

1

INTRODUCTION

MICHAEL O'HANLON AND JEREMY SHAPIRO

How good have America's defenses against terrorism become in the years since September 11, 2001? The absence of any further attacks on American soil suggests that the country's security has improved. That fact is likely due to a combination of offensive military and law enforcement operations that have left al Qaeda and associated jihadist groups at least temporarily unable to attempt major strikes in the United States, and perhaps to some extent good luck as well. The subject of homeland security is so new that it is difficult to assess progress at the analytical level. And in Washington, it has also become a politically charged question in a country that is increasingly polarized along partisan lines.

Four years into the war on terrorism, homeland security is becoming not just an issue of immediate urgency but one of enduring importance. With that in mind, the authors of this book review the progress made in defending the U.S. homeland in the last four years, assess the country's remaining vulnerabilities, and introduce some new policy initiatives to improve U.S. security.

It is difficult to offer any firm judgment about the net effect of U.S. efforts to date. On one level, an extraordinary amount has been done. A multitude of specific initiatives, to protect everything from cargo to infrastructure, have gone from being mere ideas to being operational programs—at, by bureaucratic standards, astonishing speed. At the same time, entire new bureaucracies, such as the

Department of Homeland Security (DHS) and the Transportation Security Administration, have emerged into large functioning organizations. Even in the face of tragedies like September 11, governments are rarely capable of reacting so rapidly and so radically to newly perceived challenges.

But clearly much remains to be done. The quiescence of the last four years cannot obscure the fact that determined and ruthless enemies, inspired by the ideology of al Qaeda and the example of September 11, remain intent on carrying out major strikes against American targets. Moreover, for all of the federal government's activity, there remain pockets of puzzling inactivity and many glaring deficiencies in the efforts undertaken to date. State and local governments, widely acknowledged to be critical to both prevention of attacks and management of the consequences, have not been sufficiently integrated into federal efforts. Similarly, the private sector has only begun to contribute to homeland security. As a result, targets that ultimately need to be protected at the local level—skyscrapers and chemical plants, for example—have inconsistent protection or none. Terrorists continue to slip across international borders because no permanent regime has been created for gathering and sharing information, even with some of America's closest allies.

Even within the federal government, obvious problems remain. The Department of Homeland Security was created in large part to address a key pre-9/11 government failure—the so-called “connect-the-dots” problem. That image is meant to imply, of course, that the information necessary to prevent terrorist attacks often exists in pieces throughout the government but is never integrated in a way that reveals its significance. However, creating the Department of Homeland Security has proven a more daunting task than initially imagined. Although its accomplishments to date have actually been reasonable by normal standards of institution building, they leave much to be desired and much to be done. Hurricane Katrina, for example, revealed that whatever else the creation of DHS might have done, it certainly did not improve the Federal Emergency Management Agency's near-term response capacity for disasters, despite a budget increase.

The key challenge at this juncture is clearly not just to eliminate remaining vulnerabilities but also to establish priorities. This book attempts to do that. It is written in the form of individual chapters by different authors; taken together, the chapters compose not so much an alternative strategy as an agenda for change in terms of a number of specific proposals.

Where We Are Today

Since the attacks of September 11, 2001, a good deal has been done to improve the safety of Americans. Much of that improvement has come from

offensive operations abroad—the military overthrow of the Taliban and associated attacks against al Qaeda, as well as the intelligence and covert operations conducted by the United States in conjunction with key allies such as Pakistan. These steps have reduced the threat of the kind of attacks the country suffered so tragically more than four years ago.

Homeland security efforts have improved too. Now aware of the harm that terrorists that can inflict, Americans are more alert, providing a first, crucial line of defense. Air travel is much safer, following measures such as screening all passenger luggage, installing hardened cockpit doors on all large American commercial aircraft, employing thousands of air marshals, and arming some pilots on commercial and cargo flights.

Intelligence sharing has improved, especially concerning information about specific individuals suspected of terrorist ties, through increased integration of databases and greater collaboration between the FBI and the intelligence community—the Central Intelligence Agency (CIA), National Security Agency (NSA), and so forth. These initial efforts have now been reinforced by the passage of the Intelligence Reform and Terrorism Prevention Act of 2004. Such database linkages can enable offensive operations abroad; they can also assist greatly in the more defensive, but equally critical, domain of homeland security operations.

The share of FBI resources devoted to counterterrorism has doubled, and the combined total of CIA and FBI personnel working on terrorist financing alone has increased from less than a dozen to more than 300 since September 2001.¹ International cooperation in sharing information on suspected terrorists has improved, extending beyond countries that have been helpful over many years, such as France and Britain, to include many other states, such as Pakistan and Saudi Arabia, that now take the threat more seriously.

Additional efforts have also been initiated, a number in response to the 2001 anthrax attacks and others in response to information gained in prisoner interrogations and other intelligence efforts. Suspicious ships entering U.S. waters are now screened more frequently. The country's exposure to biological attacks has been lessened by stockpiling of hundreds of millions of doses of antibiotics and enough smallpox vaccine for every man, woman, and child in the United States.² Oversight rules have been tightened on labs working with biological materials, though actual implementation of those rules, including completion of background checks on lab employees, has lagged.³ Terrorism insurance is now backstopped by a new federal program. Certain types of major infrastructure, such as well-known bridges and tunnels, are protected by police and National Guard forces during terrorism alerts. Nuclear reactors have better protection than before.⁴ Federal agencies are

required to have security programs for their information technology networks, and many private firms have backed up their headquarters and their databanks so that operations could continue after the catastrophic loss of a main site.⁵

The United States has prepared fairly well to fight the last war—that is, to stop the kinds of attacks that it has already experienced. However, much less has been done to thwart other kinds of plausible strikes. It made sense to move quickly to prevent al Qaeda, with its long-standing interest in airplanes, from easily repeating the 9/11 attacks. But it is time to do a more comprehensive and forward-looking job of protecting the American people.

Al Qaeda may not be as capable as before of “spectacular” attacks in coming years. But it is certainly still capable of using explosives and small arms, with considerable lethality. It may be able to use surface-to-air missiles and other methods of attack as well.⁶ There have not been more attacks on the American homeland since 9/11, but according to an October 2005 speech by President Bush, the United States has disrupted three attempted al Qaeda strikes inside the United States and intercepted at least five more terrorist efforts to case targets or infiltrate the country.⁷ Moreover, the years 2002, 2003, and 2004 have been among the most lethal in the history of global terrorism, with attacks afflicting a wide swath of countries, from Spain to Morocco, Tunisia, Saudi Arabia, Pakistan, and Indonesia—and, of course, Iraq.⁸ The pattern continued in 2005, and the July 7 attacks in London that year reminded Americans of their continued vulnerability and demonstrated to America's enemies the potentially dramatic effects of even small-scale attacks.⁹

A UN study in early 2005 argued that al Qaeda continues to have easy access to financial resources and bomb-making materials.¹⁰ There were serious worries that al Qaeda would use truck bombs to destroy key financial institutions in New York, Newark, and Washington in 2004.¹¹ The “shoe bomber,” Richard Reid, attempted to destroy an airplane headed to the United States in 2002.¹² U.S. intelligence reports in early 2005 suggested the possibility of attacks using private aircraft or helicopters.¹³ Al Qaeda prisoner interviewers and confiscated documents suggested other possible attacks, ranging from blowing up gas stations to poisoning water supplies, using crop dusters to spread biological weapons, and detonating radioactive “dirty bombs.”¹⁴ And according to Richard Falkenrath, former homeland security deputy adviser, the country's chemical industry, as well as much of its ground transportation infrastructure, remains quite vulnerable.¹⁵

Although al Qaeda has been weakened at the top, it remains extremely dangerous.¹⁶ It is now less a vertical organization and more a symbol of an

ideology uniting loosely affiliated local groups that share similar goals—and that, like terrorist groups in general, watch and learn from each other.¹⁷ Former CIA director George Tenet put it succinctly in 2004: “Successive blows to al Qaeda’s central leadership have transformed the organization into a loose collection of regional networks that operate more autonomously.”¹⁸ There are benefits from this dispersal of al Qaeda; for example, the near-term risk of sophisticated catastrophic attacks has probably declined as a result. But the risk of smaller and sometimes quite deadly strikes clearly has not—and the possibility of further catastrophic attacks may well increase in the future.

The benefits gained by depriving al Qaeda of its sanctuary in Afghanistan may not be permanent. Over the years, al Qaeda has shown enormous adaptability. It may ultimately learn to reconstitute itself with a less formal and more virtual, horizontal network. It may also learn how to avoid terrorist watch lists with some effectiveness by using new recruits—possibly including women, non-Arabs, and European passport holders—to conduct future attacks against Western countries.¹⁹ The United States is fortunate not to have, as far as it can determine, many al Qaeda cells presently on its soil, as several European countries do. It will be challenging, however, to keep things that way.²⁰

In response to a question about whether he was surprised that there had not been another attack on U.S. soil since 9/11, Tom Ridge, then the secretary of homeland security said, “I’m grateful. That’s a better way to put it . . . many things have been done that have altered their [the terrorists’] environment. . . . But maybe they just weren’t ready. They are strategic thinkers. Even if we’ve altered their environment and our environment here, they aren’t going to go away. They’re just going to think of another way to go at the same target or look for another target.”²¹ CIA director Porter Goss told Congress in February 2005: “It may be only a matter of time before al Qaeda or another group attempts to use chemical, biological, radiological, and nuclear weapons.”²² DHS has conducted “red cell” exercises involving a diverse range of creative outside thinkers to contemplate new ways that al Qaeda might attack, but policy responses to such possibilities have typically been limited in scope and scale.²³

The Iraq war, whatever its merits, appears not to have alleviated the global terrorism problem. In fact, it is quite possible that it has made it worse by aiding al Qaeda’s recruiting efforts and providing an opportunity for a core of hardened terrorists to hone their skills and tighten their organizational networks. To quote Goss again, “Islamic extremists are exploiting the Iraqi conflict

to recruit new anti-U.S. jihadists. These jihadists who survive will leave Iraq experienced and focused on acts of urban terrorism.²⁴ The National Intelligence Council reached a similar conclusion in its 2004 report.²⁵

It is simply not possible to defend a large, open, advanced society from all possible types of terrorism. The United States contains more than a half-million bridges, 500 skyscrapers, nearly 200,000 miles of natural gas pipelines, more than 2,800 power plants—the list of critical infrastructure alone is far too long to protect everything, to say nothing of subways, restaurants, movie theaters, schools, and malls.²⁶ Certain special measures, such as providing tight security and even electronic jamming (against the possibility of global positioning system–guided munitions attack) around the nation's 104 nuclear power plants, clearly cannot, at reasonable cost, be extended to all possible targets.²⁷

But to say that the nation cannot do everything is not to argue for inaction. There is a strong case for taking additional steps to reduce the risk of catastrophic attack. Al Qaeda's leadership seems to prefer such attacks for their symbolic effect and potential political consequences; it is also such tragedies that most jeopardize the country's overall well-being.

Catastrophic attacks include, of course, those that cause large numbers of direct casualties. They also include strikes causing few casualties but serious ripple effects, especially in the economic domain. If a shoulder-launched surface-to-air missile took down an airplane, casualties might be modest—depending on the plane, only a few dozen people might be killed—but the effects on the nation's air travel could be devastating and longer lasting than those of September 11, 2001. Similarly, the use in an urban area of a weapon that uses a conventional explosive to disperse radioactive material would be unlikely to kill many people, but it could cause mass panic and would probably require a very costly and time-consuming cleanup and spur the adoption of disruptive security measures throughout the country.²⁸

Even in areas where homeland security has improved, deficiencies often remain. For example, while antibiotic stocks for addressing an anthrax attack are now fairly robust, means of quickly delivering the antibiotics appear still to be lacking.²⁹ In the domain of air travel, passengers are not generally screened for explosives, cargo carried on commercial jets is generally not inspected, and private aircraft face minimal security scrutiny. Perhaps most of all, whatever the security improvements made by U.S. carriers, fewer have been made by many foreign carriers that transport large numbers of Americans to and from the United States. Moreover, longer-term worries about biological attacks remain acute, since there could be many types of

infectious agents for which antidotes and vaccines would prove unavailable (or nonexistent) when they were most needed. And as noted, the private sector has, for the most part, done very little to protect itself.³⁰

It would be a mistake to assume that the creation of the Department of Homeland Security will automatically lead to better protection against such threats. Such institutional reorganizations can distract attention from efforts to identify remaining key U.S. vulnerabilities and mitigate them.³¹ These problems were, of course, witnessed during and after Hurricane Katrina in 2005, despite the substantial increase in resources that FEMA received after 9/11.

Carrying out a major overhaul of government when the threat to the nation is so acute is a risky proposition—and it is not the way that the country has typically responded to national crises. The Department of Defense was not created during World War II, when military leaders had more immediate tasks at hand, but afterward. Even the much more modest Goldwater-Nichols reorganization in 1986 was carried out during a time of relative international peace. By contrast, the DHS was created in what amounts to a wartime environment—just when its constituent agencies need to focus on their actual jobs rather than bureaucratic reorganization. Now that the decision has been made and the third-largest department in the government created, it is imperative not to confuse its mere existence with a successful strategy for protecting the country. A department that lives up to the promise of its creators will clearly take years to develop.

And while Congress has improved its ability to address homeland security issues by creating dedicated authorization committees and appropriations subcommittees in both houses, it has not gone far enough. Those committees and subcommittees must share jurisdiction with many others that insist on their share of the decisionmaking power.³² This approach is extraordinarily inefficient for the executive branch officials who must work with Congress; in addition, it breeds parochialism among the individual committees and subcommittees about the particular dimensions of homeland security that they address, and it reinforces the tendency for members of Congress to allocate precious homeland security dollars to their districts rather than to areas where they might do the most good.³³ Congress needs to establish the principle that homeland security committees and dedicated appropriations subcommittees have exclusive jurisdiction over funding within the homeland security realm. A requirement for cross-jurisdictional input—that is, the need to gain approval for any initiative from more than one authorizing or appropriating body per house of Congress—may in rare instances be good policy, but it should not be the norm.

The Way Ahead

Today the way ahead is more complicated than it was in 2002, when Brookings published its first post-9/11 book on homeland security. Then the policy backdrop was largely a tabula rasa, and making a first-blush assessment of where the country was vulnerable to terrorism and laying out a broad conceptual architecture for protecting it was a natural task for a think tank. Four years later, much has been done to improve the nation's security. Where progress is lacking, it is sometimes because of conceptual blinders or bureaucratic obstacles, but at other times it is because ongoing efforts simply take a very long time to bear fruit. Developing a clear alternative to existing policy in such circumstances is more complicated.

To guide the nation's efforts and to avoid making proposals for improving homeland security that include—at exorbitant prices—everything but the kitchen sink, the authors of this book have sought to prioritize. We argue that future efforts should focus on stopping catastrophic threats and that they should emphasize early prevention rather than later response. These guideposts can help organize the country's efforts. But most of our analysis requires a much more detailed and specific form of investigation that theory and conceptual frameworks can only do so much to inform.

There are several areas in which our findings show considerable consensus, but there are also a number in which the analytical findings and prescriptions evidence some tension or even disagree. Moreover, we cannot claim to have covered the waterfront of possible homeland security initiatives, and we are left with many unanswered questions about where to go from here. Beyond an assessment of the security of the nation at present, the book's main analytical findings can be divided into three categories: areas of accord that imply clear priorities, areas of tension or disagreement where hard choices will need to be made, and areas requiring further analysis and study.

Points of Consensus and Firm Recommendations

Because of the importance of preventing rather than responding to terrorist attacks, it is crucial that the United States take seriously the need to track and find terrorists before they strike. The need for prevention, the theme of several of the book's chapters, leads Jim Steinberg in particular to recommend a set of fairly strong measures in the realm of intelligence. They include reauthorization of the Patriot Act, establishment of a new agency separate from the FBI to carry out domestic intelligence operations, and implementation of federal standards for drivers' licenses.

O'Hanlon and Steinberg converge in arguing for an intensified effort on the information gathering side of homeland security efforts. It is critically important that agencies do more than maintain databases that connect terrorist watch lists; they must also share information within and among themselves about possible patterns of terrorist activity. To prevent abuse and protect civil liberties, relevant agencies should create independent "data czars" to adjudicate requests for information and keep records of how and when it is accessed. While integration of databases for terrorist watch lists proceeds, more needs to be done. In some cases, financing is lacking, and plans will take two to three more years to complete. For example, the country remains a considerable distance away from tracking when individuals leave the United States.

Another important analytical theme in the book is the need to make government more efficient by breaking down barriers between different layers of government and between the U.S. government and non-U.S. actors. One critical element in this area is simplifying the organization of the federal government so that outsiders can understand how it works and with whom they should coordinate their efforts. The natural response to September 11 was to create a plethora of new organizations, but the time has come to recognize that there is a cost to such complexity. That recognition leads Steinberg to advocate dissolution of the Homeland Security Council and assigning its functions in part to the National Security Council and in part to the Department of Homeland Security. It leads Shapiro to argue for recentralization of U.S. embassies abroad so that various U.S. departments do not work at cross-purposes.

As for organization of the government's major departments, at least three major changes are in order. First, Congress needs to create a separate domestic intelligence agency outside the FBI. The four years since 9/11 have proven, if any proof were necessary, that the culture of the FBI, as valuable as it is for many important tasks, is simply not conducive to intelligence work. Second, DHS needs a directorate for planning to set the overall direction for the department and for federal government efforts on homeland security in general. Third, the Department of Defense (DoD) needs more small units dedicated to disaster and terror response, as well as better planning for major catastrophes. Hurricane Katrina revealed how limited DoD's capacity for truly rapid action is at present; this is less an issue of physical resources than of proper planning and bureaucratic culture. There has been a barrier between FEMA and DoD in preparing for quick disaster response, with DoD commonly wishing to defer to FEMA, eschewing any large role or even any

major planning effort to prepare for a possible role. But that paradigm should have been demolished by Katrina, and artificial barriers between these government agencies should be broken down as a result.

International cooperation in homeland security may sound oxymoronic, but in fact it is imperative, as Jeremy Shapiro's chapter in particular underscores. The United States has made some progress, for example, through its container security initiative, which stations U.S. inspectors in overseas ports. But much remains to be done. Many of the European databases that could potentially be most beneficial for U.S. homeland security, for example Eurodac, remain inaccessible to American officials. Europe's plan to use fingerprints on future passports as the biometric indicator is wiser than America's continued preference for photographs, as Michael d'Arcy's chapters emphasize. By contrast, the U.S. effort to digitize and biometrically secure passports quickly is better than the more leisurely efforts of some European countries. Each side needs to emulate the other's best practices. In another key example, while Europeans are now placing air marshals on at least some flights to the United States, they still have not achieved the same standards of security (such as reinforced cockpit doors) required for American carriers. The point here is not that either the Americans or the Europeans have found the correct balance between security and expense or between security and liberty. Rather, the continued divergence in their practices breeds distrust and invites political conflict. Standardization of practices is a foundation on which closer cooperation could be built.

The United States also needs to do much more to protect the private sector. The best approach, as Peter Orszag explains, is not through the heavy hand of government regulation—except to ensure a basic level of protection for especially dangerous facilities such as toxic chemical plants. Rather, the private insurance market should be used to encourage the private sector to adopt best practices, with the government stepping in only far enough to require large firms to carry terrorism insurance. And even though robust protection is infeasible for all large buildings as well as major transportation networks such as railroads and subway systems, the frequency with which al Qaeda uses truck bombs and suicide bombers demands greater vigilance against this challenge than the United States is currently displaying. For transportation, substantially greater federal resources are appropriate; for large buildings such as skyscrapers, again the private insurance market is the key—for example, to encourage use of better air filters as a defense against biological attack.

Points of Analytical Tension

While all the authors support the concept of bridging divides between different levels of government, determining exactly how that should be done and the priority that should be given to particular cases can be a difficult and contentious process. For example, it remains apparent that better cooperation between the U.S. federal government and its state and local counterparts is imperative. The latter already receive some help from Washington, through the FBI-led joint terrorism task forces. But as counterterrorism responsibilities get pushed to the local level—including, for example, an intelligence unit within the New York City police department—the problem of liaison, particularly with foreign partners, becomes more difficult.

There are further important differences over the allocation of federal resources to first responders, and this issue requires further policy innovation. More money is now going to higher-threat areas, as it should. But there is still too little guidance about what types of local capacities should be created—and this book's authors were not all of the same view on that question. For example, rather than await the day in which all of the nation's 3 million first responders have interoperable radios, O'Hanlon recommends that municipalities purchase mobile interoperability centers that would allow liaison between existing radios at whatever site they needed to be interconnected. But that recommendation was not reinforced in other chapters.

One area in which the authors were unable to reach consensus concerns U.S. border security. We agree that it is significantly better than before, and it may be the primary area where the creation of DHS has led to efficiencies and improvements. We also agree that there are still big problems. However, it is difficult to determine what to do about those problems. O'Hanlon and d'Arcy recommend that the country move toward "smart containers" with tamper-proof seals and transponders that indicate their position at all times. This type of approach would allow inspectors to concentrate efforts on shipments lacking appropriate security safeguards and hence requiring special scrutiny. But the authors diverge somewhat on how much to increase cargo inspection capacity at the border. O'Hanlon notes that today only about 5 percent of containers entering the country are inspected, while a better goal would be 10 percent or more. However, that particular quantitative goal is admittedly somewhat arbitrary—and contentious.

As for land borders, while the Border Patrol has doubled in size in the last decade, with some apparent reduction in illegal flows into the United States,

the borders are far from airtight and represent a major vulnerability in the effort to prevent terrorist infiltration. Continued gradual but significant expansion of the Border Patrol is appropriate. It is difficult to be precise about the endpoint. O'Hanlon would sustain the pace of increases of the recent past—roughly 1,000 additional agents a year, along with adoption of technological innovations such as multispectral sensors set on land or carried by UAVs (unmanned aerial vehicles). But, again, not all of the authors would consider the added expense worthwhile—and Shapiro's chapter makes it clear that many U.S. allies would balk at such expanded efforts on their own borders.

Unresolved Questions and the Future Research Agenda

For all that should still be done, it is worth noting a few examples of efforts that we deem too expensive, too ineffective, or too marginal to the country's core security to warrant major initiatives at this time. They require further research and study—or further developments in the counterterrorism situation—before it would be appropriate to make decisions.

For example, the United States should not create huge quarantine facilities for the population. The scenario of an epidemic caused by an extremely lethal and contagious virus, such as smallpox—or even something worse, such as a genetically engineered cross between smallpox and a flu virus—seems unlikely to be within a weakened al Qaeda's reach anytime soon. (Avian flu may be a greater worry, but it is still not great enough to warrant such an extreme measure given its cost and the availability of better alternatives.) In the near term, the United States should instead be able to isolate some parts of existing hospitals to treat extremely contagious patients rather than invest in hugely expensive new bed capacity for a most unlikely scenario.

Similarly, as the Orszag-O'Hanlon chapter shows and as the book's broader conceptual framework would also argue, the nation's tens of thousands of chemical facilities do not all require top-tier protection. Only a few thousand pose the highest threat, combining lethal chemicals and proximity to large population centers.

As for two final and related examples, the authors do not now advocate taking major steps to deal with two types of missiles that pose a threat to the United States: surface-to-air missiles (SAMs), which could be used against airplanes, and cruise missiles, which could be launched from the sea (or over a land border) against an American city. The threat is undeniable. Indeed, a sting operation in 2005 that stopped a plot by arms merchants to bring anti-aircraft missiles into the United States was a sobering reminder of it, as was

the 2002 incident in which two SAMs were fired at an Israeli passenger jet in Kenya.³⁴ But as Michael d’Arcy shows, the cost to address the threat is high and the effectiveness of any presently feasible efforts is questionable. Were a SAM to bring down a U.S. airliner, the estimated current cost for the imperfect technology needed to address such a possibility—\$10 billion to \$20 billion—might quickly seem justifiable. But at present, we support instead robust research and development to pursue less expensive and more effective technologies.

Cruise missiles launched at American territory are also a credible threat to the homeland. If they carried weapons of mass destruction, they could kill far more people than a shoulder-launched SAM. But the types of command-and-control arrangements needed to reliably find such threats—and activate the quick response needed to shoot them down without running a substantial risk of destroying manned aircraft by accident—remain elusive. The better course of action for now is to pursue effective cruise missile defense for military assets first, a task that is more limited in geographic and technical scope. The United States might then consider the nationwide defense option, as a function of cost, likely effectiveness, and estimated threat.

Several points are worth making about the state of the country’s scientific research efforts regarding homeland security. As Michael d’Arcy explains, the field of biometrics is improving fast and can help greatly with reliable identification, through not only fingerprint technology but also iris identification and other methods. However, sensors for finding dangerous materials are improving relatively slowly, and they will remain limited in capacity into the indefinite future, necessitating labor-intensive efforts to search for weapons of mass destruction and other threats. In terms of the development of biological countermeasures, a fundamentally new approach is needed to encourage development of vaccines and antidotes. Either the private sector should be subsidized to perform the necessary research and development (R&D), especially in the early developmental stages, or the government should create dedicated R&D capacity of its own. The free market alone will not solve this problem.

Conclusion

The overall thrust of this book suggests that while discrimination and selectivity are always in order, much more needs to be done to improve the nation’s defenses against terrorism. That does not require bank-busting activities—or, to put it differently, the authors generally do not find enormously

expensive measures to be necessary or appropriate at this time. Even if all of our recommendations were adopted, federal financing for homeland security would wind up in the range of \$50 billion to \$60 billion a year, in contrast to today's \$40 billion—and private sector expenses would probably increase by a roughly comparable amount. But while Americans can feel somewhat safer than they were four years ago, falling into any national sense of complacency would be a huge mistake.

Notes

1. Vicky O'Hara, "Terrorist Funding," National Public Radio, Morning Edition, November 20, 2003; speech of George W. Bush at the FBI Academy, Quantico, Virginia, September 10, 2003; and Philip Shenon, "U.S. Reaches Deal to Limit Transfers of Portable Missiles," *New York Times*, October 21, 2003, p. A1.

2. Tom Ridge, "Since That Day," *Washington Post*, September 11, 2003, p. 23.

3. Martin Enserink, "Facing a Security Deadline, Labs Get a 'Provisional' Pass," *Science*, November 7, 2003, p. 962.

4. There may be some gaps in these types of protective measures to date, but the overall level of security is generally good. See the statement of Jim Wells, General Accounting Office, "Nuclear Regulatory Commission: Preliminary Observations on Efforts to Improve Security at Nuclear Power Plants," GAO-04-1064T (September 14, 2004).

5. John Moteff, "Computer Security: A Summary of Selected Federal Laws, Executive Orders, and Presidential Directives" (Washington: Congressional Research Service, April 16, 2004), p. 2.

6. David Johnston and Andrew C. Revkin, "Officials Say Their Focus Is on Car and Truck Bombs," *New York Times*, August 2, 2004, p. A13.

7. President George W. Bush, speech on terrorism at the National Endowment for Democracy, October 6, 2005 (www.whitehouse.gov [October 6, 2005]).

8. See Gilmore Commission (Advisory Panel to Assess Domestic Response Capabilities for Terrorism Involving Weapons of Mass Destruction), Fifth Annual Report, *Forging America's New Normalcy: Securing Our Homeland, Preserving Our Liberty* (Arlington, Va.: RAND, December 15, 2003), p. 1; Alan B. Krueger and David D. Laitin, "'Misunderestimating' Terrorism," *Foreign Affairs* 83 (September-October 2004): p. 9; and Susan B. Glasser, "U.S. Figures Show Sharp Global Rise in Terrorism," *Washington Post*, April 27, 2005, p. 1.

9. Richard Benedetto, "Americans Expect Attacks, Poll Finds," *USA Today*, July 12, 2005, p. 1.

10. Leyla Linton, "Al Qaeda, Taliban Can Still Launch Attacks, Report Says," *Philadelphia Inquirer*, February 16, 2005.

11. Eric Lichtblau, "Finance Centers Are Said to Be the Targets," *New York Times*, August 2, 2004, p. 1.

12. Shaun Waterman, "Al Qaeda Warns of Threat to Water Supply," *Washington Times*, May 29, 2003, p. 6; and Eric Lichtblau, "U.S. Cites al Qaeda in Plan to Destroy Brooklyn Bridge," *New York Times*, June 20, 2003, p. 1.

13. Eric Lichtblau, "Government Report on U.S. Aviation Warns of Security Holes," *New York Times*, March 14, 2005, p. A1.

14. Matthew Brzezinski, *Fortress America* (New York: Bantam Books, 2004), pp. 16–17.

15. Richard Falkenrath, statement before the Senate Committee on Homeland Security and Governmental Affairs, 109 Cong., 1 sess., January 26, 2005, pp. 12–14.

16. See Marc Sageman, *Understanding Terror Networks* (University of Pennsylvania Press, 2004).

17. Gilmore Commission, *Implementing the National Strategy* (December 2002), p. 11; and Douglas Farah and Peter Finn, "Terrorism, Inc.," *Washington Post*, November 21, 2003, p. 33. On the assertion that modern terrorist groups watch and learn from each other, see Bruce Hoffman, "Terrorism Trends and Prospects," in *Countering the New Terrorism*, Ian O. Lesser and others (Santa Monica, Calif.: RAND, 1999), pp. 8–28; and on the nature of al Qaeda and affiliated as well as sympathetic organizations, see Paul R. Pillar, *Terrorism and U.S. Foreign Policy* (Brookings, 2001), pp. 54–55.

18. Cited in Daniel L. Byman, "Homeland Security: We're Safer than You Think," *Slate*, August 2, 2004.

19. "Washington in Brief," *Washington Post*, July 17, 2004, p. A5.

20. Byman, "Homeland Security"; and ABC News, "No 'True' Al Qaeda Sleeper Agents Have Been Found in U.S.," abcnews.com, March 9, 2005.

21. "Ridge 'Grateful' U.S. Has Not Been Hit Again," *USA Today*, August 11, 2004, p. 11; and John Mintz and Sara Kehaulani Goo, "U.S. Officials Warn of New Tactics by al Qaeda," *Washington Post*, September 5, 2003, p. 2.

22. Bill Gertz, "Goss Fears WMD Attack in U.S. 'A Matter of Time,'" *Washington Times*, February 17, 2005, p. 3.

23. John Mintz, "Homeland Security Employs Imagination; Outsiders Help Devise Possible Terrorism Plots," *Washington Post*, June 18, 2004, p. A27.

24. Dana Priest and Josh White, "War Helps Recruit Terrorists, Hill Told," *Washington Post*, February 17, 2005, p. 1.

25. National Intelligence Council, *Mapping the Global Future* (December 2004), p. 94.

26. Richard K. Betts, "The Soft Underbelly of American Primacy: Tactical Advantages of Terror," *Political Science Quarterly* 117 (Spring 2002): 30.

27. On jamming, see "U.S. Homeland Defense Strategists," *Aviation Week and Space Technology*, September 6, 2004, p. 20.

28. Peter D. Zimmerman with Cheryl Loeb, "Dirty Bombs: The Threat Revisited," *Defense Horizons* 38 (January 2004).

29. Lawrence M. Wein and Edward H. Kaplan, "Unready for Anthrax," *Washington Post*, July 28, 2003, p. A21.

30. Falkenrath, statement before the Senate Committee on Homeland Security and Governmental Affairs, pp. 14–15.

31. *Ibid.*, pp. 2, 7.

32. For a similar critique of Congress's role, see National Commission on Terrorist Attacks upon the United States [9/11 Commission], *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States* (New York: W. W. Norton, 2004), pp. 420–22.

33. See Falkenrath, statement before the Senate Committee on Homeland Security and Governmental Affairs, p. 4.

34. Julia Preston, "Arms Network Is Broken Up, Officials Say," *New York Times*, March 16, 2005.