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Border Security: Understanding Threats at U.S. Borders

February 21, 2013

Congressional Research Service
https://crsreports.congress.gov
R42969

CRS REPORT
Prepared for Members and
Committees of Congress

Summary

The United States confronts a wide array of threats at U.S. borders, ranging from terrorists who may have weapons of mass destruction, to transnational criminals smuggling drugs or counterfeit goods, to unauthorized migrants intending to live and work in the United States. Given this diversity of threats, how may Congress and the Department of Homeland Security (DHS) set border security priorities and allocate scarce enforcement resources?

In general, DHS's answer to this question is organized around risk management, a process that involves risk assessment and the allocation of resources based on a cost-benefit analysis. This report focuses on the first part of this process by identifying border threats and describing a framework for understanding risks at U.S. borders. DHS employs models to classify threats as relatively high- or low-risk for certain planning and budgeting exercises and to implement certain border security programs. Members of Congress may wish to use similar models to evaluate the costs and benefits of potential border security policies and to allocate border enforcement resources. This report discusses some of the issues involved in modeling border-related threats.

Understanding border risks begins with identifying key threats. At their roots, border-related threats are closely linked to the flow of people (travelers) and goods (cargo) from one country to another. Any smuggled item or individual hidden among the legitimate flows potentially constitutes a threat to U.S. security or interests.

The *intentions* and *actions* of unauthorized travelers separate them into different threat categories, including terrorists, transnational criminals, and other illegal migrants.

Illegal goods are distinguished by their inherent *legitimacy* or *illegitimacy.* Certain weapons, illegal drugs, and counterfeit goods are always illegal and categorically prohibited, while other goods are legal under most circumstances, but become illegitimate if they are smuggled to avoid enforcement of specific laws, taxes, or regulations.

The risks associated with these diverse types of threats may be modeled as a function of (1) the likelihood that the threat will be realized, and (2) the potential consequences of a given threat. In practice, however, estimating likelihood and evaluating potential consequences are challenging tasks, particularly when it comes to the diversity and complexity of border threats. Assessing border threats is also difficult because terrorists, criminals, and migrants are strategic actors who may adapt to border defenses. This report describes some of these challenges, and suggests questions policymakers may ask to develop their own "maps" of border risks. Several potential border threats are described, and the report summarizes what is known about their likelihood and consequences.

The report concludes by discussing how risk assessment may interact with border security policymaking. Given the uncertainty and the subjective judgments involved in modeling risk, policymakers may struggle to reach a consensus on border priorities. Nonetheless, a systematic approach to studying border threats may help clarify the types of policy tradeoffs lawmakers confront at the border.

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Introduction

America's borders and ports are busy places, with tens of millions of cargo containers and hundreds of millions of lawful travelers entering the country each year,[1] while tens of thousands of illegal cargo entries and hundreds of thousands of unauthorized migrants are seized, arrested, or turned away.[2] At the same time, hundreds of thousands of unauthorized migrants evade detection to enter the United States illegally;[3] thousands of kilograms of illegal drugs and other contraband are smuggled into the country;[4] and tens of thousands of migrants may be victims of human trafficking.[5] The breadth and variety of these statistics are reflected in the Department of Homeland Security's (DHS's) complex border security mission, which calls on the agency to "prevent the illegal flow of people and goods across U.S. air, land, and sea borders while expediting the safe flow of lawful travel and commerce; ensure security and resilience of global movement systems; [and] disrupt and dismantle transnational organizations that engage in smuggling and trafficking across the U.S. border."[6]

To execute this mission successfully, DHS and Congress must balance a number of competing priorities and allocate resources accordingly. For example, how should enforcement programs weigh the facilitation of legal trade and travel against the competing goal of preventing illegal entries? How should the allocation of border security resources be divided among programs designed to counter differing threats? Is it more efficient to invest enforcement dollars at ports of entry or on fencing and surveillance between the ports? Should additional personnel be added to the Southwest border or at Northern or coastal borders? How do intelligence operations and cooperation with enforcement agencies away from the border enhance border security?

The answers to these questions depend on the variety of threats America confronts at its international borders. DHS and its congressional supporters may have had the luxury of adopting an "all of the above" approach in the years following the September 11, 2001 (9/11), terrorist attacks; but at a time of fiscal scarcity the department faces increasing pressure to invest prudently, and to ensure that effective enforcement strategy shapes agency budgets rather than the other way around.[7] In addition, because many threat actors are strategic (i.e., they may change

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[1] U.S. Customs and Border Protection (CBP), "CBPs 2011 Fiscal Year in Review," December 12, 2011. Cargo flows through U.S. ports (imports plus exports) was valued at $3.7 trillion in 2011, about 25% of U.S. gross domestic product (GDP); and international tourism to the United States (exports) was valued at $134 billion in 2010, about 1% of GDP; see CRS Report RL33577, *U.S. International Trade: Trends and Forecasts*, by Brock R. Williams and J. Michael Donnelly; and CRS Report R41409, *U.S. Travel and Tourism Industry*, by Suzanne M. Kirchhoff.

[2] CBP, "CBPs 2011 Fiscal Year in Review," December 12, 2011.

[3] Jeffrey Passel and D.Vera Cohn, *Unauthorized Immigrants: 11.1 Million in 2011*, Pew Research Hispanic Center, Washington, DC, December 6, 2012, http://www.pewhispanic.org/2012/12/06/unauthorized-immigrants-11-1-million-in-2011/.

[4] U.S. Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2011*, http://www.justice.gov/ndic/pubs44/44849/44849p.pdf.

[5] Department of Justice, Department of Health and Human Services, Department of State, Department of Labor, Department of Homeland Security, and U.S. Agency of International Development, Assessment of U.S. Government Efforts to Combat Trafficking in Persons, June 2004. Subsequent Justice Department reports have cited this 2004 figure, or not included estimates of the number of trafficking victims. For a fuller discussion see CRS Report RL34317, *Trafficking in Persons: U.S. Policy and Issues for Congress*, by Alison Siskin and Liana Sun Wyler.

[6] Department of Homeland Security (DHS), *Quadrennial Homeland Security Review Report: A Strategic Framework for a Secure Homeland*, Washington, DC, February 2010, page 26; hereafter: DHS, *QHSR*.

[7] See U.S. Congress, House Committee on Homeland Security, *The Department of Homeland Security: An Assessment of the Department and a Roadmap for its Future*, 112th Cong., 2nd sess., September 20, 2012.

their tactics in response to enforcement efforts), questions about the effectiveness of U.S. border security policy and the costs and benefits of competing approaches should be revisited on a regular basis.

In general, DHS's border enforcement strategy, like its overall approach to homeland security, is based on risk management, which DHS defines as "the process for identifying, analyzing, and communicating risk and accepting, avoiding, transferring, or controlling it to an acceptable level considering associated costs and benefits of any actions taken."[8] In short, the goal of risk management is to target enforcement resources to specific threats in proportion (1) to the gravity of the associated risk, and (2) to the cost-effectiveness of the enforcement response.

This report focuses on the first major step in managing border-related risks: assessing the risk posed by different types of threats at U.S. borders. Risk assessment in the border security context presents particular challenges, as discussed below (see "A Framework for Assessing Border Threats"). But understanding these challenges and systematically assessing border threats provide a critical foundation for DHS's planning process, as well as for Members of Congress charged with making border security policy, overseeing enforcement efforts, and allocating agency resources.

This report begins with a discussion of the types of threats the United States confronts at its international borders (see "Types of Border Threats"), followed by an overview of DHS's risk management methodologies, including in the context of border security (see "DHS and Risk Management"). The following sections show how the principles of risk management may be used to describe and analyze threats to U.S. border security. First, how can Members of Congress and others assess the risks associated with each of these threats (see "A Framework for Assessing Border Threats")? Second, for selected border threats, what conclusions may be drawn about current risk levels (see "Assessment of Selected Border Threats")? The report concludes by placing threat assessment within the broader context of border security policymaking.

Types of Border Threats

America's concern for national security at the border long predates the post-9/11 focus on "homeland security,"[9] though the nature of border threats has changed over time. The first federal immigration laws, passed in 1798, authorized the President to arrest or deport any alien deemed to be dangerous to the United States and any adult male alien from a country at war with the United States.[10] Over the course of the 20th century, laws were passed to exclude security threats such as anarchists (in 1903), aliens considered a threat to public safety during times of war (1918), communists (1950), and terrorists (1996).[11]

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[8] DHS, *Risk Management Fundamentals: Homeland Security Risk Management Doctrine*, Washington, DC, April 2011 (hereafter: DHS, *Risk Management Doctrine*), page 7.

[9] As the *Quadrennial Homeland Security Review* observes, "because the term is in such widespread use, it may be easy today to overlook the fact that *homeland security* is a relatively new concept." The QHSR defines homeland security as "the intersection of evolving threats and hazards with the traditional governmental and civic responsibilities of civil defense, emergency response, law enforcement, customs, border control, and immigration" (DHS, *QHSR*, p. 11).

[10] The Aliens Act of June 25, 1798 (1 Statutes-at-Large 570), and the Alien Enemy Act of July 6, 1798 (1 Statutes-at-Large 577), respectively. Three laws passed prior to June 1798 concerned federal naturalization provisions.

[11] Respectively, the Immigration Act of March 3, 1903 (32 Statutes-at-Large 1213); the Act of May 22, 1918 (40 Statutes-at-Large 559); the Internal Security Act of 1950 (64 Statutes-at-large 987); the Immigration Act of 1990 (P.L. 101-649).

The mission and focus of U.S. border enforcement has also changed over time. The U.S. Border Patrol (USBP) was established in 1924 and focused initially on preventing the entry of inadmissible Chinese migrants and on preventing alcohol inflows during Prohibition, with the majority of agents stationed on the Northern border.[12] Unauthorized migration from and through Mexico first emerged as a major policy concern beginning in the late 1960s and early 1970s,[13] and 1971 marked the beginning of tightening border controls as part of America's "war on drugs."

Thus, beginning in the 1970s, the United States engaged in sustained and intertwined efforts to combat illegal migration and drug flows at the Southwest border.[14] Border patrol staffing (focused primarily on immigration control) climbed eleven-fold between 1975 and 2011,[15] and spending by the Drug Enforcement Administration (DEA, focused primarily on counter-narcotics) increased about five-fold during the same period.[16]

With the first World Trade Center bombing in 1993 and the interception of the so-called millennium bomber at Port Angeles, WA, in 1999, counterterrorism became a third important focus of U.S. border security (i.e., in addition to immigration control and counter-narcotics) during the 1990s—and the top concern after 9/11. Thus, DHS's border security responsibilities were defined by the Homeland Security Act (HSA, P.L. 107-296) to include, among other responsibilities, preventing the entry of terrorists and terrorist weapons; securing U.S. borders, territorial waters, ports, and transportation systems; immigration enforcement; and customs enforcement (including preventing the entry of illegal drugs).[17]

[12] See U.S. Customs and Border Protection (CBP), "Border Patrol History," http://www.cbp.gov/xp/cgov/border_security/border_patrol/border_patrol_ohs/history.xml. Also see Tony Payan, *The Three U.S.-Mexico Border Wars: Drugs, Immigration, and Homeland Security* (Westport, CT: Praeger Security International, 2006).

[13] Partly as a result of economic changes in the United States and Mexico, as well as the unintended consequences of changes to U.S. immigration policy during this period, the estimated number of unauthorized aliens in the United States increased sharply beginning in the late 1960s; see CRS Report R42560, *Mexican Migration to the United States: Policy and Trends*, coordinated by Marc R. Rosenblum.

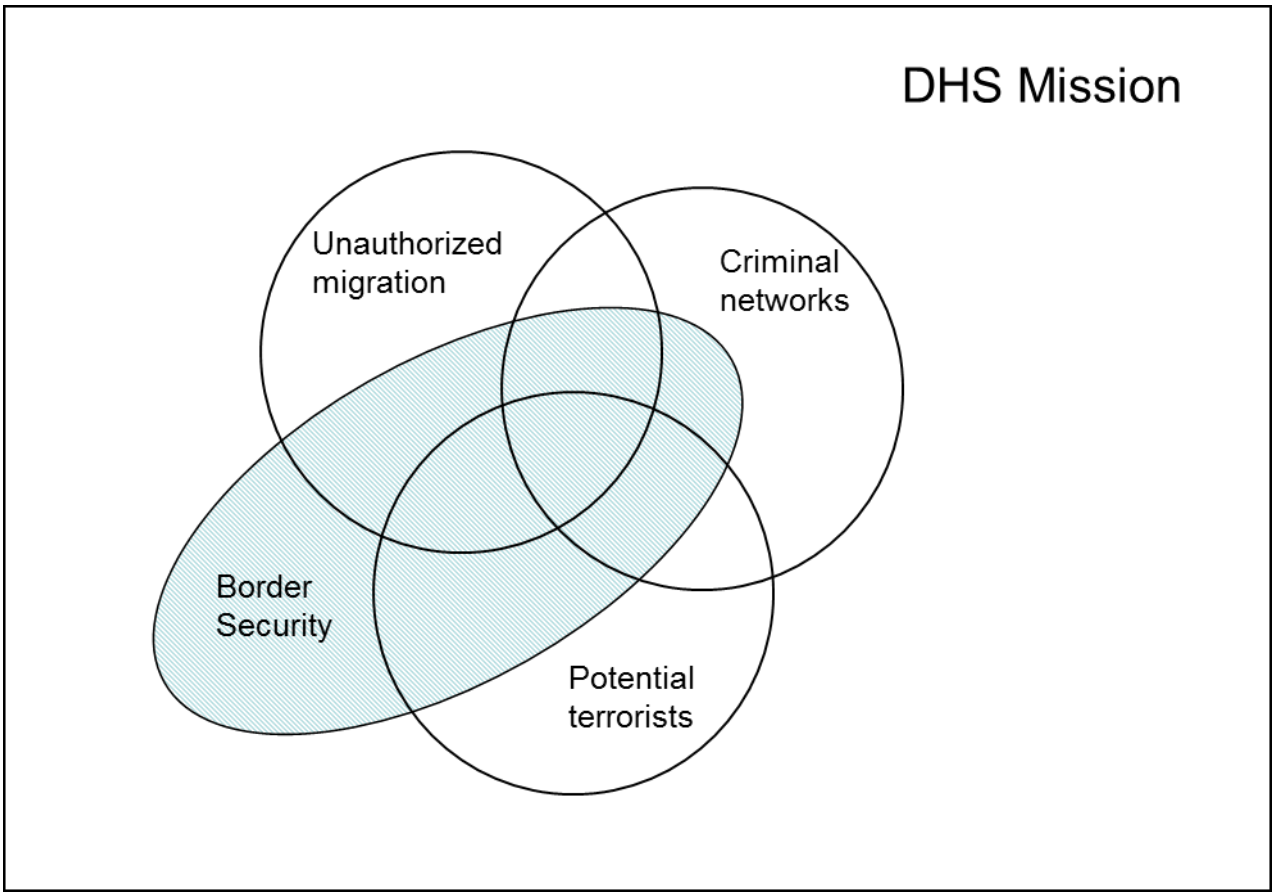
[14] Timothy J. Dunn, *The Militarization of the U.S.-Mexico Border, 1978-1992: Low-Intensity Conflict Doctrine Comes Home* (Austin: CMA Books, University of Texas, 1996).

[15] Calculations from data available at CRS Report R42138, *Border Security: Immigration Enforcement Between Ports of Entry*, by Marc R. Rosenblum; and Syracuse University Transactional Records Access Clearinghouse, "National Trends in Apprehensions and Staffing," http://trac.syr.edu/immigration/reports/141/include/rep141table2.html.

[16] Calculations from data available at Department of Justice, "Drug Enforcement Administration," http://www.justice.gov/archive/jmd/1975_2002/2002/html/page100-103.htm; and CRS Report R42440, *Commerce, Justice, Science, and Related Agencies: FY2013 Appropriations*, coordinated by Nathan James, Jennifer D. Williams, and John F. Sargent Jr.

[17] P.L. 107-296, §402.

Figure 1. Border Threats and DHS Mission



Source: CRS Analysis.

Notes: Figure is schematic. "Unauthorized migration," "criminal networks," and "potential terrorists" are not scaled to suggest that they are equally significant.

As **Figure 1** illustrates, DHS's border security mission includes its efforts to prevent the entry of unauthorized migrants, combat criminal networks that smuggle drugs and other contraband, and identify and interdict potential terrorists at America's borders. The figure also illustrates several observations about the broader context in which these enforcement efforts occur. First, while migration, drugs, and terrorism are DHS's highest-profile concerns at U.S. borders, border security encompasses a number of additional goals, including efforts to facilitate lawful travel and trade and to prevent the entry of persons with serious communicable diseases.[18] These additional aspects of border security are mainly beyond the scope of this report. Second, while DHS combats illegal migration, criminal networks, and potential terrorists at U.S. borders, its work on all three of these issues also extends beyond the border, both within the United States and through international partnerships. Third, DHS's efforts at U.S. borders and its efforts to combat unauthorized migration, drugs and criminal networks, and terrorism represent a subset of the department's overall homeland security mission space, as illustrated by the larger rectangle in **Figure 1**.

[18] On public health and border security, see CRS Report R40570, *Immigration Policies and Issues on Health-Related Grounds for Exclusion*, by Ruth Ellen Wasem.

A final observation illustrated by **Figure 1** is that while the different elements of DHS's border security mission overlap, they also include distinct regions. For example, the "criminal networks" circle in **Figure 1** includes characteristics of this threat that are unique to it. Trafficking organizations that specialize in specific crimes fall in this region of the diagram. The circle intersects with "unauthorized migrants," describing possible ways in which these two threats relate, such as drug trafficking organizations that expand into migrant smuggling. At the core of the diagram all three circles overlap and highlight arenas in which the threats converge—drug smugglers, unauthorized aliens, and terrorists may use the same smuggling routes or techniques, for example.

While one may be drawn to the core of **Figure 1**, the peripheral areas of each circle are important because threats encompass distinct features, and certain policy responses may be more appropriate to combat particular threats. For example, while there likely is some degree of overlap among unauthorized migrants, drug smugglers, and potential terrorists as threat issues, the great majority of unauthorized migrants do not fall into the other categories. None of the 9/11 hijackers or known post-9/11 terrorist threats (e.g., Richard Reid, the "shoe bomber"; Umar Farouk Abdulmutallab, the "underwear bomber"; and Faisal Shahzad, the "Times Square bomber") entered the United States illegally.

Likewise, while most unauthorized migrants enter the country between ports of entry or by overstaying nonimmigrant visas,[19] many illicit drugs are smuggled into the United States hidden within cargo containers, private vehicles, or in other non-commercial vehicles.[20] As a result, the enforcement tools targeting illegal migration—personnel and infrastructure between ports of entry, worksite enforcement, and visa overstay analysis—likely do little to reduce narcotic smuggling, and vice versa. Another set of enforcement measures may be ideally designed to combat terrorism, and yet another to prevent other border threats, such as fraudulent goods.

In general, border threats may be divided into *actors* and *goods*. Threat actors include potential terrorists, transnational criminals, and unauthorized migrants (see text box), among other types of people whose entry into the United States may produce harmful consequences. Threatening goods include weapons of mass destruction (WMD) and certain other weapons, illegal drugs and other contraband, counterfeit products, and products brought into the United States illegally and/or with potentially harmful effect. While risk management methodologies may be used to analyze a

Are Unauthorized Migrants Border Security "Threats"?

Some people may object to describing unauthorized migrants as "threats to border security" because most unauthorized migrants do not intend to harm the United States and generally do not commit non-immigration-related crimes.

Nonetheless, this report includes unauthorized migration among the key threats to U.S. border security because even if people disagree about whether unauthorized migrants threaten U.S. economic and security interests, unauthorized migration undoubtedly has a wide range of social, cultural, environmental, and other impacts on the United States. How people evaluate these diverse effects and the weight they attach to them are inherently subjective (see "Evaluating Potential Consequences of Border Threats"). The public discourse about this issue makes it clear that some Americans view illegal migration as threatening.

In addition, given that DHS's mission includes preventing the entry of terrorists, illegal drugs and contraband, *and unauthorized migrants*, it is useful to understand how the risks associated with each of these inflows overlap—as well as the differences among them—in order to make homeland security policy and allocate agency resources.

[19] CRS Report RL33874, *Unauthorized Aliens Residing in the United States: Estimates Since 1986*, by Ruth Ellen Wasem.

[20] See U.S. Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2011*, pp. 13-16, http://www.justice.gov/ndic/pubs44/44849/44849p.pdf.

wide variety of threats, this report focuses exclusively on physical threats at U.S. borders, including the inflow of dangerous and/or illegal people and goods.[21]

Threat Actors

Any person who intends to harm the United States, or whose presence may lead to harmful consequences, may be considered a threat and a potential target for border enforcement policies. At least three distinct types of threat actors may be described: transnational terrorists, transnational criminals, and unauthorized migrants. Although certain actors fall into more than one category (e.g., transnational criminals who migrate illegally; transnational terrorists who commit crimes), from an analytic standpoint—and for purposes of designing countermeasures—these actors may be distinguished and categorized by their motives and their behavior.

Transnational Terrorists

The Immigration and Nationality Act (INA) prohibits the admission of any alien who has engaged in a terrorist activity, is considered likely to engage in terrorist activity, has incited terrorist activity, or is a representative of a terrorist organization or a group that endorses or espouses terrorist activity.[22]

A defining feature of terrorists, as distinct from transnational criminals (see "Transnational Criminals"),[23] is that terrorists are motivated by particular grievances[24] about aspects of the societies that surround them, and they articulate their views "on moral grounds."[25] To help explain or contextualize their grievances, terrorists adopt extremist ideologies or narratives.[26] Based on their grievances and ideologies, terrorists generally have goals other than personal monetary gain, which may include both immediate goals that "can be met without overthrowing

[21] Thus, this report does not focus on other types of transnational threats, including cybercrimes and the theft of U.S. intellectual property through electronic means, neither of which is geographically connected to U.S. borders, or traditional threats associated with foreign militaries or international espionage, neither of which is primarily a DHS responsibility.

[22] Immigration and Nationality Act (INA) §212(a)(3)(B)(i); 8 U.S.C. 1182(a)(3)(B)(i). Under this definition, aliens who *intend to* engage in terrorist activities (i.e., *potential* terrorists) are prohibited from entering the United States. Also see CRS Report RL32564, *Immigration: Terrorist Grounds for Exclusion and Removal of Aliens*, by Michael John Garcia and Ruth Ellen Wasem.

[23] For a fuller discussion of terrorism and international crime, also see CRS Report R41004, *Terrorism and Transnational Crime: Foreign Policy Issues for Congress*, by John Rollins and Liana Sun Wyler.

[24] Anthony F. Lemieux and Victor H. Asal, "Grievance, Social Dominance Orientation, and Authoritarianism in the Choice and Justification of Terror Versus Protest," *Dynamics of Asymmetric Conflict*, vol. 3, no. 3, (November 2010), p. 196. See also: Ryan Hunter and Danielle Heinke, "Radicalization of Islamist Terrorists in the Western World," *FBI Law Enforcement Bulletin*, (September 2011), pp. 27-29, http://www.fbi.gov/stats-services/publications/law-enforcement-bulletin/september-2011. Hunter and Heinke rely on the ideas of scholar Peter Neumann. Hereafter: Hunter and Heinke, "Radicalization of Islamist."

[25] Louise Richardson, *What Terrorists Want: Understanding the Enemy, Containing the Threat* (New York: Random House, 2007), p. 16. Hereafter: Richardson, *What Terrorists Want.* Marc Sageman has suggested that Muslim terrorists are—in part—inspired by a sense of moral outrage. Marc Sageman, *Leaderless Jihad: Terror Networks in the Twenty-First Century*, (Philadelphia: University of Pennsylvania Press, 2008), pp. 72-75.

[26] Hunter and Heinke, "Radicalization of Islamist"; also see Ervin Staub, "Understanding and Responding to Group Violence: Genocide, Mass Killing, and Terrorism," in *Understanding Terrorism: Psychosocial Roots, Consequences, and Interventions*, ed. Fathali M. Moghaddam and Anthony J. Marsella (Washington, DC: American Psychological Association, 2004).

the political system" and "transformational" goals, such as the destruction of an entire political or economic system.[27]

The INA describes a variety of specific terrorist activities, including the hijacking or sabotage of any conveyance, the seizure or threatened violence against another individual in order to compel a third person or governmental organization to do or abstain from an activity, violence against an internationally protected person, assassination, and the use of a weapon of mass destruction or other dangerous device other than for personal monetary gain.[28] Terrorists often seek to instill fear among a targeted population to "destroy the collective confidence individuals invest in social institutions and … national leadership."[29] Terrorists use violent tactics to direct public attention toward their grievances, gain recruits, or coerce people.[30] Terrorists also promote their causes by fashioning propaganda.

Transnational Criminals

The INA also prohibits the admission of certain criminals, including aliens who have committed crimes of moral turpitude,[31] aliens with multiple serious criminal convictions, controlled substance traffickers, aliens engaged in prostitution or commercialized vice, significant traffickers in persons, and money launderers, among others.[32]

In contrast with terrorists, criminals generally are non-ideological, and fundamentally motivated by the pursuit of profit.[33] People also participate in criminal organizations for reasons that involve other sorts of personal gain. They may believe, for example, that being a gangster confers a positive social image, or they may desire the "sensation of belonging to a powerful and even prestigious entity."[34] Criminal gangs like MS-13 (Mara Salvatrucha) attract youth by glorifying gang life and by offering a sense of belonging, and the gang also provides membership incentives such as drugs, alcohol, and sex.[35] Additionally, kinship, ethnic ties, or friendship can also play a role in the formation of criminal groups.[36]

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[27] Richardson, *What Terrorists Want,* p. 13.

[28] INA §212(a)(3)(B)(iii); 8 U.S.C. 1182(a)(3)(B)(iii).

[29] Thomas F. Ditzler, "Malevolent Minds: The Teleology of Terrorism," in *Understanding Terrorism: Psychosocial Roots, Consequences, and Interventions,* ed. Fathali M. Moghaddam and Anthony J. Marsella (Washington, DC: American Psychological Association, 2004), p 197.

[30] Robert A. Pape, *Dying to Win: The Strategic Logic of Suicide Terrorism* (New York: Random House, 2005), pp. 9-10.

[31] "Moral turpitude" has been a basis for exclusion since 1891, and its meaning has been determined by judicial and administrative case law, rather than by statute. In general, crimes involve moral turpitude if they manifest an element of baseness or depravity under current mores. See CRS Report RL32480, *Immigration Consequences of Criminal Activity*, by Michael John Garcia.

[32] INA §212(a)(2); U.S.C. §1182(a)(2). Also see ibid.

[33] This distinction does not preclude cooperation between criminals and terrorists. Frank E. Hagan, '"Organized Crime' and 'organized crime' Indeterminate Problems of Definition," *Trends in Organized Crime,* vol. 9, no. 4 (Summer 2006), p. 135. See also James O. Finkenauer, "Problems of Definition: What Is Organized Crime?" *Trends in Organized Crime,* vol. 8, no. 3 (Spring 2005), pp. 65. Hereafter Finkenauer, "Problems of Definition."

[34] Diego d'Andria, "Investment Strategies of Criminal Organisations," *Policy Studies,* vol. 32, no. 1 (January 2011), p. 3.

[35] Federal Bureau of Investigation, "The MS-13 Threat: A National Assessment," January 14, 2008, http://www.fbi.gov/news/stories/2008/january/ms13_011408. Also see Virginia Fusion Center, Mara Salvatrucha 13 (MS-13) Intelligence Report, (Commonwealth of Virginia Department of State Police: July 2008), pp. 8-9.

[36] Klaus von Lampe, "Re-Conceptualizing Transnational Organized Crime: Offenders as Problem Solvers," *International Journal of Security and Terrorism*, vol. 2, no. 1 (2011), p. 11. Hereafter: von Lampe, "Re-

Profit incentives drive criminals to "provide goods and services that are either illegal, regulated, or in short supply."[37] They devote resources to enhancing their market-related activities, which can involve carving out and defending turf, devising novel smuggling techniques, running and protecting supply chains, eliminating rivals, laundering money, and shielding their secrets from "competitors" (such as rival gangs and law enforcement).[38] Thus, criminal earnings depend on defying the rule of law, but not necessarily affecting it via revolution.[39] Violence—or its threatened use—plays a key role in the efforts of organized criminals to generate profits. This violence can send a specific message to rivals or enemies—for example about control of markets and supply routes or questions of reputation and status—but it is rarely ideologically driven.[40] In addition, criminals may secure access to illegal markets by corrupting or intimidating public officials, gaining influence over state activity, or even having states co-opt criminals, themselves.[41]

Unauthorized Migrants

In addition to terrorists and certain criminals, the INA defines as inadmissible, among others, aliens with certain health-related concerns, aliens who raise certain foreign policy concerns, aliens considered likely to become a public charge, certain employment-based immigrants who have not received a labor certification, and aliens arriving at an illegal time or place or not in possession of a valid unexpired visa or other valid entry document.[42]

Unauthorized migrants—like legal migrants—may be motivated by some combination of employment opportunities, a general desire to improve their economic circumstances, family connections, and dangerous or difficult conditions in their home countries, among other factors.[43] Apart from immigration-related offenses such as illegal entry[44] or the use of fraudulent documents to obtain employment, many unauthorized aliens never commit a criminal offense,[45]

Conceptualizing."

[37] Finkenauer, "Problems of Definition," p. 67.

[38] Toine Spapens, "Macro Networks, Collectives, and Business Processes: An Integrated Approach to Organized Crime," *European Journal of Crime, Criminal Law, and Criminal Justice*, vol. 18 (2010), pp. 210-212.

[39] See Pen Wang, "The Crime-Terror Nexus: Transformation, Alliance, Convergence," *Asian Social Science,* vol. 6, no. 6 (2010), p. 13; also see Finkenauer, "Problems of Definition."

[40] See for example, Phil Williams, "The Terrorism Debate Over Mexican Drug Trafficking Violence," *Terrorism and Political Violence,* vol. 24, no. 1, (April 2012).

[41] See Moisés Naím, "Mafia States: Organized Crime Takes Office," *Foreign Affairs,* vol. 91, no. 3, (May/Jun2012), pp. 100-111.

[42] INA §§212(a)(1)-(7); 8 U.S.C. §§1227 (a)(1)-(7).

[43] See for example, Elizabeth Fussell, "Space, Time, and Volition: Dimensions of Migration Theory," in *Oxford Handbook of International Migration*, ed. Marc R. Rosenblum and Daniel J. Tichenor (New York, NY: Oxford University Press, 2012), pp. 25-52.

[44] About one-half to two-thirds of unauthorized migrants are believed to enter the United States illegally, either by evading inspection or using fraudulent documents; the remaining one-third to one-half enter legally on a nonimmigrant visa but fail to depart and/or otherwise violate the terms of their visa. See CRS Report RS22446, *Nonimmigrant Overstays: Brief Synthesis of the Issue*, by Ruth Ellen Wasem.

[45] Unlawful presence in the United States absent additional factors is a civil violation, not a criminal offense; see CRS Report RL32480, *Immigration Consequences of Criminal Activity*, by Michael John Garcia. Research by CRS and other analysts suggest that criminality rates among the foreign-born (i.e., including legal and unauthorized migrants) likely is no more than—and possibly is below—rates among the native born; see CRS Report R42057, *Interior Immigration Enforcement: Programs Targeting Criminal Aliens*, by Marc R. Rosenblum and William A. Kandel. Also see for example, Lesley Williams Reid, Harald E. Weiss, and Robert M. Adelman, et al., "The Immigration-Crime Relationship: Evidence Across U.S. Metropolitan Areas," *Social Science Research,* Vol. 34, no. 4 (December 2005: pp.

though some unauthorized migrants become involved with transnational criminals during the course of their migration or while obtaining employment.[46]

Thus, while a terrorist may be unauthorized, "regular" unauthorized aliens are distinguished from terrorists in that they are not motivated by extremist ideologies and do not engage in terrorist activities. And, unlike criminals (who also may be unauthorized), "regular" unauthorized aliens do not seek to profit by exploiting illegal markets or providing illegal services, and they do not use violence or the threat of violence to generate profits. (For analytic purposes, this report classifies a terrorist or transnational criminal who migrates illegally to the United States as a terrorist or criminal, respectively, reserving the label of "unauthorized aliens/migrants" for people who have no terrorist or criminal intent.) The key differences among terrorists, transnational criminals, and unauthorized migrants are summarized in **Figure 2**; the threats associated with these different types of border flows are discussed below (see "Evaluating Potential Consequences of Border Threats").

Figure 2. Types of Threat Actors

Terrorists	Transnational Criminals	Unauthorized Migrants
Motivations—*Ideological*—Achieve socially transformative change or narrower, specific ends. Typically not focused on controlling turf or underground markets but react to particular grievances.	**Motivations**—*Profit Driven*—Create and maintain illicit wealth and prestige. Defend criminal markets and turf. Stave off "enemies" including law enforcement, other state actors, and rival criminal groups.	**Motivations**—*Personal Opportunity*—Some combination of factors such as employment opportunities, a general desire to improve their economic circumstances, family connections, and dangerous or difficult conditions in their home countries.
Means—*Propaganda and Violence Featuring Symbolic Dimension*—Justify violence in moral terms. Intend it to restore a particular sense of justice in a society perceived as unjust. Propaganda used to justify cause, recruit and raise support.	**Means**—*Engage in Violence and Corruption Aimed at Goals Tied to Illicit Markets*—Use violence to intimidate officials and rivals to protect operations. Corrupt public officials and people in the private sector. Use violence to exploit innocent victims. Tend to act in obscurity. Occasionally use propaganda to besmirch rivals.	**Means**—*Illegal Entry or Visa Overstay*—Apart from immigration-related offenses such as illegal entry or the use of fraudulent documents to obtain employment, most unauthorized aliens never commit a criminal offense. Some become involved with transnational criminals during the course of their migration or while obtaining employment.

Source: CRS analysis.

757-780.

[46] Immigration-related identity and document fraud are believed to be widespread, but reliable estimates of their pervasiveness are not available. See archived CRS Report RL34007, *Immigration Fraud: Policies, Investigations, and Issues*, by Ruth Ellen Wasem. On the links between Mexican drug trafficking organizations and human smuggling groups, also see U.S. Office of National Drug Control Policy, *National Southwest Border Counternarcotics Strategy*, http://www.whitehouse.gov/sites/default/files/ondcp/policy-and-research/swb_counternarcotics_strategy11.pdf, p. 17.

Illegal Goods

Any good that is smuggled into or out of the United States is illegal and may pose security risks. Illegal goods fall into two broad categories distinguished by their inherent *illegitimacy*: certain weapons, illegal drugs, and counterfeit goods are always illegal and categorically prohibited, while other goods are generally legal, but become illegitimate because they are smuggled to avoid the enforcement of specific laws, taxes, or regulations.

Categorically Prohibited

U.S. law enforcement seeks to prevent a variety of illegal goods from entering the United States. DHS, for instance, has identified "high-consequence weapons of mass destruction (WMD)" as one of the primary threats to homeland security.[47] WMD may come in many forms, and the term often covers chemical, biological, radiological, nuclear, and explosive (CBRNE) weapons.[48] Concerns over WMD or their component materials crossing the border into the United States generally emphasize terrorists' use of these weapons, yet some have raised concerns that criminal networks may—for the right price—attempt to smuggle WMD or related materials.[49]

In addition to the smuggling of weapons into the United States, there are also border security and national security concerns over the smuggling of weapons *out* of the United States. One such concern involves Mexican drug trafficking organizations purchasing firearms in the United States and smuggling these weapons to Mexico, where their possession by civilians is largely prohibited.[50] Firearms smuggled from the United States into Mexico have been cited as helping to fuel the drug trafficking-related violence in Mexico.[51]

Illegal drugs comprise another set of illicit goods that challenges U.S. border security. The United States, through the Controlled Substances Act (CSA, 21 U.S.C. §801 et. seq.), prohibits the possession, production, distribution, and trafficking of a number of drugs and substances. Nonetheless, drug demand in the United States fuels a multi-billion dollar illicit industry, and many of the drugs consumed in the United States are produced internationally and smuggled into the country. As such, illegal drugs are among the top categories of seizures by border security officials. Customs and Border Protection seized an average of 13,717 pounds of drugs each day in FY2011.[52]

The smuggling of counterfeit and pirated goods into the United States—particularly by transnational criminal organizations—has also been identified as a threat to border security.[53] This

[47] Department of Homeland Security, *Quadrennial Homeland Security Review Report: A Strategic Framework for a Secure Homeland*, February 2010, p. 6, http://www.dhs.gov/xlibrary/assets/qhsr_report.pdf.

[48] Federal Bureau of Investigation, *Weapons of Mass Destruction: Frequently Asked Questions*, http://www.fbi.gov/about-us/investigate/terrorism/wmd/wmd_faqs.

[49] Phil Williams, "Terrorism, Organized Crime, and WMD Smuggling: Challenge and Response," *Strategic Insights*, vol. VI, no. 5 (August 2007).

[50] For more information on gun trafficking, specifically along the Southwest border, see CRS Report R40733, *Gun Trafficking and the Southwest Border*, by Vivian S. Chu and William J. Krouse; and CRS Report RL32842, *Gun Control Legislation*, by William J. Krouse.

[51] See for example, David A. Shirk, *The Drug War in Mexico: Confronting a Shared Threat*, Council on Foreign Relations, Council Special Report No. 60, Washington, DC, March 2011, p. 13.

[52] Customs and Border Protection, *On a Typical Day in Fiscal Year 2011*, March 7, 2012, http://cbp.gov/linkhandler/cgov/about/accomplish/typical_day_fy11.ctt/typical_day_fy11.pdf.

[53] For information on U.S. intellectual property rights laws and related issues, see CRS Report RL34292, *Intellectual Property Rights and International Trade*, by Shayerah Ilias and Ian F. Fergusson.

smuggling violates intellectual property rights (IPR) and "threaten[s] America's economic vitality and national security, and the American people's health and safety."[54] In FY2011, Immigration and Customs Enforcement and CBP had 24,792 seizures of counterfeit goods—25% more than in FY2010. The domestic value[55] of these seizures was more than $178 million. Products originating from China—both Mainland China and Hong Kong—accounted for 80% of the products seized.[56]

Illegal via Smuggling

Goods that *are not* categorically prohibited are illegal if they are smuggled into or out of the United States. These otherwise-legitimate goods can pose a variety of threats when they are moved through illicit channels and means. For instance, alcohol, while generally legal and regulated in the United States and other countries, is smuggled to circumvent taxes or to evade laws prohibiting alcohol. One snapshot of alcohol-linked financial losses comes from Michigan, where illegal alcohol imports are estimated to cost the state at least $14 million per year in lost taxes, not including sales tax or business income tax.[57]

Cigarettes and other tobacco products are similarly smuggled to circumvent taxes and regulations. Cigarettes, which comprise about 80% of the value of tobacco product shipments in the United States,[58] are smuggled internationally, including to and from the United States, as well as across state lines. Proceeds from the smuggling of cigarettes have been linked to the financing of terrorist operations abroad.[59]

Federal authorities have noted the threats from the movement of illicit proceeds across U.S. borders. Cross-border movement of money is not inherently illegal, but certain practices are. For instance, bulk cash smuggling[60] is one of the primary means by which criminals move their illicit proceeds out of the United States.[61] Estimates are that between $20 billion and $25 billion in bank

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[54] U.S. Customs and Border Protection, *Intellectual Property Rights Fact Sheet*, http://www.cbp.gov/linkhandler/cgov/newsroom/fact_sheets/trade/ipr_fact_sheet.ctt/ipr_fact_sheet.pdf.

[55] According to U.S. Customs and Border Protection, "domestic value" is the "cost of seized goods, plus the cost of shipping and importing the goods into the U.S. and an amount for profit."

[56] U.S. Customs and Border Protection, *IPR Seizure Statistics*, http://www.cbp.gov/xp/cgov/trade/priority_trade/ipr/ipr_communications/seizure/.

[57] Michigan Liquor Control Commission, *Illegal Importation of Alcohol Into Michigan: An Assessment of the Issue and Recommendations*, Legislative Committee Report, January 15, 2008, http://www.michigan.gov/documents/dleg/Illegal_Importation_of_Alcohol_1_14_08_221682_7.pdf. It is unclear how much of this smuggling is international and how much is interstate. Smuggling alcohol *out* of the United States by criminal networks also results in revenues losses for governments in Europe, Russia, Asia, and the Western Hemisphere; see Interagency Working Group, *International Crime Threat Assessment*, Pursuant to the President's International Crime Control Strategy, December 2000.

[58] U.S. Government Accountability Office, *Illicit Tobacco: Various Schemes are Used to Evade Taxes and Fees*, GAO-11-313, March 2011, p. 6, http://www.gao.gov/new.items/d11313.pdf.

[59] International Tax and Investment Center, *The Illicit Trade in Tobacco Products and How to Tackle It*, http://www.kangaroogroup.eu/DB_beelden/booklet_illicit_trade_tobacco_products.pdf. Bureau of Alcohol, Tobacco, Firearms, and Explosives, *Cigarette Smuggling Linked to Terrorism*, June 18, 2004, http://www.atf.gov/pub/gen_pub/cigarettesmuggling.pdf.

[60] Bulk cash smuggling is described under 31 U.S.C. §5332 as "knowingly conceal[ing] more than $10,000 in currency or other monetary instruments on the person ... or in any conveyance, article of luggage, merchandise, or other container, and transport[ing] or transfer[ing] or attempt[ing] to transport or transfer such currency or monetary instruments from a place within the United States to a place outside of the United States, or from a place outside the United States to a place within the United States" with intent to evade currency reporting requirements. Taking $10,000 or more out of the United States is not considered illegal, so long as it is declared and reported. See 31 C.F.R. §103.23(a).

[61] Office of National Drug Control Strategy, *National Southwest Border Counternarcotics Strategy*, June 2009, p. 25,

notes may be smuggled across the Southwest border into Mexico each year.[62] In FY2011, CBP seized an average of $345,687 in undeclared or illicit currency each day—over $126 million total.[63]

A Framework for Assessing Border Threats

The diversity of border threats and the complexity of DHS's border security and border management mission create challenges for border security policymaking and planning. These challenges are amplified by the uncertainty and fear surrounding many border threats. Rather than attempting specific predictions about where, when, and how border threats will be realized, DHS and other analysts often rely on *risk management* as an approach to border security, and on probabilistic *risk models* as a framework for analyzing and describing different types of potential threats.

Risk management and risk assessment procedures are rooted in economic theories of consumer behavior and formal models of decision-making that are used in a wide range of industrial, environmental, business, legal, and other settings. "Risk management" refers to a variety of methodologies for choosing the optimal response to a potentially hazardous situation by comparing the costs and benefits of possible interventions with the expected value of projected outcomes. A specialized school of decision theory known as "probabilistic risk assessment" (PRA) was developed during the 1960s and 1970s to focus on high-consequence, low-probability risks associated with nuclear power plants and other dangerous industrial processes; PRA has influenced some of DHS's thinking on how to respond to the risk of terrorism.[64]

DHS and Risk Management

Within a few years of the 9/11 attacks and the establishment of DHS, the department began to adopt a "risk-based" approach for certain planning and resource allocation purposes.[65] One of the first DHS programs to employ the vocabulary of risk management was the Homeland Security Grant Program (HSGP), managed by the Federal Emergency Management Agency (FEMA).[66] Pursuant to the USA PATRIOT Act of 2001 (P.L. 107-56) and the Homeland Security Act of 2002

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http://www.whitehousedrugpolicy.gov/publications/swb_counternarcotics_strategy09/swb_counternarcotics_strategy09.pdf.

[62] William Booth and Nick Miroff, "Stepped-Up Efforts by U.S., Mexico Fail to Stem Flow of Drug Money South," *Washington Post*, August 25, 2010, http://www.washingtonpost.com/wp-dyn/content/article/2010/08/25/AR2010082506161.html.

[63] Customs and Border Protection, *On a Typical Day in Fiscal Year 2011*, March 7, 2012, http://cbp.gov/linkhandler/cgov/about/accomplish/typical_day_fy11.ctt/typical_day_fy11.pdf.

[64] For an introduction to risk assessment and probabilistic risk assessment, see for example Mark Jablonowski , *Precautionary Risk Management: Dealing with Catastrophic Loss Potentials in Business, the Community and Society* (New York: Palgrave, 2006); herafter: Jablonowski, *Precautionary Risk Management.* Also see Hiromitsu Kumamoto, *Satisfying Safety Goals by Probabilistic Risk Assessment* (London: Springer, 2007); Barry Charles Ezell, Steven P. Bennett, and Detloff von Winterfeldt, et al., "Probabilistic Risk Analysis and Terrorism Risk," *Risk Analysis*, vol. 30, no. 4 (2010); hereafter: Ezell et al., "Probabilistic Risk Analysis."

[65] See for example, DHS, "Homeland Security Secretary Michael Chertoff Announces Six-Point Agenda for Department of Homeland Security," Press Release, July 13, 2005. For a fuller discussion of DHS's approach to risk management, see archived CRS Report RL33858, *The Department of Homeland Security's Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, by Todd Masse, Siobhan O'Neil, and John Rollins.

[66] See archived CRS Report RL33858, *The Department of Homeland Security's Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, by Todd Masse, Siobhan O'Neil, and John Rollins.

(HSA, P.L. 107-296), as amended, DHS is charged with developing a risk assessment formula that is used to distribute a portion of HSGP funds. For FY2012, the HSGP State Homeland Security Program and Urban Areas Security Initiative target funds to states and metropolitan areas, respectively, based on DHS's determination of the risk to these geographic areas and of the anticipated effectiveness of proposed responses.[67]

Another long-standing DHS program relying on risk management is CBP's Automated Targeting System (ATS), which is founded on rules-based cargo screening systems originally deployed by the legacy U.S. Customs Service. Under the system, electronic cargo and passenger manifests, vehicle crossing records, nonimmigrant entry records, and other information are checked against CBP's National Targeting Center (NTC) and other intelligence and law enforcement databases. Every traveler, vehicle, and cargo container is assigned a risk score based on a variety of threat scenarios to identify potential terrorist and criminal threats. Travelers with risk scores above a certain threshold are automatically targeted for secondary inspection at a port of entry.[68]

Pursuant to the Project BioShield Act of 2004 (P.L. 108-276) and a set of White House directives,[69] DHS also has worked with the intelligence community, other federal agencies, and academia to develop formal, quantitative models to assess the risks of possible terrorist attacks using chemical, biological, radiological, or nuclear (CBRN) weapons. These models, known as the Bioterrorism Risk Assessment (BTRA), the Chemical Terrorism Risk Assessment (CTRA), the Radiological and Nuclear Terrorism Risk Assessment (RNTRA), and the Integrated Terrorism Risk Assessment (ITRA), use PRA "event trees"[70] to estimate the likelihood and potential consequences of millions of different attack scenarios.[71] The current versions of the four threat assessments were published in 2010-2011, and DHS plans to publish updates every four years, with the next BTRA, CTRA, and NRTRA due in 2014, and the next ITRA due in 2015.[72]

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[67] DHS, "Fact Sheet: FY2012 Homeland Security Grant Program," http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=6184. About 19% of State Homeland Security Program funds are distributed based on minimum amounts guaranteed to states and territories, with the remainder distributed based on risk and anticipated effectiveness.

[68] See DHS, "Privacy Impact Assessment Update for the Automated Targeting System," Washington, DC, December 2, 2008, http://foia.cbp.gov/streamingWord.asp?i=41. All travelers and cargo entering the United States are subject to primary inspection, when CBP officers at ports of entry make a basic admissibility determination. Secondary inspection refers to a more extensive inspection process that may include a scan and/or physical examination of cargo and additional questioning and/or a search of a traveler's vehicle, possessions, or person, among other forms of scrutiny. CBP officers may subject travelers and cargo to secondary inspection regardless of their ATS risk scores.

[69] The White House, *Homeland Security Presidential Directive (HSPD) 10: Biodefense for the 21st Century*, Washington, DC, 2004; the White House, *HSPD 18: Medical Countermeasures Against Weapons of Mass Destruction*, Washington, DC, 2007; the White House, *HSPD 22: National Domestic Chemical Defense*, Washington, DC, 2008.

[70] Event trees are a type of logic tree using nodes and branches to model a sequence of uncertain events that may lead to consequences; probabilities (or probability distributions) are attached to each branch at each node, and downstream outcomes are calculated by multiplying the probabilities along a given branch. See Ezell et al., "Probabilistic Risk Analysis."

[71] See testimony by Segaran Pillai, Chief Medical and Science Advisor DHS Science and Technology Directorate Chemical and Biological Defense Division, before the U.S. Congress, House Committee on Homeland Security, Subcommittee on Emergency Preparedness, Response, and Communications, *Taking Measure of Countermeasures (Part I)*, 112th Cong., 1st sess., April 14, 2011; hereafter: Pillai testimony.

[72] See U.S. Government Accountability Office, *National Preparedness: DHS and HHS Can Further Strengthen Coordination for Chemical, Biological, Radiological, and Nuclear Risk Assessments*, GAO-11-606, June 2011, http://www.gao.gov/new.items/d11606.pdf.

DHS also led the 2011 Strategic National Risk Assessment (SNRA), executed in support of a White House directive to develop an all-hazards national preparedness system.[73] The SNRA drew on data from existing government assessments, historical records, and judgments from experts in a variety of disciplines to evaluate the risk of various national-level events, including certain natural disasters, technological/accidental hazards, and adversarial/human-caused attacks.[74] The assessment was limited to "events that have a distinct beginning and end," and therefore excluded, among other threats, "chronic societal concerns, such as immigration and border violations."[75]

Pursuant to the Implementing Recommendations of the 9/11 Commission Act of 2007 (9/11 Act, P.L. 110-53), DHS published its first Quadrennial Homeland Security Review Report (QHSR) in 2010, outlining a homeland security strategy and priority mission areas for DHS and the entire national homeland security enterprise.[76] The QHSR identifies a wide range of threats, hazards, and other challenges that homeland security policy seeks to address, including WMD, terrorist networks, smuggling, and other illegal flows of people and goods, among others.[77]

CBP and the U.S. Border Patrol (USBP), located within CBP, incorporate principles of risk management in key border security planning documents. CBP's 2009-2014 strategic plan identifies a broad set of potential border risks, including "criminal and terrorist exploitation of international passenger and commercial cargo transportation systems…. [and] the illegal flow of people and contraband" between ports of entry.[78] CBP's specific objectives, or policy strategies, include "risk management" to secure the nation's borders and using a "risk-based approach" to ensure the efficient flow of lawful trade and travel.[79] Similarly, while earlier U.S. Border Patrol strategic plans had focused on the acquisition of additional border enforcement resources,[80] the USBP's 2012-2016 strategic plan places greater emphasis on the agency's use of risk management principles to shift existing resources among different border sectors in response to evolving threat landscapes.[81]

The most comprehensive statements of DHS's approach to risk management are its *Risk Lexicon*[82] (also see text box, below) and its *Risk Management Fundamentals*.[83] The *Risk Lexicon*

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[73] The White House, *Presidential Policy Directive (PPD) 8: National Preparedness*, Washington, DC, March 30, 2011.

[74] DHS, "The Strategic National Risk Assessment in Support of PPD 8: A Comprehensive Risk-Based Approach toward a Secure and Resilient Nation," Washington, DC, December 2011; hereafter: DHS, SNRA 2011.

[75] Ibid., p. 2.

[76] DHS, *QHSR*.

[77] Ibid., pp. 6-8. The QHSR identifies five core homeland security missions: preventing terrorism and enhancing security, securing and managing our borders, enforcing and administering our immigration laws, safeguarding and securing cyberspace, and ensuring resilience to disasters.

[78] CBP, *Secure Borders, Safe Travel, Legal Trade: U.S. Customs and Border Protection Fiscal Year 2009-2014 Strategic Plan*, Washington, DC: 2009 (Hereinafter CBP, *2009 Strategic Plan*), p. 5.

[79] Ibid., p. 11.

[80] USBP 2004 Strategic Plan

[81] USBP 2012-16 strategic plan, p. 7. Also see testimony by Michael Fisher, Chief, U.S. Customs and Border Protection Office of Border Patrol, before the House Homeland Security Committee, Subcommittee on Border and Maritime Security, *Measuring Border Security: U.S. Border patrol's New Strategic Plan and the Path Forward*, 112th Congress, 2nd sess., May 8, 2012.

[82] DHS Risk Steering Committee, *DHS Risk Lexicon 2010 Edition*, Washington, DC, September 2010; hereafter: DHS, *Risk Lexicon*.

[83] DHS, *Risk Management Fundamentals: Homeland Security Risk Management Doctrine*, Washington, DC, April 2011; hereafter: DHS, *Risk Management Fundamentals*.

was produced by the DHS Risk Steering Committee, which was formed with membership from across the department "to leverage the risk management capabilities of the DHS Components and to advance Departmental efforts toward integrated risk management." The lexicon provides "a set of official terms and definitions to ease and improve the communication of risk-related issues for DHS and its partners."[84] *Risk Management Fundamentals* is intended to "promote a common understanding of, and approach to, risk management; to establish organizational practices that should be followed by DHS components; [and] to provide a foundation for conducting risk assessments and evaluating risk management options," among other purposes.[85] To this end, the document describes a six-step DHS risk management process: (1) define the decision-making context; (2) identify potential risks; (3) assess and analyze risks; (4) develop alternatives; (5) decide upon and implement risk management strategies; and (6) evaluate and monitor outcomes.[86]

Understanding Risk: Key Terms

Consequence: Effect of an event, incident, or occurrence.

Likelihood: Chance of something happening, whether defined, measured or estimated objectively or subjectively, or in terms of general descriptors (such as rare, unlikely, likely, almost certain), frequencies, or probabilities.

Risk: Potential for an unwanted outcome resulting from an incident, event, or occurrence, as determined by its likelihood and the associated consequences.

Risk Management: process of identifying, analyzing, assessing, and communicating risk and accepting, avoiding, transferring, or controlling it to an acceptable level at an acceptable cost.

Scenario: Hypothetical situation comprised of a hazard, an entity impacted by that hazard, and associated conditions including consequences when appropriate.

Threat: Natural or man-made occurrence, individual, entity, or action that has or indicates the potential to harm life, information, operations, the environment, and/or property.

Source: DHS Risk Lexicon 2010.

Risk Assessment

Risk management—like almost any process for responding to external threats—involves developing a model of risk assessment. The standard components of many risk models include estimates of the *likelihood* of a threat (or other adverse event) and the potential *consequence* of the threat. Risk models based on likelihood and consequences describe risk as a positive function of these two components, so that risk increases with the likelihood and potential consequences associated with a given threat (see **Figure 3**). Put another way, this model of risk may be understood as "the statistical expect[ed] value of an unwanted event that may or may not occur."[87]

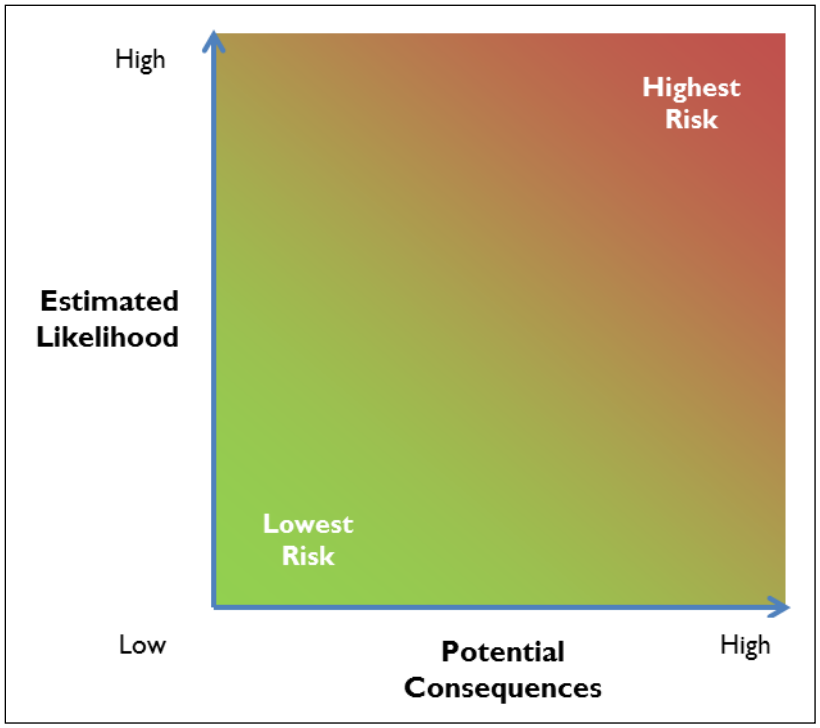
[84] DHS, *Risk Lexicon*, p. vii.

[85] Ibid., p. 5.

[86] Ibid., pp. 15-26. Also see Jablonowski, *Precautionary Risk Management*, p. 64; National Research Council, Committee on Methodological Improvements to the Department of Homeland Security's Biological Agent Risk Analysis, *Department of Homeland Security Bioterrorism Risk Assessment: A Call for Change* (Washington, DC: National Academies Press, 2008); hereafter: NRC, *DHS Risk Assessment.*

[87] Sven Ove Hansson, "From the Casino to the Jungle: Dealing with Uncertainty in Technological Risk Management," *Synthese*, no. 168 (2009).

Figure 3. Two-Dimensional Risk Space



Source: CRS analysis of DHS, *Risk Management Fundamentals* and other risk models.

Thus, as **Figure 3** illustrates, events that are unlikely to occur, and that would have low consequences if they did occur, are low-risk threats. Conversely, an event that is likely to occur, and whose occurrence would have severe consequences, would be an especially high-risk threat. Many threats exist between these two extremes, and many threats may be located at other points in **Figure 3**, including at points near the upper-left corner (i.e., high-likelihood, low-consequence threats) and lower-right corner (i.e., low-likelihood, high-consequence threats).

Several DHS risk assessments adopt some form of this likelihood-times-consequences framework for estimating risk. The HSGP has used several different formulas to calculate the risk to different geographic areas and assets, initially defining risk in terms of population; then by the sum of threat, critical infrastructure, and population density; then by the product of the threat to a target or area, the vulnerability of the target/area, and the consequence of an attack on that target/area.[88] The BTRA, CTRA, NRTRA, and ITRA calculate the risk of various scenarios by multiplying the product of each event tree branch's combined probability by the estimated consequences associated with that branch.[89] And the SNRA, similarly, assessed risk by asking "with what

[88] See archived CRS Report RL33858, *The Department of Homeland Security's Risk Assessment Methodology: Evolution, Issues, and Options for Congress*, by Todd Masse, Siobhan O'Neil, and John Rollins. The DHS *Risk Management Fundamentals*, however, warns that including a separate measure of vulnerability "is sometimes not the best approach for … homeland security risk assessments" in part "because interdependencies between the three variables, and/or poorly executed mathematical operations, can lead to inaccurate results." DHS, *Risk Management Fundamentals*, pp. 20-21. Also see Ezell, et al. "Probabilistic Risk Analysis." Although the HSGP nominally began using the so-called threat, vulnerability, consequences (TVC) framework in 2007, all areas and assets initially were assigned a vulnerability score of 1; and FY2011 was the first year in which vulnerability and consequences were calculated separately. See DHS, *HSGP Guidance and Application Kit, FY2011*, Washington, DC, May 2011, p. 3.

[89] See Pillai testimony; also see Sara Clucking, "DHS S&T Bioterrorism Risk Assessment (BTRA)," *International Symposium on Bioterrorism Risk*, October 6, 2009, http://www.biosecurity.sandia.gov/ibtr/subpages/pastConf/

function is it estimated that an event will occur, and what are the consequences of the incident(s) if it does occur?"[90]

DHS has led or conducted risk assessments for a variety of homeland security threats, but existing DHS and CBP strategic documents do not describe and analyze the full range of threats at U.S. borders.[91] The absence of such overarching planning documents may contribute to disagreements about border security priorities: How should CBP and other enforcement agencies prioritize the often conflicting goals of preventing illegal flows versus facilitating lawful trade and travel? How should scarce resources be divided among ports of entry versus the areas between the ports, and among the different border zones? Should the United States use its scarce resources to build additional miles of border fencing, install more surveillance equipment, or hire additional border patrol agents? Is the border really more secure in 2013 than at any time in the past several decades,[92] and what metrics should Congress and DHS use to measure border security?

Some Members of Congress have expressed frustration about the absence of clear border metrics,[93] and some have called for DHS to develop an explicit border staffing model and a comprehensive strategy to secure the border.[94] Risk management offers a *possible* framework for answering these questions and meeting these planning requirements. Understanding border threats can be a logical starting point for this process. This report does not intend to suggest that these are the only ways to examine these issues, however.

Understanding Border Threats

The likelihood-times-consequences framework is a standard way to evaluate risk, but the use of such a framework to understand border threats presents unique challenges and therefore remains somewhat controversial.[95] Even where such models are well developed, as in industrial engineering and the insurance and finance industries for example, risk projections are probabilistic and may have a high degree of uncertainty. Predicting the likelihood of border threats may be far more difficult. Moreover, traditional risk management approaches were designed as unilateral decision systems. Yet when it comes to border security, risk models must accommodate strategic adversaries:[96] threat actors like terrorists, criminals, and unauthorized migrants, who may change their behavior in response to U.S. defenses, making likelihood even more difficult to predict. In addition, whereas traditional risk models are designed primarily to measure economic and physical consequences of certain events, the consequences of border

20082009/albuquerque/6dhs3.pdf.

[90] DHS, *SNRA* 2011, p. 5.

[91] For example, while DHS has published risk assessment methodologies for the HSGP programs related to terrorism and natural disasters, the department has not published a similar formula for Operation Stonegarden, which addresses illegal migration and border crime. Similarly, the Strategic National Risk Assessment explicitly excludes immigration and drugs from its analysis. And in their recent national strategy documents, CBP and USBP do not include descriptions of their risk assessment methodologies.

[92] See for example, the White House, "Fixing the Immigration System for America's 21st Century Economy," http://www.whitehouse.gov/issues/fixing-immigration-system-america-s-21st-century-economy.

[93] See for example, House Homeland Security Committee, Subcommittee on Border and Maritime Security, *Measuring Border Security: U.S. Border patrol's New Strategic Plan and the Path Forward*, 112th Congress, 2nd sess., May 8, 2012; U.S. Congress, House Committee on Homeland Security, *Secure Border Act of 2012*, report to accompany H.R. 1299, 112th Cong., 2nd sess., June 4, 2012.

[94] See for example in the 112th Congress, the Department of Homeland Security Authorization Act of 2011 (S. 1546).

[95] NRC, *DHS Risk Assessment.* Also see Ezell et al., "Probabilistic Risk Analysis."

[96] Ibid.

threats may affect American society in much more complex ways; and the evaluation of such consequences is likewise more complex. The remainder of this report explores these challenges, and then uses the likelihood-times-consequences approach to assess selected border threats.

Estimating the Likelihood of Border Threats

DHS defines likelihood as the "chance of something happening, whether defined, measured or estimated objectively or subjectively, or in terms of general descriptors (such as rare, unlikely, likely, almost certain), frequencies, or probabilities."[97] In general, there are two main approaches to estimating likelihood: based on observations of historical trends (past frequency), which may be used to calculate the probability that an event will occur, or based on analytic predictions about expected frequencies. Both approaches confront certain limits, however.

Likelihood as Past Frequency

How often a particular threat event has actually occurred within a given time period can be defined as its frequency. Over the long run, the frequency with which an event occurs may be used to estimate its probability, as scientists do, for example, in describing (based on previous observation) the probability that a category 5 hurricane will occur in a given year.[98]

For certain types of border threats, analysts may have historical data that allow them to describe such frequencies. In the case of unauthorized migration, for example, CBP and the legacy Immigration and Naturalization Service (INS) have used apprehensions of unauthorized migrants by the border patrol as a proxy to estimate unauthorized inflows.[99] Analysts also use U.S. Census data to estimate the stock of unauthorized migrants within the United States.[100] Apprehensions and survey data also may offer insight into illegal drug flows, in this case by analyzing drug seizures and data on the availability of illegal drugs within the United States.[101]

Yet deriving probabilities from historical observations is problematic. On a basic level, how exactly should illegal flows be counted? Historical frequencies may focus on illegal incidents—the number of illegal crossings—or on quantities, such as the number of individual migrants, or pounds (or tons) of illegal drugs or contraband. A given threat such as drug smuggling or illegal migration does not occur with equal frequency along all parts of the border, but varies between the Southwest versus the Northern and coastal borders, as well as among different portions of the Southwest border and by mode of entry (air, land, or sea).

More importantly, measures of past frequencies are only of *known* frequencies and not *actual* flows. For instance, while data from the National Seizure System indicate that over 1.7 million kilograms of illegal drugs were seized along the Southwest border in 2010,[102] this is not indicative of the total amount of illicit drugs smuggled across the Southwest border and into the

[97] DHS, *Risk Lexicon*, p. 20.

[98] Ibid., p. 16.

[99] See for example, National Research Council, Panel on Survey Options for Estimating the Flow of Unauthorized Crossings at the U.S.-Mexico Border, *Options for Estimating Illegal Entries at the U.S.-Mexico Border* (Washington, DC: National Academies Press, 2012)..

[100] Ibid.

[101] See for example, U.S. Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2011*, pp. 13-16, http://www.justice.gov/ndic/pubs44/44849/44849p.pdf.

[102] These data were provided to CRS by the National Drug Intelligence Center. Data cover seizures of cocaine, heroin, marijuana, MDMA, and methamphetamine.

United States for that time period. Estimates of successful illegal inflows—whether of illegal drugs, unauthorized migrants, or some other illicit flow—are just that: estimates.

Learning from past history is even more problematic when it comes to rare events like attempted terrorist attacks. Probability models based on historical frequencies are poorly equipped to describe one-in-a-million chances, or to distinguish between, say, chances that are one-in-a-million versus one-in-a-billion or one-in-one-hundred-thousand.[103] Especially when combined with the fact that the stakes may be high, as in the case of terrorism, rare event probability models may not be sufficiently accurate to generate quantitative predictions about the probability of a future incident.[104] Partly for this reason, the intelligence community often describes likelihood in terms of qualitative ranges, such as "remote," "unlikely," "probable," etc.[105]

More generally, historical analysis is limited because "past performance is no guarantee of future results." Changes to the underlying model may invalidate long-term probabilities. Scientists use long-term frequencies to calculate the probability of severe weather, for example; but some people believe that rising temperatures and sea level may have altered climate dynamics so that probability models describing "500-year" floods and "100-year" storms may no longer be accurate. Similarly, some social scientists believe labor market and demographic changes in the United States and migration countries of origin, along with the decades-long escalation in U.S. enforcement, may have fundamentally altered regional immigration dynamics.

Likelihood as Expected Frequency

An argument can be made that historical frequency—how many terrorists traversed the U.S. border in 2010, for example—fails to capture the likelihood of certain border threats. Frequency only attempts to measure events that have occurred in the past. But how can the likelihood of a dreaded event such as the smuggling of WMD into the United States be evaluated if it has few precedents or is unprecedented? And even where a track record exists, as with unauthorized migration and illegal drugs and other contraband, what can be done to increase the accuracy of estimated probabilities?

The observations of past frequencies may be supplemented with analysis by subject field experts to make more informed predictions about the *expected* frequency of future events. With respect to the threat of terrorism, for example, federal law enforcement and intelligence analysts help estimate the likelihood of a terrorist attack. This involves many factors aside from historical frequency, such as probing and evaluating the motives of threat actors, their organizational structures, and their capabilities, as well as estimating the impact of broad social, political, or economic forces on these actors. Intelligence analysts and others may look at similar data to estimate the future likelihood of illegal drug flows and other contraband, and social scientists (as well as analysts) may examine market and social forces to model future migration flows.

A key component in these processes is the development of indicators or milestones to warn of increased likelihood. For example, indicators may be used to evaluate whether a specific terrorist group is coming closer to realizing its plans to smuggle operatives into the United States. In such a scenario, milestones may include evidence of the group's efforts to recruit document forgers or specialists with experience smuggling people into the United States. One scholar has suggested that "Warning seeks to turn a mystery—'Are they going to attack?'—into a puzzle by identifying

[103] See Jablonowski, *Precautionary Risk Management*.

[104] Ibid.

[105] See for example DHS, *Risk Lexicon*, p. 20.

indicators along the path to war and then monitoring them."[106] Ideally, as indicators are met (or not), the chances of an attack are reevaluated and updated. Analysts use established analytical processes to gauge likelihood as new information rolls in about the targets they study.[107]

Yet models of illegal flows also are characterized by uncertainty, meaning that analysts never know precisely what data to look for. To be useful as a threat indicator, information must be valid relative to the threat being analyzed—that is, it must relate to the actual evolution of the threat. Indicators also should be reliably and consistently observable, and the earlier they are visible in the evolution of a threat, the more valuable they are to decision makers. Likewise, an indicator's persistence over time allows for its repeated measurement and reevaluation.[108] Finally, the more *visible* and the more *unique* indicators are, the easier it is to use them.

For example, the actual attainment of a particular milestone by a terrorist group—such as the successful recruitment of a document forger—may not be especially observable or *visible* to U.S. intelligence agencies. This makes it a poor indicator. In other words, effectively identifying a terrorist group's achievement of an indicator requires the capacity to witness it or obtain evidence of it.

The more *unique* an indicator is, the easier it is to identify upon achievement. An indicator may be consistent with a number of activities, not just the one of interest to intelligence analysts. The recruitment of document forgers may not be a unique indication that a terrorist group will cross the U.S. border, for example. The forger may have been recruited to produce unrelated documents.[109]

The Strategic Actor Problem

Beyond these definitional and measurement problems, an additional obstacle to estimating the likelihood of particular border threats is that threat actors like unauthorized migrants, transnational criminal organizations, and potential terrorists are strategic and may adapt their behavior in response to U.S. border enforcement efforts. In this regard, risk models for border security differ in important ways from risk models for natural disasters, industrial failures, or financial investments, for example. The intelligent actor problem means that any effort to describe the likelihood of a given threat must account for given security conditions.[110] Any particular risk assessment can only represent a "snapshot" at a single point in time within a constantly evolving dynamic system. Some have suggested that intelligent actors cast doubt on the entire decision-theoretic risk assessment approach, and that DHS instead should rely on game

[106] See Gregory F. Treverton, *Intelligence for an Age of Terror* (Cambridge: Cambridge University Press, 2009), pp. 39-40. Hereafter: Treverton, *Intelligence.* On indicators, also see U.S. Government, "A Tradecraft Primer: Structured Analytic Techniques for Improving Intelligence Analysis," March 2009, p. 12.

[107] This form of analysis is consistent with DHS's statistical definition of likelihood as the "conditional probability of observing a particular event given [that a] hypothesis under consideration is true"; see DHS, *Risk Lexicon*, p. 20. In DHS's example, analysts may draw on a theoretical model of the relationship between border infrastructure, unauthorized migration, and demographic trends to estimate the likelihood that a border fence has been breached based on their observation that the population of cities in the area has increased.

[108] Richards J. Heuer, Jr. and Randolph H. Pherson, *Structured Analytic Techniques for Intelligence Analysis* (Washington, DC: CQ Press, 2011), p. 136.

[109] Treverton, *Intelligence*, pp. 42-45. The indicators described above are predictive and are typically used in intelligence analysis. Law enforcement often also uses backward-looking descriptive indicators "to assess whether a target's ... behavior is consistent with an established pattern." See Heuer and Pherson, *Structured Analytic Techniques*, p. 132.

[110] Thus, it may not be useful to distinguish between "threat" and "vulnerability" in these cases.

theory, an approach which places greater emphasis on the preferences and strategic goals of terrorists and other threat actors.[111]

Evaluating Potential Consequences of Border Threats

Any given border threat may result in a range of potential consequences, and policymakers may disagree about how to evaluate them. The process of evaluating consequences includes at least three discrete tasks: defining the scope of a threat (i.e., the types of consequences), measuring the potential impact, and attaching value to the impact. Members of Congress may reach different conclusions about potential consequences at each stage of this evaluation process.

Defining Consequences

DHS defines consequence as "the effect of an incident, event, or occurrence, whether discreet or indirect."[112] The first step in evaluating the potential consequences of a given threat is to define its scope: what type of impact may occur? Many traditional risk assessment methodologies limit their analysis to concrete criteria, including in particular *direct economic costs* and *loss of life*.[113] An advantage to defining consequences narrowly in this way is that both of these criteria are relatively easy to quantify (i.e., in dollars and in the absolute number of lost lives), and analysts may make specific predictions about these potential impacts.

An alternative approach considers a wider scope of consequences. In its Strategic National Risk Assessment, for example, DHS identifies six broad categories of potential consequences: *loss of life*, *injuries and illness*, *direct economic costs*, *social displacement*, *psychological distress*, and *environmental impact*.[114] An advantage to adopting this more expansive definition is that, for certain types of threats, these additional consequences may be at least as important as the economic and mortality effects.[115] On the other hand, psychological and sociological effects such as the impact of illegal migration on the rule of law, or the ways illegal drugs affect the families and communities of users, also may be far more difficult to define and quantify in a bounded or concrete fashion.

Measuring Consequences

Once the scope of consequences has been defined, a second challenge is how to measure the potential impact of a given threat. One aspect of the measurement challenge concerns how close in time a given consequence must be to be attributed to a particular security incident. Even when

[111] NRC, *DHS Risk Assessment*; Ezell et al., "Probabilistic Risk Analysis." A decision theoretic approach to risk assessment may account for strategic adversaries, at least to a degree, by developing sophisticated expected frequency models of threat scenarios.

[112] DHS, *Risk Lexicon*, p. 10.

[113] See for example, Charles Meade and Roger C. Molader, *Considering the Effects of a Catastrophic Terrorist Attack*, RAND Center for Terrorism Risk Management Policy, Santa Monica, CA, 2006, http://www.rand.org/pubs/technical_reports/2006/RAND_TR391.pdf; also see see Sara Clucking, "DHS S&T Bioterrorism Risk Assessment (BTRA)," *International Symposium on Bioterrorism Risk*, October 6, 2009, http://www.biosecurity.sandia.gov/ibtr/subpages/pastConf/20082009/albuquerque/6dhs3.pdf.

[114] Department of Homeland Security, *The Strategic National Risk Assessment in Support of PPD 8: A Comprehensive Risk-Based Approach Toward a Secure and Resilient Nation*, December 2011, p. 5, http://www.dhs.gov/xlibrary/assets/rma-strategic-national-risk-assessment-ppd8.pdf.

[115] Indeed, terrorists may design certain attacks specifically to instill fear in the target population, highlighting the importance of considering the psychological consequences of such a threat.

focused on the relatively narrow category of loss of life, for example, consider the following two scenarios:

- A terrorist is smuggled into the United States, creates and detonates a car bomb; an individual is killed in the blast.
- A drug trafficker smuggles cocaine into the United States; over several months, a client continually uses cocaine supplied by this trafficker and eventually overdoses and dies.

Some may argue that because the ultimate impact of both scenarios is the loss of a single life, they should be deemed to have the same consequence. Others may see that the consequences should be defined differently based on the immediacy of the outcome. (Both of these scenarios also may have other types of consequences, including economic impacts, injuries and illnesses, psychological effects, etc.)

Similar measurement questions exist with respect to geographic bounds (how wide an area should be considered) and whether and how to estimate second- and third-degree effects of a given threat versus restricting the analysis to immediate impacts. For example, what are the economic consequences of a transnational retail crime network? Members of this network enter the United States and operate in a number of criminal capacities including as boosters and fences.[116] Retailers incur direct economic costs from the loss of the pilfered goods, and also may incur second-degree costs from security spending to prevent merchandise loss; and federal and state governments may suffer lost tax revenues. There may be third-degree costs if the criminal network sells the stolen products and uses the proceeds to further additional criminal operations. For instance, federal law enforcement has reputedly traced the illicit proceeds from the theft and resale of infant formula to terrorist organizations and insurgent groups, including Hamas and Hezbollah.[117] Are economic costs limited to the duped retailer, or do they also include the associated costs to public and private security agencies charged with investigating the crimes and related criminal activities?

Partly for these reasons, analysts disagree—often by wide margins—about the potential consequences of different types of threats. In the case of unauthorized migration, for example, even when the analysis is limited to the narrowest economic question of fiscal impact,[118] estimates of net effects vary by wide margins.[119] The measurement challenge may be substantially greater when it comes to the potential consequences of unknown future threats, which may affect a range of different categories, and for which some of the effects are far more difficult to quantify. Indeed, for certain issues, reasonable people may fundamentally disagree about the very nature of the consequences: should the growing prominence of Spanish and other languages in American

[116] A "booster" is someone who steals merchandise and then sells it to a fence for a profit. A "fence" is someone who knowingly buys illegally obtained goods from a "booster" and then sells the goods for a profit. For more information on organized retail crime, see CRS Report R41118, *Organized Retail Crime*, by Kristin M. Finklea.

[117] Charles I. Miller, *Organized Retail Theft: Raising Awareness, Offering Solutions*, National Retail Federation Foundation, 2005, p. 4. See also Food Marketing Institute, *Media Reports—Middle East Connection: Organized Retail Crime*, http://www.fmi.org/docs/loss/ORCMiddleEast.pdf. See also testimony by David Johnson, Section Chief, Criminal Investigative Division, Federal Bureau of Investigation, before the U.S. Congress, House Committee on the Judiciary, Subcommittee on Crime, Terrorism, and Homeland Security, *Combating Organized Retail Crime: The Role of Federal Law Enforcement*, 111th Cong., 1st sess., November 5, 2009.

[118] Fiscal impacts are just one of three main types of economic effects, along with the effect of migration on native-born wages and its effect on economic growth.

[119] See CRS Report R42053, *Fiscal Impacts of the Foreign-Born Population*, by William A. Kandel.

schools be celebrated as a sign of increasing diversity, or feared as a threat to the primacy of English as a national language?

Valuing Consequences

How one evaluates potential consequences also depends on who is making the judgment. For example, a smuggler bringing counterfeit medication into the United States impacts a range of individuals from law enforcement officers charged with detecting and preventing the entry of illegal goods, to individuals consuming the counterfeit drugs, to the legitimate manufacturer. Consumers may place the greatest value on the potential health consequences of consuming the counterfeit product. Legitimate manufacturers may perceive the issue primarily in terms of the economic consequences of their lost sales revenues and reputational costs.

The border-related security challenges the United States faces can be framed, in part, in terms of motive: some threats arise directly from individuals who wish us ill; others do not.[120] Terrorists targeting the United States seek to cause us harm, while drug traffickers exist primarily to derive profit. What is more "threatening": terrorists who intend to harm U.S. interests, or drug traffickers who intend to earn illicit profits but cause mayhem in the process? In the end, should motive enter into any calculation of consequence among border threats? Are the consequences of an incident greater when they represent the culmination of a concerted effort to attack the United States?

Ultimately, how one defines the scope of a given threat (i.e., what categories of consequences are considered) and how one weights the various categories under consideration are *inherently subjective* considerations. There is no "correct" way to value the loss of a human life,[121] for example, or the destruction of a particular ecological habitat, or disregard for the rule of law.

Assessment of Selected Border Threats

This section illustrates how a framework relying upon the interplay of likelihood and potential consequences may be used to conceptualize the risks associated with selected border threats. For any given threat, there is incomplete and often-subjective information regarding likelihood and possible impacts. Take, for example, criminal networks smuggling illegal drugs into the United States:

- What is the likelihood that illegal drugs will be smuggled into the United States? Within the universe of illegal drugs available in the United States, some are domestically produced, and some are smuggled over the international borders. Of the subset of smuggled drugs, only an unknown proportion is identified and seized by U.S. officials; and attributing a particular smuggling incident to a criminal network involves additional uncertainty. As such, the *known frequency* of criminal networks smuggling drugs into the United States is an unknown portion of total smuggling incidents—itself a subset of all illegal drug flows. These data may be supplemented with additional model-based data and intelligence analysis to estimate *expected frequency,* but these methods involve further uncertainty and subjectivity.
- What are the consequences of illegal drugs being smuggled into the United States? Should the analysis focus exclusively on the loss of life related to criminal networks smuggling drugs into the United States, or also consider

[120] For a discussion of motive or purpose, see Treverton, *Intelligence*, pp. 22-23.

[121] In its *SNRA*, DHS made an explicit decision *not* to make this valuation. See DHS, *SNRA*, p. 2.

economic, social, psychological, and other consequences? Even if the analysis is limited to loss of life, does it account for indirect deaths, such as those resulting from an addict's criminal activities to support his habit? Is the death of a smuggler who dies of dehydration in the desert evaluated differently than a user's death from an overdose, or the death of a bystander caught in the crossfire between rival drug gangs?

Despite these challenges, **Table 1** presents broad conclusions about several generic border threats. While the likelihood of a given threat may be measured based on known or expected frequency, the table presents data only on known (historic) frequencies related to given threats. Similarly, though the range of potential consequences is vast, the table outlines available information only on financial costs and loss of life directly associated with certain threats. As such, this table does not provide comprehensive information for policy makers to utilize in evaluating the risk of threats, but rather illustrates how policymakers may make such an assessment.

Table 1. Selected Border Threats

Scenario	Likelihood (Known Frequency)	Potential Consequence (Financial Costs and Loss of Life)
Terrorists Smuggle WMD into U.S. to Commit a Violent Act of Terrorism	Since 9/11 there have been no publicly known instances, and there are many technical obstacles to obtaining and smuggling a WMD.[a]	The release of a lethal biological agent in an unprotected population could cause an untold number of deaths and economic costs exceeding $1 trillion dollars.[b] One estimate suggests that a 10 kiloton nuclear detonation at the Port of Long Beach, CA would kill 60,000 people in its immediate aftermath and cause damages estimated at more than $1 trillion dollars.[c]
Unarmed Terrorists Illegally Enter U.S. to Commit a Violent Act of Terrorism	Since 9/11, there are no publicly known instances.	In New York City, the 9/11 attack claimed 2,753 lives. It has been estimated to have caused $55 billion in destroyed and damaged property and shattered livelihoods in the city. The broader economic impacts likely ranged between $40 billion and $122 billion.[d]
Criminal Network Smuggles Illegal Drugs into the U.S.	The USBP made 18,074 drug seizures in FY2011.[g]	There are no data on drug trafficking-related deaths in the United States, though there are estimates for source countries. The overall annual economic impact of illegal drug use (including direct and certain indirect effects) has been estimated at $193 billion.[f] Some estimates indicate that drugs smuggled from Mexico into the United States generate between $18 billion and $39 billion in U.S. wholesale drug proceeds for the Colombian and Mexican drug traffickers annually.[g]
Criminal Network Smuggles Counterfeit Goods into the U.S.	CBP and ICE made 24,792 intellectual property rights seizures in FY2011 for an average of 68 seizures per day.[h]	The value of IPR violations seized by CBP was estimated to be $178 million in FY2011.[i] The value of IPR violations that exceed detection is unknown. Some counterfeit goods also may

Scenario	Likelihood (Known Frequency)	Potential Consequence (Financial Costs and Loss of Life)
		represent threats to U.S. health and safety, possibly resulting in lost lives.
Unauthorized Migrants Enter the U.S.	CBP made 340,252 apprehensions in FY2011.[j]	Immigration affects the U.S. economy in complex ways, but on balance economic research suggests that the overall economic impact of unauthorized migration is "close enough to zero to be essentially a wash."[k] Available evidence suggests that criminality rates among legal and unauthorized aliens are about the same as, or possibly lower than, criminality rates in the total U.S. population.[l] Hundreds of unauthorized migrants die each year while attempting to enter the United States.[m]

Sources: CRS analysis of publically available research, including sources cited below.

Notes: Table does not include an exhaustive accounting of potential consequences

a. Archived CRS Report RL33787, *Maritime Security: Potential Terrorist Attacks and Protection Priorities*.

b. *National Strategy for Countering Biological Threats,* November 2009, http://www.whitehouse.gov/sites/default/files/National_Strategy_for_Countering_BioThreats.pdf.

c. Charles Meade and Roger C. Molader, *Considering the Effects of a Catastrophic Terrorist Attack*, RAND Center for Terrorirsm Risk Management Policy, Santa Monica, CA, 2006, http://www.rand.org/pubs/technical_reports/2006/RAND_TR391.pdf.

d. "The Reckoning: America and the World a Decade After 9/11." *New York Times*, September 8, 2011, http://www.nytimes.com/interactive/us/sept-11-reckoning/viewer.html.

e. Customs and Border Protection, *On a Typical Day in Fiscal Year 2011*, March 7, 2012, http://cbp.gov/linkhandler/cgov/about/accomplish/typical_day_fy11.ctt/typical_day_fy11.pdf.

f. U.S. Department of Justice, National Drug Intelligence Center (NDIC), *The Economic Impact of Illicit Drug Use on American Society*, Product No. 2011-Q0317-002, May 2011. The NDIC estimate regards the *overall* economic impact of illegal drug use, including both drugs imported into the United States and drugs produced domestically.

g. U.S. Department of Justice, National Drug Intelligence Center, *National Drug Threat Assessment 2009*, Product No. 2008-Q0317-005, December 2008. According to ONDCP data, the trafficking and distribution of cocaine generates about $3.9 billion, marijuana generates about $8.5 billion, and methamphetamine generates about $1 billion. Jane's, *Security, Mexico*, February 20, 2009.

h. Customs and Border Protection, *On a Typical Day in Fiscal Year 2011*, March 7, 2012,.

i. Customs and Border Protection *Intellectual Property Rights Fiscal Year 2011 Seizure Statistics,* http://www.cbp.gov/linkhandler/cgov/trade/priority_trade/ipr/ipr_communications/seizure/ipr_seizures_fy2011.ctt/ipr_seizure_fy2011.pdf.

j. U.S. Border Patrol, "Apprehensions/Seizure Statistics—Fiscal Year 2011,".

k. Gordon Hanson, "The Economics and Policy of Illegal Immigration in the United States," Migration Policy Institute, Washington, DC, December 2009,.

l. CRS Report R42057, *Interior Immigration Enforcement: Programs Targeting Criminal Aliens*.

m. CRS Report R42138, *Border Security: Immigration Enforcement Between Ports of Entry*.

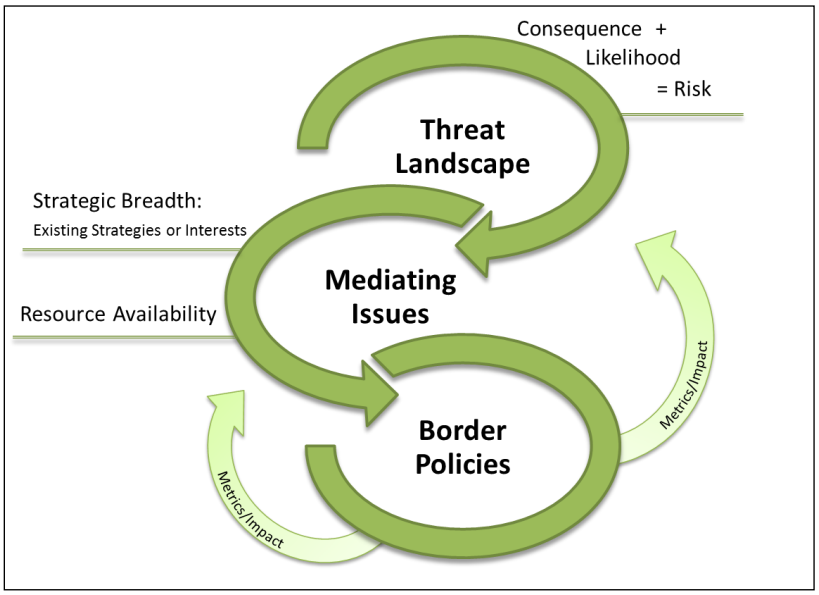
Concluding Comments: Policymaking Challenges

Understanding the nuanced security issues posed by the flow of people and goods across U.S. borders is fundamental to shaping effective policy in this area. This report describes a possible

framework for describing the risks posed by specific hazards at the border based on their likelihood and their potential consequences. While such an analysis may seem simple, its execution is complex, as described above, and *there is no objectively correct way to evaluate the relative importance of any particular threat at U.S. borders*. Nonetheless, the complexity and subjectivity of threat assessment does not diminish the importance of some form of threat assessment—explicit or otherwise—as a logical starting point for the policymaking process.

Beyond the challenges of threat assessment, how border *threats* shape border security *policies* also depends on a pair of mediating issues, as illustrated in **Figure 4**. First, while the border is a critical nexus for transnational flows, the *strategic breadth* of border threats and of policy responses extends well beyond the border region. At the very least, this suggests the importance of understanding how border-specific policy proposals may impact other government initiatives or interests, and how other law enforcement activities may supplement efforts at the border.

Figure 4. Border Policymaking Context



Source: CRS analysis.

For example, lawmakers concerned about illegal drug flows through the ports of entry may favor increased investments in specific DHS equities such as port of entry infrastructure, more CBP officers, non-intrusive inspection scanners, and drug sniffing dogs. For Members focused on counterterrorism, priorities might include continued investments in DHS information systems, such as the CBP Automated Targeting System, the U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) system,[122] and the Automated Commercial Environment, along with investments in intelligence collection programs to ensure that the right data are being analyzed.

[122] The U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) program manages DHS's biometric identification services. At ports of entry, CBP officers use US-VISIT technology to capture biometric data (digital fingerprints) from certain incoming travelers, to match the data against information provided during the visa application process, and to check travelers against certain biometric watchlists. For a fuller discussion see CRS Report R42644, *Department of Homeland Security: FY2013 Appropriations*, coordinated by William L. Painter; and archived CRS Report RL32234, *U.S. Visitor and Immigrant Status Indicator Technology (US-VISIT) Program*, by Lisa M. Seghetti and Stephen R. Vina.

Yet such investments compete with other border priorities, such as fencing and surveillance equipment between ports.

Border investments also complement and interact with law enforcement activities beyond the border, such as—in the case of illegal drugs—programs to combat traffickers' money laundering schemes and to detect and prevent southbound flows of money and guns. Some of the most important work with respect to counterterrorism and counternarcotics efforts may involve bilateral and multilateral partnerships with allies abroad. And the U.S. government has vital competing interests in facilitating effective commercial flows and the efficient movement of legal travelers. Inevitably, decisions about "border security" must grapple with the full universe of threats and policies that intersect at U.S. borders.

Second, the *availability of resources* also plays a role in framing border security policy. Immediately after the 9/11 attacks, the convergence of immigration control, the war on drugs, and the urgency attached to combating terrorism meant that DHS took more of an "all of the above" approach to border security. Yet even when budgets are expanding, Congress and DHS face trade-offs among the different elements of DHS's border security mission. As budgeting has grown tighter in the current fiscal climate, policymakers face increasingly difficult questions about how to set priorities and where to allocate scarce resources.

The answers, in turn, depend on a third set of questions concerning how to measure and evaluate the effectiveness of border security policies. What does a secure border mean in real terms? How do we measure progress toward this goal? The Secure Fence Act (P.L. 109-367) defines operational control of the border to mean *zero illegal inflows*,[123] yet many analysts doubt that an open country in a globalized economy can ever achieve a 100% interdiction rate—and some question whether such a standard is even worth aspiring to.[124]

Clearly articulated and attainable policy goals help in the development of effective metrics and appropriate benchmarks. How to measure the success of policies designed to curb unauthorized migration may be especially important—and challenging—during a period experiencing net unauthorized migration flows at around zero. Two key measurement-related questions are how recent DHS policies like increased border personnel, CBP's consequence delivery system, and ICE's Secure Communities[125] program have contributed to the recent trend of falling illegal inflows;[126] and the degree to which unauthorized flows will increase as the U.S. economy recovers and new hiring resumes.

[123] See P.L. 109-367, §(2)(b).

[124] See for example, testimony by Doris Meissner, Director, U.S. Immigration Policy Program, Migration Policy Institute, before the U.S. Congress, Senate Committee on Homeland Security and Governmental Affairs, *Securing the Border: Building on the Progress Made*, 112th Cong., 1st sess., March 30, 2011.

[125] Secure Communities is an information sharing program between the Departments of Justice and Homeland Security. Under the program, when participating law enforcement agencies submit the fingerprints of people being booked into jails to the Federal Bureau of Investigation (FBI) for criminal background checks, the fingerprints also are automatically checked against DHS databases, and potential matches are forwarded to ICE's Law Enforcement Support Center (LESC). When the LESC determines that the arrestee may be a removable alien, information may be forwarded to local ICE field offices, which may initiate removal proceedings against such aliens. For a fuller discussion, see CRS Report R42057, *Interior Immigration Enforcement: Programs Targeting Criminal Aliens*, by Marc R. Rosenblum and William A. Kandel.

[126] One recent study found that illegal inflows fell about 60 percent between 2004 and 2010, with 40% of the reduction due to a stronger Mexican economy, 30% of the reduction due to increased U.S. border enforcement, and 30% of the reduction due to the weaker U.S. economy; see Scott Borger, Gordon Hanson, and Bryan Roberts "The Decision to Emigrate From Mexico," presentation at the Society of Government Economists annual conference, November 6 2012.

Surveying the border policymaking context as described in **Figure 1**, Members of Congress may ask whether the U.S. approach to particular threats is too narrow or perhaps too broad. For example, should policy be designed to prevent *all* forms of unauthorized migration and illegal movement of goods, or should policies be tailored to target specific threats such as terrorists, transnational gangs, or illegal drugs?[127] If the answer lies somewhere between—involving both sweeping and targeted programs—how should mediating issues such as resource allocation and the prioritization of one effort over another be weighed?

Finally, in addition to setting overall priorities, Members of Congress may evaluate policies by asking where DHS may get the most effective return on its enforcement investments. In addition to terrorism prevention, some Members may emphasize investments in resiliency, or the ability to survive and manage a terrorist attack. Members concerned with preventing the inflow of illegal drugs may question whether the enforcement component of overall U.S. drug policy is properly balanced with non-enforcement investments. Members focused on countering the movement of bulk cash, counterfeit goods, and other smuggled items across the U.S. borders may weigh the value of investing in enforcement personnel at the border, versus focusing on international cooperation and domestic intelligence collection and information.

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Acknowledgments

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[127] As noted above, uncertainty about the likelihood of different illegal flows and inherent subjectivity about their consequences mean there is no "right" answer to this question.