New Ways to Manage Series

Applying 21st-Century Government to the Challenge of Homeland Security

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The PricewaterhouseCoopers Endowment for
The Business of Government

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T A B L E   O F   C O N T E N T S

F O R E W O R D

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On behalf of The PricewaterhouseCoopers Endowment for The Business of Government, we are pleased to present this report by Elaine C. Kamarck, "Applying 21st-Century Government to the Challenge of Homeland Security."

Professor Kamarck sets forth her vision as to what a 21st-century government might look like in the years and decades ahead. She envisions a government consisting of three new forms: reinvented government, government by network, and government by market. She explains each form and describes how it would actually work when deployed by government leaders. Government, she argues, will no longer rely solely on the 20th-century bureaucratic model. Instead, the future effectiveness of government will depend largely on its ability to create an innovative portfolio of activities that attacks national problems by using elements of each of the three new models.

In a very timely analysis, Professor Kamarck applies the three new forms to the nation's most pressing current problem: homeland security. She sets forth nearly 20 illustrative recommendations on how the three new models of government might be applied to homeland security. While fascinating as a contribution to the homeland security debate, the illustrative recommendations demonstrate how creative thinking and innovative solutions can be applied to a national problem. There are clearly many additional national problems to which the three forms of 21st-century government might be applied.

We trust that this report will be useful and informative to a wide audience. The academic community can use the report to envision and debate how 21st-century government will differ from 20th-century bureaucratic government. The governmental community can use the report to stimulate discussion about which new tools and which new forms of government can be applied creatively to present and future problems. Let the discussions and debate begin.

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E X E C U T I V E   S U M M A R Y

The modern government of the 20th century was built problem by problem, agency by agency. For much of the 20th century, the governmental response to a problem was to create a bureaucracy. But as government matured and the 20th century passed on, it became clear that some of the most difficult problems defied jurisdictional boundaries and were resistant to bureaucratic routines.

As the 20th century ended, politicians in modern democracies did not lose their enthusiasm for solving public problems, but they became aware that they had to solve them in ways that did not create bureaucracy. The limits of bureaucratic government are resulting in innovations that have moved beyond the formal structures of government and that have included other, non-governmental actors. In recent years, we have seen the beginning of a remarkable era of experimentation in government, driven by a sense that the bureaucracies of the 20th century were simply not up to the job of 21st-century government.

This report is an attempt to describe the emerging implementation strategies of government in the 21st century. Following the introduction, the second section will describe three models of government available to policy makers who believe that the bureaucratic model cannot solve the problems at hand: reinvented government, government by network, and government by market. Reinvented government is government shorn of many public sector trappings and geared toward performance. Government by network is government that makes a conscious choice to implement policy by creating, through its power to contract and to fund, a network of governmental and non-governmental organizations. Government by market involves the use of governmental power to create a market that fulfills a public purpose.

The third section of this report will apply these new models to the problem of homeland security in an attempt to show how the new models allow us to deal with a complex problem in a comprehensive and appropriate way. The recommendations set forth in this section are illustrative of how the 21st-century government framework can be applied to a pressing national problem—homeland security. The challenge of 21st-century government will be to create effective portfolios of actions that incorporate existing government, reinvented government, government by network, and government by market into new and comprehensive sets of solutions to our national problems. The problems of the 21st century will not fit into the bureaucratic boxes of the 20th century. To meet the problems of a new century, we will have to continually redesign the government.

Introduction

For some time now Americans have been dissatisfied with their government. This dissatisfaction has lasted for nearly 40 years. It has lasted in spite of economic ups and downs, in spite of changes in administrations, and through war and peace.[1] It has affected Democrats as well as Republicans, liberals as well as conservatives.[2] Unhappiness with government has even spread to first-world countries where benevolent welfare states used to be very popular.[3] Alongside declining trust in government is dissatisfaction with a particular kind of government—bureaucratic government. Government organizations have long looked obsolete to some and downright counterproductive to others. Expensive, inflexible, and unfriendly, bureaucracy has become the enemy despite the public purposes to which it has been dedicated. Citizens who used to argue about the ends of government now also find themselves more or less universally dissatisfied with the means of government.

In the immediate aftermath of the attacks on New York and Washington of September 11, 2001, Americans expressed increased levels of trust in their government not seen since the 1960s. However, a few months later, a more nuanced poll, one that separated the government's role in preventing terror from the government's role in the economy and in social policy, showed that the surge in trust in government was all about the war on terrorism and had not spread to the government in general.[4]

Against this backdrop it is not surprising that government the world over has been shrinking.[5] No one seems to be a fan of government anymore, especially not of "big" government. Politicians throughout the world—even those who still call themselves Marxists—are following in the footsteps of President Bill Clinton and Prime Minister Tony Blair in trying to forge a new "third way."[6] And the largest remaining Communist country in the world, China, recently signaled that it too would be withdrawing from state ownership of industries.[7]

If free-market, first-world countries, developing countries, and avowedly Communist countries are all moving away from big government, what comes next? These trends seem to herald the end of government. And, in a sense, it is ending. Until the attacks on the World Trade Center and the Pentagon, it was hard to imagine that any politician would propose the creation of a new bureaucracy or the rapid expansion of government control over the economy. And even in the aftermath of that attack, discussion of new government organizations is strictly limited to the realm of security. In my experience in government in the Clinton administration, policy options that involved new bureaucratic offices were routinely rejected (if not hooted down) in internal policy meetings of Democrats. The first Democratic administration in 12 years created exactly one new government agency, the Corporation for National Service, and made sure it was a public corporation. Not only were bureaucratic policy proposals continually rejected, but speechwriters were called upon to extol the virtues of new proposals by emphasizing that they were "market oriented" and did not involve the creation of any new bureaucracies.

But to the dismay of many, the international trends toward smaller government and the revolt against bureaucracy do not mean the end of government;

rather, the end of government as we know it. For much of the 20th century, the governmental response to a problem was to create a bureaucracy. This was certainly the case in the four mid-century decades, the 1930s through the 1960s, when the Great Depression, followed by World War II, the Cold War, and the civil rights movement, caused the creation of most of what we know as government today. As the 20th century ended, politicians in modern democracies did not lose their enthusiasm for solving public problems, but they became aware that they had to solve them in ways that did not create bureaucracy. And, so, we have seen the beginning of a remarkable era of experimentation in government, driven by a sense that the bureaucracies of the 20th century were simply not up to the job of 21st-century government.

This report describes the emerging implementation strategies of government for the 21st century. The first section outlines three models of government available to policy makers who believe that the bureaucratic model cannot solely solve the problems at hand. The last section applies these new models to the problem of homeland security in an attempt to show how they allow us to deal with a complex problem in a comprehensive and appropriate way.

21st-Century Government: Three Models

The modern government of the 20th century was built problem by problem, agency by agency. But as government matured, it became clear that some of the most difficult problems defied jurisdictional boundaries and were resistant to bureaucratic routines. Whether the problem was crime, homelessness, drug addiction, or terrorism, the bureaucratic structures of 20th-century government seemed increasingly inadequate.[8]

The limits of bureaucratic government resulted in innovations that moved beyond the formal structures of government and included other, nongovernmental actors. As a result, in recent years scholars have noted that "governance" is replacing "government" as the modus operandi of democratic societies.[9] Governance is a broader term, encompassing not just the state but also all sorts of organizations (public, private, semipublic, and even religious) that somehow contribute to the pursuit of the public interest. The evolution of the bureaucratic state has led some to conclude that "… governance without government is becoming the dominant pattern of management for advanced industrial democracies."[10]

But even governance theory presupposes the existence of the state. What will the postbureaucratic state of the 21st century look like and how will 21st-century government contribute to governance? Will these new arrangements work in all areas of policy, or will they work in some better than in others? Will they serve democratic ideals better than the bureaucratic state of the 20th century? These are topics we are just beginning to understand. But first we need to understand the outlines of this new state—the alternative, if you will, to government as we know it.

Three key assumptions underlie the movement toward new modes of implementing public policy. First is the assumption that the problems of monopoly, lack of innovation, insufficient responsiveness, and inefficiency that plague both the private sector and the public sector can be overcome or at least mitigated in the public sector (as they are in the private sector) by the injection of greater competition. Second is the assumption that, at the operational level, few major differences exist between management in the public sector and management in the private sector. And third is the assumption that the public interest can be articulated and measured and that this will create a "market proxy" for the public sector—thus allowing the public sector a new, and stronger, form of accountability.

The search for new modes of government to replace the bureaucratic state yields three new governmental forms: reinvented government, government by network, and government by market.

Reinvented Government

The term "reinventing government" was first coined by David Osborne and Ted Gaebler in their best-selling book by the same name, *Reinventing Government*.[11] It is the basis of many of the government reform movements currently in vogue around the world. Stripped to its essence, reinvented government is entrepreneurial. Another way to look at it is that reinvented government is bureaucratic government without all the things that have made bureaucratic government so irritating to the citizens of Information Age economies. Reinvented government is government that is run as much like a

private sector business as is possible. The literature and practice of reinvented government are replete with praise for competition, flexibility, employee empowerment, and customer service. These governments have often shed the civil service and centralized procurement. They have adopted performance goals, they use bonuses to reward their workers, and they place a premium on service to the citizen and on productivity.

Reinvented government, however, is still government. But it is government shorn of many public sector trappings, especially the rigid budget, personnel, and procurement rules that impose restrictions on government managers that are unusual, if not unheard of, in the private sector. The underlying assumption behind reinvented government is that there are few significant differences between the public and the private sectors when it comes to management. And a second, but equally important, assumption is that the goals of public sector organizations can be clearly articulated and measured.[12]

This second assumption is vital to the success of reinvented government because it allows government organizations freedom from the central control agencies that so dominate public sector life. These agencies were invented to identify and track the spending of every single bit of government money. But the accountability associated with 20th-century bureaucracy came with a price. In practice, civil service personnel agencies often made it impossible for line managers to hire the best people and fire the worst people; centralized procurement agencies often made it impossible for line managers to buy what they needed at good prices; and central budget agencies often made it impossible to move funds from one category to another in order to get the job done.

Finally, reinvented government seeks to use information technology to improve productivity and service in much the same way that the private sector increased its productivity and service delivery through information technology. Information technology is the secret to the success of third-way politics because it allows governments to maintain service without increasing the size of the bureaucracy. Without information technology, the competing demands of the public's "Do this!" but "Don't let the government do it!" would be impossible to meet.

Reinvented government (called the new public management in other countries) began in Great Britain in 1982, in New Zealand in 1984, and in American state houses in the 1980s. In Great Britain, the establishment of the efficiency unit under Minister Michel Heseltine began the process of bringing to the civil service private market accountability for results. In part, the eventual report of this unit:

> … argued that to solve the management problem, the government would have to separate service-delivery and compliance functions from the policy-focused departments that housed them—to separate steering from rowing. Second, it would have to give service-delivery and compliance agencies much more flexibility and autonomy. And third, it would have to hold those agencies accountable for results, through performance contracts.[13]

The British government then put these theories into action with the publication of "Improving Management in Government: The Next Steps," written under the leadership of Sir Robin Ibbs. Out of this report came the creation of next-step agencies or executive agencies. These agencies were to be public sector agencies *without* public sector trappings. Next-step agencies would be run by CEOs who were to be hired from within or outside of the civil service, on a performance contract basis, and with the potential for large bonuses. The agencies would have more control over their budgets, personnel, and other management systems. The new head of each agency would negotiate a framework agreement between the agency and the relevant cabinet minister. And, perhaps most important, the heads of these agencies could be fired for not living up to their performance agreements.

By 1997, 130 British agencies had been established under the next-step framework, and these agencies accounted for about 75 percent of the British civil service.[14] Now that the next-step agencies are more than a decade old, they can boast of a considerable record of accomplishments: improvements in the processing of passport applications, savings in "running costs" (administrative costs) in the National Health Service Pensions Agency, improvements in waiting times for the

National Health Service, and reductions in per-unit costs at the Patent Office.[15]

As Britain was remaking its large government bureaucracies into entrepreneurial governments, New Zealand was undergoing an even more dramatic revolution. Unlike other government reform movements, the New Zealand experience is unique for its boldness, for its continuity across political parties, and for its intellectual coherence. It is no wonder that government reform seems, at times, to have outstripped lamb as the most popular New Zealand export. In the mid-1980s New Zealand faced an economic and political meltdown of striking proportions. As the new Labour government took over in 1987, it published a postelection briefing paper described as the manifesto of the new public management.[16]

Like the Thatcher reforms in Britain, the New Zealand reforms injected the language of competition, incentives, and performance into public administration. In absolute terms these reforms were remarkable, and against the quasi-socialist record of previous governments they were even more remarkable. They called for getting the government out of those activities that could be carried out more effectively by nongovernmental bodies. They called for a clear separation of the responsibilities of ministers and departmental heads—giving the traditional civil service both more autonomy and more responsibility for results than ever before. Perhaps the most revolutionary aspect of all was the directive that *everything* that was publicly funded—even policy advice—was to be made "contestable and subject to competitive tendering."[17] To this day, cabinet ministers purchase government outputs from what used to be the bureaucracy, and the bureaucracy must often compete with other public and/or private organizations to do the work of the government.[18] New Zealand broke the public monopoly of government on governance. While officials in the United States were still asking "What is a core governmental function?", New Zealand had decided the answer was, essentially, nothing.

Reinvented government started at the national level in Britain and New Zealand, but at the state and local levels in the United States. Unlike the federal government, the state houses could not print their own money. Forced to live within their means and buffeted by tax revolts on the one hand and continued demands for services on the other, mayors and governors had no choice but to try to do more with less, even if it meant stepping on some toes. When Mayor Ed Rendell took over the troubled city of Philadelphia in the late 1980s, he quickly recognized that either he could raise taxes, and push even more of the tax base to the suburbs, or he could cut services, and push even more of the tax base to the suburbs.[19] As a Democratic mayor, he had no choice but to take on the status quo, including the powerful public sector unions, and reinvent government. The Republican mayor of Indianapolis, Steve Goldsmith, got national attention when he put 27 city services out to bid. In Minnesota, the governor set about dismantling the government's central control mechanisms and reconstructing them in ways that would add to, not detract from, individual agencies' missions.[20]

For American state and local officials in the 1980s, as for British and New Zealand national officials, reinventing government was the only way out of an impossible governing situation. The philosophy that evolved was more or less coherent despite beginning as an adaptation to budget crises. In America the philosophy came to be called reinventing government. In other countries it came to be called the new public management.

As this way of implementing policy became more widespread, many scholars expressed fears about where it was going, chiefly, the fear that somehow this new philosophy would undercut the rule of law.[21] However, as many a practitioner of entrepreneurial government knows, although the law itself is often very flexible, over time the administrative application of the law can introduce a degree of rigidity into the implementation of a program that seriously impedes its original mission.

In their research, Mark Considine and Jenny Lewis set out to assess the behavior of civil servants on the front lines of these reforms. Somewhat to their surprise, they found out that civil servants in newer, reformed organizations did not differ from other civil servants when it came to the importance of rules in their work. They concluded, "… [I]t also is possible that rules are always so much a part of even the most flexible public programs that they do

no more than define the parameters of action and fail to define actual work strategies."[22]

Reinvented government is still government, albeit a government that attempts to rid itself of the self-inflicted wounds of the bureaucratic culture. It is fundamentally a lot less threatening to traditional government than the next two models.

Government by Network

As these new forms of government take shape, they do so amidst a vibrant and ongoing argument about what, exactly, is a core governmental function. In the future, reinvented government will be the chosen method of implementing government policy in those areas where it is determined that a government organization, populated by public employees, is the best way to go about the government's business. But making that determination will not be so easy, as we will see when we look at the second new governmental form—government by network.

In recent years the term network as applied to government has come to have at least three separate meanings. Networked government is often used to describe the constellation of public, private, and semipublic organizations that influence a policy world—in other words, a policy network. This use of the term network is not very new and is similar to what an earlier generation of political scientists might have called "the iron triangle" of bureaucrats, congressional staff, and interest groups.[23]

Network has also been used to describe emerging relationships between states. As the economy has become global, the need for global governance measures has increased. But international bureaucracy has proved even less attractive to states than have their domestic bureaucracies. The concept of world government is a nonstarter with all but the most sanguine futurists. Instead, as Anne Marie Slaughter and others have documented, the response to the need for international governance has been for subunits of national governments to develop relationships in which both law and administrative processes are harmonized, thus allowing for governance in the place of actual government.[24] John Peterson and Laurence O'Toole use "network" to apply to the complex, mutually adaptive behavior

of subunits of states in the European Union, which, while often slow and opaque, solves an important supranational governance problem.[25]

In addition, a third way the term network comes to be used is in those instances where the government chooses to implement policy by creating, through its power to contract and to fund, a network of nongovernmental organizations. The diminished role of traditional bureaucracy in networked government caused H. Brinton Milward and Keith G. Provan to dub these forms of government the hollow state: "… [T]he hollow state refers to any joint production situation where a governmental agency relies on others (firms, nonprofits, or other government agencies) to jointly deliver public services."[26]

They go on to make the point that in spite of the prevalence of this form of government, we know relatively little about how to manage networks.[27] In fact, only in the last 10 years has the term been used with any regularity in reference to implementing policy, even though the network form is not particularly new—especially not in the United States, where nongovernmental actors have always had roles in implementing policy. Although there is very little empirical data on whether or not government by network actually increased at the end of the 20th century, the discussion of networks in the field of public administration has certainly increased.[28] One possible explanation is that government by network has been largely an unconscious choice on the part of policy makers. They have sought to create networks out of a desire to avoid traditional bureaucracies. Hence, networks have become, like reinvented government, popular implementation choices for what they are not (bureaucracy) as opposed to what they are.

In government by network the bureaucracy is replaced by a wide variety of other kinds of institutions, almost all of which have better reputations (and sometimes better performance) than government itself. In government by network, the government stops trying to do anything itself; instead it funds other organizations that, in turn, do the actual work the government wants done. An immense variety of organizations have been part of government by network. Churches, research labs, nonprofit organizations, for-profit organizations, universities— all have been called on to perform the work of the

government. But while some view the emergence of this form as a "hollowing out" of the state, it pays to remember that the sum total of all this activity by different kinds of organizations is still something that the state wants done and that the state pays for. While some persist in seeing networks as a weakening of the state, networks can also be perceived as a different way of implementing the purposes of the state.

There are two major attractions of networked government: It is not bureaucratic, and it has the potential to be flexible and to innovate. Traditional bureaucracies seem to lack these characteristics. In fact, networked government has been used in the past in cases where the government valued innovation so much that it was willing to give up a certain degree of control. The most long-standing example of networked government is the famous military-industrial establishment. The offensive and defensive capacity of the U.S. military is much more than the total of its actual military assets, as we discovered during World War II. Although faced with the need for massive mobilization at the beginning of the war, President Roosevelt did not nationalize the industrial might of America. Instead, he used the government's financial and other powers to create a network of participants in the war effort. The military might of the United States rested as much on its ability to produce weaponry (a private sector function) for itself and all its allies as on the ability of its soldiers, seamen, and airmen to fight.

As we moved from World War II to the Cold War, the model remained the same. Seeking ever better weapons against the Soviet Union, the United States engaged countless corporations, universities, and private laboratories, along with their own internal research laboratories, in developing sophisticated weaponry. In the kind of controlled experiment that rarely happens in the real world, the Soviet Union, a totalitarian state, kept its weapons research within the all-encompassing bureaucracy of the Communist state. By 1989 the experiment was over. When the Soviet empire fell, we learned, among other things, that its technological and military capacity had fallen way behind that of the United States. Government by network had won; bureaucratic government had lost.

As bureaucratic government has failed in one policy area after another, policymakers have looked to implement policy through networks instead. In 1996, the landmark welfare reform bill ended more than 50 years of a welfare system that had been almost universally regarded as a failure. The old welfare system was characterized by its bureaucratic attention to detail and its insistence that applicants meet all the rules and that social workers fill out the paperwork properly. It was a closed system, run by the bureaucratic imperative and impervious to the needs of welfare mothers.

In its place, the new law sought to change the system to a work-based system. Part of that transformation was to give states an unprecedented amount of freedom to create welfare-to-work networks. These networks could consist of not-for-profit organizations (a traditional piece of the social service network), for-profit organizations, and religious organizations. In a dramatic abdication of control, the federal government as much as admitted that the state bureaucracies, which had traditionally done this sort of work, had failed and that the task of getting welfare mothers to work should be given to whoever felt they could do it.

When the government creates a network, the private sector is quick to respond. Take, for example, Lockheed Martin, a giant American corporation that almost single-handedly exemplifies the military industrial complex. Imagine how surprised people were when, in 1996, Lockheed Martin IMS (a subdivision of the company) announced that it was going into the welfare-to-work business. From supersonic airplanes to welfare mothers?

Lockheed Martin was simply using its years of experience in government contracting to get into the latest and one of the biggest government sectors ever—social services. For many, this was a jarring development indeed. One of Lockheed's competitors for this business, Maximus, tells potential investors that social services administration is a potential $21-billion market.[29] And the owner of America Works, one of the oldest for-profit welfare companies in existence, urges local governments to set tough standards for their contracts, knowing that they will then have a greater advantage over their competitors.[30]

Networked government is not necessarily cheap and, frankly, not always very efficient, but it has two chief virtues. The first, of course, is that it doesn't look like government. But the second is that it permits experimentation and produces innovation. In other words, it allows a thousand flowers to bloom. That is why networked government tends to appear in those areas where one solution can't be expected to solve the problem. There is no one solution to getting people off welfare, getting people off drugs, encouraging children to learn, or avoiding AIDS.

While networked government is a familiar form in the world of social services, the diversity inherent in a network is likely to make networked government a staple of law enforcement and the fight against terrorism. Even before the tragedy of September 11, it was clear to many that bureaucracy was a major impediment in the fight against crime and terrorism. Pieces of the terrorism puzzle crossed an enormous number of agencies—the Immigration and Naturalization Service, the CIA, the FBI, and Customs—to name a few. Each one of these agencies grew up in a time when the world was more or less neatly divided between internal threats and external threats. The amorphous nature of terrorism, organized international crime, and new crimes such as cyber-terrorism means that the closed worlds of the intelligence agencies and the law enforcement agencies will have to change.

Cooperation tends to operate at an ideal level when an attack is anticipated or in the aftermath of one. But, as we saw in the case of the World Trade Center, finding the suspects quickly is no replacement for preventing the attack in the first place. The answer is not to combine all these different agencies into one giant agency. That would decrease rather than increase the diversity of information. The answer is to link them into a network in which each player reinforces the other in order to yield results needed *before* an attack, not after.

In spite of the advantages that the diversity of networked government presents, the fact that policy makers have used it as a sort of default mode of implementation for very difficult, even "sticky" public policy problems means very little attention is paid to what makes for successful networked government. Kenneth J. Meier and Laurence J.

O'Toole studied school superintendents in Texas and found that, with other factors held constant, superintendents who participated in networks had better results than those who did not.[31] In the work of Provan and Milward on mental health networks, they point out that while resources matter, effective principal agent relationships and stability are also important to the effectiveness of the network.[32]

However, the soft underbelly of networked government is the nearly 100 percent probability that, over time, some actor in some part of the network will screw up; someone will steal money, waste money, or simply prove to be ineffective. On the other hand, overzealousness against waste, fraud, and abuse on the part of actors in the network can re-create all the pathologies and rigidities of traditional bureaucratic governments that networked government can avoid. Bruce Reed, architect of the Clinton administration's welfare reform bill, understood this problem. In a recent interview he said, "Under the new arrangement the country has to accept a greater level of risk, and states have to accept responsibility and they get more ability to experiment." When asked why the country seemed so ready to delegate the entire system and accept more risk, he said, "There was greater willingness to take that risk because the old system was so encumbered by dumb federal rules."[33]

The reason networked government looks "hollow" to many who observe it is that few people in government really understand how to manage networks. Often networks have been created to solve the most difficult governmental problems, such as creating a weapons system that does what no other weapons system before it has done, or figuring out how to end a cycle of welfare dependence that for decades had remained impervious to economic booms and economic busts. But in addition to the difficulty of the public problems, many government managers find themselves managing networks when their experience, training, and expectations have been to manage traditional bureaucracies. The management of networks is a topic that goes well beyond this report, but suffice it to say that creating learning communities within the network and establishing accountability without stifling innovation are two of the most serious management challenges.

Government by Market

Reinvented government and networked government differ from traditional bureaucratic government and yet both involve a significant amount of government as we know it. In reinvented government, the public's work is done by people who work for the government; in networked government, the public's work is paid for by the government even though the work is not performed by people who work for the government. In the third emerging model of government, market government, the work of government involves no public employees and no public money. In market government, the government uses its power to create a market that fulfills a public purpose. It takes account of what economists call "externalities." (I use the term "market government" differently than have other scholars, such as B. Guy Peters, who uses it to describe "… the basic belief in the virtues of competition and an idealized pattern of exchange and incentives."[34] Most other public administration scholars, when they talk about markets and government, are usually talking about what I have referred to previously as reinvented government or networked government.)

But government by market is something very distinctive. If reinvented government is government all dressed up to look like the private sector, and government by network is government that hides behind the façade of much more popular organizations, government by market is so well disguised that most people aren't even aware that it's government in operation. Because of this, it is the model most different from traditional bureaucratic government.

Those who are old enough to remember Lady Bird Johnson (wife of President Lyndon Johnson) are old enough to remember that she waged a battle to clean up America's highways, which in the 1960s were becoming overrun with beer cans and soda bottles. By the 1970s, beer and soft drink bottles were posing serious problems for cleanliness and for landfills. The solution to this problem came from government. In 1971 the state of Oregon passed the nation's first "bottle bill." But instead of creating the Bureau of Clean Highways and hiring workers to pick up bottles, government did something unusual—it created a market. By passing laws that required deposits on bottles and soda cans, government created an economic incentive to keep

people from throwing bottles out of their cars. And for the hard-core litterbugs who persisted in throwing bottles away, the laws created an economic incentive for other people to pick them up.[35]

Similarly, in the 1991 Clean Air Act, Congress decided to put a price on sulfur dioxide emissions from industrial plants. Sulfur dioxide (SO_2) is the primary cause of acid rain. Essentially, the government determined how much sulfur dioxide the environment could handle and then developed a trading system that allows clean plants to sell permits and dirty plants to buy permits. Most analysts feel this system has worked. In the last 30 years, emissions trading and other improvements have caused nearly a 50 percent drop in the amount of SO_2 in the air.[36] The "price" was high enough to encourage plants to get new equipment for cleaner air but low enough that companies could determine their own timetable for doing this and their own technology.

In retrospect, market government applied to certain environmental problems has been a big success. But only recently has this approach become politically acceptable. Professor Rob Stavins, one of the early advocates of this approach in the environmental field, recalls how, just a decade ago, environmentalists chafed at the notion of buying and selling pollution. Their reaction and the reaction of their colleagues in the government at the Environmental Protection Agency was nothing short of horror. The use of a market to control pollution was considered immoral. That reaction, reports Professor Stavins, has changed dramatically in recent years. The most ardent environmentalists will admit to the attractiveness of market government, and now people seek to apply market government in places where it may well not work.[37] The recent effort to deregulate the electricity market in the state of California is a perfect example of an attempt at market government where so much went wrong that energy executive Barbara Kates Garnik has referred to it as "the perfect storm."[38]

Market government has shaped the education reform debate through proposals to substitute vouchers to parents for the current state-funded education system. The voucher movement argues that the government can create a market in education by attaching education money to each student

instead of attaching education money to public schools. This reform movement argues that government should use tax cuts and universal tuition tax credits to turn over education purchasing power to individuals. According to the argument, this would create a vibrant education marketplace and offer consumers a range of services and products that the current system does not.

A vibrant market already exists in education at the college level where parents save, borrow, and do without in order to send children to elite, expensive, private institutions. In recent years, as unhappiness with the public K–12 educational system has grown, an education market of a sort has emerged even without government subsidies. Edison schools, Bright Horizons, Nobel Learning Communities (these began as child-care providers and expanded business to include K–12 education), and others have created a new class of educators called "edupreneurs."[39] The advantages of creating a market in education are many: variety in curriculum, innovation in instructional methods, higher academic standards, weeding out of substandard schools, introduction of new technologies in the classroom, and investments in research, to name a few.

A well-functioning market is, of course, a marvel to behold. In our lifetimes, the marketplace has given the vast majority of Americans color TVs, microwaves, and VCRs. Who knows what it will bring in the next century? But the description "well functioning" is key. For those who are attempting to design markets for public good instead of private good, the problems are immense. First are the pricing problems. Too high a price on bottles clearly would have wrecked much of the beverage industry and would have caused a serious outcry from the public. (To this day the beer industry remains opposed to bottle bills wherever they have not yet taken root.) Too low a price on bottles would not have solved the public problem at all. Similarly, if the number of pollution permits were so high that they cost very little to buy, they would not have created an incentive for plants to clean up their manufacturing. On the other hand, if the number of permits were too low, the price would be so high that older plants would have gone out of business.

Second are problems in understanding the range of the market. A major failure in the California energy

debacle was the deregulation of the wholesale market without deregulation of the retail market. False expectations (that energy prices would continue to go down) and unavoidable political pressures (reassuring voters that the changes would not cost them more money) ended up creating a crisis. It is not surprising that California is retreating from its experiment with markets in the electricity field.

Third is the problem of creating the right conditions for implementing market government. Using market government to achieve a public good presupposes a certain amount of honesty in the economic system and a certain level of honesty and effectiveness in law enforcement. Although market government applied to environmental problems has proven a success in the United States, not surprisingly Americans' talk about creating "market mechanisms" to implement the Kyoto Accords falls on skeptical ears in other countries. Market government works where the rule of law is well established and where law enforcement is effective enough to deter cheating. This is simply not the case in much of the world.

And fourth is the problem of inadequate information. A well-functioning market depends on high-quality information and universal access to it. There has been substantial opposition to voucher plans from teachers' unions and other inhabitants of the education status quo, but parents and others with no professional stake in the status quo have been almost as reluctant to embrace the market approach to education. Lurking behind the failure of so many voucher plans is the suspicion that somehow someone will get screwed. Buying a second grade education is simply not as easy as buying a bread-making machine. There are many sources of information about various bread-making machines, and most Americans know how to find them and understand them. But sources of information about one school's second grade versus another school's second grade are hard to come by and difficult to interpret. Good markets require good information, and, in spite of the recent trend toward testing, good information is simply not so easy to come by for most parents.

Problems aside, however, market government is a very powerful alternative to bureaucratic government precisely because it allows an unlimited number of

individual adaptations to achieve the overall public good. In reinvented government, one entity—the government—is pursuing the public good. In government by network, one entity—the government—is choosing a finite number of organizations to pursue the public good. In contrast, government by market allows every individual (as in the case of bottles) or every company (as in the case of sulfur dioxide emissions) to pursue the public good as they see fit. It is, therefore, perfectly suited to America, where citizens glorify individual choice and chafe at any system that feels too controlling.

The Challenge of Homeland Security: Two 20th-Century Responses

Terrorism is typical of many of the challenges 21st-century government will face. The problem is not located in any one nation but in a network that spans as many as 60 nations. The problem exists inside and outside the United States and therefore spans borders and bureaucratic jurisdictions. The leadership structure of terrorist organizations is ambiguous, and terrorists constantly change their methods and targets; thus the problem is immune to bureaucratic routines. The solutions to the problem exist in many disparate pieces of the government, all of which have other important, non-terrorist missions. Finally, terrorism, by its nature, is likely to be random and haphazard. Therefore it is difficult to imagine sustaining a bureaucracy dedicated solely to a problem that is likely to be episodic.

The efforts of the United States as it struggles to adapt its institutions to this new problem may well serve as the archetype for its adaptation to many other challenges of the 21st century. The model of 21st-century government laid out in the first part of this paper can help by offering a new and system-atic approach to this problem. But first it will be useful to look at the initial responses to homeland security—the "coordination response" and the "bureaucratic response." Both are typical 20th-century reactions to a 21st-century problem, and thus they disappoint.

The Coordination Response

Confronted with 21st-century problems, the first reaction of 20th-century governments has been to "coordinate." "The only turf we should be worried about protecting is the turf we stand on," said former Pennsylvania Governor Tom Ridge at his swearing in as the new chief of homeland security. Governor Ridge's position was created by an exec-utive order of the president to coordinate the gov-ernment's homeland security. Executive orders can be powerful instruments, but they are no substitute for real legal authority or for real money, neither of which Governor Ridge has. He can review budgets submitted by agencies but he cannot alter them. He coordinates 40-plus government agencies with approximately 100 staff members borrowed from other agencies, but he does not have the ability to make any single one of them do what he wants.

Washington usually loves these types of high-level coordinators of policy. In fact, cooperation and coordination are among Washington's most favorite words. Coordination occurs at the top, makes for a good press conference, and doesn't require the painful process of changing the way government goes about its business. In recent years we have had a high-level coordinator of drug policy, called the drug czar, and a high-level coordinator of AIDS policy. Both have had to borrow staff and beg for money.

But this time around, even the Washington estab-lishment, usually so tolerant of coordination, recog-nizes that coordination as a homeland security strategy is likely to be inadequate. Former General Barry McCaffrey was the drug czar in the last years of the Clinton administration. He exchanged com-mand of real troops in Central and South America

for the coordination job. Through sheer force of personality he made a difference, and yet this quote from him about Tom Ridge's new role comes from his own, somewhat bitter, experience: "If all [Mr. Ridge] has are five people and a black sedan, he'll be a speakers' bureau for U.S. counterterrorism efforts and nothing more."[40]

The problem with coordination is that it occurs in the Cabinet room in the White House, not at the borders where terrorists are stopped. And that is why Director Ridge has not had an easy time since his appointment in September 2001. At one point, he was placed in the position of master of ceremonies to a press conference of government agencies trying to respond, and not doing so very well, to the anthrax-containing envelopes. Much of the criticism Ridge has received stems from perennial confusion over what the White House can and cannot do. The White House cannot run operations. It lacks the legal authority and the capacity to do so. The history of White House attempts at operations, from President Lyndon Johnson picking bombing targets from the Situation Room during the Vietnam War to Ollie North's pursuit of a secret war in Central America from the Old Executive Office Building, is not a happy one.

The coordinator always ends up as simply another member of the White House staff. What the coordinator can have is the ear of the president, an often overrated asset in Washington, D.C., since presidents have only two ears and a set number of hours in the day. Also, in a government of laws, the president's wishes get translated into action only if there is a legal basis for doing so.

In the months that the Office of Homeland Security has existed, people have suggested that it be strengthened in a variety of ways. One of the most common suggestions is that it be given the authority to sign off on agency budgets vis-à-vis homeland security. In fact, the experience of the drug czar's office, created in 1988 to oversee the 50-odd federal agencies that were involved in the drug war, offers a pessimistic precedent in this regard. As drug czar, McCaffrey exercised a never-before-employed provision in the law to refuse to certify a line item in the Pentagon's budget. This resulted in a showdown with the secretary of defense and a compromise, brokered by the president, which split

the difference.[41] Because the executive branch can send only one budget to Congress at a time, disputes are likely to be brokered by the president or by the Office of Management and Budget (OMB).

Thus, while giving power to the coordinator to certify budgets sounds plausible, the fact that it has been used only once in the 14 years that the drug czar's office has been in effect, the fact that it resulted in an embarrassing news story, the fact that it forced the need for presidential brokering—all mean that it is a power not likely to be used with any frequency. In addition, OMB is a small but highly effective and powerful bureaucracy with 500 top-level civil servants and a deep sense that its mission is to integrate and implement the president's wishes. A second White House entity with budgetary authority would only sow confusion and complicate the extremely complicated task of creating a coherent budget. All White House policy shops interact with OMB in preparing a presidential budget; creating another, parallel office with budgetary authority in the White House is bound to fail.

In addition to giving Governor Ridge budget authority, Congress has been anxious to have him come to the Hill to testify.[42] That too would be a mistake. White House staff traditionally are covered by executive privilege, which they need in order to operate as extensions of the president and the vice president. This gives White House staff the freedom to explore ideas and options and offer the president the kind of advice he needs.

If Governor Ridge cannot run operations and cannot control budgets and isn't allowed to testify to Congress, what can he do? Is he, as Barry McCaffrey quipped, doomed to run a speakers' bureau on homeland security? The answer is no. A White House staffer with good access to the president and an important assignment has a unique ability to effect change. That's what Governor Ridge should have been doing from the beginning, and it looks like that is what he is beginning to do now. The day-to-day business of tracking down al Qaeda members and anthrax letters belongs, by virtue of statute and capacity, in the agencies. But the agencies historically are ill equipped to reform themselves. Even political appointees often are captured by the long-time civil servants in the agencies, and

historically the agencies are beholden to the congressional committees and interest groups, which constitute their day-to-day environment and control their budgets. Only the White House can formulate and pursue fundamental, nonincremental changes.

When Vice President Al Gore was handed the job of reinventing the federal government, he created an enormous task force of civil servants to come up with ideas for reform. Over a period of eight years, money was saved and nearly 100 pieces of legislation stemmed from the initial report. As director of this effort, I had to negotiate among the institutions of the executive branch and the institutions, especially OMB and the National Security Council (NSC), of the Executive Office of the President. In spite of some initial tests of will with OMB, we settled into the following rough division of labor: The National Performance Review dealt with problems that required management or bureaucratic reform. We did not deal with annual statutory pay negotiations; we did not deal with congressional committees. We dealt internally with the executive branch, and once we came up with reform proposals, we went to Congress as a united administration.

Governor Ridge's office already shows signs of settling into this model. While each agency of the far-flung federal government and many congressional actors might have good ideas for homeland security, only the White House can build a thorough, coherent reform plan for homeland security. When Vice President Al Gore and his staff finished the first round of reinventing government recommendations, we spent an entire Saturday afternoon presenting the proposals to the President and his staff. Some were scrubbed, some were amended, and most were accepted. These then became the president's agenda and, as they were enacted over the years, the recommendations changed large parts of the federal bureaucracy. Ridge needs to create the plan and then stick around to see that it is implemented. This is best done from the White House, where someone like Ridge can capture the attention of the president. The consistent exercise of pressure from the White House is important because the bureaucracy has enormous capacity to thwart change.[43]

The Bureaucratic Response

The second response to the problem of homeland security is to create a bureaucracy dedicated to the problem. This was first advocated by former Senators Warren Rudman and Gary Hart as part of their important work on the United States Commission on National Security/21st Century.[44] This report, which got very little attention when released, will stand as one of the boldest, most creative descriptions of a major 21st-century problem and how the 20th-century government was not equipped to deal with it. But the Hart/Rudman prescription is classically 20th century in form—identify a problem and create a bureaucracy with the same name.

The Hart/Rudman prescription, which has since been introduced in several pieces of legislation, is to create an actual national homeland security agency that encompasses both sides of the problem, prevention as well as reaction.[45] Under the Hart/Rudman plan, the centerpiece of the new agency would be the Federal Emergency Management Administration (FEMA) and the three agencies that deal with American borders—Customs, Border Patrol, and the Coast Guard. Currently, FEMA is a freestanding agency, Customs is in the Treasury Department, Border Patrol is in the Justice Department, and the Coast Guard is in the Transportation Department.

Some elements of the Hart/Rudman plan go a long way toward addressing some of the major problems in homeland security. For instance, in discussing the importance of the Coast Guard in this effort they focus on the border problem, noting that the Coast Guard is unique among U.S. agencies because of its ability "… to operate within, across and beyond U.S. borders."[46] But the initial instinct to create one agency to deal with a problem as broad as homeland security is inadequate to the task at hand.

Shortly after the September 11 terrorist attacks and shortly after the appointment of Governor Tom Ridge as director of the newly created Office of Homeland Security, the *New York Times* published an elaborate chart.[47] More than 150 boxes, linked in an incomprehensible jigsaw of formal and semi-formal relationships, constituted a picture daunting

in its complexity. One New York hostess, knowing of my experience in the federal government, thrust it into my hand as I walked into a dinner party, saying, "Is this for real?"

The natural instinct of those schooled in 20th-century bureaucracy is to organize those boxes into a comprehensible hierarchy. But reorganizing the boxes into one box or two or three under new statutes and new leaders would not solve the essential problem. The problem is the boxes themselves and the ways in which they interact or fail to interact with each other. The problem of homeland security is like many other problems we will face in the 21st century—it does not fit in one box. To the student of 21st-century government, the question is not "Where do the boxes fit on the chart?" but "How do they operate and how do they communicate with each other?"

A Case Study in 21st-Century Government: Homeland Security

Dimensions of the Homeland Security Problem

Homeland security encompasses a wide variety of governmental missions. Almost everyone agrees that there is a continuum. According to retired Air Force Colonel Randell Larsen, the continuum ranges from deterrence to prevention to preemption, on the one hand, and moves toward crisis management, consequence management, attribution, and retaliation on the other hand.[48] The last four missions require governmental cooperation *after the fact.* Leaving aside for a moment the issues of attribution and retaliation, the homeland security problem can be separated into three broad categories:

- reforms that will help **prevent** acts of catastrophic terrorism in the first place;

- reforms that will **protect** Americans from terrorists by preempting their actions; and

- reforms that will increase the effectiveness of the **response** to any terrorist act that does occur.

These are reflected in the boxes across the top of Table 1.

The vertical axis of this table shows the various governmental options that exist to reform the current bureaucracy. Included are five options available to policy makers. The first option, the most straightforward and probably the easiest, is to make incremental changes to already existing programs. A great deal can be done to strengthen functions and agencies that already exist. The second row on this table consists of reinvented government. It includes changes that can be made to existing bureaucracies by reorganizing them, changing the legal context and administrative cultures in which they operate, or using new technologies to increase their effectiveness. The third row consists of options that involve creating and managing networks that consist entirely of public sector organizations. The fourth row consists of networks that involve both public and private sector organizations. The final row consists of markets that government might want to create in order to meet some of the objectives in homeland security.

The recommendations set forth in the following tables in this section are illustrative of how the 21st-century government framework can be applied to national problems. They are not meant to be a comprehensive set of actions for homeland security. The challenge of 21st-century government will be to create effective portfolios of actions that incorporate reinvented government, networked government, and market government.

Elements of a Comprehensive Approach to Homeland Security

Incremental Steps
Understanding homeland security along these dimensions allows aspects of the problem to be matched with the most appropriate mode of action. Table 2 gives some examples of incremental steps that could be taken in the war on terror. Incremental steps, while clearly less headline grabbing, can be

Table 1: Governmental Options for Achieving Homeland Security

	Prevention	Protection	Response
Incremental Change			
Reinvented Government			
Government by Network (public)			
Government by Network (public & private)			
Government by Market			

very important. Ideas for incremental changes or improvements to existing programs often come from within the bureaucracy. In fact, the tendency when any issue becomes "hot" is to repackage existing requests for more money under the latest hot topic. In the Clinton administration many budget requests were identified as environmentally necessary, and recent budget requests have been wrapped in the mantle of homeland security. OMB is ill equipped to sort out which of these make sense in terms of a national strategy for homeland security and which do not—that is an important mission for a White House office dedicated to the subject.

Prevention: Incremental steps include Ash Carter's suggestion to prevent potentially disastrous acts of nuclear terrorism by extending the highly successful and well-thought-out Nunn-Lugar program to Pakistan.[49] This involves an incremental change to an existing program designed to prevent the development of nuclear weapons by terrorists or rogue states. Considering the discovery of documents in an al Qaeda safe house in Kabul on how to make an atom bomb, the need for enhancing this program cannot be overlooked.[50] The enhancements can be done quickly and do not involve creating a new infrastructure, although, as with many of the ideas that fall within this category, they would most likely entail extra appropriations.

The September 11 tragedies have also focused new attention on the role of money in promoting terror. In October 2001, the Bush administration announced the creation of a beefed up team to identify and track the flow of money to terrorists. This team will be in the Treasury Department, under the Customs agency, and will be an expansion of an already existing team devoted to other financial crimes. As a result of the decades-long war against drugs, the government has in place the expertise for tracking money flows. Expanding this capacity is a critical but incremental step in the war on terrorism.[51]

Protection: Consular Services, an agency of the U.S. government found in the State Department, represents the first step in protecting our borders from unwanted individuals. The current head of the Bureau of Consular Affairs, Mary Ryan, told a Senate committee recently that "… consular affairs in American embassies and consulates could have stopped some of the terrorists from entering the country if agencies such as the CIA and FBI shared more information with the State Department."[52] A relatively inexpensive incremental step would be to immediately grant consular officials access to international crime and terrorist databases.

Another example of an incremental protection step that could be taken immediately would be to depu-

Table 2: Examples of Incremental Changes to Existing Government to Achieve Homeland Security

Prevention	Protection	Response
Extend Nunn-Lugar to Pakistan. Develop an effective means for tracking formal and informal money flows.	Provide consular officers abroad access to criminal and terrorist databases. Deputize local law enforcement officers so that they can arrest criminal aliens. Create an improved warning system for state and local law enforcement. Issue guidelines on airline passengers' security responsibilities.	Require all medium- to large-sized American cities to invest in the all-hazard approach to emergency response. Increase the pharmaceutical stockpile for civilian use in case of bioterrorist attacks.

tize state and local officials so that they can arrest illegal aliens, a process that is now reserved only for federal officers. The contribution to fighting terror would be immediate and obviously important. Recently, Governor Ridge announced a new warning system, in response to criticisms that the government's warnings on terrorism were inadequate guides to proper action by local police.[53]

Incremental steps can be quite simple and can involve very little formal government. In an op-ed, Graham Allison suggested that the government and the airlines enlist average passengers in the war against terrorists, instructing them in what to look for and what to do if a terrorist should get on the plane. The model he cites is the safety procedure card that the Federal Aviation Administration requires be placed in every passenger seat pocket.[54] Making everyone more aware and more observant is bound to save lives, especially against something as difficult to detect as terrorism.

Response: The government can require all medium- to large-sized American cities to invest in the "all hazard" approach to emergency response.[55] Because New York City is such a potent symbol and because it had experienced an earlier, potentially devastat-

ing terrorist attack on the World Trade Center in 1993, Mayor Rudolph Giuliani had invested in the all-hazard approach. This involves preparing "… first responders—firefighters, police officers, EMTs, and other medical personnel first on the scene—to respond to terrorism the same way they'd respond to other disasters, such as floods, hurricanes, toxic spills, plane crashes, and fires."[56] The federal government has many ways of forcing states and localities to do what it wants. An effective, if unpopular, method is to tie a goal—in this case emergency preparedness—to some source of federal funding (highways are always a reliable option). A more popular approach is to appropriate money to help the state and/or locality achieve its goal.

And, a simple but critical action is to increase the amount of drugs available for the civilian population in case of a bioterrorist attack. Like many incremental changes, this involves new money but money that would be well spent.

Using Reinvented Government
Reforms in the reinvented government category tend to be more fundamental and thus more difficult than incremental reforms. They often involve

changing the entire orientation of an organization, beginning with its legal context and moving on to the culture in which it operates. Many of the ideas that fall into this category existed before the attacks of September 11 made homeland security a front-page topic. They are summarized in Table 3.

Prevention: When the Cold War ended, it became clear that American intelligence had to be rethought and reorganized. Critiques of the intelligence agencies, especially the CIA, have fallen into two broad categories—corresponding, not coincidentally, to the division of the CIA into a directorate of intelligence and a directorate of operations. As John E. McLaughlin, deputy director of the CIA, pointed out, the days are gone when the CIA could employ a "canned goods analyst," someone whose entire job was to understand the food processing industry of the Soviet Union.[57] Well before September 11 the CIA had downsized the Soviet office within the directorate of intelligence and had moved considerable resources to the new Office of Transnational Issues, which dealt with the cross-border nature of many emerging threats.

In a prescient book that predated the September 11 terrorist attacks by a full year, Bruce D. Berkowitz and Allan E. Goodman create a prescription for the post-cold-war intelligence world whose reforms are much more fundamental and far reaching than the mere moving of resources from one part of the organization to the other: "The intelligence community is a classic bureaucracy, characterized by centralized planning, routinized operations, and a hierarchical chain of command. All of these features leave the intelligence organization ill suited for the Information Age."[58] The bureaucratic organization of the intelligence community worked well when the enemy it tracked, the Soviet Union, was also a bureaucracy and one that, in spite of its secrecy, moved in glacial and often predictable ways. But to keep up with the nonstate basis of new threats such as terrorism and the enormous changes in capacity resulting from the information revolution, Berkowitz and Goodman propose a radical "reinvention" (my term, not theirs) of the CIA.

The changes that would follow from their analysis are certainly not incremental. For instance, they challenge the need for secrecy in the gathering of intelligence as oddly out of step with the Information Age, which the intelligence community itself helped create. They also challenge the culture that reinforces compartmentalization and isolates analysts from each other and from the customers of their intelligence—policy makers.

Table 3: Examples of Reinvented Government to Achieve Homeland Security

Prevention	Protection	Response
Reinvent the intelligence agencies.	Create a new border patrol agency.	
Reinvent the traditional relationship between foreign intelligence and domestic law enforcement.	Develop new technologies for speedier movement of goods and people across borders.	
Create an entity responsible for analyzing foreign and domestic intelligence to look for terrorism.	Resurrect the international trade data systems plan.	
	Establish guidelines for use of racial profiling.	

A second critique of the intelligence agencies has focused on the tendency to rely on "signit" (signal intelligence from satellite eavesdropping, etc.) at the expense of "humit" (human intelligence, or good old-fashioned spies). According to some former CIA operatives such as Robert Baer, beginning in the late 1980s the CIA failed to replace the Middle East experts who were leaving. By the end of the 1990s we had very few or no operatives capable of penetrating the terrorist movements that had become so dangerous.[59] In addition, when it came to light that a paid informant had been involved in the murder of two people, one an American, the CIA director ordered a directive that came to be known as the "scrub" order. According to some, this review of recruits, issued with the best of intentions, had a chilling effect on the spy business—one that, in conjunction with the shortage of Arabic language experts, further impeded our ability to find out what was going on in the world.[60]

It is not at all clear that correcting any of the intelligence failures evident to many before September 11 would have prevented the attacks. In recent hearings before Congress, former CIA officer Milt Bearden pointed out that no one else in the world saw the attacks coming and that infiltrating terrorist cells where everyone is related to everyone else is an inherently difficult task.[61] But previous intelligence failures, such as the failure to predict nuclear testing in India in 1998, and the demoralizing Aldrich Ames case, were warnings that the intelligence community needed to rethink its post-Cold War routines.

In addition to reinvention at the CIA is the need for reinvention at the FBI as well as reinvention of the relationship between the two agencies. The separation of intelligence between the FBI and the CIA resulted from the excesses of the Hoover-era FBI, which routinely kept files on political dissidents and peaceful protest groups. In the aftermath of September 11 it became clear that terrorism did not fall neatly within the bureaucratic and jurisdictional lines of either the CIA or the FBI and that changes needed to be made if the government was to prevent future attacks.

Most conversation about the future of the FBI revolves around changing the culture of the organization from one focused on seeking indictments and convictions of criminals—acting after the fact—to one that could prevent criminal activity of the terrorist type—before the fact.[62] Of the governmental changes that are most difficult, changing the culture of an organization ranks at the very top. Changing the law is the first and often most important step. An important first step came shortly after September 11 with passage of the U.S.A. Patriot Act of 2001, which made it easier for the FBI and the CIA to share more sensitive information with each other.

But legal reform is only the beginning of what must be an ongoing effort to transform two very different and sometimes hostile agencies into a coherent and effective preventive force. In the past, the two agencies have been quite competent and cooperative when the source of the threat was known well enough that information collected overseas could be passed neatly from a foreign agency to domestic law enforcement. Prevention, though, requires a much more fundamental assessment of foreign and domestic intelligence. It requires ongoing and systematic analysis of both foreign and domestic data bits and an organization that can weave them into a coherent picture.

How should the government reinvent itself to undertake this chore? The emergence of terrorism as a top-level problem has not gotten rid of the need to prosecute less dramatic crimes or the need to collect more conventional kinds of intelligence. And even the generally noncontroversial elements of the U.S.A. Patriot Act have civil libertarians worried. The episodic nature of terrorism is likely to mean that ongoing attention to it will wax and wane. Thus, one option is to create an entity whose sole mission is to look for pieces to the terrorism puzzle, from Buffalo to Baghdad. One suggestion that came from a Harvard University executive session on catastrophic terrorism, held three years before the September 11 tragedy, bears repeating today. The idea was to create a national terrorism intelligence center in the FBI. As a separate organization this entity would:

> … combine the proactive intelligence gathering approach of the national security agencies, which are not legally constrained in deciding when they may investigate a possible crime, with the investigative resources of law enforcement agencies. We

must have an entity that can utilize our formidable but disparate national security and law enforcement resources to analyze transnational problems. This combination should be permitted, consistent with public trust, only in a National Center that has no powers of arrest and prosecution and that establishes a certain distance from the traditional defense and intelligence agencies. The Center would also be subject to oversight from existing institutions, like the federal judiciary, the President's Foreign Intelligence Advisory Board and the select intelligence committees of the Congress.[63]

Protection: The first and most important priority to consider is increasing protection at the borders. The government should explore an idea that has been around for many years, creating a border patrol agency. Protection of the borders should begin outside the United States, with the agency charged with allowing people into the country. Visas are required for entry into the United States. Visas are given out at our embassies around the world where overworked consular officers, generally young diplomats trained in diplomacy rather than police work, are given the responsibility of deciding who gets to come to America and who doesn't. In recent years consular officers have been under extreme stress. The number of people wanting to come to the United States has increased dramatically, and the Congress has starved the entire State Department, including the consular corps, of funds. According to former State Department official T. Wayne Merry, "… visa work is a low-prestige poor relation to the conduct of diplomacy and always low in budget priorities. The professional consular corps is often highly competent but is badly overworked, under financed, and so few in number as to staff only supervisory positions."[64]

The first step in creating a new agency is to upgrade Consular Affairs and turn it into an agency that has the intelligence and the resources to weed out dangerous people before they even get to the United States. It should be moved out of the State Department and formed into a corps of people who combine the unique blend of diplomatic, language, and detective skills needed to detect dangerous people before they leave their countries.

The second step is to tackle the enormous problem of securing our borders against terrorists and weapons of terror while maintaining our participation in a global economy. Historically we have separated protection of the borders into two bureaucracies. One agency, Customs, is supposed to protect us against bad things; the other, the Immigration and Naturalization Service (INS), is supposed to protect us against bad people. This bureaucratic bifurcation has never worked very well. The two agencies have often feuded at the borders, even going so far as to have separate and hostile canine crews!

As international trade and travel have grown, the pressures on these two agencies have only increased. On June 29, 1995, a melee erupted at the Miami International Airport involving passengers frustrated by three-hour-long waits to get through customs and immigration checks. Long before September 11 there were calls for the creation of a border patrol agency that would combine the two services and improve the functions of the U.S. government at the borders. But this idea has been consistently fought by the agencies themselves, their congressional sponsors, and whatever attorney general and treasury secretary happen to be in charge at the time. In 1993, a proposal to create a border patrol agency created such intense division within the Clinton administration and opposition from the attorney general and treasury secretary that it was watered down to read, in the final National Performance Review report, "Improve Border Management."[65]

Protection of the borders is a core element in homeland security. What was not politically possible before September 11 will still be politically difficult but should not be impossible, for now the case is stronger than ever. For instance, Stephen E. Flynn has written persuasively of "terrorist needles in a transportation haystack." "In 2000 alone," he explained, "489 million people, 127 million passenger vehicles, 11.6 million maritime containers, 11.5 million trucks, 2.2 million railcars, 829,000 planes, and 211,000 vessels passed through U.S. border inspection systems."[66]

Problems of a similar scale exist on the people side, where international travel has increased

dramatically and where the agency in charge has been plagued by decades of difficulties. In the past decade, the INS has been in one crisis after another. Globalization of the economy, cheaper air travel, etc., have meant a huge increase in the number of foreigners to the U.S.—from fiscal years 1981 to 1998 the number of annual admissions of visitors with visas nearly tripled to 30 million.[67] The INS has been unusually slow to adapt, leading two members of Congress to call it "the most dysfunctional agency in all of government," a sentiment echoed by anyone who has ever had anything to do with the agency. Unlike the Bureau of Consular Affairs, the problems of the INS cannot be blamed on lack of money because Congress has consistently increased their funding in recent years. In spite of this, they process applications by hand, having inexplicably failed to implement the electronic systems that would help them. When they do buy new systems such as their anti-smuggling electronic systems, they fail to train employees to use them. They can't keep track of their weapons or their property.

Failure on the part of the INS is not new. During the Iranian hostage crisis in 1979, the INS was able to track down only 9,000 of the 50,000 Iranian students in the United States. In 1993, the INS had no idea that Jordanian Eyad Ismoil had violated his student visa until he drove a bomb-laden truck into the World Trade Center. It is well known that the INS does not do a very good job of getting people out of the country who have overstayed their visas. The INS estimates that 40 percent of all illegal immigrants are people who come to the U.S. with visas but don't leave when the visas expire.[68] Of the hundreds of people who have been detained as suspects in the weeks since the September 11 attacks, most are being held on immigration charges. The agency reported recently that a computer network to track foreign students in the country was still being tested and wouldn't be ready for another year even though Congress had ordered it six years ago![69]

In its 2002 budget the Bush administration proposed splitting the agency into two parts, a good and long overdue idea. As this report was being written the House passed a bill to accomplish the split, and the attorney general, echoing President

Clinton's famous pledge to "end welfare as we know it," vowed to "end the INS as we know it."[70] The naturalization service, which makes legal immigrants into citizens, should be kept in the Justice Department and transformed into an agency respectful of those wanting to become Americans. But the border patrol officials should be moved to a new agency where, like consular officials, they have access to real-time intelligence about who is entering the U.S. and why. As it now stands, border patrol agents are cut off from real-time intelligence, overworked, and ill prepared to stop potentially dangerous people from entering the country. Efforts to improve the technology of the agency fail, inexplicably, to materialize. We cannot preempt terrorists with the current organization.

Several bills to create a full-fledged national homeland security agency have been introduced, among them H.R. 1158 and S.R. 1534, introduced by Congressman Thornberry and Senator Lieberman, respectively. Modeled on the proposal in the Hart/Rudman report, their bill would put several existing agencies into a new department. There are some problems with the Hart/Rudman proposal. First, disparate agencies such as FEMA and the Critical Infrastructure Assurance Office at the Commerce Department are lumped into one agency. These agencies have little to do with each other on a day-to-day basis. Second, being time consuming and politically difficult, reorganizations need to promise immediate and effective changes along a multitude of dimensions to be able to withstand the opposition that large-scale reorganization inevitably engenders.

But at the core of these bills is a coherent border patrol agency, and this should be the purpose of legislation. As currently configured, Customs and the INS are poorly equipped to stop terror without also stopping commerce. That won't do. Right now, the system has a hard time analyzing risk and using technology. We have the worst of both worlds. Legitimate travelers and businesses are inconvenienced and are subjected to increased costs, but terrorists are not found. Accomplishing both goals will require enormous investments in data and in a wide range of technologies. The new system will have to figure out how to determine risk, and people will have to be willing to spend something for

convenience. Many ideas exist, such as issuing secure electronic passes to regular commuters and regular shippers. To obtain such a pass, the individuals or businesses would have to undergo a high level of scrutiny.

During the Clinton administration a plan emerged to create an international trade data system. But it was killed by a combination of vested interests. One reason for its demise was the increased transparency it would give to the vast array of goods crossing American borders.[71] This plan should be reviewed, and possibly revived, in the post–September 11 world.

Finally, there is no tougher issue in American politics than racial profiling. Yet when terrorism originates in and is sponsored by certain identifiable nationalities, being forced to ignore ethnicity in protecting the borders becomes absurd. There needs to be a process whereby racial profiling is allowed, for instance, where intelligence and other tips indicate that doing so would contribute to the protection of the public. This is part and parcel of moving law enforcement away from acting after the fact to becoming part of protecting Americans by preempting terrorist acts. Penalties exacted after the fact could serve as a sufficient deterrent for using profiling to harass innocent Americans. The fact remains that either this issue must be grappled with, or it will impinge on our security or our liberty, or both.

Using Public Sector Networks

Compared to other countries, America has a decentralized government. Most of American history has involved some form of discussion about federalism—the proper relationship between the national government, the state governments, and local governments—and deep suspicion of centralized government. Homeland security starts that conversation again. The sheer number of jurisdictions, laws, regulations, and operating protocols that makes up the American federal system is designed to defy control by any one entity, which is exactly what Americans have always wanted. So how do you improve homeland security in a system that is intentionally, indeed, passionately, decentralized? Here's where the concept of government by network, applied to the vast system of American governmental

jurisdictions, comes in handy. Table 4 shows how this concept might help us think through the prevention, protection, and response categories.

Prevention: Take the issue of national identification, a problem critical to preventing terrorism. Among the many holes in our domestic defense is the fact that we have a very lax system of acquiring identification cards, namely driver's licenses. In fact, as Shane Ham and Robert D. Atkinson point out, most American teenagers possess a fake ID in order to drink alcohol. The practice is so common as to be almost a rite of passage.[72] One solution proposed to the problem is to issue a national identification card. This would require a new, federal bureaucracy, another layer on top of existing state bureaucracies. It would also invoke images of big brother and likely would be almost as unpopular today as it has been in the past.

In contrast to creating an entirely new identification system, Ham and Atkinson propose creating a public sector network (my term, not theirs). The proposal would modernize the current system by having Congress issue guidelines and provide appropriations for standardizing driver's licenses. They propose that Congress require states to issue "smart ID cards" which contain "… a standardized hologram and digitally encoded biometric data specific to each holder."[73] In addition, they recommend that Congress set higher standards for documentation before issuing identification cards such as driver's licenses and that Congress provide funds for linking states' department of motor vehicle databases: "This would virtually eliminate the practice of ID poaching, and if tied in with a smart visa proposal, would prevent foreign visitors from obtaining driver's licenses and then hiding out in the United States after the visas expire."[74]

Thinking nationally about the problem of identification builds on the federalist system by using national power and federal money to form a network of state motor vehicle departments. While the proposal would cost more, it would not cost as much as the creation of a brand-new bureaucracy, nor would it cause the inevitable opposition that comes with the accretion of centralized powers in a decentralized state. And, it would surely increase security and help prevent terrorists from getting the legitimacy they need to operate in this system.

Table 4: Examples of Public Sector Networks to Achieve Homeland Security

Prevention	Protection	Response
Modernize the states' identification (driver's licenses) system.	Create a network among the FBI and state and local law enforcement, which would permit sharing of information on terrorist threats.	Adapt the CINC model with FEMA as the lead agency in charge of training, gaming, and command.

Forging a network like the one proposed by Ham and Atkinson has other advantages. Tighter security around driver's licenses would probably reduce the number of accidents due to teenagers driving drunk, and it would make the crime of identity theft even more difficult. Because terrorism is apt to be a sporadic and intermittent threat, when reforms are made that offer other, nonterrorist-related advantages to the society, they should be emphasized and promoted in order to secure continued political and budgetary support. That will keep existing reforms from withering on the vine—a particular problem in a society where memories are short and news cycles and political attention are even shorter.

Protection: Since September 11, long-simmering anger by local law enforcement toward the FBI for its traditional reluctance to share information with state and local law enforcement has come to the surface.[75] Shortly after September 11, we learned that the FBI did not share information about suspected terrorists with Michael Chitwood, chief of police of Portland, Maine, the origination point for the Logan Airport–bound hijackers. And in recent months, New York City officials have been particularly upset by two episodes: They were not told about anthrax-containing letters, and they were not told about a nuclear threat to their city. The Schumer-Clinton bill (S.R. 1615), sponsored by the two senators from New York State, would permit, but not require, the FBI to share information about potential terrorist attacks with state and local police forces. It is a necessary step in creating what should be a comprehensive network of law enforcement agencies designed to improve information sharing between federal and local law enforcement agencies.

Response: The immediate response to terrorist acts (or any catastrophic events, for that matter) also involves all levels of government because the first people on the scene are always local police, firefighters, and medics. In the case of a bioterrorist attack, the definition of first responders, which was developed from more traditional catastrophes like fires and earthquakes, would have to change. First responders in a bioterrorist attack would very likely be nurses, doctors, and lab technicians. Only recently have we begun to consider that public health is part of national security. In terrorism-related budgets prior to September 11, the bulk of the money went to law enforcement and defense, with public health the poor relative. As the confusion around the anthrax attack in the fall of 2001 proved, the U.S. government is not equipped to respond to bioterrorist attacks. In a role-playing episode at the end of the 1990s, the Defense Department (DoD) declared the right to seize command during a bioterrorist attack.[76] Constitutional issues aside, although DoD has many capabilities, expertise in disease and contagion is not among them.

In preparing for the future and for the need to respond to totally new and unexpected forms of terror, the United States needs to build response networks that involve all levels of government and have practiced reactions to scenarios that can only be imagined. Identifying the spread of a rare disease such as smallpox on a national level, tracking its progress, acquiring and moving stocks of vaccine,

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communicating with the public, placing affected people in quarantine, restricting travel—the list of steps to be taken and the confusion that would result from missed steps are of nightmarish proportions. The only way to prepare is the way the military prepares: practice, practice, and more practice. But the number of entities involved is huge and each one has other, important, day-to-day responsibilities to the public. They must be rehearsed and molded into a network that, when needed, can operate as one entity.

How to do that? Right before the September 11 attacks, Lieutenant Colonel Terrence Kelly published an article in which he suggested borrowing a concept from the military—the commander in chief (CINC)—for homeland security.[77] The last major reorganization of the U.S. military dealt with the traditional divisions (and rivalries) among the services and the need to make these historically separate bureaucracies into a coherent force in battle. As a result, the regional CINC command structure in the Defense Department gives one person the power and authority to plan for and then, if necessary, command the assets of the various branches of the military (air force, marines, navy, army, etc.). Kelly was suggesting the CINC concept for a homeland security agency, a version of the coordination option discussed above but with more teeth. However, the CINC option has even more utility when applied to the need for coherent response.

FEMA should be given more resources and the formal authority to act as CINC in preparing and coordinating federal, state, and local governments to respond to all kinds of terrorist events. A modest start in that direction was made in President Bush's homeland security budget with $3.5 billion out of the $37.7 billion allotted to first responders and FEMA given responsibility for coordinating training and response.[78] But given the complexity of the task at hand, an agency (and FEMA is the most likely candidate) needs to have the resources and the authority to force other federal agencies such as the Centers for Disease Control and state and local governments into an effective response network. As the simulation known as Dark Winter proved, a smallpox attack can cause massive confusion and death.[79] In that exercise, the sticky issue of federalism arose. Former Senator Sam Nunn, who played the U.S. president in the exercise, said, "We're

going to have absolute chaos if we start having war between the federal government and the state government."[80]

The sooner a CINC-like authority is vested in FEMA, the better. The creation of a first-rate response network will also fulfill an important criterion of homeland security reform mentioned above. Improving the coordination of responses to terror will improve the coordination of responses to all sorts of catastrophes, whether or not they are the result of terrorist acts. In the 1990s, FEMA went through one of the largest agency transformations in recent history. When the Clinton administration came in, several bills were pending in Congress to abolish FEMA. Thus, it became an early candidate for the Clinton/Gore reinvention efforts and, under the leadership of James Lee Witt, went from a disaster itself to a government agency that elicited applause from the public after the Northridge earthquake in California. Organizationally, FEMA is prepared for the task, but it needs a clearer mandate, both inside and outside the federal government.

Using Public and Private Sector Networks

As we have seen, government by network is an important concept for building greater security in a fragmented federalist system. It is an equally important concept for involving the private sector in homeland security. Table 5 gives some examples of how the government could go about creating networks of public and private sector institutions that would increase security.

Prevention: The private sector has pioneered the use of "data mining," the process of analyzing large databases to construct information, usually about sales or about market trends, that is not immediately evident from the raw data alone. This is an expensive and carefully guarded process, but it could potentially allow the government to find clues important to its mission of preventing terrorism. An early example of the use of data mining in terrorism comes from West Germany in the 1970s. A law enforcement officer named Horst Herold helped with a major breakthrough against the terrorists known as the Red Army Faction. By mining travel company, utility, and even pension-fund databases to create prescient profiles of where the terrorists were and how they behaved, Herold

Table 5: Examples of Public and Private Sector Networks to Achieve Homeland Security

Prevention	Protection	Response
Create a network with the private sector that would utilize modern data-mining techniques.	Create a network for protection of critical infrastructure. Create a small agency based on the DARPA model to innovate in homeland security technology.	Develop plans for surge capacity in the public and private health-care sectors. Create a network of emergency response teams, medical leaders, and broadcast journalists for cases of bioterrorist attacks.

turned the West German federal crime office into an "unparalleled crime fighting machine."[81]

His efforts, however, were not without controversy because significant proprietary issues and privacy issues arose as a result of his breakthroughs, and the West German system he created was eventually dismantled. An important caveat to the use of data mining applies to all examples of the government by network method: When the government establishes a network involving the private sector to help do public business, it needs to protect privacy and property. These issues need to be negotiated carefully and their implementation needs to be monitored carefully. Government by network survives ultimately on trust—trust that the public's privacy, market information, and other intellectual property of the business sector all will be protected.

Protection: Nowhere is this difficulty more evident than in the need to protect America's information systems from cyber attack. In May 1998, the Clinton administration issued Presidential Decision Directive 63 (PDD) on Critical Infrastructure Protection, acknowledging a new source of vulnerability to asymmetric warfare resulting from increasing U.S. reliance on cyber-based systems to operate every part of our economy. The directive created the National Infrastructure Protection Center (NIPC) in the FBI. The problem, however, has proved to be typical of many 21st-century problems in that solving it involves significant, regular cooperation from the private sector.

But the private sector has been exceedingly reluctant to cooperate. In a survey conducted by the Computer Security Institute in April 2002, 94 percent of the respondents reported having detected security breaches of their information systems in the last 12 months, but only 34 percent reported the intrusions to law enforcement (an improvement over the 16 percent who had reported intrusions to law enforcement in 1996).[82] The lack of reporting stems from fears that the government will not adequately protect the customers or the proprietary information of private companies. This lack of trust is having, and will continue to have, severe consequences for the ability of law enforcement to protect us from cyber attacks. Senator Bob Bennett, a Utah Republican, is the sponsor of the Critical Infrastructure Information Act of 2001. According to Bennett, trying to devise a protection plan for the Internet without candid information is like "trying to run a battle, when 85 percent of the battlefield is blind to you."[83]

Thus, the network concept becomes increasingly important. For government to do its job, it must create a network in the private sector that will allow it to learn what it needs to know to deter, detect, and prosecute crime. As in the case of data mining, creating such a network for cyber security is fraught with concerns for privacy and for property protection. Nevertheless, earlier generations worked out protocols for wiretaps on telephones that served the country well while, on the whole, protecting civil liberties. The new imperative is to

develop similar protocols that will allow the government to use the data in the vast databases of the private sector, including data about cyber crime, to protect us from terrorists.

As has been clear throughout this report, effective homeland security will require the development of many new technologies. As our experience in developing weapons over many decades has shown, innovation in technology cannot be limited to the public sector. The Soviet Union tried that and lost. William Bonvillian and Kendra Sharp have proposed creating a Defense Advanced Research Projects Agency (DARPA) for homeland security technology.[84] DARPA, best known to the public as the creator of the Internet, is one of the most successful technology development agencies in history. Critical to the success of DARPA is the fact that government uses its money and power to enlist all manner of actors—from universities to the private sector—in the innovation process. It was once referred to as "75 geniuses connected by a travel agent," which is what is required today.[85]

Response: Recent trends in medicine have resulted in less capacity to deal with a surge in demand for serious medical care than ever before.[86] Innovations such as just-in-time inventory systems for equipment and drugs and the increase in outpatient care, as drug therapy has replaced surgery and hospitalization for some illnesses, mean that the U.S. does not have the infrastructure to deal with mass injuries. The absence of "surge capacity" is serious when contemplating a high number of injuries resulting from a terrorist attack involving explosives. The absence becomes even more dangerous when contemplating the number needing medical care that could arise from a bioterrorist attack, in which everything from sterile equipment and clothing to isolation wards would run out almost instantly.

It is unrealistic to expect an overburdened, increasingly expensive private health-care system to develop and maintain the capacity to treat massive numbers of victims of something like a terrorist attack. However, it is not unrealistic to expect the government to lead the private sector in developing a plan whereby the location of medical supplies, plans for their delivery, and locations for makeshift hospital beds and isolation wards would be identi-

fied ahead of time. In other words, working with both the private and the public health-care sectors, the government could create a network in every major metropolitan area that would be dedicated to the instantaneous creation of emergency hospitals. In the immediate aftermath of the attack on the World Trade Center on September 11, an emergency medical unit was set up downtown and access to Manhattan was cut off to everyone except medical personnel who knew to come into the city. This had been practiced and planned because New York's Mayor Giuliani acted on the warning provided by the World Trade Center bombing in 1993.

Also important to the response effort are the media. For days after the September 11 attacks, most Americans were glued to their televisions. Especially in the case of a bioterrorist attack, the media have a role to play in conveying useful information and preventing panic. Dr. Matt Meselsen, an eminent biologist and expert on bioterrorism at Harvard University, pointed out that we should start thinking about a bioterrorist attack by "thinking small."[87] Creating a list of the small things that people could do to avoid spreading disease, and then working with national and local media to educate people on the likely course of a bioterrorist attack, could both save lives and prevent the panic that is often a goal of terrorists.

The importance of effective communication in responding to a terrorist attack, especially a bioterrorist attack, was emphasized by former Senator Sam Nunn after participating in the recent Dark Winter simulation of a smallpox attack. Testifying before Congress on the lessons learned he said:

> "How do you talk to the public in a way that is candid, yet prevents panic—knowing that panic itself can be a weapon of mass destruction?" My staff had two responses: "We don't know," and "You're late for your press conference." I told people in the exercise, "I would never go before the press with this little information." And Governor Keating, who knows about dealing with disaster, said "You have no choice." And I went, even though I did not have answers for the questions I knew I would face.[88]

In the case of bioterrorism, the president of the United States of course must know what to do, but more than any politician, the public will need to hear from trained medical personnel who have useful, simple words of advice for a panic-stricken, confused public.

Using Government by Market

Of the models of 21st-century government discussed in this report, government by market is perhaps the most powerful and the most difficult to use. Some examples of its use are listed in Table 6. Government by market is powerful because it allows for infinite innovation in accomplishing the public goals. But it does require the political will to establish the goals in the first place.

Prevention: For instance, since September 11 many people have commented on the fact that we have paid a price in our foreign policy for our excessive dependence on fossil fuels. Our cautious relations with Saudi Arabia, home of the vast majority of the September 11 hijackers and funding source of much of al Qaeda, have been shaped by our appetite for their oil. At some point, we as a nation may conclude that we have paid too high a price for our dependence on foreign oil. Putting aside the serious environmental consequences of increasing domestic production to replace foreign production—increasing domestic production when there is a finite amount of domestic oil is simply not a decent long-term solution. But whether for environmental reasons or foreign policy reasons, we may decide to get serious about weaning our economy from fossil fuels.

Here is where government by market comes in. To wean the economy from fossil fuels without wrecking it, the government will have to create a sophisticated market that subsidizes the use of alternative energy sources and discourages the use of fossil fuels until technological progress moves us away from fossil fuels altogether. Market thinking on this question has not been limited to one end of the political spectrum. People as different as former Vice President Al Gore and conservative economist Martin Feldstein have thought in terms of government by market. In the summer of his 2000 presidential campaign, Al Gore proposed an energy plan that consisted of a series of tax incentives for the use of nonfossil fuels. These incentives, the largest of which was a tax credit for purchasing new hybrid-fuel automobiles, were intended to stimulate the market in alternative energy and technologies. The tax credits were also intended to phase out over a period of 10 years. Martin Feldstein has proposed a system of tradable oil conservation vouchers modeled on the successful experiment with tradable permits to reduce sulfur dioxide emissions.[89] The vouchers could be traded among households, encouraging the use of public transportation and fuel-efficient cars by those seeking to sell their vouchers and creating an extra cost for those who continue to drive sport-utility vehicles.

The advantage of government by market is that it would allow for millions of adaptations and encourage enormous amounts of innovation *if* the government had the will to set the serious national goal of reducing fossil fuel use.

Table 6: Examples of Government by Market to Achieve Homeland Security

Prevention	Protection	Response
Create markets that reduce dependence on fossil fuels in order to make the U.S. less dependent on foreign oil.		Create economic incentives for research into vaccines or treatments against bio-terror threats.

Response: Government by market is a very efficient way of stimulating innovation. Right now, as Bonvillian and Sharp point out, with regard to our response to bioterrorism there is "… zero market incentive to develop effective vaccines or treatments for bioterror attacks."[90] We will need to develop new drugs and explore the use of existing drugs in response to a wide variety of biochemical terrorist agents. While research grants and other government-led activities may accomplish some of this, in the long run we must enlist the research capacities of the entire pharmaceutical industry. How? There are plenty of market incentives to develop drugs for breast cancer or the common cold. There are precious few incentives to develop drugs for diseases that may never appear. Thus, the government needs to explore creating some kind of a market incentive that would encourage the pharmaceutical industry to devote at least some research to this problem. Many possible options, from tax breaks to patent extensions, could be put together to create a market where none currently exists.

Conclusion

Homeland security is the first new challenge for 21st-century government. It is not, as we have seen, a challenge that lends itself to the creation of one new bureaucracy, nor is it the kind of challenge that can be met effectively by one man or woman sitting in the White House coordinating the government. Instead, we need to think about homeland security as a problem that knows no borders and that crosses every aspect of society and every part of every government. That means looking beyond bureaucracy to new forms of policy implementation—from reinvented governments to government by network to government by market—which can help create effective prevention, protection, and response.

We can hope that terrorism will not be a permanent feature of American life. But we don't know that and thus we must be ready. Even if it is not, we should recognize that many of the reforms we might make for purposes of preventing, protecting against, or responding to terrorism have a dual use. Many of the ideas presented here (and many others, which will doubtless emerge as this debate goes on) will bring other societal benefits. Some of the improvements we can make to help us respond to a terrorist attack—from clarifying FEMA's authority to creating networks to allow for surge capacity in our hospital systems—will be invaluable in responding to other catastrophes, whether accidental or natural. Strengthening both our borders and the ability of our law enforcement agencies to work with intelligence agencies across borders will pay enormous dividends in the war against drugs, even if we never experience another attack. And improv-

ing our system of national identification cards will prevent the premature deaths of some teenagers even if we manage to catch every terrorist before he or she obtains a fake ID.

If we start with the assumption that new threats require new organizational forms, and then adapt those forms to parts of the problem, we can build a safer society and minimize our loss of freedom. This strategy begins by recognizing that the problems of the 21st century will not fit into the organizational model of the 20th century, the bureaucracy. Homeland security is only one of those problems. To meet the new problems of a new century, we will have to continually redesign the government.

Endnotes

1.   Joseph S. Nye, David C. King, Phillip D. Zelikow, eds., *Why People Don't Trust Government* (Cambridge, Mass.: Harvard University Press, 1997).

2.   Ibid.

3.   Pippa Norris, ed., *Critical Citizens, Global Support for Democratic Governance* (Oxford: Oxford University Press, 1999).

4.   Gary Langer, "Water's Edge: Greater Trust in Government Limited to National Security," ABC News (January 15, 2002), http://more.abcnews.go.com/sections/politics/Daily News/poll/0120115.html.

5.   See Salvatore Schiavo-Campo, Giulio de Tommaso, and Amitabha Mukherjee, "An International Statistical Survey of Government Employment and Wages," in Public Sector Management and Information Technology team/Technical Department for Europe, Central Asia, Middle East, and North Africa, World Bank Policy Research Working Paper 1771 (August 31, 1997). While admitting the methodological difficulties of comparing size of government across the globe, they conclude, nevertheless, that "a large contraction in both central government employment (relative to population) and the relative wage bill is evident in all regions, with the relative size of central government shrinking by about one-third when measured by employment and one-fourth when measured by the wage bill …," p. 9.

6.   See, for instance, the story of Governor Orricirio dos Santos of Brazil in "Fiscal Prudence Goes Local," *The Economist (*March 10, 2001), p. 35.

7.   Following a report that two-thirds of the state-run firms had cooked the books and reported billions in fake profits, Zhu Rongji promised to shut down loss-making enterprises and sell off others. "China's Confident Bow," *The Economist* (March 10, 2001), p. 37.

8.   For instance, a variety of social ills, from teen pregnancy to drug addiction, turned out to be highly correlated with each other and yet government programs tended to treat one pathology at a time. Homelessness was a problem that turned out to be more about mental health than housing, yet the first programs to deal with the problem were placed in the Department of Housing and Urban Development. Welfare dependency often turned out to be about transportation and the physical isolation of the poor from jobs, yet state and federal transportation agencies rarely saw this as their mission.

9.   See Robert O. Keohane and Joseph S. Nye, Jr., "Introduction" in *Governance in a Globalizing World,* Joseph S. Nye and John D. Donahue, eds. (Washington, D.C.: Brookings, 2000).

10. See, for instance, B. Guy Peters and John Pierre, "Governance without Government? Rethinking Public Administration," *Journal of Public Administration Research and Theory* (April 1998).

11. David Osborne and Ted A. Gaebler, *Reinventing Government: How the Entrepreneurial Spirit Is Transforming the Public Sector* (New York: Perseus, 1991).

12. As various scholars attempt to categorize what is going on in the postbureaucratic state, they have used a variety of terms. For instance, what I describe here as reinvented government, others have described as "market-type bureaucracies." See Mark Considine and Jenny M. Lewis, "Governance at Ground Level: The Frontline Bureaucrat in the Age of Markets and Networks," *Public Administration Review,* Vol. 59, No. 6 (November/December 1999).

13. David Osborne and Peter Plastrick, *Banishing Bureaucracy: The Five Strategies for Reinventing Government* (Reading, Mass.: Addison-Wesley, 1997), p. 25.

14. Statement of J. Christopher Mihm, acting associate director, Federal Management and Workforce Issues, in U.S. General Accounting Office, *Performance Based*

Organizations: Lessons from the British Next Steps Initiative, GAO/T-GGD-97-151 (Washington, D.C., July 8, 1997).

15. Ibid., p. 6.

16. Johnathan Boston, John Martin, June Pallot, and Pat Walsh, *Public Management: The New Zealand Model* (Auckland: Oxford University Press, 1996).

17. Ibid., p. 5.

18. See Tim Irwin, "An Analysis of New Zealand's New System of Public Sector Management," in *Public Management in Government: Contemporary Illustrations,* OECD Occasional Papers, No. 9 (Paris: OECD, 1996).

19. Conversation between Mayor Rendell and the author, May 1991.

20. See Michael Barzelay, *Breaking Through Bureaucracy* (Berkeley, Calif.: University of California Press, 1992).

21. See, for instance, Linda de Leon and Robert B. Denhardt, "The Political Theory of Reinvention," *Public Administration Review (*March/April 2000) in which they comment, "The 'shadow' side of the entrepreneur is characterized by a narrow focus, an unwillingness to follow rules and stay within bounds…," p. 92.

22. Considine and Lewis, op. cit., p. 475.

23. See, for instance, Paul Sabatier and Hank Jenkins-Smith, eds., *Policy Change and Learning: An Advocacy Coalition Approach* (Boulder, Colo.: Westview Publishing, 1993).

24. "The Real New World Order," *Foreign Affairs,* (5) 76 (September/October 1997).

25. "Networks and Governance in Europe and America: Grasping the Normative Nettle," paper prepared for Rethinking Federalism in the EU and the US: The Challenge of Legitimacy, John F. Kennedy School of Government, Harvard University, April 19–21, 1998.

26.   H. Brinton Milward and Keith G. Provan, "Governing the Hollow State," *Journal of Public Administration Research and Theory* (April 2000).

27. Ibid., p. 1.

28. One piece of research, based on a comparison of federal law from two points in time, shows no change over time (1965–66 to 1993–94) in the use of non–state actors to implement programs. See Thad E. Hall and Laurence J. O'Toole, Jr., "Structures for Policy Implementation: An Analysis of National Legislation, 1965–1966 and 1993–1994," *Administration and Society,* Vol. 31, No. 6 (January 2000), pp. 667–686. However, a much more exhaustive analysis is needed, one which includes state-level legislation. In addition, the selection of the years 1965–1966, which included passage of much Great Society legislation, could bias the results.

29. See William P. Ryan, "The New Landscape for Nonprofits," *Harvard Business Review (*January-February 1999).

30. Interview with Peter Cove, president, America Works, April 1998.

31. Kenneth J. Meier and Laurence J. O'Toole, Jr., "Managerial Strategies and Behavior in Networks: A Model with Evidence from U.S. Public Education," *Journal of Public Administration Research and Theory (*July 2001), pp. 271–293.

32. "Governing the Hollow State," ibid.

33. Interview with the author, September 27, 2001.

34. *The Future of Governing: Four Emerging Models* (Lawrence, Kansas: University of Kansas Press, 1996), p. 22.

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Elaine Kamarck is currently on the faculty of the John F. Kennedy School of Government at Harvard University, where she teaches courses in 21st-century government, innovation in government, and electronic democracy and electronic government. In addition, she co-directs a program on the future of public service. In January 2001, she returned to the Kennedy School from a year's leave of absence during which she served as senior policy advisor to the Gore for President campaign. She joined the Harvard faculty in 1997 as executive director of Visions of Governance for the Twenty-First Century, a new research program at the Kennedy School. She has also served as director of the Innovations in American Government Program, an award program for federal, state, and local governments.

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In addition to her work at the PPI, Dr. Kamarck was a regular columnist with *Newsday* and the *Los Angeles Times* from 1988 to 1992. She has also made many television appearances for ABC News, CNN, and C-SPAN, and on *Nightline* and *The NewsHour with Jim Lehrer,* among others.

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