional \$475 million was authorized for the program in FY 2008, and \$390 million has been requested for FY 2009.⁷ According to the Government Accountability Office (GAO), DHS spent about \$157 million from 2003 through 2007 on the exit component of US-VISIT alone.⁸ Another \$43 million has been requested for the exit component in FY 2009.⁹

¹ Pub. L. No. 104-208, div. C, sec.110 (Sept. 30, 1996).

² 8 USC § 1379.

³ Pub. L. No. 107-173 (May 14, 2002).

⁴ For a more complete overview of the legislative underpinnings of the US-VISIT program, see Government Accountability Office, *Strategic Solution for US-VISIT Program Needs to Be Better Defined, Justified, and Coordinated*, GAO-08-361, February 2008, pp. 45–50.

⁵ Pub. L. No. 106-396 (Oct. 30, 2000).

⁶ Government Accountability Office, *Homeland Security: Prospects for Biometric US-VISIT Exit Capability Remain Unclear*, GAO-07-1044T, June 2007, p. 3.

⁷ Department of Homeland Security, *Budget-in-Brief, Fiscal Year 2009*, undated, p. 140.

⁸ GAO (2008).

⁹ DHS, undated, p. 90. We were not able to identify the budget for spending on the exit component of US-VISIT in FY 2008.

Current Status of the US-VISIT Program

Today, DHS captures biometrically validated records of visitor arrivals at all major airports and seaports. Also, DHS now operates biometrically enabled arrival-record systems at all relevant land points of entry (POEs)—*but only in the secondary inspection areas of these POEs*.¹⁰ Currently, identities of most visitors crossing land borders and not undergoing secondary inspection are not biometrically validated.¹¹ In its most recent report on the US-VISIT program, GAO found DHS to be making reasonable progress toward the establishment of a workable system for validating entry records. Specifically, GAO noted that DHS has defined and begun to develop a *unique identity* capability to establish

a single identity for all individuals who interact with any immigration and border management organization by capturing the individual's biometrics, including 10 fingerprints and a digital image.¹²

Less progress has been made toward establishing biometrically validated records of visitor departures. Today's procedures require air and sea carriers to collect and return to Customs and Border Protection officials the lower (departure) portion of I-94 and I-94W forms from departing passengers without U.S. passports. These departure records are not biometrically validated. From January 2004 through May 2007, DHS operated a number of pilot programs to test various approaches for collecting biometrically validated exit records. DHS claims that these pilot programs have validated the basic technology for matching exit records with entry records. But none of these pilot approaches has been adopted for full-scale use. DHS has published a Notice of Proposed Rulemaking that will require air and sea carriers to collect biometric information to validate departure records, beginning in January 2009.

Departure records—even nonvalidated records—for visitors who leave across land borders remain sketchy. Current procedures require departing visitors to turn in the departure portion of their I-94 and I-94W forms to Canadian or Mexican officials at land borders. Our understanding, however, is that compliance with this requirement is low.

DHS claims some operational success for US-VISIT. Through June 2007, for example, biometric hits in primary entry processing resulted in adverse actions, such as denial of entry, against more than 1,500 people.¹³ In FY 2007, more than 160,000 individuals were matched against the US-VISIT watch list, and the number of validated overstay records more than doubled to 11,600.¹⁴ It is always hard to know what we don't know, of course: how many improper visitors were not identified through US-VISIT. Consequently, it is difficult to judge the importance of these achievements.

GAO reports have been consistently critical of DHS efforts to design and implement the exit component of US-VISIT.¹⁵ GAO's overall assessment of the US-VISIT program is that

¹⁰ GAO (2008), p 8.

¹¹ Identities are validated for visitors participating in the NEXUS and SENTRI trusted traveler programs. These programs are discussed in greater detail later in this paper.

¹² GAO (2008), p. 2.

¹³ GAO (2008), p. 11.

¹⁴ DHS (undated), p. 86.

¹⁵ For a summary of this criticism, see GAO (2008), pp. 16–17.

DHS has “delivered basically one-half of US-VISIT, meaning that biometrically enabled entry capabilities are operating at almost 300 air, sea, and land POEs, but comparable exit capabilities are not.”¹⁶ If anything, this assessment seems generous, since biometric validation is still only partially implemented at land POEs. In a later assessment, GAO offered a somewhat harsher assessment of the DHS efforts to achieve an exit record capability: “[DHS] has yet to define and economically justify a comprehensive strategic solution for controlling and monitoring the exit of foreign visitors, which is critical to accomplishing the program’s goals.”¹⁷

Achieving the objectives of US-VISIT—comprehensive, biometrically validated, and matched records of visitor arrivals and departures in a format that is interoperable with law enforcement and intelligence databases—clearly remains problematic. Implementing comprehensive and reliable entry-exit monitoring at land borders will be especially challenging and expensive because of the large number of travelers involved and the difficulty of creating space and facilities for biometric validation. GAO and others have criticized DHS’s management of the US-VISIT program over the last several years, and the Department certainly faces a requirement to improve its own management processes. But perhaps the time has come to revisit the stated objectives of US-VISIT, and especially the exit component of US-VISIT. What benefit will the nation derive from comprehensive and reliable exit records? From an operational perspective, will continued efforts to define, justify, and implement a system for exit monitoring constitute the best use of DHS resources?

Monitoring Entry into the United States

Procedures for monitoring who is entering the United States must serve multiple purposes. These procedures must, of course, offer opportunities to prevent or deter the entrance of specific dangerous individuals, such as potential terrorists or criminals. Good entry monitoring can also provide opportunities for detecting patterns of travel linked to illegal activity—trafficking in drugs or people, for example. And entry monitoring must also uphold U.S. immigration laws by ensuring that entrants have appropriate documentation for their intended activities in the United States. Finally, entry procedures must increase the odds that border agents will recognize altered or fraudulent travel documents.

Few would dispute the need for comprehensive and validated checking of would-be entrants to the United States. Biometric validation ensures that the person who presents himself or herself for entry at the U.S. border is in fact the person to whom a visa was issued or the holder of a valid passport from a Visa Waiver Program country. Biometric validation protects against someone using more than one identity to enter the United States fraudulently. Matching biometric information against law enforcement or intelligence databases helps to identify criminals or suspected terrorists. And comprehensive and reliable entry records “start the clock” for visitors whose privileges to remain in the United States have specified time limits.

For these reasons, DHS progress toward establishing a reliable system of entry records is welcome. There are still gaps in this system, however.

¹⁶ GAO (2007), p. 1.

¹⁷ GAO (2008), Highlights.

As we noted above, entrants at land POEs are not yet subject to comprehensive validation, and individuals intent on evading U.S. border controls may exploit this gap. A less obvious gap is the current exemption of U.S. passport holders from biometric validation in most circumstances. In its recommendations, the 9/11 Commission specifically asserted that “Americans should not be exempt from carrying biometric passports or otherwise enabling their identities to be securely verified when they enter the United States.”¹⁸ The United States is beginning to issue electronic passports with digital photographs (but not fingerprints) encoded. But, as yet, holders of U.S. passports are not required to demonstrate when they enter the country that the information on the passport matches the characteristics of the traveler. Neither are they required to provide fingerprints for matching against watch lists or other databases of suspect individuals. In most cases, verification that travelers in possession of U.S. passports are who they say they are is based on a border control agent’s comparison of a passport photo with the face at the counter.

What Is the Value of Exit Records?

The value of comprehensive and validated exit records is much less obvious. What do these records get the nation in the way of enhanced security or better enforcement of immigration law?

Advocates of more-comprehensive and more-reliable departure records argue that such records are necessary to ensure the “integrity” of the U.S. immigration process. But the meaning and practical value of *integrity* are seldom explained. How might U.S. officials actually use departure records?

It may be useful to explore this subject with respect to two very different purposes for monitoring the flow of individuals into and out of the United States: (1) routine enforcement of immigration laws and (2) the protection of the U.S. homeland from specific dangerous or unwanted individuals. Each of these functions poses its own operational requirements and challenges.

Routine Enforcement of Immigration Laws

Comprehensive but nonvalidated departure records might be beneficial for the routine enforcement of U.S. immigration laws. Matching arrival and departure records could, for example, identify individuals who have overstayed allowed visit times in the United States—those who enter the country but for whom no departure has been recorded before the required date. In principle, information about overstayers might be made available to Immigrations and Customs Enforcement officers or other law enforcement personnel, who might then determine more quickly the legal status of nonimmigrant visitors they encounter in the course of routine operations.¹⁹

¹⁸ *Final Report of the National Commission on Terrorist Attacks upon the United States*, 2004, p. 388.

¹⁹ Easy identification of persons illegally in the United States is not an unambiguous benefit for law enforcement personnel. Once members of the public understand that law enforcement personnel can quickly and reliably identify at least some categories of illegal aliens, these members of the public may become reluctant to deal with law enforcement personnel for fear of compromising their or others’ freedom to remain in the United States. Crimes may go unreported, and members of the public may refuse to share information with authorities.

Without biometric validation, of course, determined or sophisticated lawbreakers might succeed in creating false departure records. But presumably most visitors who overstay allowable times in the United States for economic or personal reasons will have neither the motivation nor the skills to defeat even a nonvalidated departure-record system. For routine enforcement of U.S. immigration law, information on departures that is comprehensive (covering departures over land borders as well as departures by air or sea) but nonvalidated (without biometric confirmation of identity) might be adequate. Avoiding the requirement to collect biometric information from departing visitors—especially at high-volume land borders—should simplify efforts to make departure records more comprehensive. Perhaps it would be wiser for DHS to concentrate its efforts—and for Congress to allow it to concentrate its efforts—on making departure records more comprehensive before it undertakes a major effort to increase the reliability of these records.

But are the costs of comprehensive departure records²⁰—even without biometric validation—justified for the purposes of routine immigration enforcement? Conceptually, an alternative approach could be built on a system of comprehensive *arrival* records linked to indicators of allowable stays but without specific departure information. A visitor encountered in the United States has obviously not departed, and a law enforcement officer who encounters a visitor in the country apparently beyond the allowed time could then initiate further inquiries. Perhaps comprehensive records of *departures* are not necessary for most routine purposes.

Even if a visitor has already left the country, a record of overstaying on a previous visit might be of use in considering whether to allow the same individual to reenter the country at some point in the future. Without comprehensive records of departures, it will of course be impossible to identify visitors who overstayed allowable times on previous visits. Is this a significant disadvantage?

Perhaps not. One might reasonably ask if we would ever have sufficient confidence in a system of departure records to use such records as a basis for denying future entry to the United States. U.S. courts have recently held that Social Security records are not sufficiently accurate to support routine checking of names and Social Security numbers reported by employers. The Social Security system is long-established, and Social Security numbers are used routinely for many purposes, providing many opportunities for discrepancies to be discovered and rectified. And still, courts have refused to allow the promulgation of a final rule published by DHS that would modify the steps employers must take when notified of “non-matches” between names and numbers reported by employers and those on file with the Social Security Administration.²¹ Could a new information system without an established track record, subject to few opportunities for verification, and the data for which would be gathered in most cases by non-government employees (airline personnel, in DHS’s proposed scheme for collecting departure data for air travelers) in the bustle of international travel provide a basis for denying individuals access to the United States? Incorrect data in a system of exit records could bring harm to

²⁰ For these purposes, relevant costs are only those borne by DHS. Current proposals place most of the burden for collecting information concerning travelers leaving by air or sea on carriers. These costs will ultimately have to be passed on to the traveling public. The public will also bear costs in the form of lengthier departure formalities and possibly longer queues. Delays may be particularly severe at high-volume land border crossings.

²¹ On October 10, 2007, the U.S. District Court for the Northern district of California issued a preliminary injunction blocking implementation of the DHS final rule entitled “Safe-Harbor Procedures for Employers Who Receive a No-Match Letter.” The text of the final rule is available as of November 6, 2008: www.ice.gov/doclib/finalsafe.pdf/

individual visitors, their families legally in the United States, and possibly U.S. businesses for whom visitors are either employees or customers. One might wonder if it would ever be wise or ethical to use such a system to determine future eligibility for entry into the United States.

In effect, a system that dispenses with departure information and relies on linking arrival data to indicators of allowable stays creates a *positive* list of nonimmigrant visitors authorized to be in the country at a given time. A visitor who has entered legally and not yet exhausted his or her allowable stay is presumably authorized to be here. A law enforcement officer encountering a particular visitor would be forced to query this system to determine the legal status of the visitor. Difficulties might arise, for example, because of alternative spellings of foreign names. But a positive match would give a clear indication that the visitor's presence is not problematic. A failure to match might not necessarily indicate illegal presence in the United States, but it could constitute grounds for further checking.

In contrast, a system that relies on matching arrival and departure information could produce a *negative* list of visitors who should no longer be in the United States. Arguably, such a list would be easier for busy law enforcement personnel to use. But what, precisely, would an immigration or law enforcement officer do if he or she encounters a visitor who, according to the system, has already left the United States? The visitor is obviously still here. Is the departure record incorrect or an indicator of a subsequent illegal entry?

A system that is difficult to use or that provides false or inconclusive information will quickly be ignored by law enforcement personnel in the field. Each of the approaches considered here is open to different kinds of errors, and the consequences of errors arising from the two approaches are different. Which of the two approaches might provide more useful and useable information to immigration or law enforcement officers is a question of some analytic complexity. Perhaps some system that combines all three kinds of information—arrival, departure, and an indication of allowable stays—would generate more useful information. But at what cost?

Finally, one might ask whether any approach to recognizing visitors who entered the United States legally but failed to depart in the required time will be worth much in today's immigration climate. In the neighborhood of half a million individuals are living in the United States in violation of lawful deportation orders. These people have been clearly identified as being in the country illegally, and yet they have not left. How does a better system for identifying yet more illegal immigrants benefit the country in these circumstances? There are also an estimated 10 million individuals who simply entered the United States illegally without any paperwork.²² An exit-record system will do nothing to reduce this number. Is an exit-record system really aimed at the principal immigration enforcement problems of the day?

Targeting Specific Visitors

Will reliable exit records be of any more value with respect to specific visitors of special interest to U.S. authorities? In these cases, of course, it will be important to verify that travelers crossing U.S. borders are indeed who they say they are. Biometrically validating information

²² Figures for individuals in violation of deportation orders and in the United States illegally are taken from K. Jack Riley, *Border Security and the Terrorist Threat*, Testimony presented to the House Homeland Security Committee, Subcommittee on Economic Security, Infrastructure Protection, and Cybersecurity, Subcommittee on Emergency Preparedness, Science, and Technology on August 8, 2006, Santa Monica, Calif.: RAND Corporation, CT-266, August 2006, p. 10. As of January 29, 2009: <http://www.rand.org/pubs/testimonies/CT266/>

at arrival already helps to screen out known undesirables or those attempting to travel on false documents. But in what circumstances will equally reliable information about departures be useful?

Consider the case of a visitor who has entered the United States legally and has subsequently been identified (through, say, intelligence reports) as a potential terrorist. Can we imagine that a departure record could ever be sufficiently reliable to allow law enforcement personnel to *stop* searching in the United States for the alleged terrorist? Could those responsible for apprehending potential terrorists ever suspend a search before they had positive evidence that the suspect is in fact elsewhere? What will a biometrically validated departure record have gained us in such a case?

A departure record might be valuable if it suggests, for example, a date or a route of departure from the United States, which could serve as a starting place for an effort to find positive evidence that the alleged terrorist has left. Perhaps such information will constitute a useful alert for some allied country where a potential terrorist may be headed next. But even a non-validated departure record may suffice for these purposes, which may mean that comprehensive records are more valuable than biometrically validated records. We might ask if the costs of biometrically validated exit records are operationally justified, at least while DHS pursues other priorities in the near term.

Possible Analytic Contributions

The point of the preceding discussions is not to dispute the desirability of moving eventually to systems that generate improved information about visitor arrivals and departures. Rather, the questions are meant to suggest that further consideration of the operational uses for such information might help to guide the allocation of resources for gathering it. Can the government, for example, postpone for some time a major effort to capture departure data—especially difficult at high-volume land borders—while it focuses energy and resources on screening protocols to make the most effective use of arrival data?

The analysis required to achieve insight into the sorts of questions raised here would be multifaceted. A useful first step might lie in trying to simulate the data flow that would be generated by various versions of an arrival and departure record system at different stages of its development. How many records of what sorts and from what sources would be generated? Given what we know about current patterns of entry and exit from the United States and about the accuracy of different reporting modalities (e.g., records generated by government immigration officials as opposed to forms collected and forwarded by air carriers), how successful will we be in matching arrival and departure records? How many discrepancies will occur? How will discrepancies affect the day-to-day operations of immigration and law enforcement personnel? Which kinds of visitors—from which countries, visiting for what purposes, traveling how—will prove most problematic to track?

With some understanding of how specific implementations of a record system might operate, analysts might then begin to ask how a particular system might be “gamed,” who might have an interest in defeating the system, and how likely such a person might be to succeed. Analysts could also engage law enforcement and other officials in discussions on the basis of concrete scenarios relating to volumes and types of information in order to assess the utility of such information for various purposes and to identify opportunities to make the infor-

mation more useful or cost-effective. This sort of analysis could contribute to the design and economic justification for an event-record system that GAO has noted as lacking from DHS planning today.

Trusted-Traveler Programs

In its recommendations, the 9/11 Commission specifically linked biometrically validated entry-exit systems with trusted-traveler programs that allow pre-screened individuals to pass expeditiously through immigration formalities.²³ DHS has moved to implement such programs for Canadian nationals (the NEXUS program), for Mexican nationals (the SENTRI program), and for U.S. citizens (the Global Entry program). By registering with U.S. authorities, submitting to background checks, providing biometric information, and appearing for personal interviews, participants in these programs receive special identification cards that allow expedited processing at borders.²⁴ These programs now have a common application process, enabled by the DHS's Global Online Enrollment System (GOES). In its FY 2009 budget justification, Customs and Border Protection projected the enrollment of 663,000 individuals in the NEXUS program by the end of FY 2008 and 267,000 in SENTRI.²⁵ The Global Entry program first became operational, on a pilot basis, only in June 2008, and enrollment in that program is still very small.

These programs constitute, of course, a benefit to the many frequent travelers who cross borders routinely for business, employment, or education. Because they streamline processing of visitors at border POEs, these programs also reduce DHS's costs and allow resources to be concentrated on more problematic cases. Indeed, these programs will be key in establishing biometrically validated entry and exit records at high-volume land POEs. If sufficient numbers of travelers can be checked into the United States using biometrically enabled identification cards, the burden of biometric validation for the remaining travelers may become manageable.

The question that arises in relation to NEXUS, SENTRI, and Global Entry is whether the procedures and requirements for participation in the programs are as efficient and effective as they might be.

When Is a Personal Interview Cost-Effective?

There is little doubt that biometric information—photographs, fingerprints, and (currently for NEXUS) iris scans—and background checks are essential requirements for the programs. People routinely crossing U.S. borders must be who they say they are and must have been appropriately vetted.

²³ *Final Report of the National Commission on Terrorist Attacks upon the United States*, 2004, p. 389.

²⁴ The NEXUS program allows expedited entry at land and air POEs. SENTRI is currently implemented only at land POEs. Global Entry is currently implemented on a pilot basis at six U.S. airports.

²⁵ Department of Homeland Security, Customs and Border Protection, *Fiscal Year 2009 Congressional Justification*, pp. CBP-S&E-32 and 33.

The current programs also require, however, a personal interview for each applicant, and legitimate questions arise about the cost-effectiveness of this requirement. How much do these interviews cost DHS? How much do the interviews cost applicants—in time or difficulty in scheduling? Of course, applicants must appear in person to provide biometric information. If interviews can easily be scheduled at the same time, the burden on applicants may be minimal. But how difficult is it in practice to schedule an interview? How promptly can interviews be arranged? Do difficulties in scheduling or attending interviews dissuade significant numbers of otherwise qualified applicants from participating in the programs?

Potentially offsetting these costs are the benefits of conducting personal interviews. But how significant are these benefits? Are the personal interviews strengthening the screening process in a measurable way? For example, do personal interviews in fact result in the denial of trusted-traveler status for a meaningful number of applicants who appear to be eligible on the basis of documentary evidence alone? If not, are these interviews worth the time and trouble for DHS personnel and for applicants? Would it be productive to conduct interviews only in selected cases where documentary evidence raises some doubts?

We are not aware of any systematic analysis of the costs and benefits of personal interviews in the application process for trusted-traveler status. These are important programs, potentially yielding benefits for individuals and for the overall process of managing entry and exit at U.S. borders. Making participation in these programs attractive without compromising security should be a high priority.

An analysis of the value of personal interviews might begin with a simple review of the number of otherwise acceptable applicants rejected solely on the basis of the interview in order to judge whether interviews are adding anything to the documentary review. A second step might be to correlate interview-based rejections with particular characteristics in the documentary evidence. Are there, for example, particular characteristics captured by the documentary evidence that suggest an elevated probability of rejection after an interview? If so, these characteristics might be used to select certain applicants for interviews. The final step in the analysis might be to survey applicants and potential applicants for the programs to learn something about their actual or expected experience with interviews. How difficult was it to schedule an interview? How much time did it take to schedule, travel to, and complete an interview? For those who have chosen not to participate in the program, was the requirement for an interview or the difficulty in arranging it a significant factor in their decisions not to participate? The findings of such analysis may allow DHS to fine-tune the programs to allow greater participation and lower costs without sacrificing effective screening of applicants.

Concluding Comments

DHS has not yet defined a comprehensive national strategy for border security.²⁶ In particular, DHS has not yet defined and justified a strategy for achieving congressionally mandated objectives for comprehensive, automated, and biometrically validated records of visitors' exits from the United States. Doubtless, DHS management of US-VISIT could be improved. But a more

²⁶ For a discussion of what such a strategy might include, see Michael A. Wermuth, *The Strategic Challenge of Border Security*, Santa Monica, Calif.: RAND Corporation, CT-275, March 2007. As of January 29, 2009: <http://www.rand.org/pubs/testimonies/CT275/>

fundamental problem may lie in the congressional mandate for exit monitoring. The value of reliable exit monitoring has not been established and is, we suggest, open to question. DHS may be able to focus its financial and managerial resources on other programs that will provide higher value than comprehensive exit monitoring.

A short paper like this is not the place to pursue a broad assessment of which DHS programs may offer the most promising opportunities for protecting U.S. interests and upholding U.S. immigration laws. We can, nonetheless, suggest placing priority on certain aspects of U.S. border control efforts.

The benefits of comprehensive and reliable identification of individuals *entering* the United States are, we believe, clear and substantial. The value of similarly comprehensive and reliable *exit* records—or maybe any exit records at all—is far less clear. In these circumstances, it would seem to make sense to focus DHS resources on making entry records truly comprehensive and reliable before pursuing expensive approaches to exit monitoring. In particular, we recommend extending biometric identity checking to include all visitors arriving at land POEs. The key to accomplishing this objective may be to increase participation in trusted-traveler programs, thereby lessening the burden of checking identities of other entrants. Careful consideration of the cost-effectiveness of requirements for participation in trusted-traveler programs—particularly the requirement for a personal interview—may identify ways to make these programs more attractive. More controversially, we might suggest initiatives to verify through biometric means the identities of travelers arriving at border checkpoints with U.S. passports.

The arrival of a new administration is the proper occasion for a thorough review and possible adjustment of current objectives—including congressionally mandated objectives—for processing arrivals and departures at U.S. borders. We urge the new leadership of DHS to initiate this review and to undertake the analyses necessary to support it.