

## THE POLITICS OF DISASTER MANAGEMENT

MANY BUREAUCRATIC DECISIONS involve the application of standard operating procedures to routine situations. For example, when inspectors at the Environmental Protection Agency (EPA) conduct reviews of pesticide labels, these reviews are guided by a three-page inspection checklist.<sup>1</sup> Among other things, the checklist reminds inspectors to scrutinize labels for the name of the manufacturer, the company's EPA registration number, and the statement of product ingredients. In general, pesticide inspections entail clear chains of command and established patterns of interaction among agency officials, manufacturers, and other relevant parties.

Contrast all of this regularity with EPA decision making in the area of climate change. No EPA office has sole jurisdiction over the agency's policy response to this threat to the planet. In fact, the U.S. Global Change Research Program, which is run out of the Executive Office of the President, brings together thirteen federal agencies, including the Department of Defense and National Aeronautics and Space Administration (NASA).<sup>2</sup> When it comes to climate change itself, although many key facts are established (temperatures are rising, human activities are negatively affecting the atmosphere), other fundamental aspects of the issue are not yet fully understood. There is uncertainty, for example, regarding how much warming will occur, how fast this warming will take place, and how increasing temperatures will affect precipitation and ocean acidity.<sup>3</sup>

Clearly, climate change represents in many respects a greater challenge to EPA decision makers than does the review of pesticide labels. Generally speaking, catastrophic events and potentially disastrous threats provide public bureaucracies with some of their stiffest tests. That said, not all crises are alike in the nature of the specific difficulties they present to government agencies. Some crises are preceded by similar occurrences, such as the tropical storms and hurricanes that are spawned each summer and fall in the Atlantic Ocean. Other crises lack such immediate precedent, as when terrorists used hijacked airplanes as bombs in their attacks on the World Trade Center and the Pentagon. On top of this, agencies are charged not only with reacting to crises, but also with taking steps to prospectively ameliorate or even avert disasters altogether.

Disasters also pose tough tests for the theories we have described and applied in the preceding chapters. All four of these approaches are designed to be general ways of understanding bureaucracies and their governmental and nongovernmental environments. How well do these general theories hold up in the specific context of disaster management? Do these theories provide a solid analytical basis for evaluating the successes and failures that bureaucracies experience in times of crisis?

In this chapter, we examine bureaucratic preparations for and responses to four major crises: Hurricane Katrina and the *Deepwater Horizon* oil spill, two disasters in the Gulf of Mexico with ample precedent; the terrorist attacks of September 11, 2001, an unprecedented tragedy; and an avian influenza pandemic, a potential threat that has not yet materialized. Our analyses of these cases focus on two *core questions*:

- **WHAT ACCOUNTS FOR THE BUREAUCRATIC SUCCESSES AND FAILURES THAT WERE AND ARE BEING REALIZED IN THE MANAGEMENT OF THESE DISASTERS?** In judging the relevant bureaucracies, we focus on both key structural and procedural elements in agency decision making and the outcomes that result from these decisions.

- **CAN THE THEORIES AND CONCEPTS THAT HAVE BEEN INTRODUCED IN THE PRECEDING CHAPTERS INFORM OUR UNDERSTANDING OF HOW BUREAUCRACIES HAVE COPEd WITH RECENT DISASTERS AND ARE PREPARING FOR FUTURE CATASTROPHIC THREATS?** All four of these crises have been examined by journalists, pundits, and public officials. Our aim is to take an analytical approach to understanding the politics of disaster management.

At the outset, we want to emphasize the importance of being frank in our assessments without setting the bar unreasonably high for bureaucracies operating in the midst of crises. Agencies experience accountability and performance failures in all of their activities, even routine tasks such as pesticide label inspections. To use a sports analogy, we are asking whether a team can win the Super Bowl or the World Cup, whether it can succeed under the most trying of circumstances. Disaster management is, to be sure, a very demanding assignment for government bureaucracies.

## The Gulf of Mexico: Two Crises with Precedent

The Gulf of Mexico is one the United States' most treasured natural resources. The white sands of Gulf Coast beaches attract millions of visitors every year.<sup>4</sup> The waters of the Gulf, teeming with shrimp, oysters, and fish, sustain a sprawling industry that supplies seafood to the entire nation and provides jobs crucial to the region's fragile economy.<sup>5</sup>

In recent years, the Gulf of Mexico has also been the site of two of the largest and most tragic disasters in American history. In August 2005, **-Hurricane Katrina** claimed nearly two thousand lives and caused in excess of \$80 billion in property damage in Louisiana and other Gulf states.<sup>6</sup> Five years later, the biggest oil spill in history occurred when a well being drilled thousands of feet below the Gulf's surface blew out and destroyed the **-Deepwater Horizon**, the mammoth rig that was conducting the exploration. Eleven rig workers lost their lives and approximately 4.9 million barrels of oil gushed into the Gulf before the well was capped nearly two months later.<sup>7</sup>

Although these disasters were historically unrivaled in their respective magnitudes, both crises were preceded by events with which they share fundamental characteristics. The Gulf Coast is routinely buffeted by hurricanes and tropical storms. Oil exploration in deep waters and other remote locations, such as the Arctic, has resulted in deaths and catastrophic spills around the world. In this section, these two crises with precedent are recounted and evaluated through the lenses of the four theoretical frameworks that have been developed in the preceding chapters.

### Hurricane Katrina

The United States has thousands of miles of coastline, and, according to the National Oceanic and Atmospheric Administration, 123.3 million people (39 percent of the nation's population) lives in a county directly on the East, West, or Gulf Coast shorelines.<sup>8</sup> Inland, many of the nation's oldest and largest cities are situated on the banks of major rivers or other significant bodies of water, such as the Great Lakes. As the U.S. population has moved westward over the years, more and more residents make their homes in locations that are particularly at risk of experiencing earthquakes and wildfires. In general, recurring natural disasters are a fact of life for millions of Americans who live in highly desirable, and highly vulnerable, parts of the country.

This certainty aside, specific weather events often strike in ways that defy pinpoint prediction. Tornadoes offer little warning to people caught in their fast-moving tracks. We know that weather disasters will occur, but we do not have the capacity to forecast beyond a reasonable doubt just when, where, and with what severity nature will unleash its fury. Also, earthquakes, much like extreme weather, vary tremendously in their magnitudes as measured on the Richter scale.

This combination of certainty and doubt aptly describes the situation when Hurricane Katrina struck. On the one hand, it was not a surprise that a hurricane would strike the Gulf Coast in late August 2005. On the other hand, the sheer size and strength of the storm, combined with the proximity of its landfall to New Orleans, made Hurricane Katrina anything but a routine tropical weather event.

Many government officials and organizations at the federal, state, and local levels came under heavy criticism in the aftermath of the storm. No bureaucracy endured more scorn than the **Federal Emergency Management Agency (FEMA)**, the nation’s primary disaster mitigation and relief organization. The FEMA director at the time of Hurricane Katrina, Michael Brown, lost his job, and the entire agency suffered great damage to its reputation (see Table 6.1 for some of the jokes that were told at the time by late-night comedians). What went so wrong in FEMA’s preparation and response? Did anything go right in the bureaucracy’s handling of Hurricane Katrina? A good place to start in addressing these questions is to take a historical look at the development of FEMA, both its high points and low points.

**Table 6.1** Jokes about the Government’s Bungled Response to Hurricane Katrina

<p>"No word yet on Mr. Brown’s future plans, though sources say he does want to spend more time doing nothing for his family." —Jon Stewart</p>
<p>"Many Americans are calling on President Bush to fire the head of FEMA Michael Brown because of the slow response to the crisis. -Unfortunately, due to the red tape, firing Brown will take 6 to 8 months." —Conan O’Brien</p>
<p>"So no one's going to be held accountable for this at all?" --Jon Stewart</p> <p>"No. In fact, if history is any indication, they'll be hard-pressed finding enough medals to pin on these guys. My sources tell me the head of FEMA will be dipped in bronze and turned into an award to be given to other officials." --Ed Helms</p>
<p>"Yesterday President Bush made his fifth visit to the area that received the most damage from Hurricane Katrina. In other words, the White House." --Conan O'Brien</p>

Source: Daniel Kurtzman, "Hurricane Katrina Jokes,"

<http://politicalhumor.about.com/od/hurricanekatrina/a/katrinajokes.htm>, accessed October 19, 2016.

**FEMA’s Evolution.** For many years after its creation in 1979, FEMA was roundly criticized for being long on promises and short on results. In the wake of the agency’s poor handling of relief efforts following Hurricane Hugo in 1989, Sen. Ernest “Fritz” Hollings, D-S.C., referred to FEMA as the “sorriest bunch of bureaucratic jackasses I’ve ever known.”<sup>9</sup> When FEMA responded ineptly to Hurricane Andrew in 1992, a local official appeared on national television and began to cry. “Enough is enough,” she said. “Quit playing like a bunch of kids. Where the hell is the cavalry on this one? For God’s sake, where are they?”<sup>10</sup>

Much of this changed in 1993, when President Bill Clinton appointed James Lee Witt as FEMA administrator. Witt was a longtime friend of the president and, unlike previous administrators, had extensive experience in disaster management, having served for four years as the director of the Arkansas Department of Emergency Services. Upon arriving at FEMA, Witt announced an “open door” policy so that employees would have easy access to him. On

Witt's recommendation, the president filled political posts in FEMA with individuals who had backgrounds in disaster relief and intergovernmental relations. With this change in staffing orientation, FEMA was positioned to transform itself from the "political dumping ground" it had been for so many years.<sup>11</sup> To the surprise of many and consternation of some, Witt insisted that senior managers rotate jobs. The idea was that senior managers should not get too complacent or parochial, that they would perform better if they developed a keen sense of the agency's multiple responsibilities. As Witt put it, the goal was to "disassemble the **stovepipe structure** and reassemble it as a mass of connecting pipes."<sup>12</sup>

Under Witt's leadership, FEMA turned out to be one of the most impressive bureaucratic success stories in recent decades. An agency that had been vilified won many new friends, including disaster victims, state and local officials, members of Congress, and an admiring press corps. Whereas the old FEMA waited for a disaster to strike before sending food, water, and equipment, Witt's FEMA sent supplies to the scene as soon as a disaster loomed. Whereas the old FEMA procrastinated in providing relief to victims, Witt's FEMA got checks to victims in record time.<sup>13</sup> Whereas the old FEMA often seemed more interested in credit claiming and blame avoidance than problem solving, Witt did his best not to upstage state and local officials. As Sen. Bob Graham, D-Fla., put it, FEMA effected a "180-degree turnaround" from its response to Hurricane Andrew.<sup>14</sup>

One of Witt's more important changes was to articulate a clear mission for FEMA: "reduce the loss of life and property and protect our institutions from all hazards by leading and supporting the Nation in a comprehensive, risk-based emergency management program of mitigation, preparedness, response, and recovery."<sup>15</sup> This **all hazards approach** represented a marked departure from FEMA's historical preoccupation with preparation for a possible nuclear war. With FEMA's new stature as an effective, anticipatory, and responsive agency came a huge surge in agency morale. As one employee noted, "We don't have to wear bags over our heads when we go to meetings with other departments."<sup>16</sup> Another employee put it this way: "Everyone likes to wear their FEMA jackets now."<sup>17</sup>

And then things got worse. Upon assuming the presidency, George W. Bush appointed Joe Allbaugh as FEMA's director. Allbaugh, who had served as Bush's chief of staff in Texas and as his national campaign director in 2000, had good access to the president (like Witt) but no disaster management experience (unlike Witt). When the Mississippi River flooded Davenport, Iowa, in April 2003 for the third time in eight years, Allbaugh publicly upbraided local officials for not having built levees. He asked, "How many times will the American taxpayer have to step in and take care of this flooding, which could be easily prevented by building levees and dikes?"<sup>18</sup> Regardless of the merits of his argument, Allbaugh came off as blaming the victim. He subsequently apologized, but his credibility—and FEMA's—was damaged.

If public relations were a problem, internal changes were even more troublesome. Agency officials close to Witt were viewed with suspicion, and morale deteriorated. By the end of 2002, twenty-two senior staff members had quit or were fired.<sup>19</sup> At the same time, FEMA was struggling to rethink its mission in the wake of the September 11, 2001 terrorist attacks. In March 2003, FEMA was absorbed into the newly created Department of Homeland Security, despite protests from Allbaugh and **Michael Brown**, who was the agency's recently appointed deputy director. When Tom Ridge was named to head the department, Allbaugh announced his resignation. Brown, whose résumé famously included a stint as director of the International Arabian Horse Association, took over as acting director and then became director.

FEMA fared poorly under the Department of Homeland Security. Instead of turning to FEMA to take the lead in drafting the **National Response Plan** for domestic incidents, Secretary Ridge asked the RAND Corporation to handle the assignment.<sup>20</sup> As a result, FEMA's role in crafting this important document was marginal at best. Authorized to reshape FEMA's budget virtually at will, Secretary Ridge reallocated substantial amounts of money from flood mitigation to the war on terrorism. He also transferred responsibility over preparedness grants from FEMA to state and local officials.<sup>21</sup> When a new secretary, Michael Chertoff, took over Homeland Security in early 2005, he reduced FEMA's authority even further. Although Brown argued against these changes, he lacked friends in high places. As one FEMA staffer put it, "Mike was often his own worst enemy.... He never cultivated any friends in the department or anywhere in Washington for that matter that I could see who were willing to go to bat for him. And the sad truth is FEMA suffered for it. FEMA suffered because people were making stupid decisions and Brown could not stop them."<sup>22</sup>

Despite the friction between FEMA and almost everyone else, the agency managed to respond reasonably well to a rapid series of four hurricanes that hit Florida in 2004. Politically and administratively, conditions were favorable. Florida, perhaps more than any other state, was battle tested and prepared for the hurricane season. Gov. Jeb Bush, the president's brother, was well situated to ask for and receive federal assistance. The fact that Florida was a key electoral battleground and that 2004 was a presidential election year may also have been important. Whatever the reasons, the federal government opened up its coffers to Florida, which made FEMA's job much easier. As the *Wall Street Journal* put it, "Washington pulled out all the stops to ensure that the state—and its voters—got everything they needed."<sup>23</sup>

**Katrina Strikes.** Hurricane Katrina struck the Gulf Coast with pitiless ferocity on August 29, 2005. In addition to the nearly two thousand people who died, more than 200,000 homes were destroyed and another 45,000 residences were assessed as unlivable.<sup>24</sup> The storm also destroyed close to 19,000 businesses.<sup>25</sup> Combined with Hurricane Rita, which made landfall near the Texas-Louisiana border less than a month later, damage was inflicted on more than 90,000 square miles of territory.<sup>26</sup> The toll was particularly heavy in New Orleans. In addition to the many hundreds who died, about half of the city's nearly 500,000 residents did not return after the storm.<sup>27</sup>

All of this occurred, unfortunately, at a time when FEMA was particularly weakened. Approximately 500 of the agency's 2,500 positions were vacant, and eight of ten regional directors were working in an acting capacity when Hurricane Katrina struck.<sup>28</sup> Furthermore, lines of authority in the Department of Homeland Security were uncertain and untested in the face of such a massive natural disaster. Perhaps it is not surprising, then, that Terry Ebbert, head of emergency operations in New Orleans, had this to say: "This is a national disgrace. FEMA has been here three days, yet there is no command and control."<sup>29</sup>

FEMA's blunders before, during, and after Hurricane Katrina were committed by officials all the way up and down the organization's **chain of command**, including those working for the scores of private firms with whom the agency had service contracts. Basic supplies—power generators, medical equipment, emergency communications systems—were not effectively transported to areas where they were needed the most. "Where's my god-dam ice?" was the question one state official heatedly posed during a telephone argument with Michael Brown.<sup>30</sup> FEMA even had great difficulty getting Jim Strickland, its designated Hurricane Katrina team leader, into New Orleans.<sup>31</sup> With road signs down, Strickland's convoy accidentally separated on the way to the city. Without a scout or global positioning system, Strickland received faulty information about conditions in and around the Morial Convention Center, causing him to bypass the center city altogether and establish a base camp in the parking lot of a suburban Sam's Club.

FEMA, of course, was not the only bureaucracy overwhelmed by Hurricane Katrina's destruction. The mayor of New Orleans, C. Ray Nagin, made a colossal mistake by not issuing a mandatory evacuation order well in advance of the storm.<sup>32</sup> With education, economic development, and other pressing issues on the agenda, Nagin's administration had not placed much of an emphasis on improving the city's hurricane preparedness.<sup>33</sup> In fact, Nagin was one of the few public officials in the so-called hurricane belt who had not established a working relationship with Max Mayfield, the director of the National Hurricane Center (NHC).<sup>34</sup> Lacking a direct channel into NHC, Nagin missed out on valuable information and insights that may have changed his decision making and reduced Hurricane Katrina's toll on New Orleans.

**Applying the Theories.** Without denying the role that lackluster leadership played in the bureaucracy's handling of Hurricane Katrina, the four theoretical perspectives direct our attention to additional considerations. When it comes to bureaucratic reasoning, decision makers put into practice a variety of elements of bounded rationality, both before and after Hurricane Katrina made landfall. The results were decidedly mixed.

In 2004 FEMA funded a week-long test designed to simulate what it would be like if a major hurricane hit New Orleans. The scenario, dubbed **Hurricane Pam**, was eerily evocative of what happened just a year later, with levee failures, ten-foot-high floodwaters, and a city teeming with hazardous debris.<sup>35</sup> Although simulations can enhance decision making based on bounded rationality, this particular test was limited in several key respects. Because of funding shortfalls, many FEMA officials were unable to attend the Hurricane Pam event and other

exercises similar to it.<sup>36</sup> Furthermore, follow-up workshops were not convened until July 2005, too late to be of much use when Hurricane Katrina struck the following month.<sup>37</sup>

As documented in Chapter 2, bounded rationality often entails the application of standard operating procedures to recurring circumstances. In the aftermath of Hurricane Katrina, FEMA arranged, with great difficulty, for commercial airlines to evacuate remaining residents out of New Orleans. Then, consistent with its usual practices, the Transportation Security Administration insisted that all passengers and luggage be screened before any planes left Louis Armstrong International Airport.<sup>38</sup> This normally laudable practice was hindered by the fact that the electricity required to operate screening machines was not readily available in a city still without power! In addition, the Department of Homeland Security mandated that undercover air marshals, a standard and undoubtedly useful element of contemporary aviation security, be present on all departing flights.<sup>39</sup> In the end, the evacuation took two long days to arrange, demonstrating how the invocation of standard operating procedures can under certain circumstances produce dysfunctional outcomes. These particular procedures certainly made it more difficult for FEMA to do its job.

One of the main lessons of Chapter 3 is that the delegation of policymaking authority to the bureaucracy varies systematically across types of issues. Disaster management is high in both salience and complexity, a combination that often results in significant levels of discretion for agencies. This discretion, however, is often accompanied by procedural constraints on the exercise of delegated authority. For example, FEMA had the authority to purchase 145,000 trailers and mobile homes as a way of housing some of those displaced by Hurricane Katrina. Yet when more than eight thousand of these units went unused, procedures imposed on FEMA by Congress greatly restricted the agency's ability to sell the units or use the units to house victims of subsequent disasters.<sup>40</sup> To be sure, FEMA made its share of mistakes in the acquisition process, such as purchasing modular homes that could not be used in flood zones.<sup>41</sup> That said, many of the problems associated with the units were ultimately attributable to delegation decisions made by political principals.

Some of FEMA's leadership shortcomings can also be traced back to elected officials. As discussed earlier, President Bush appointed a pair of FEMA administrators who lacked prior experience in disaster management. One of these agents, Michael Brown, did not serve his principal well during Hurricane Katrina, despite the president's infamous assertion, "Brownie, you're doing a heck of a job." In retrospect, the appointment of Brown was an instance where adverse selection came back to haunt the administration.

But Brown was only part of the problem. Lines of authority changed abruptly when FEMA became part of the Department of Homeland Security. At a time when the administration, and the nation, was directing its attention more toward terrorist threats than natural disasters, even a highly competent, highly experienced FEMA director would have struggled to get his agency's mission noticed and funded. Furthermore, it was the secretary of homeland security, not the FEMA administrator, who was ultimately in charge of the federal government's actions. The day after Hurricane Katrina made landfall, Secretary Chertoff declared the disaster an "incident of national significance" and activated the National Response Plan.<sup>42</sup> Chertoff also named Brown as his "principal federal official," a designation that in some respects curtailed the FEMA administrator's ability to act independently.<sup>43</sup> At one point, Chertoff gave this order to Brown: "I don't want you running around, flying around all over the place, I want you to go to Baton Rouge and not leave Baton Rouge."<sup>44</sup> Brown was thus in the difficult administrative position of being closely monitored by one of his principals while at the same time attempting to direct the behavior of his own agents.

In general, these types of **vertical communications** were a major problem during Hurricane Katrina. In severe natural disasters, commercial landline and cellular phone systems are often compromised or destroyed, which means that emergency systems must be in place.<sup>45</sup> Unfortunately, adequate **emergency communications systems** were not in place in New Orleans. During a radio interview, Chertoff demonstrated a lack of awareness of just how dire things were getting for evacuees at the Convention Center: "Actually I have not heard a report of thousands of people in the Convention Center who don't have food and water."<sup>46</sup> As this lack of accurate information suggests, the ability of leaders at the top of the bureaucracy to communicate with agents in the field was drastically compromised during key moments in the rescue and recovery operations.

The seeds of New Orleans's destruction had been sown many years and decades before Hurricane Katrina unleashed its disruptive fury. Local officials consistently made decisions to favor economic development over the protection of wetlands. Members of Congress made careers out of sanctioning public works projects that were of debatable merit. Historically, Louisiana has received more funding from the Army Corps of Engineers than any other state, with the lion's share of resources going to oil, fishing, and navigation projects.<sup>47</sup> Levees constructed along the Mississippi River had the effect of reducing the amount of silt carried out to the Gulf of Mexico, which in turn stunted the creation and preservation of coastal marshes and swamps. These wetlands, which serve as "hurricane speed bumps," have been vanishing at a rate of twenty-four square miles per year.<sup>48</sup> In addition, the **Mississippi River Gulf Outlet**, an artificial navigation channel connecting downtown New Orleans with the Gulf of Mexico, cuts right through a series of pristine marshes and natural levees. Its path, some experts say, has created a hurricane superhighway that amplifies the height and ferocity of storm surges, perhaps by as much as two feet during Hurricane Katrina.<sup>49</sup>

This combination of long-term conditions is strikingly reminiscent of what Chapter 4 described as "client politics." Water projects along the Mississippi River and the Gulf Coast are usually characterized by concentrated benefits and diffuse costs. In other words, local interests reap gains that are paid for by the nation as a whole. There is little wonder, then, that the Louisiana congressional delegation and the Army Corps of Engineers have been able to secure a steady stream of funding for their preferred projects without needing to justify these efforts in the context of national water priorities. Although these projects no doubt fueled economic growth beneficial to those living in and around New Orleans, they also played no small role in the chain of events that exacerbated the death and destruction left behind by Hurricane Katrina.

Client politics persisted after the storm as well. Well-connected firms received **no-bid contracts**, which meant they did not have to compete with other companies to prove they could do the work better, faster, and cheaper. The Shaw Group, represented by former FEMA administrator Joe Allbaugh, won a \$100 million no-bid contract to provide housing to displaced residents and another \$100 million contract to pump water out of flooded New Orleans. Another Allbaugh client, KBR (an engineering, procurement, and construction company), secured \$88 million in contracts in just over a month.<sup>50</sup> Some of these no-bid awards were so objectionable that the Department of Homeland Security was forced to reopen negotiations and allow other firms to enter the competitions. The bipartisan outrage that was directed at these awards points to the constraints client-based iron triangles face when diffuse constituencies become interested in issues they had formerly ignored.

In an ideal world, a network of public, nonprofit, and for-profit organizations would have responded promptly and vigorously to Hurricane Katrina. In reality, organizations both inside and outside government did too little too late. According to one estimate, as many as 533 organizations engaged in response operations after the hurricane struck. Few of these organizations intervened in advance of the storm, however, and many waited days or even weeks before taking action.<sup>51</sup> What eventually emerged was a loosely connected network, with an extremely low level of centralization.<sup>52</sup> This lack of centralization may have hindered the network's overall effectiveness, as there was no core agency or set of agencies through which organizational participants were connected to one another.<sup>53</sup>

One of the more notable network failures was the poor coordination between FEMA and the Red Cross.<sup>54</sup> The Red Cross did not get significantly involved in relief efforts until September 15, more than two weeks after Hurricane Katrina had made landfall.<sup>55</sup> In fact, the Red Cross never opened up a shelter in New Orleans, owing to its long-standing policy of not operating facilities in locations near or below sea level.<sup>56</sup> Even in areas where the Red Cross maintained an active presence, such as Houston and Baton Rouge, organization officials complained about FEMA's inability to process and respond in a timely manner to requests for cooperation.<sup>57</sup> For their part, FEMA officials found it difficult to work with the Red Cross's constantly rotating workforce of staff and volunteers.<sup>58</sup> In light of these failures, the National Response Plan was modified after Hurricane Katrina to place FEMA in charge of shelters, food, and first aid. In taking these steps, the plan in effect relegated the Red Cross to a subsidiary role.<sup>59</sup> The relationship between these longtime network partners, in other words, was transformed into more of a hierarchical arrangement.

***The Coast Guard and Other Success Stories.*** Although FEMA was widely scorned for its performance during Hurricane Katrina, another federal agency, the Coast Guard, won nearly universal acclaim. The Coast Guard's leaders took decisive action two days before the storm. In anticipation of a major disaster, the agency moved its regional headquarters from New Orleans to St. Louis and established another command center in Alexandria, Virginia.<sup>60</sup> When Hurricane Katrina struck, the agency deployed 3,000 personnel to the region, along with a fleet of cutters and helicopters. Coast Guard employees, many of whom had lost their own homes in the flooding, demonstrated considerable valor and resourcefulness throughout the ordeal. What's more, these responders were indefatigable. As one official recalled, "The pace we kept up was amazing. When I say we were working around the clock, I mean it. Both boat and air. We were all go, go, go. Every minute of delay meant a possible loss of life."<sup>61</sup> Thanks to the Coast Guard's interventions, more than 33,000 people were rescued.<sup>62</sup>

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### **Inside Bureaucracy with Tom Ridge**

*Secretary of Homeland Security (2003-2005)*

"The Coast Guard is the most heavily tasked, multi-tasked, underfunded, underappreciated, lean-forward organization in the federal government and they've got nothing but a can-do attitude. Everybody is trained to do multiple things. They do multiple missions, and they do multiple missions with the same personnel and the same equipment. So the coastee who is pulling a civilian off of a flooded street or neighborhood is the same coastee a couple years later who could be running down drug dealers in the Gulf of Mexico, is the same coastee who could be working on port security. So there's this mind set within the U.S. Coast Guard ... They have so many missions. So there's great leadership from the top to the bottom. It's an attitude. They're just damn good at what they do and they're called on to do a lot of things. There's an esprit there that I think is exceptional. They really always rise to the occasion. And they are grossly underfunded, grossly underfunded."

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What enabled the Coast Guard to respond so effectively while other agencies were dropping the ball? First, the Coast Guard performs a wide variety of missions, such as intercepting drugs, patrolling war zones, offering humanitarian relief, rescuing refugees on dilapidated boats, cleaning up oil spills, and identifying terrorist threats.<sup>63</sup> While employees tend to specialize in specific types of operational tasks, all personnel are trained to meet **across-the-board standards**. As a result, teams can quickly form up in emergencies, with each member knowing what every job entails and how it fits into the overall mission.<sup>64</sup> Second, the Coast Guard possesses an excellent emergency communications system. When the power went out throughout the Gulf region, the Coast Guard's system continued to function, enabling agency officials in disparate locations to communicate and coordinate with one another. Third, the Coast Guard had strong, experienced leadership. Admiral Thad Allen, the Coast Guard's chief of staff during Hurricane Katrina, had headed up the agency's maritime response to the September 11, 2001 terrorist attacks. At that time, Allen earned praise for acting decisively, by blocking the Potomac River and securing ports in New York and Boston. Within days of Hurricane Katrina, Allen was tapped to replace Michael Brown as the official in charge of federal recovery efforts in New Orleans.<sup>65</sup>

Other federal agencies also performed well during Hurricane Katrina. The National Weather Service provided accurate forecasts of the storm's intensity and location, which gave public officials enough time to mobilize an evacuation effort. Although many citizens remained behind, this was certainly not the fault of the National Weather Service, which warned that the storm would be fierce and devastating. One of its bulletins presciently stated: "Hurricane Katrina... A most powerful hurricane with unprecedented strength... Most of the area will be uninhabitable for weeks... perhaps longer."<sup>66</sup> Likewise, the Forest Service behaved admirably during the ordeal, supplying more than 600,000 people with 2.7 million meals, 4 million gallons of water, and 40 million pounds of ice.<sup>67</sup> And when the delivery of Social Security checks was disrupted, the Social Security Administration responded resourcefully by making emergency payments to destitute senior citizens.<sup>68</sup>



Success stories such as these do not erase, of course, the failures in accountability and performance that plagued much of the bureaucracy before, during, and after Hurricane Katrina. These successes do serve as reminders, however, that failure was not inevitable. How, then, have the theories helped us understand the difference between bureaucratic victory and defeat?

All of the agencies and nongovernmental organizations we have considered applied standard operating procedures to the decisions they confronted during Hurricane Katrina. In many instances, these procedures broke down in the face of the sheer size and strength of the storm and the exceptional vulnerability of its Gulf Coast targets. The primary exceptions were those procedures explicitly designed to meet the specific challenges that emerged. For example, the Coast Guard's prior experience with dangerous air missions allowed the agency's operatives to carry out exceedingly difficult, and lifesaving, rooftop rescues.

The theories point out that standard operating procedures are designed to fulfill tasks handed to agencies by their bosses and requested by their clients. In many respects, these outside actors redesigned the bureaucracy for the worse prior to Hurricane Katrina. Many agencies, including FEMA, had shifted their emphasis toward terrorism and away from natural disasters. Agencies throughout the government had long pursued questionable policies that fostered development beneficial to Gulf Coast legislators, economic interests, and residents themselves. Ultimately, failures inside the bureaucracy were in no small part a reflection of failures in the larger political system within which the agencies were embedded.

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### **Inside Bureaucracy with Tom Ridge**

*Secretary of Homeland Security (2003-2005)*

"FEMA is better prepared for an emergency than it used to be. First of all, they've got great leadership at the top with Greg Fugate. I dealt with him when I was secretary and he was running the operation down in Florida for Jeb Bush. Any organization with good leadership you start with a plus; you're on first or second base. Then I think, they've been much more aggressive with the training with first responders and the like. And thirdly, I think state and local governments have spent more time because of federal grants through the DHS to deal with events that could cause the loss of life or significant property damage. ... So I think a couple things. You've got great leadership at the top, more and better training inside FEMA, far more interest in a post-911 world with what first responders and what FEMA does and frankly, FEMA and others are paying a lot more attention to preparedness than perhaps 10 years ago."

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### **The Deepwater Horizon Oil Spill**

In recent decades, the search for oil has taken the government and the petroleum industry to remote areas that are home to some of the world's most pristine ecosystems. From Alaska to Washington, D.C., for example, a debate has raged regarding the economic benefits and environmental costs of drilling for oil in the Arctic National Wildlife Refuge, the largest wildlife refuge in the entire United States.<sup>69</sup> In the Gulf of Mexico, it is not uncommon for oil reserves to be located thousands of feet beneath the surface of the water and the salt, sandstone, and other geological features that characterize the deep ocean floor. Although such drilling is inherently risky in a number of respects, the occurrence of disasters of the magnitude of the

*Deepwater Horizon* blowout is by no means preordained. What, then, went so tragically wrong on the day of the explosion, as well as in the days, months, and years leading up to the oil spill?

April 20, 2010, was an important day on board the *Deepwater Horizon*, a state-of-the-art, semisubmersible rig that specialized in deepwater oil and gas exploration.<sup>70</sup> The crew of the *Deepwater Horizon*, more than one hundred managers, engineers, and auxiliary workers, was completing the lengthy and exceedingly difficult process of drilling an undersea well that was two-and-a-half miles deep. All that remained was for specialists to verify the structural integrity of the well, after which the *Deepwater Horizon* was scheduled to move on to another exploratory project elsewhere in the Gulf of Mexico.

A key element in remotely assessing the construction of undersea wells is the performance of pressure tests.<sup>71</sup> For example, in a **negative-pressure test**, rig workers decrease the pressure inside a well and then close the well off. If the pressure inside the well remains steady, the evidence suggests that the well's steel casings and concrete sealants are holding steady in the seabed's high-pressure environment. If, however, the well's internal pressure builds back up, there is an indication that the structural integrity of the well may be compromised.

This latter result is exactly what was discovered when the crew on the *Deepwater Horizon* conducted its negative-pressure test. Faced with this unwelcome evidence of rising pressure levels, crew members came to two very different conclusions. One interpretation, derived from prior experiences with negative-pressure tests, was that the readings were anomalous and not indicative of actual levels inside the well.<sup>72</sup> Another expressed opinion was that "something wasn't right."<sup>73</sup>

The primary danger associated with a well that is structurally compromised is that oil and gas can gush in an uncontrolled manner up through the drilled column. Sure enough, shortly after the negative-pressure tests were concluded, mud and seawater suddenly began spewing out of the Gulf of Mexico onto the *Deepwater Horizon*, a surefire indication that the well was blowing out.<sup>74</sup> Before frantic crew members were able to close the well off, gas that had shot all the way up from under the ocean floor ignited on the rig's platform, triggering deadly explosions and engulfing the *Deepwater Horizon* in flames. Thirty-six hours later, the rig that had cost hundreds of millions of dollars to construct capsized and sank to the bottom of the Gulf.<sup>75</sup>

**Bounded Rationality on the Deepwater Horizon.** How might the decisions that were made on board the *Deepwater Horizon* regarding the negative-pressure test and its interpretation be understood from a theoretical point of view? As discussed in Chapter 2, bounded rationality is an approach to decision making that is frequently employed in the context of difficult problems. Making inferences about natural and man-made conditions 5,000 feet below the water and an additional 13,000 feet below the surface of the seafloor certainly classifies as a difficult decision-making environment.

Under conditions of bounded rationality, decision makers routinely rely on standard operating procedures as a means of decomposing complex environments into manageable, discrete judgments. Unfortunately, such procedures had not been adequately developed in the context of negative-pressure tests, even though such tests constitute ordinary practice in deep-sea exploratory drilling. Sam Sankar, deputy chief counsel of the presidentially appointed **National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling**, described the situation in this way: "Why would these men not have realized that this was a bad negative pressure test? Nobody in industry or in government had set forth any procedures governing what the negative pressure test is, how to conduct it, or how to interpret it."<sup>76</sup>

Given this lack of well-developed guidance, crew members on the *Deepwater Horizon* were faced with making a real-time, high-stakes choice between two very different courses of action. The negative-pressure test could have been deemed a failure, a decision that would have prompted the initiation of remedial efforts aimed at shoring up the structural integrity of the well. This remediation would have required at least one week of additional work, at an estimated cost to BP of as much as \$10 million.<sup>77</sup>

The alternative course of action was to declare the negative-pressure test a success, despite the realization of readings indicating that pressure levels inside the well were increasing without abatement. Why did crew members settle on this interpretation of the negative-pressure test and conclude that rising pressure levels were

anomalous and not indicative of underlying problems in structural integrity? The evidence does not suggest a “conscious decision to sacrifice safety to save money.”<sup>78</sup> Rather, crew members relied on prior experiences with the results of negative-pressure tests to come to their judgments. For example, Jason Anderson, a veteran driller who had worked on the *Deepwater Horizon* since it had first been commissioned years earlier, stated that he had observed this particular configuration of pressure readings in the context of other explorations.<sup>79</sup> In the view of Anderson and others, the collection of additional information and the imposition of remedial efforts were unnecessary given the presence of a plausible, benign explanation for the pressure readings. In the end, this decision, which was made without the benefit of clearly articulated standard operating procedures, was an immediate contributing factor to the blowout that occurred shortly thereafter.

**Networks and Oil Exploration.** Although a focus on decision making in the moments leading up to the Deepwater Horizon explosion is undoubtedly insightful, such a perspective naturally begs a broader question. Why, in the first place, were there -problems of structural integrity with the well that had been drilled? From the perspective of this book’s theoretical frameworks, the prevalence of networks of organizations spanning the oil industry is a salient factor deserving detailed consideration.

From a private sector perspective, no single organization in existence possesses the wherewithal to conduct deepwater oil exploration on its own. At the **Macondo well**, the name for the site where the *Deepwater Horizon* was stationed in the spring of 2010, three main companies were responsible for the operations that were being carried out. In 2008, **BP**, one of the largest energy companies in the world, had purchased from the federal government a lease that conferred exclusive drilling rights in an area of the Gulf of Mexico known as the Mississippi Canyon. It was under the terms of this lease that BP was conducting a search for an oil and gas reservoir thousands of feet below the surface of the water and seafloor.<sup>80</sup>

In carrying out this exploration, BP was fundamentally reliant on two other major corporations. One of these corporations was **Halliburton**, an oilfield services company that was responsible for cementing in the Macondo well.<sup>81</sup> The other corporation was **Transocean**, a company that owns nearly half of the world’s deepwater drilling platforms.<sup>82</sup> The *Deepwater Horizon* was the pride of Transocean’s fleet, as it commanded daily leasing fees of hundreds of thousands of dollars for its work on the frontiers of deepwater exploration.<sup>83</sup>

As discussed in Chapter 5, a key attribute of networks is differentiation, the extent to which network participants engage in functional and service specialization. The network of private sector organizations operating at the Macondo well site certainly was characterized by extensive differentiation. For example, although BP engineers were engaged in designing the formula for the cement sealant and the process by which the sealant would be pumped down into the well, it was Halliburton engineers who were primarily responsible for creating the cement blend and analyzing its properties.<sup>84</sup> As Halliburton’s work on the project progressed, a number of laboratory tests indicated that the cement blend would likely be unstable in the conditions under which it was to be deployed. The evidence suggests that in some instances the results of these tests were never reported to officials at BP.<sup>85</sup> In one instance in which Halliburton did transmit results, it is far from certain that BP decision makers ever examined the report’s information about the potential instability of the cement blend.<sup>86</sup> Given the eventual failure of the cement sealant to hold back oil and gas from the reservoir, the -differentiated nature of the corporate network involved in the Macondo well project appears to have been a major contributing factor to the blowout and subsequent oil spill.

As an instance of vital, highly technical safety information not adequately making its way through communications channels in a differentiated network, the *Deepwater Horizon* oil spill shares much in common with the Space Shuttle *Challenger* disaster. On January 28, 1986, the *Challenger* broke apart seventy-three seconds after it was launched from Kennedy Space Center. The proximate cause of the breakup was the failure of an O-ring seal in one of the vehicle’s solid rocket boosters; the function of the seal was to keep pressurized hot gases from reaching an external fuel tank being used to propel the ascent.<sup>87</sup> According to the Presidential Commission on the Space Shuttle *Challenger* Accident, information about design flaws inherent in the O-rings was not sufficiently circulated among government and private sector organizations involved in the Space Shuttle network.<sup>88</sup> For example, managers at the George C. Marshall Space Flight Center, a research organization operated by NASA, had known about such O-ring problems for nearly a decade, but they had never discussed the matter outside their reporting channels with Morton Thiokol, the private contractor that had designed the solid rocket boosters.<sup>89</sup> This egregious

violation of NASA regulations meant that crucial information about “internal flight safety problems” had not been communicated to “key Shuttle managers.”<sup>90</sup> In general, both the *Deepwater Horizon* and the Space Shuttle *Challenger* disasters demonstrate that differentiated networks can impede the flow of technical information, thereby increasing the difficulty of preserving the safety of complex, potentially dangerous systems.

***The Minerals Management Service: A Problematic Principal.*** From its creation in 1982 until the *Deepwater Horizon* oil spill, the Minerals Management Service (MMS) operated as the federal agency with jurisdiction over the offshore oil and gas industry.<sup>91</sup> Located within the Department of the Interior, the MMS was explicitly designed to bring together into a single organization a pair of functions that proved over time to be inherently conflictual. The first function was to regulate the industry and its activities, as a means of enhancing the safety of exploration and extraction processes and, more broadly, safeguarding for future generations treasured aquatic resources. The second function was to ensure a continued flow into -government coffers of royalties and revenues from oil and gas resources under federal control.

Over time, this income-generation function came to dominate the mission of the MMS. MMS directors who served under Presidents Obama and George W. Bush have stated that royalty issues consumed the bulk of their time on the job.<sup>92</sup> The reasons for this domination are not difficult to comprehend. By the 1980s royalties and revenues from oil and gas resources constituted one of the largest and most dependable streams of income for the federal government. In 2008 alone, federal **offshore royalty revenues** totaled more than \$18 billion, a record haul bolstered by a lease sale in Alaska’s Chukchi Sea that brought in \$2.6 billion.<sup>93</sup>

With the organizational focus of the MMS fixed predominantly on revenue generation, industry safety and environmental protection suffered accordingly. During 1995, for example, nearly one hundred fires, explosions, and other incidents associated with the oil and gas industry in the Gulf of Mexico were reported to the MMS.<sup>94</sup> These accidents injured and, in some instances, claimed the lives of workers on drilling rigs and offshore supply vessels. One commander with the Coast Guard explained in colorful terms the industry attitude that flourished in the absence of sustained, effective regulatory oversight: “There’s a cowboy mentality out there: “Don’t think about it, do it.”<sup>95</sup>

Over time, episodes of cozy relations between the MMS and industry officials were documented. For example, Randall Luthi, who served as MMS director from 2007 until 2009, subsequently became president of the National Oceans Industries Association, an organization seeking to secure a “favorable regulatory and economic environment for the companies that develop the nation’s valuable offshore energy resources.”<sup>96</sup> In general, the revolving door between government service and employment in regulated industry that was discussed in Chapter 4 is not uncommon in the area of offshore oil and gas exploration and extraction.

Despite such connections between the MMS and the industry it regulated, the organization’s fundamental difficulties did not stem from a lack of commitment and ethical behavior on the part of agency executives, managers, and operators.<sup>97</sup> Rather, the agency lacked the resources necessary to design and enforce regulations in an environment characterized by rapidly changing technology and industrial practices. During the latter half of the 1990s, when deepwater oil production for the first time outstripped production from shallow water wells, the budget of the MMS fell to an all-time low.<sup>98</sup> In assessing this combination of realities, the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling concluded that “MMS was unable to maintain up-to-date technical drilling-safety requirements to keep up with industry’s rapidly evolving deepwater technology.”<sup>99</sup>

To employ the language of principal-agent theory, the MMS inherently faced substantial moral hazard difficulties in pursuing the daunting task of regulating the offshore oil and gas industry. Unfortunately, the institutional design of the agency fundamentally handicapped the ability of regulators to establish and carry out effective oversight of industry equipment and practices. At the Macondo well site, a number of federal statutes, including the Clean Water Act and the Endangered Species Act, could potentially have been utilized to review aspects of the *Deepwater Horizon’s* drilling operations.<sup>100</sup> In the end, however, none of these instruments of reducing moral hazard and mitigating agency loss was invoked by officials at the MMS.

In the weeks following the *Deepwater Horizon* explosion and oil spill, Secretary of the Interior Ken Salazar bestowed upon the tarnished MMS a new name—the **Bureau of Ocean Energy Management, Regulation, and**

**Enforcement.**<sup>101</sup> Secretary Salazar further divided the organization into a number of separate entities, each with its own distinct mission.<sup>102</sup> For example, the **Office of Natural Resources Revenue** is now charged with collecting payments derived from offshore oil and gas exploration and extraction. Workplace safety and environmental protection is now the province of the **Bureau of Safety and Environmental Enforcement**.

As mentioned in Chapter 2, bureaucratic restructuring (as a manifestation of the availability heuristic) frequently follows the occurrence of disasters. In the long run, will the breaking apart of the MMS result in sufficient attention being paid to both the preservation of natural resources and the procurement of financial and energy resources upon which the United States is economically, socially, and politically dependent? In 2016, the Obama administration made millions of acres in the Gulf of Mexico available for oil and gas drilling.<sup>103</sup> This profitable lease sale, which was held in New Orleans, was praised by the National Ocean Industries Association. It was also vehemently protested by community and climate change activists: “Our rallying cry is to take on fossil fuel extraction and, in particular, challenge the Obama administration to stop the sale of fossil fuels on our public lands.”<sup>104</sup> Given that much of the pressure placed on MMS to aggressively pursue revenue generation historically came from elected officials, the reorganization of MMS, while useful in certain respects, leaves in place principal-agent dynamics that have long defined the politics of oil and gas exploration.<sup>105</sup>

**Of Booms, Berms, and Client Politics.** **Booms** are artificial barriers used to contain oil spills and prevent harmful substances from contaminating beaches, marshes, and other environmentally sensitive areas. As a means of responding to the oil gushing out of the Macondo well, booms were distinctive from other widely utilized approaches, such as skimming, burning, and spraying chemical dispersants.<sup>106</sup> In contrast to such approaches, booms are physical objects that stop encroaching oil slicks in ways that are highly visible from the air, water, and coast. According to one cynical Louisiana resident, booms were “eye candy,” offering a sense of satisfaction that something was being done to protect cherished ways of life and natural resources.<sup>107</sup>

Although booms offer a number of advantages, the efficacy of physical barriers in containing oil spills is in part a function of tidal and meteorological conditions. Ocean currents can carry oil underneath booms that are not appropriately placed. Storms can blow oil over the top of booms and push the barriers themselves into environmentally fragile areas that they are designed to protect.<sup>108</sup>

Booms and other types of physical barriers are also distinctive in the mobilization of societal interests by which they are typically characterized. The benefits of the deployment of booms most immediately accrue to concentrated interests, namely, residents of coastal areas who are affected by oil spills and comforted by the sight of protective barriers. The costs of booms, in contrast, are typically borne by diffuse interests, such as multinational corporations and government organizations. As discussed earlier in the context of Hurricane Katrina, such combinations of concentrated benefits and diffuse costs are associated with client politics in which mobilization on the part of specific interests outstrips the activism of broad constituencies.

One by-product of client politics is bureaucratic decision making in which agencies are especially responsive to the interests of concentrated beneficiaries. Responsiveness to local interests is precisely what occurred in the context of boom deployment. Scientifically, the placement of booms is a function of forecasts regarding the trajectory of oil spills, within an overall framework of prioritizing the protection of environmentally sensitive areas. In the aftermath of the *Deepwater Horizon* oil spill, however, the Coast Guard adopted a strategy of distributing booms according to the dictates of client politics. Hundreds of miles of boom were deployed along the Gulf Coast, in an explicit effort to “keep the parishes happy.”<sup>109</sup>

Client politics also characterized decision making regarding the construction of **berms**, sand barriers designed to prevent oil spills from reaching areas of shallow water. During a visit to the Gulf Coast, President Obama pressured Admiral Thad Allen, who had again been tapped to coordinate the federal government’s response to a disaster in the region, to prioritize an investigation into the efficacy of berms as instruments of containment.<sup>110</sup> This pressure was politically astute in that the administration’s efforts to prevent oil from reaching the Gulf’s shores were being roundly criticized by local officials and residents.<sup>111</sup>

Although motivated in part by the dictates of client politics, the Obama administration’s embrace of berm construction was not without scientific justification. As pointed out by a researcher at the Pontchartrain Institute for

Environmental Studies at the University of New Orleans: “One of the reasons it’s so easy for the oil to get into the wetlands in Louisiana is that the barrier shoreline is so degraded.”<sup>112</sup> From a logistical point of view, however, information collected by the Army Corps of Engineers suggested that it was not possible to construct berms in time to stop the flow of significant amounts of oil. Furthermore, there were concerns that hastily assembled berms might result in significant, unanticipated harm to environmentally sensitive areas.<sup>113</sup>

In the end, such scientific debates were no match for the imperatives of client politics. Within days of President Obama’s visit to the Gulf region, hundreds of millions of dollars of berm construction had been commissioned.<sup>114</sup> Months later, Louisiana governor Bobby Jindal aptly summarized the concentrated benefits that continued to flow from this decision: “We are thrilled that this has become the state’s largest barrier island restoration project in history.”<sup>115</sup>

It is important to recognize that the combination of concentrated benefits and diffuse costs does not as a matter of course ensure the flow of desired benefits into local areas affected by disasters. On June 16, 2010, at the urging of President Obama, BP established the **Gulf Coast Claims Facility (GCCF)** as a means of compensating individuals and businesses for costs and damages incurred as a result of the *Deepwater Horizon* oil spill.<sup>116</sup> BP allocated \$20 billion to the GCCF, which was administered by Kenneth R. Feinberg, an attorney who had previously overseen the operation of the September 11th Victim Compensation Fund. In the months following the GCCF’s creation, both BP and the federal government found themselves on the receiving end of criticisms from local residents who were unhappy with the pace of claims processing and the amounts of the awards that were being dispersed. Referring to Feinberg, Sheila Newman, the owner of a beach wedding business, had this to say: “I think he’s just trying to wear everybody down; they’ll take such a small amount and just give up.”<sup>117</sup> One year after the Macondo well blowout, the GCCF had allocated a grand total of only \$4 billion and had begun the process of winding down its operations, despite opposition on the part of local residents and public officials.<sup>118</sup>

**BP and Beyond.** The BP oil spill, like Hurricane Katrina, triggered a barrage of withering jokes from late-night comedians. Common themes were greed, -incompetence, and insensitivity (see Table 6.2). Unlike Hurricane Katrina, where most ridicule was directed at a government agency (FEMA), the primary target of comedians after the oil spill was a private company (BP). Although the Obama administration came in for some criticism over the oil spill, it was nothing like the criticism that the Bush administration received for the government’s response to Katrina.

Like the late-night comedians, we have focused much of our attention on BP. We have also hinted at an organizational culture that placed greater emphasis on profits than on safety. However, the problems we have identified are more complex and more prosaic than simple greed. In the case of the BP oil spill, clear standard operating procedures for dealing with worrisome results from negative-pressure tests were not in place. Strong communication links between BP officials and other critical members of the oil drilling network (most notably, Halliburton engineers) did not exist. A consensus among technical experts on how to proceed when an oil spill occurred was not evident.

Parallels between the BP oil spill and other disasters—most notably, Hurricane Katrina and the space shuttle *Challenger* debacle—are almost eerie. Poor communication within and between organizations, standard operating procedures poorly designed for emergency situations, and a reluctance to invest scarce resources in safety are common denominators. At times, it seems that both government agencies and private companies have forgotten the fundamentals of good organizational behavior. When that occurs, the possibility of a catastrophe is much more likely.

**Table 6.2** Jokes about the BP Oil Spill

“The BP president said yesterday that the company would survive. That’s like someone running over your dog and saying, ‘Don’t worry, my car is fine.’” –Jimmy Fallon
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“I love this. On the news today, the CEO of British Petroleum says he believes the overall environmental impact of this oil spill will be very, very modest. Yeah, if you live in England!” –Jay Leno
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"The president met with BP CEO Tony Hayward, and Obama was demanding that BP clean up the Gulf. And I'm thinking, good luck. They can't even clean up their gas station restrooms." –David Letterman

"Today, President Obama finally met with BP's CEO, Tony Hayward, but the meeting was only scheduled (for) 20 minutes. Call me crazy, but I think it should take more time to discuss an oil spill than it does to get your oil checked." –Jimmy Fallon

"A new poll found that 43 percent of Americans think President Obama is doing a good job at handling the BP oil spill. Of course, the same poll found that 43 percent of Americans hate pelicans." –Jimmy Fallon

Source: About.com, <http://political.humor.about.com/od/currentevents/a/oil-spill-jokes.htm> (accessed December 7, 2010).

## September 11, 2001: A Crisis without Precedent

Throughout its history, the United States has largely been free from foreign attacks on its own soil. Part of this security is due to the vast oceans that separate the United States from potentially hostile European and Asian regimes, while part of it is due to the worldwide economic and military power the country has projected since the early twentieth century. There have been occasions, of course, when this security has been disrupted. The British burned much of official Washington, including the White House, during the War of 1812. The Japanese attacked Pearl Harbor on December 7, 1941, a date President Franklin D. Roosevelt declared will "live in infamy." For the better part of two centuries, though, the U.S. mainland was essentially free from direct foreign intervention.

It is this freedom that made the terrorist attacks of September 11, 2001 such an unprecedented crisis. The attacks were also unprecedented in their origin (an international terrorist network), their scope (the use of airplanes at multiple sites to take approximately three thousand lives), and their targets (civilians and buildings of economic and political significance). For many Americans, the attacks were likely the most shocking world event of their entire lives.

That said, however, the idea that terrorists might target domestic sites was not completely incomprehensible. On February 26, 1993, a car bomb was detonated in a parking garage underneath the World Trade Center. Sheik Omar Abdel Rahman was convicted of masterminding the bombing, and several other conspirators were imprisoned for their roles in planning and carrying out the attack, which claimed six lives and caused more than a thousand injuries.

In addition, in the months before the September 11 attacks, intelligence agents had warned Central Intelligence Agency officials who in turn warned the White House that "spectacular" terrorist attacks were being planned.<sup>119</sup> On two separate occasions in June 2001, Richard Clarke, the chair of the administration's **Counterterrorism Security Group**, informed National Security Advisor Condoleezza Rice that **Al Qaeda** personnel had predicted a pending attack and that the terrorist network's activity had reached a "crescendo."<sup>120</sup> A July 2001 memo from an FBI agent in Phoenix to bureau headquarters noted that an "inordinate number of individuals of investigative interest" were attending flight schools.<sup>121</sup> A month later, a memo from an FBI agent in Minneapolis to the CIA warned that an Islamic extremist, Zacarias Moussaoui, was learning how to fly.<sup>122</sup> A daily briefing prepared for President George W. Bush by CIA analysts on August 6, 2001 carried the title "Bin Laden Determined to Strike US."<sup>123</sup>

In fairness, the federal government had been receiving warnings about possible terrorist attacks on U.S. soil for at least a decade. Furthermore, none of these reports was specific enough to allow decision makers to pinpoint a specific date or particular targets. As historian Roberta Wohlstetter has noted, it is "much easier *after* the event to

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sort the relevant from the irrelevant signals. After the event, of course, a signal is always crystal clear; we can now see what disaster it was signaling since the disaster has occurred. But before the event it is obscure and pregnant with conflicting meanings.”<sup>124</sup>

Not surprisingly, the events of September 11, 2001 have been the subject of great debate and scrutiny. Arguably, the most comprehensive investigation was carried out by the **National Commission on Terrorist Attacks Upon the United States**, an independent, bipartisan group chartered by Congress and President Bush. On June 22, 2004, the so-called 9/11 Commission issued a 567-page report covering everything from advance preparations to immediate response to the prevention of terrorist attacks in the future. Given all of this general attention, our aim in this section is rather specific. What insights can the four theoretical perspectives provide when it comes to the bureaucracy’s behavior before, during, and after the unprecedented crisis that occurred on September 11, 2001?

## The First Response

In New York City, the immediate response to the attacks on the World Trade Center entailed both individual heroism and systemic breakdown. Police officers and firefighters placed themselves in mortal peril, knowing full well they stood a good chance of dying in their efforts to rescue workers inside the burning towers. Thanks to their efforts, countless lives were saved that morning.

Hundreds of firefighters, however, entered the buildings with their hands figuratively tied behind their backs. Communications between firefighters and their superiors were poor. For example, although firefighters possessed new radios, they had not been trained to use these radios properly. Furthermore, coordination between the fire department and other key units—the police department, the Port Authority, the Office of Emergency Management—was severely limited by ineffective communications.<sup>125</sup> Some of these problems arose from the fact that the Office of Emergency Management was located inside 7 World Trade Center, a forty-seven-story building that was damaged and ultimately collapsed as a result of the attacks.<sup>126</sup> All told, 343 firefighters as well as 60 police officers perished in New York City on September 11, 2001.<sup>127</sup>

By contrast, the bureaucratic response to the attack on the Pentagon was relatively timely, safe, and effective. In large part, these differences are attributable to the fact that the logistics were much less daunting at the site in Arlington, Virginia, where a single airplane had crashed into a low-lying building. In addition, local officials were especially well prepared and organized. **Incident command** was established quickly, thanks to a formalized management structure for emergency response that had been put into place throughout the Washington, D.C., area prior to the attack.<sup>128</sup> Different agencies played distinct, well-defined roles. For example, the Arlington County fire department was the incident commander, with the Department of Justice serving as the lead federal agency.

These arrangements were familiar to many of the officials who were first on the scene, as federal, state, and local agencies regularly took part in regional events and training exercises. In fact, many of these agencies had been working together that very day on plans related to the World Bank–International Monetary Fund meetings that were to be held later that month in the nation’s capital.<sup>129</sup>

This history of communication and cooperation paid immediate dividends. Within five minutes of the attack, FBI officials had arrived and fire department commanders had established their headquarters at the scene.<sup>130</sup> Evacuation of the area impacted by the crash was ordered minutes before the building partly collapsed. As a result of this quick action, no **first responder** was injured by falling debris.<sup>131</sup>

A common thread that emerges from the Pentagon and World Trade Center experiences is that when disaster strikes dedicated public servants will immediately arrive upon the scene ready to do whatever they can to make things better. Can the theoretical perspectives offer any insight into how successful these responders are likely to be in their initial efforts?



At both locations, bureaucratic networks were crucial forms of organization. No one agency possessed all the tools necessary to cope with the multitude of problems that were occurring at the same time—fires, injuries, airplane crashes, building collapses. Nor was there a single agency, or even a small set of agencies, with the authority to command the large numbers of organizations that were responding from all levels of government. These attributes would appear to be descriptions of the immediate aftermath of major disasters in general, suggesting that networked arrangements are likely to be inevitable in this area of policymaking and implementation.

Network failures too would seem to be unavoidable in times of great crisis, especially failures related to communications of one sort or another. It is hard enough for principals to keep in touch with their own agents, let alone for officials to coordinate with one another across agency lines. Even at the Pentagon, cell phones proved to be of little value, and radio channels quickly became overwhelmed. Although pagers turned out to be the most reliable means of communication, many first responders were not equipped with these particular devices.<sup>132</sup> In the end, well-established, well-functioning networks are organizational tools for mitigating, though not eliminating, communication problems that threaten the lives of both disaster victims and their would-be rescuers.

## Bureaucracy after 9/11

Once the dust had settled, the events of September 11, 2001 precipitated one of the most significant transformations of public bureaucracy in recent times. Six weeks after the attacks, Congress passed and President Bush signed into law the **USA PATRIOT Act**.<sup>133</sup> The Patriot Act strengthened the power of bureaucrats all across the government, especially at the federal level. Officials were given greater authority to track electronic communications, investigate and disrupt money laundering, detain and deport individuals suspected of having terrorist ties, and obtain so-called sneak-and-peek (covert entry) search warrants.<sup>134</sup>

A year later, many of these disparate bureaucratic functions were consolidated into a single organization, when Congress and President Bush agreed to create the **Department of Homeland Security**. As mentioned in Chapter 3, this new cabinet department brought together twenty-two agencies and 170,000 employees. Figure 6.1 illustrates why this action has been called the “most complicated restructuring of the federal government ever.”<sup>135</sup> Agencies ranging from the Department of Transportation to the Federal Bureau of Investigation to the General Services Administration were altered, sometimes in fundamental ways, by the changes instituted in the Homeland Security Act.

### Figure 6.1 Organizational Highlights of the Creation of the Department of Homeland Security

Source: “History: Who Became Part of the Department?” U.S. Department of Homeland Security, [www.dhs.gov/xabout/history/-editorial\\_0133.shtm](http://www.dhs.gov/xabout/history/-editorial_0133.shtm), April 25, 2007. Figure prepared by authors.

These changes in bureaucratic power and organization were inspired by the fact that members of Al Qaeda had been living and training in the United States for months, even years, prior to carrying out the attacks. Although the suspicions of individual bureaucrats had been raised in certain instances, the failure to connect the dots and uncover the hijacking plot pointed to the need for an expansion and reconfiguration of government authority in the area of homeland security.

From the beginning, these changes were met with skepticism from various quarters. Civil libertarians were concerned that individual rights would be seriously and unnecessarily eroded. Conservatives were opposed to the creation of a new federal department and the increase in the size of the government workforce that was bound to go with it.

What impacts have these changes had on the accountability and performance of the homeland security bureaucracy? As Chapter 3 suggests, there is normally a strenuous, multifaceted competition between the executive and legislative branches for influence over bureaucratic agencies. Such competition certainly occurred in the years after creation of the Department of Homeland Security. Certain features of this competition clearly favored the White House. The appointment of Tom Ridge as the department's first administrator, on the heels of his stint as President Bush's homeland security czar, gave the White House a strong ally in the single most important anti-terrorism position in the U.S. government. In addition, many of the initial applications of the bureaucracy's new powers and organization came in the context of military interventions in Afghanistan and Iraq. Historically, presidents are much more formidable in the conduct of foreign affairs than in the making of domestic policy.<sup>136</sup> For example, after Democrats gained control of the Senate and the House of Representatives in 2007, they found it difficult to influence policy regarding the withdrawal of U.S. troops from Iraq, even though the conflict was by that time widely unpopular among the American people.

This is not to say that Congress did not exert sway over the homeland security bureaucracy. Secretary Ridge, by his own count, found himself and the department being overseen by "over 100 committees and subcommittees in the House and the Senate"<sup>137</sup> This sprawling oversight resembles the politics of iron triangles that were discussed in Chapter 4, in that specific agencies within the Department of Homeland Security operated in close alignment with congressional overseers on particular committee and subcommittees.<sup>138</sup> The aim of such alignments was to protect concentrated benefits that accrued to certain actors in the homeland security industry. From the perspective of Secretary Ridge, as an official operating outside of established iron triangles, such oversight required an enormous investment of time and resources that did not necessarily assist in the integration of homeland security that the White House and Congress in general were hoping for.<sup>139</sup>

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### Inside Bureaucracy with Tom Ridge

*Secretary of Homeland Security (2003-2005)*

"A lot of us who started the department together, we still stay in touch. We call ourselves the plank holders. ... When you build a ship, before you build anything else you gotta have the planks, so as we built the Homeland Security ship those folks who were with me the first year or two we're the plankholders, we began building the good ship, the Enterprise Homeland Security. ... My team and I designed a whole different structure for Homeland Security. I wanted to create multiple mini-me's of Homeland Security around the country so that I think we had five or six in the states, and then Alaska and Hawaii had to be different, the notion being, if we're to integrate our capacity around security, then we should align FEMA and Coast Guard and all these regional offices as best we can and then have someone, almost a mini-me overseeing them, not commanding them but overseeing what they're doing, overseeing their integration, overseeing their communication with the state and locals, Homeland Security and law enforcement. It was a very aggressive reorganization and it went nowhere."

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When it comes to performance, there have been both security success stories and **civil liberties** failures. Hundreds of millions of dollars in assets tied to international terrorist organizations and state sponsors of terrorism have been frozen by the U.S. government in the years since the September 11, 2001 terrorist attacks.<sup>140</sup> Most Americans have experienced nothing more than inconveniences, such as long lines and uncomfortable body searches at airport security checkpoints, as a result of tightened homeland security policies. Over the years, however, a number of citizens have had their lives profoundly affected. In the fall of 2006, for example, six Muslim imams were ordered off a flight from Minneapolis–St. Paul to Phoenix after passengers complained about their praying, conversation, and behavior.<sup>141</sup> At about the same time, the U.S. government agreed to pay \$2 million to settle a lawsuit filed by Brandon Mayfield, an Oregon attorney who was mistakenly linked to train bombings in Madrid, Spain, that had killed 191 people two years earlier.<sup>142</sup> Mayfield and civil liberties advocates argued that his

arrest and two-week detainment serve as reminders of just how easy it is for bureaucrats to abuse powers, such as relaxed standards of probable cause, conferred by the Patriot Act.

## The Iraq War and the Intelligence Community

It was in this uncertain post–September 11, 2001 environment that the Bush administration, with Congress’s consent, embarked on a war in Iraq. The White House contended that Iraq was harboring terrorists and possessed **weapons of mass destruction** that could be used to inflict great damage upon American interests. In August 2002, for example, Vice President Dick Cheney asserted, “There is no doubt that Saddam Hussein now has weapons of mass destruction [and] there is no doubt that he is amassing them to use against our friends, against our allies, and against us.”<sup>143</sup>

Assertions such as this ultimately proved false. The United States and its allies succeeded in toppling Saddam Hussein from power but never located the weapons of mass destruction that had served as such a crucial justification for the war effort. This startling failure has been the subject of much controversy and investigation. An independent, bipartisan commission came to this general conclusion: “the Intelligence Community was dead wrong in almost all of its pre-war judgments about Iraq’s weapons of mass destruction.”<sup>144</sup> From the perspective of the book’s theoretical frameworks, this general finding raises specific questions regarding bureaucratic accountability and performance. Why did intelligence agencies and other bureaucracies get it so wrong when it came to Saddam Hussein’s weapons program? How might the theoretical perspectives provide insight into the mistakes that were made up and down the chain of command?

For starters, it is important to recognize that **United Nations -weapons inspectors** had been absent from Iraq since 1998, making the intelligence community’s job inherently difficult.<sup>145</sup> In this information vacuum, and based on the Hussein regime’s past behavior, a prevailing assumption emerged that Iraq had resumed its weapons program.<sup>146</sup> This assumption affected the way in which the often sketchy information coming out of Iraq was interpreted and used. In bounded rationality terms, intelligence analysts had grounded much of their work in the idea that Iraq was making significant progress in developing biological, chemical, and nuclear weapons. These premises rendered unattractive other schools of thought and courses of action regarding the Hussein regime.

These limitations in decision making were magnified as information was passed through the bureaucracy from analysts up to policymakers. From the perspective of high-level officials, intelligence reports took on the appearance of making relatively certain claims when, in fact, there was much to be contested in their content.<sup>147</sup> For example, the **President’s Daily Brief** often touched on Iraq’s weapons program. These reports sometimes carried titles that were far more alarmist than the accompanying texts would seem to have called for. In addition, information about the credibility of the sources used to generate the intelligence was sometimes exaggerated or not discussed at all.<sup>148</sup> In this environment, the president and other principals faced a significant information deficit when it came to evaluating the orientation and work of their agents on the ground. These principals, in other words, confronted serious adverse selection and moral hazard problems, both of which appear to have contributed greatly to the poor policy choices that were eventually made.

These hierarchical problems were compounded by shortcomings in intelligence networks. There are many bureaucracies that collect intelligence information—the Central Intelligence Agency, the Defense Intelligence Agency, and the National Geospatial-Intelligence Agency, to name just three. Given this organizational diversity, it might have been useful if there had been a regularized way for intelligence agencies to coordinate their collection and analytical efforts. Unfortunately, no such central clearinghouse existed.<sup>149</sup> In fact, there was a bias in the intelligence community against sharing information across jurisdictional lines. The National Security Agency, for example, was hesitant to share its raw data with anyone from outside the organization.<sup>150</sup>

In an effort to address this lack of centrality in the intelligence network, Congress and President Bush created, in late 2004, the position of **director of national intelligence** (DNI). Early on, some commentators decried the DNI position as a “toothless figurehead.”<sup>151</sup> Over time, however, the intelligence community has drawn praise for its enhanced predisposition to coordinate across agencies the sharing and analysis of information. At a hearing conducted by the Senate Homeland Security and Governmental Affairs Committee in the aftermath of the May 2, 2011 killing of Osama bin Laden, Sen. Susan Collins, R-Maine, had this to say: “Last week’s welcome news that Osama bin Laden was killed demonstrates the kind of successful collaboration of intelligence and operations that we envisioned in reforming our capabilities and intelligence community in the wake of the attacks of 9–11–01.”<sup>152</sup> And there have been other, lower profile successes as well. In 2009 Najibullah Zazi, an Al Qaeda operative who was planning a suicide bombing in the New York City subway system, was identified and arrested several days before he was ready to carry out his mission.<sup>153</sup>

Despite these laudable successes, there have been intelligence failures that continue to highlight the difficulties faced by the intelligence network in assembling and analyzing information across organizational boundaries. On Christmas Day of 2009, Umar Farouk Abdulmutallab nearly detonated plastic explosives hidden in his underwear on an airplane that was approaching Detroit. In the aftermath of this potentially deadly incident, Secretary of Homeland Security Janet Napolitano stated that the “system worked.”<sup>154</sup> This statement drew widespread criticism because Abdulmutallab had been “allowed to fly to the United States on a valid visa without extra screening even though he was listed in a terrorism database, his ticket was bought with cash, and he checked no luggage.”<sup>155</sup> Napolitano later backtracked from her initial assessment, acknowledging that “Our system did not work in this instance. No one is happy or satisfied with that.”<sup>156</sup>

Making the intelligence community’s job all the more difficult is the fact that the terrorist threat continually evolves in its specific ways and means. At a September 27, 2016 congressional hearing, Secretary of Homeland Security Jeh Johnson described a movement away from attacks specifically directed by terrorist organizations to a “world that also includes the threat of terrorist-inspired attacks.”<sup>157</sup> The latter types of attacks, often perpetrated by U.S. citizens who have “self-radicalized,” are difficult to detect and prevent, especially by a homeland security bureaucracy designed to fight organizations such as Al Qaeda.<sup>158</sup>

## **Beyond the Department of Homeland Security**

One crucial challenge that federal agencies face in preventing future terrorist attacks is communicating to state and local officials, and the American people, information about potential terrorist threats inside their jurisdictions. In 2002 the Department of Homeland Security established a **color-coded threat level system** for the nation as a whole, as well as for specific industries and geographic regions. Whatever its utility as a means of transmitting information, the color-coded system served as an easy target for late-night comedians such as Jay Leno, who joked, “Yesterday the alert went from blue to pink; now half the country thinks we’re pregnant.”<sup>159</sup>

In 2011 the color-coded system was scrapped in favor of a new system, the **National Threat Advisory System** (NTAS).<sup>160</sup> The Department of Homeland Security describes NTAS as follows:

When there is specific, credible information about a terrorist threat against the United States, DHS will share an NTAS Alert with the American public when circumstances warrant doing so. The Alert may include specific information, if available, about the nature of the threat, including the geographic region, mode of transportation, or critical infrastructure potentially affected by the threat, as well as steps that individuals and communities can take to protect themselves and help prevent, mitigate or respond to the threat. The Alert may take one of two forms: **Elevated**, if we

have credible threat information, but only general information about timing and target such that it is reasonable to recommend implementation of protective measures to thwart or mitigate against an attack, or **Imminent**, if we believe the threat is credible, specific, and impending in the very near term.<sup>161</sup>

Four years after its inception, the NTAS had still not issued a single alert, even though a number of terrorist attacks had occurred, both on U.S. soil and abroad. By 2015, the NTAS Twitter feed had attracted 23,500 followers but had never issued a single tweet. The NTAS's Facebook page had been liked by 33,864 people, yet its timeline was completely devoid of posts.<sup>162</sup> To fill in this information vacuum, Secretary of Homeland Security Jeh Johnson announced a modification of the system. In place of alerts, the DHS lowered the threshold for sharing information and began issuing bulletins that are available to the public.<sup>163</sup> Given the ever-changing nature of homeland security communications, how do local officials rate information sharing on the part of federal and state agencies? Survey data indicate that most local officials agree, either somewhat or strongly, that homeland security information provided by federal principals is easy to understand.<sup>164</sup> The same officials, however, report that information from state-level principals is even more easily understood. When it comes to timeliness, most local officials agree that homeland security information from the federal government reaches them expeditiously. Once again, though, these officials report that information emanating from state governments is even timelier.

The efficacy of homeland security efforts depends not only on the nature of the information being shared by higher level governmental units but also on the capabilities of lower level units. For example, in cities with populations of more than five hundred thousand, 78.1 percent of public health officials report that they have collaborated with the Department of Health and Human Services, the lead federal agency on matters such as bioterrorism. Unfortunately, the level of collaboration is much lower in smaller jurisdictions, with only 29 percent of local officials reporting these kinds of interactions with their federal counterparts.<sup>165</sup>

A survey of county and city officials in Florida suggests that intergovernmental networks have become stronger as a result of homeland security initiatives and expenditures. Increased levels of cooperation on homeland security after September 11, 2001, were reported by 64 percent of county officials and 60 percent of city officials. Very few of these officials reported a surge in conflict across jurisdictions.<sup>166</sup> Furthermore, 96 percent of counties and 92 percent of cities in Florida reported having established a homeland security network with officials in Tallahassee, the home of Florida's state government. Smaller yet still sizable percentages—76 percent of counties and 84 percent of cities—reported having established a homeland security network with officials in the federal government.<sup>167</sup> It would thus appear that, if developments in Florida are any indication, substantial progress has been made in fostering network arrangements in the area of homeland security. Within these networks, bonds between local officials and state government are at this point stronger than bonds between local officials and government at the federal level.

Although governments at all levels are better prepared for terrorist threats than they were in 2001, the general public's level of awareness and information leaves much to be desired. Only 20 percent of Americans are familiar with their state or local government's plan for a terrorist attack, and only 37 percent have worked out arrangements with family members and friends for responding to an emergency.<sup>168</sup> When asked how they would respond to a terrorist attack, Americans offer a wide variety of answers. This variety suggests that the public's response to actual terrorist attacks is unpredictable and difficult to manage from a governmental point of view.

A key problem is that, politically, it is difficult for politicians to talk about **mitigation and recovery**, as opposed to prevention. Although it is impossible for politicians to reduce to zero the threat of another terrorist attack, many citizens naively expect them to do exactly that. To even talk about how to respond to a massive terrorist attack strikes many citizens as defeatist. Until such attitudes change, politicians are likely to do most of their planning for mitigation and recovery behind the scenes, rather than engaging the general public.<sup>169</sup>

In fact, bureaucracies have done little to educate citizens about proper preparations for and responses to an emergency. Bureaucracies have improved the government's standard operating procedures, but they have not adequately assisted ordinary citizens in developing their own, equally important standard operating procedures. Without stronger, sustained public education efforts across the nation, the next massive terrorist attack on U.S. soil may find well-prepared public officials but poorly prepared citizens.

The mobilization of interest groups has implications, often not for the better, for decisions that are made in some areas of homeland security. Consider the allocation of **homeland security grants**. These grants are federal funds awarded to states and localities to shore up port security, protect critical infrastructure, equip and train first responders, and so forth. At times, these funds are allocated with an eye more toward constituency considerations than objective need. For example, Congress has in some contexts decreed that no state shall receive less than 75 percent of the average per capita grant allotment.<sup>170</sup> As a result of this decree, there are documented instances of smaller states receiving far more funding per capita than larger states with a preponderance of terrorist targets. In one such case, New York and New Jersey, which together handle 12 percent of the nation's cargo, received only 1 percent of the federal funds available for port protection.<sup>171</sup> This pattern is consistent with Congress's usual preference for distributing funds across many states and localities as a way of maximizing political support for federal programs.<sup>172</sup>

Even DHS officials concede that homeland security grants have not always been well spent. Chip Fulghum, Chief Financial Officer for DHS, puts it this way: "Right after 9/11, the spigot got turned on and a fire hose of money poured out. Much of it was badly monitored and much of it was for stuff that just didn't work."<sup>173</sup>

Competition for homeland security grants has become a rather fierce business. In the years following the September 11, 2001, attacks, government **outsourcing** on homeland security increased by \$130 billion.<sup>174</sup> A particularly controversial example of this type of network arrangement occurred in 2006, when it was revealed that Dubai Ports World, a firm controlled by the government of the United Arab Emirates, had come into position to run ports in New York, New Jersey, Philadelphia, Baltimore, Miami, and New Orleans.<sup>175</sup> Opponents argued that it would not be appropriate for this kind of authority to be given to a country that has "historically been used as a base of terrorist operations and financing."<sup>176</sup> Proponents countered that the decision had been approved by the Federal Bureau of Investigation and the Departments of Commerce, Defense, Homeland Security, and the Treasury. In the end, the transfer of authority never took place, as Dubai Ports World bowed to political pressure and transferred all of its U.S. operations to an American company.<sup>177</sup>

This episode illustrates two important points about homeland security and the war on terror as they are likely to be carried out in the years ahead. The first point is that public bureaucracies will surely retain primary, day-to-day responsibility for making decisions on everything from advance planning to first response to tactical operations. The second point is that the bureaucracy's bosses and clients will continue to use their influence and authority to shape bureaucratic decision making, but only in those instances where the political stakes are visibly elevated. Together these insights mean that it will not always be easy to assign credit and blame for homeland security successes and failures. All such efforts should naturally start with the bureaucracies of the executive branch, yet it must also be recognized that these agencies function as part of a larger political system that itself is subject to various, often contradictory, outside impulses.

The broader challenge for public officials who seek to assess the performance of DHS and, more broadly, the war on terror, is that it's extremely difficult to specify with any precision the number of terrorist threats averted and the number of lives saved. For example, we can say that the Transportation Security Administration seized 2500 guns in carry-on luggage in 2015 and that 83 percent of these guns were loaded.<sup>178</sup> But we can't say whether any of those guns, if not confiscated, would have led to a hijacking attack. An additional problem, as noted earlier, is that the nature of the terrorist threat has undoubtedly changed since September 11, 2001, with a growing emphasis on "lone wolf attacks" and with the frightening specter of a "dirty bomb" or a chemical attack looming ominously over the horizon. One thoughtful observer sums up the current state of events in this way: "Are we safer? Yes, we're safer from the kind of orchestrated attack that shocked us ... It's harder for terrorists to get into the country, and harder for them to pull off something spectacular if they do. But we have not plugged some of the most threatening security gaps ... Our defenses are far stronger, but what we have to defend against has outpaced our progress."<sup>179</sup>

## Avian Influenza: A Crisis in the Making?

On June 4–6, 2004, an international agricultural conference held in California drew speakers and participants from all over the world. Unknowingly, some presenters were ill from a strain of avian influenza (also called “bird flu”) and, during the course of the proceedings, transmitted the virus to other attendees. Within days, the news media were issuing reports of a sudden flu outbreak that had infected large numbers of people and had even resulted in some deaths. Health departments across the state were ordered to open mass clinics as a means of delivering a newly developed avian flu vaccine to all residents.

We can all be thankful that this scary-sounding series of events never actually occurred. Rather, the Health Department of Yolo County, California, created this mock scenario for a flu vaccination drill that it carried out on June 10, 2004, in collaboration with other government agencies, the local Red Cross chapter, community health care institutions, and individual volunteers.<sup>180</sup> Drills such as this are one element, along with monitoring, scientific research, and economic and policy forecasting, of an overall preparation strategy for a public health catastrophe that has yet to come, but one day might very well affect the lives and livelihoods of millions of Americans.

The possibility of an avian flu pandemic, an outbreak of global proportions, is salient today in large part because of the ongoing spread of the **H5N1 virus**. H5N1 is a particularly virulent strain of avian flu that, since 2003, has infected 856 people around the world, killing 452 of them.<sup>181</sup> As Table 6.3 indicates, none of the reported cases have occurred in the United States. Nor has the virus thus far been detected in domestic poultry stocks. These conditions, however, are potentially at risk of deteriorating rapidly, given the ease of international travel and the fact that H5N1 is continually being carried to far-off locations by migratory birds.<sup>182</sup>

For H5N1 to spawn a pandemic, the virus would have to evolve from its current form, in which it can readily spread from an infected bird to a person but not from one person directly to another. If the virus were to acquire this latter ability, the results could be catastrophic, as humans possess little natural immunity to such mutated strains of influenza. Extrapolating from past pandemics, the Department of Health and Human Services estimates that somewhere between 200,000 and 2 million Americans would lose their lives, with tens of millions more suffering nonfatal illnesses.<sup>183</sup> In addition to these staggering losses, H5N1 has the potential to cause severe economic dislocations, impacting activities and industries as diverse as “travel, trade, tourism, food, consumption and eventually, investment and financial markets.”<sup>184</sup>

Clearly, an **avian influenza pandemic** would provide public bureaucracies with a host of disaster management challenges. What is less certain is just when such an outbreak might occur, as well as whether H5N1 is in fact the strain most likely to mutate into a human virus. Indeed, in 2015–2016, **Zika**, a mosquito-borne virus that can be transmitted from person-to-person through sexual activity, traveled quickly from South America to the United States, infecting thousands and causing several deaths.<sup>185</sup> As one scientist summed up the uncertainty of the spread of H5N1, “There’s no sense of ‘imminence’ here.... The virus could move closer to human-to-human transmission, and it could move farther away.”<sup>186</sup>

When it comes to this disaster that has not yet happened, government officials thus find themselves in a difficult spot. On the one hand, if officials overestimate the likelihood of an H5N1 pandemic, they run the risk of misallocating valuable emergency preparedness resources, resources that could be utilized more effectively in getting ready for other prospective crises. In addition, by drawing extensive public attention to a crisis that does not in short order manifest itself, officials could unwittingly cast themselves in the role of Chicken Little, desensitizing citizens to dangers in public health and other important areas of collective concern. On the other hand, if the threat of an H5N1 outbreak is too steeply discounted, officials might find themselves woefully unprepared when poultry and people suddenly begin to exhibit symptoms in large numbers.

**Table 6.3** Confirmed Bird Flu Cases and Deaths

Country	Number of Cases	Number of Deaths
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Egypt	356	119
Indonesia	199	167
Vietnam	127	64
Cambodia	56	37
China	53	31
Thailand	25	17
Turkey	12	4
Azerbaijan	8	5
Bangladesh	8	1
Iraq	3	2
Pakistan	3	1
Laos	2	2
Canada	1	1
Djibouti	1	0
Myanmar	1	0
Nigeria	1	1
Total	856	452

Source: "Cumulative Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO," World Health Organization, [http://www.who.int/influenza/human\\_animal\\_interface/2016\\_10\\_03\\_tableH5N1.pdf?ua=1](http://www.who.int/influenza/human_animal_interface/2016_10_03_tableH5N1.pdf?ua=1), accessed October 26, 2016.

## National Strategy for Pandemic Influenza

More than a decade in the making, a national strategy for anticipating and responding to an influenza pandemic was announced by the Bush administration on November 1, 2005, and was followed, six months later, by the release of an accompanying **implementation plan**.<sup>187</sup> The strategy lays out three guiding principles—preparedness and communication, surveillance and detection, and response and containment. When it comes to implementing these laudable principles, the plan tasks the Department of Homeland Security with coordinating the overall federal effort, while placing the Department of Health and Human Services in charge of medical readiness and management. The primary responsibilities of the federal government are limited to working with international authorities; procuring and distributing vaccines and antiviral medications; modifying laws and regulations as needed; and offering guidance to states, localities, and other organizations. For their part, state and local governments are charged with managing both the medical and nonmedical impacts of the avian flu within their jurisdictions over the many months an



outbreak is projected to last. This arrangement means that the “center of gravity” before and during a pandemic will be located not in Washington, D.C., but in communities all around the country.<sup>188</sup>

After its release, a number of the plan’s features came under criticism. By fragmenting authority across agencies and failing to empower a single, national leader on matters of avian flu preparation and response, the plan runs the risk of producing, as Newt Gingrich has put it, little more than “confusion, finger-pointing and neglect.”<sup>189</sup> In addition, most state and local health departments are poorly equipped to carry out their designated responsibilities, such as instituting quarantines, delivering vaccines, and providing medical care to those who become sick.<sup>190</sup>

The private sector may also be an unreliable partner for the federal government. In the area of vaccines, domestic manufacturing capacities are rather limited, which would make it difficult for drug companies to bring a newly developed pandemic treatment to the market in short order.<sup>191</sup> To make matters worse, a dispute between the Bush administration and congressional Democrats resulted in the United States falling well behind other nations in stockpiling Tamiflu, an antiviral drug that is known to be efficacious when taken shortly after the onset of flu-like symptoms.<sup>192</sup> Despite these initial difficulties, by 2009 the federal government had procured 50 million courses of Tamiflu.<sup>193</sup> The accumulation of this stockpile, although certainly a welcome development, brought with it a new challenge for government decision makers, namely, the crafting of a strategy for safely disposing of millions of courses of Tamiflu that have gone unused and have reached their expiration dates.<sup>194</sup> In 2016, the Food and Drug Administration approved the first generic version of Tamiflu, with the expectation that other generics would soon compete for market share in the lucrative flu-fighting industry.<sup>195</sup>

The **National Strategy for Pandemic Influenza** was put to an unanticipated test when, in April 2009, the **H1N1 virus** was detected in the United States. H1N1 is a strain of swine flu that had never previously been identified in either animal stocks or human beings.<sup>196</sup> First observed in a ten-year-old living in California, H1N1 quickly spread across the country, eventually infecting an estimated 43 million to 89 million Americans.<sup>197</sup> According to the Centers for Disease Control and Prevention (CDC), as many as 20,000 deaths were ultimately attributable to the virus.<sup>198</sup>

Within two weeks of the initial case, the federal government declared a **public health emergency**.<sup>199</sup> Consistent with this statement and the national strategy’s implementation plan, the CDC began releasing stockpiled supplies of antiviral drugs and protective equipment such as masks, gloves, and gowns.<sup>200</sup> By the fall of 2009, President Obama ratcheted up the government’s response by declaring that the swine flu outbreak constituted a **national emergency**.<sup>201</sup> This additional declaration enabled state and local officials to establish special facilities, such as clinics located in school gymnasiums, for treating swine flu victims.<sup>202</sup> The national emergency declaration also facilitated the disbursement of swine flu vaccinations that had been approved after successful clinical trials. Initially, demand far outstripped supplies, resulting in criticisms that the Obama administration was slow in delivering essential protections to vulnerable groups such as children and pregnant women. By December, however, tens of millions of doses had been administered and swine flu vaccinations were made available to the entire population.<sup>203</sup>

In calibrating its response to the swine flu outbreak, the Obama administration relied heavily on the national strategy that had been developed during the presidency of George W. Bush. As President Obama stated, “I think the Bush administration did a good job of creating the infrastructure so that we can respond.”<sup>204</sup> The president’s sentiment was echoed by House minority leader John Boehner, R-Ohio: “I have no complaints about how they’re proceeding.”<sup>205</sup>

Although such bipartisan praise and cooperation is reassuring, the national strategy has not yet been put to its most demanding test. An outbreak of H5N1 avian influenza would differ from the swine flu experience by orders of magnitude in its public health, economic, and social consequences. In what follows, the book’s four theoretical perspectives are utilized to assess the areas of preparation and response where bureaucratic success stories, as well as government failures, are most likely to be manifested in the event of an H5N1 outbreak.

## Using the Theories to Forecast

An avian flu pandemic would appear to be a case ripe for an application of the logic and lessons of bounded rationality. On the one hand, bureaucratic decision makers might very well know their preferences—to minimize the likelihood of an H5N1 pandemic and to contain illness, death, and harmful economic consequences were such a pandemic to occur. On the other hand, decision makers will likely find it extremely difficult to consider all or even most applicable prevention and response strategies, and will likely have an even harder time anticipating the outcomes that will follow from various policy choices. Satisficing, in other words, is more likely to be an apt descriptor of bureaucratic reasoning than is optimization.

As discussed in Chapter 2, satisficing has a lot to offer as a mode of decision making, in that it allows for quick actions that are often either close to right or right on target in their intended effects. Nevertheless, satisficing does at times lead to off-the-mark decisions and therefore has the potential to produce disastrous results when the stakes are extraordinarily high, as in the context of the H5N1 virus. With these possibilities in mind, what are some of the ways in which boundedly rational processes are being used in preparing for an avian flu pandemic?

One key element of bounded rationality is problem disaggregation, the breaking down of complex challenges into their component parts. Such disaggregation is evident throughout the national strategy. Not only does the plan, as highlighted earlier, call for three distinct conceptual focal points, it also disaggregates in terms of specific activities and functions. The plan lays out more than 300 actions that are to be taken or have already been implemented by the federal government. Examples of these actions include establishing surveillance capacity in at-risk countries, developing standards for the isolation and quarantine of travelers, assembling vaccine stockpiles adequate to immunize millions of Americans, and providing guidance to law enforcement officials at the state and local levels.<sup>206</sup>

One advantage of problem disaggregation is that it opens the door for bureaucracies to conduct simulations and tests in areas of specific responsibility. The Yolo County Health Department focused its avian flu exercise on a handful of discrete tasks, including the delivery of mock vaccinations to several hundred volunteers within a short period of time.<sup>207</sup> The department did not concern itself at all with larger issues surrounding the development, manufacturing, and distribution of these vaccinations, duties that clearly fall outside its immediate domain. With such a narrow focus, the department was readily able to evaluate the lessons, both positive and negative, that were learned from the drill. On the positive side, participants gained confidence with respect to the roles they would be called upon to play in the event of an actual avian flu outbreak. Conversely, the department discovered that its incident command center did not operate very effectively and that its control measures were inadequate for containing the spread of the virus.<sup>208</sup>

No matter how laudable, the department's simulation may ultimately be irrelevant if avian flu vaccinations never make it to Yolo County. This failure is a distinct possibility because of the current state of the domestic vaccine industry. Pharmaceutical companies, which collectively constitute one of the most powerful organized interests in contemporary American politics, have shied away from increasing their vaccine manufacturing capacities, primarily because of their concerns about liability and profitability.<sup>209</sup> During the 2003–2004 flu season, one of these companies, Wyeth, exited the market rather than incurring the required costs of upgrading its facilities.<sup>210</sup> And manufacturing pandemic vaccines is even more economically challenging than bringing seasonal vaccines to market. Because of the population's lack of prior exposure to viruses such as H5N1, pandemic vaccines typically require multiple doses that are higher in content than seasonal vaccines.<sup>211</sup> It is no wonder, then, that only a handful of companies have contracts with the Department of Health and Human Services to produce pandemic vaccines.<sup>212</sup> In 2013, to address this deficiency, the Department of Health and Human Services awarded four pharmaceutical companies contracts totaling \$40 million to establish a manufacturing network capable of increasing influenza vaccine production by twenty percent.<sup>213</sup> In general, reluctance on the part of the pharmaceutical industry has led some public health experts to call for an abandonment of the existing private sector system in favor of a government-led initiative, modeled perhaps after the World War II-era Manhattan Project that produced the atomic bomb.<sup>214</sup> As highlighted in Chapter 4, it would take entrepreneurial behavior on the part of such experts, along with

similarly inclined officeholders, to impose concentrated costs on the drug industry in order to deliver potential benefits to a diffuse set of millions of Americans.

Questions surrounding the division of responsibility between the federal government and other public and private entities can be considered through the lens of principal-agent theory. This approach is particularly relevant in the context of the delegation of policymaking and implementation authority to state and local governments. In addition to Yolo County's successful avian flu simulation, governments in cities such as Seattle and New York have made significant progress in pandemic planning, and effective action that saved dozens of lives was taken during the H1N1 pandemic by state and local health departments in Ohio.<sup>215</sup> Despite these success stories, it is nevertheless the case that the vast majority of local health departments remain ill-prepared to exercise their delegated authority in a reasonable manner.<sup>216</sup> These collective shortcomings might well be viewed as manifestations of adverse selection, with a principal (the federal government) selecting agents (local health departments) that are generally not well suited for the tasks at hand.

As discussed in Chapter 3, a common solution to the problem of adverse selection is for principals to screen agents carefully before delegating responsibilities. Unfortunately, the federal government has little choice in the matter because local health departments face little, if any, competition in their areas of jurisdiction. What this lack of competition suggests is that agency loss, here visible through poor planning and response on the part of local health departments, will be inherently difficult for the federal government to mitigate in a serious way.

When it comes to networks, many interagency, intergovernmental, and public-private arrangements are reasonable candidates for theoretical scrutiny. Arguably, the most important network arises out of the allocation of pandemic flu authority across multiple agencies of the federal government. In addition to the aforementioned duties of the Department of Homeland Security and the Department of Health and Human Services, at least six other agencies—the Departments of Agriculture, Defense, Labor, State, -Transportation, and the Treasury—have jurisdictional responsibilities -enumerated in the implementation plan of the National Strategy for Pandemic Influenza.<sup>217</sup>

Although such a division of authority is natural in the face of a multidimensional threat like the H5N1 virus, it immediately raises difficulties regarding cross-agency coordination and the manner in which policy disagreements are aired and resolved. Cognizant of these difficulties, officials who drew up the plan placed the secretary of homeland security in charge of the federal government's overall response to an avian flu pandemic. These policymakers also established a process for dealing with issues that cannot be successfully addressed at the departmental level. This process involves two organizations located inside the Executive Office of the President—the Homeland Security Council and the National Security Council.<sup>218</sup>

On the surface, cabinet-level and White House attention to the most pressing and stubborn problems in the area of avian flu preparation and response would appear to be exactly what is needed. A closer look, however, reveals that the key officials and organizations involved have -portfolios extending well beyond the H5N1 virus. The day-to-day war on terrorism consumes much of the time and energy of these policymakers, a fact that might well have the impact of diluting coordination and decisiveness when it comes to an avian flu pandemic. As noted in Chapter 5, without vigorous and sustained leadership, interagency networks are not likely to be especially effective in achieving their core tasks. One promising sign in this regard occurred a few years ago at an H1N1 Influenza Preparedness Summit that was held by the federal government. One of the opening speakers at the summit was John Brennan, President Obama's homeland security advisor and the head of the Homeland Security Council.<sup>219</sup> Brennan's presence suggests that leadership resources may indeed be forthcoming during an avian influenza outbreak, resources that are vital in mobilizing the federal government's sprawling pandemic policymaking and implementation network. Similarly, in 2016, President Obama requested a congressional appropriation of \$1.9 billion to combat the Zika virus.<sup>220</sup> The fact that this request occurred shortly after the World Health Organization declared Zika to be a Public Health Emergency of International Concern was a sign of fast and decisive leadership at the top of the nation's public health network.

In sum, the possibility that the H5N1 virus might mutate into a strain of pandemic influenza presents public bureaucracies in the United States with a host of accountability and performance challenges. This public health crisis in the making would seem to call for an aggressive federal planning effort, much like previous bureaucratic initiatives

that resulted in the detonation of the atomic bomb and other successful responses to prospective dangers. At the same time, an avian flu pandemic would be the ultimate localized disaster, with its effects being felt in neighborhoods, schools, and workplaces throughout the country.

As our theoretical consideration of the avian flu case has demonstrated, there have been bureaucratic success stories in terms of both coordinated action and independent preparations. Boundedly rational actors at the federal and local levels have utilized techniques of problem disaggregation and simulations as ways of beginning to understand the scope and complexity of the problem they may one day confront. Nevertheless, if an avian flu pandemic were to strike the United States sooner rather than later, it is almost certain that bureaucracies at all levels of government would quickly be overwhelmed. At first glance, this verdict may read like an indictment of the bureaucracy. It bears emphasizing, though, that institutions throughout government, civil society, and the economy would find themselves in much the same situation, responding to a crisis that naturally stretches organizational capacities like few other disasters the world has experienced.

## Evaluating Bureaucracy in Light of the Theories

At the outset, we noted that emergency situations pose greater challenges for public bureaucracies than do ordinary decisions made under routine circumstances. We also observed that the theoretical perspectives provide us with four vantage points from which to think systematically about the management of major disasters. Along the way, we have encountered examples of strong bureaucratic performance, as well as instances in which agencies have taken courses of action that leave much to be desired. We have also argued that some agency successes and failures emanate from pressures external to the bureaucracy, such as directives from political principals and claims raised by societal clients. Our final task, then, is to look for general patterns that come out of the experiences of Hurricane Katrina; the *Deepwater Horizon* oil spill; the September 11, 2001 terrorist attacks; and the H5N1 avian influenza. What, in the broadest sense, have we learned about bureaucracy and the politics of disaster management?

Five particular lessons stand out. The first is that simulations and tests are likely to be crucial elements in planning for and responding to disasters of all varieties, given the unusual nature of especially large crises, both natural and those caused by human error or intent. Hurricane Pam and the Yolo County vaccination drill provided valuable information to first responders as well as to organizational supervisors. In the end, though, what matters are the concrete ways in which new information is used once the enthusiasm generated by a test fades away. In the case of New Orleans and the Gulf Coast, unfortunately, even a well-conceived simulation did not lead to needed changes in preparation and response protocols.

Second, communications, both horizontal and vertical, are crucial in preventing and reacting to disasters. Communication failures of both kinds are revealed when we consider the September 11, 2001 terrorist attacks. Well in advance of the attacks, intelligence officers in multiple agencies uncovered evidence that Al Qaeda operatives were learning to fly various types of airplanes. These disparate pieces of information, however, were hard to assemble across a bureaucracy characterized by long-standing organizational boundaries and even rivalries. Once the hijacked airliners had struck their targets, police, fire, and rescue supervisors found it difficult, if not impossible, to keep in touch with their subordinates inside the World Trade Center, although, for a variety of reasons, communications were better at the Pentagon.

Third, centralized networks appear to be a plus when it comes to managing disasters. As discussed earlier, no one agency or small group of agencies is likely to possess the personnel or the mandate to truly lead when it comes to making emergency preparations and responding to crises as they occur. Even if networks are not already in place prior to a disaster, such organizational arrangements are likely to emerge naturally in the immediate aftermath

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of the event. In this kind of environment, centralization is a commonly called for, if not always realized, component of disaster networks. It was conspicuously lacking in the years, months, and days preceding and immediately following the blowout of the Macondo well. Similarly, the lack of centralization in planning for an H5N1 pandemic has led observers to worry about the sustainability of the bureaucracy's attention to what could turn out to be a disaster of historic proportions.

Fourth, political principals and societal clients sometimes help but often hinder the bureaucracy's ability to plan for and respond to emergency situations. The threat that Osama bin Laden and his terrorist network posed to the United States was well known among elected officials all the way up to the president many years before the September 11 attacks. These officials, however, failed to take a number of steps that experts agree would have been useful in reorienting the bureaucracy away from conventional, Cold War–era modes of operation to approaches more appropriate in the face of a new, very different type of threat. In the Gulf of Mexico region, economic interests pressured for continued expansion in shipping, tourism, and energy exploration, even when such growth came at the expense of valuable natural buffers that would have protected New Orleans and other low-lying areas from storms and oil slicks that everyone reasonably anticipated and feared.

Finally, as these last statements indicate, the level of death and destruction associated with major disasters is a function of not only the immediate event itself but also the forces that operate over the long run. If the H5N1 virus ever mutates into a global health crisis, its personal and economic toll will be determined in no small part by preparations that are under way now and have been for many years. These preparations include steps being taken by innumerable individuals and organizations here in the United States and around the world. With such a diverse cast of characters, it is naturally rather difficult to sort out cause-and-effect relationships, to associate particular outcomes with actions that were, or were not, taken by specific actors. This inherent interconnectedness signals just how hard it is to evaluate bureaucracies that are operating inside larger political systems.

The four theoretical perspectives have been extremely useful in unpacking these types of complex problems. The theories have pointed to processes and institutions that are especially crucial to consider when we try to understand certain decisions and outcomes. The theories have also provided useful criteria by which to judge decision makers, criteria that are linked to well-established social scientific benchmarks. In the end, the theories have painted what we think is a realistic portrait of bureaucratic accountability and performance under some of the most difficult circumstances in which public servants find themselves.

## Key Terms

across-the-board standards,

all hazards approach,

Al Qaeda,

avian influenza pandemic,

berms,

booms,

BP,

Bureau of Ocean Energy Management, Regulation, and Enforcement,

Bureau of Safety and Environmental Enforcement,

chain of command,

civil liberties,

color-coded threat level system,  
Counterterrorism Security Group,  
Deepwater Horizon,  
Department of Homeland Security,  
Director of National Intelligence,  
elevated (threat),  
emergency communications systems,  
Federal Emergency Management Agency,  
first responder,  
Gulf Coast Claims Facility,  
H1N1 virus,  
H5N1 virus,  
Halliburton,  
homeland security grants,  
Hurricane Katrina,  
Hurricane Pam,  
imminent (threat),  
implementation plan,  
incident command,  
Macondo well,  
Michael Brown,  
Minerals Management Service,  
Mississippi River Gulf Outlet,  
mitigation and recovery  
National Commission on Terrorist Attacks Upon the United States,  
National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling,  
national emergency,  
National Response Plan,  
National Strategy for Pandemic Influenza,  
National Threat Advisory System,  
negative-pressure test,  
no-bid contracts,  
Office of Natural Resources Revenue,  
offshore royalty revenues,

outsourcing,  
President's Daily Brief,  
public health emergency,  
stovepipe structure,  
Transocean,  
United Nations weapons inspectors,  
USA PATRIOT Act,  
vertical communications,  
weapons of mass destruction,  
Zika virus,

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