

ACCOUNTABILITY AT FEMA: IS QUALITY JOB #1? OCTOBER 20, 2011

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Mr. Chairman, I am honored to have been invited to testify before you on the current accountability and performance of the Federal Emergency Management Agency (FEMA).

I am a vice president at the Mercatus Center at George Mason University. My work there over the last fifteen years has focused on advancing the principles of transparent and accountable government at the state and federal level. During my time as an elected member of the New Zealand parliament and a member of the New Zealand cabinet, the government implemented a series of reforms that dramatically increased the government's transparency and resulted in better government, heightened prosperity, and improved public approval ratings for government organizations. This philosophy also informs work at the Mercatus Center which strongly advocates reforms that make government more open, transparent, and accountable to the people.

The research done at the Mercatus Center at George Mason University over the last fourteen years shows a very strong linkage between high levels of transparency, quality performance information, and improved decision making. This research has also shown a direct link between transparency and accountability: in the absence of transparency, there can be no accountability.

However, the effectiveness of transparency mechanisms is very dependent on the quality of the performance information produced. If the wrong measures of performance are used, then the whole system of accountability fails. For performance information to be effective, the information produced must enable decision makers to easily and accurately develop an informed opinion of the state of affairs in the subject area under consideration.

Federal Emergency Management Agency (FEMA) has been the object of our research on two major occasions. The first study, *Learning from the Leaders: Results Based Management at the Federal Emergency Management Agency*, was published by Dr. Jerry Ellig in March of 2000. The second, *The Impact of FEMA on US Corruption: Implications for Policy*, was published by Dr. Peter T. Leeson and Dr. Russell Sobel in January 2007. These studies are respectively attached as appendices to this testimony.

FEMA'S RECOVERY

In 2000, the Mercatus Center looked at 23 CFO Act agencies that had been plagued by poor performance, seeking to ascertain whether, out of those 23 failing agencies, there was one that reformed itself into an effective, high-performance organization. After much study and discussion with various government organizations, the research team narrowed down the field to two: FEMA and the Veterans Health Administration (VHA). Many factors led to identifying VHA and FEMA as extraordinary turn-around agencies, but the one I want to concentrate on is leadership. Both James Lee Witt at FEMA and Dr. Ken Kizer at VHA were leaders who had very clear visions of what they were trying to achieve and the courage and determination to implement those visions. In the end, Dr. Ellig chose to make FEMA the focus of his study.

In 1990, FEMA

- took 12 to 13 weeks to settle some claims;
- was mainly reactionary with no long-term risk strategy; and
- was the worst agency in government. Congress talked of disbanding the agency.

In 2000, FEMA

- took five to eight days to settle claims;
- had made risk mitigation a major feature of its strategy; and
- was one of the best agencies in government, with zero managerial controversy.

James Lee Witt's philosophy that "our job is to put back together the lives of individuals, families, and communities as quickly as possible after disaster has struck" had permeated the agency, driving managerial reforms throughout the organization and FEMA remarkable recovery.

FEMA'S RELAPSE

So what happened to FEMA in the 2000s? Why did this once highly successful and responsive agency conduct such a notoriously poor response to Hurricane Katrina?

Following the Hurricane Katrina disaster, the Mercatus Center undertook a major research project that focused on the Gulf Coast's recovery from Katrina. The project considered the responses of differing parts of a society to a disaster to understand what societal mechanisms were best at achieving recovery.

One of the major findings of that project was that recovery efforts directed through existing local structures like voluntary groups and civic organizations were more effective than recovery efforts initiated at the federal or even state level probably as the result of better local knowledge. It is extremely difficult for outside organizations to comprehend or acquire local knowledge, the awareness of and appreciation for the cultural mores, leadership, trusted organizations, and informal networks essential to the successful operation of a society. Which may be why, in the early stages of the disaster, FEMA tended to use a command and control approach rather than a cooperative approach utilizing local existing structures. However, greater use of existing social structures would probably have significantly reduced the level of abuse that occurred.

The Leeson and Sobel study is part of the Mercatus Center project, and it is important when reading this study to recognize that it does not accuse FEMA of corruption. What the study says is that, in distressed situations, dispensing large quantities of cash provides the opportunity for corrupt activity. In a disaster recovery situation, if the corruption activity becomes significant, it will then have long-term adverse effects on the recovery and future economic growth.

FEMA, therefore, has to walk a fine and difficult line between achieving the Witt goal of rapid recovery and the goal of financial prudence. There is no magic solution for this problem. However, lessons can be learned from the Witt era, one of which is that excessive oversight did not diminish the error rate when making relief payments. In fact, removing multiple levels of oversight and trusting and acting on the recommendations of assessors in the field dropped the error rate by some 20% while significantly improving the speed of settlement.

NOT EVERYTHING IS AN EMERGENCY

FEMA's name identifies it as the Federal Emergency Management Agency; given current fiscal constraints on the government, it might be time to look at the interpretation of the word "emergency." A wet and windy day does not constitute an emergency, yet there seems to be a constant stream of requests of FEMA that require some stretch of the imagination to define them as events that fall outside the purview of state and local government response.

Apart from the fiscal cost to the federal budget, other risks that arise if FEMA becomes the first responder to normal adverse events. For example, deterioration in risk mitigation is a natural response from state and local governments to the cost of having to fund recovery from these events. As Dr. Ellig finds in his FEMA study, James Lee Witt achieved \$2 in recovery savings for every \$1 spent on risk mitigation. These dollar savings were only part of the success of not having your house destroyed by an adverse climatic event is far superior to being compensated for its destruction. As Leeson and Sobel identify, the cost of unintended

consequences can be considerable, so the federal government's assuming responsibility for what should be state or local responsibilities may be a mixed blessing.

CONCLUSIONS

Fortunately there are some things FEMA can do to again become a successful agency.

- FEMA should realize it has a recent role model for being a successful organization: it just needs to relearn the lessons of the 1990s.
- FEMA must recognize that unintended consequences are a high risk factor in FEMA operations. There needs to be a deliberative managerial approach to identifying these risks and mitigating against them.
- Finally, FEMA needs to appreciate that while "emergency" does mean urgent and unexpected, an emergency event appropriate for FEMA intervention must be one that the state and local level cannot manage.

I thank the committee for the opportunity to testify and offer any further support the committee may request.

LEARNING FROM THE LEADERS:



Results-Based Management at the Federal Emergency Management Agency

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March 29, 2000

FOREWORD

The past two decades have seen significant change in voter expectations from government. Citizens want their governments to deal more effectively with pressing problems, while using the same or fewer resources.

The Mercatus Center launched its Public Sector Leadership Project in 1997 to help federal agencies meet this challenge. One goal of the project is to identify exemplary agencies that have taken the lead in clearly stating their missions and improving their performance. By providing in-depth case studies of successful agencies, the Mercatus Center hopes to spotlight the kinds of managerial changes necessary to promote dramatic performance improvement.

EXECUTIVE SUMMARY

The Federal Emergency Management Agency (FEMA) has won widespread praise for its reinvention efforts. Lawmakers who once talked of abolishing the agency now compliment it. Specific results measures also highlight the agency's success:

In fiscal 1998, FEMA took an average of 8 days to get relief checks to disaster victims, down from 10 days in 1997 and a high of 20 days in 1992.

Between 89 and 97 percent of disaster aid recipients rate FEMA favorably on ease of access, clarity of information, promptness of aid, compassion, and overall quality of service.

State, local, and nonprofit officials who have received disaster aid from FEMA give the agency positive ratings in the 70-80 percent range, exceeding baselines of 60-75 percent.

FEMA's mitigation programs prevent more than \$2.00 in disaster losses for every dollar spent.

Enforcement of the National Flood Insurance Program's building standards prevents flood losses of \$750 million annually.

In fiscal year 1998, between 76 and 87 percent of enrollees in FEMA training courses said they learned things that improved their job performance.

A careful analysis reveals that no single variable explains FEMA's success. Rather, FEMA improved its results through a collection of different but related management reforms. The agency did a number of things right at the same time, and the results for the whole exceeded the sum of the parts. Key factors included:

Mission

FEMA has a clear mission focusing on preparedness, mitigation, response, and recovery for all types of disasters.

The mission is specific enough to guide the agency's reorganization and allow sub-units to develop their own, complementary missions.

The mission is accompanied by objective performance measures, many of which emphasize results rather than activities.

Organizational Structure

Responsibilities of FEMA's sub-units and individual employees are derived from the organizational mission.

A swift reorganization eliminated multiple management layers and moved most senior employees into new positions.

The roles of federal, state, and local governments in disaster management are now clearly defined and well understood.

The Federal Response Plan specifies resources from other federal agencies that FEMA can draw upon and how FEMA can pay for what it uses.

FEMA and its employees have decision-making authority that matches their roles and responsibilities.

While employees' financial incentives are limited, the organization's mission, measures, and recent track record contribute heavily to intrinsic motivation.

Knowledge Systems

A key system for gathering information – the aid registration process for disaster victims – is now computerized, streamlined, and customer-focused.

Some operating procedures that were previously reinvented every time a new disaster hit have been routinized.

FEMA's small size aids in the informal transfer of experiential knowledge.

Organizational Culture

Since 1993, FEMA's culture has changed dramatically, from a formal, bureaucratic culture focused on processes to a less formal, action-oriented culture focused on results.

FEMA has enunciated a list of core values, and there is evidence that the values actually influence behavior in the organization.

Communication Strategy

FEMA has made significant improvements in its communication with Congress, state and local officials, disaster victims, employees, and the news media.

The agency's communication strategy for each of these groups reinforces key elements of the agency's mission.

Leadership

The statements and actions of FEMA Director James Lee Witt – especially his repeated insistence on customer focus -- were crucial in driving organizational change.

These kinds of changes are not only applicable to FEMA. They illustrate general principles that can guide any government agency seeking to transform itself from a rule-driven bureaucracy to a results-driven organization.

FEMA BACKGROUND

The Federal Emergency Management Agency was created by presidential Executive Orders in 1979. Prior to that time, no single agency had been responsible for coordinating federal disaster relief. FEMA's job was to mobilize federal resources and coordinate federal with state and local efforts. The agency trains disaster management personnel, distributes disaster aid, helps people rebuild after disasters, and tries to move people and property out of harm's way before the next disaster strikes.

By federal standards, FEMA is a relatively small entity. It has approximately 2300 full-time employees. In emergencies, the agency can call on 4000 temporary and reserve employees, in addition to volunteers and employees of other federal agencies. FEMA's annual spending varies greatly depending on the number and severity of natural disasters. From fiscal 1992 through 1999, annual appropriations averaged \$4.1 billion.

This small agency's prominence in the U.S. government has grown considerably in the last decade. The Chief Financial Officers Act of 1990 included FEMA in the 24 departments and major independent agencies covered by its ambitious financial management reforms. In 1996, President Clinton elevated FEMA Director James Lee Witt to Cabinet status to emphasize the importance of emergency management and facilitate communication with other federal agencies. And in 1998, Vice President Al Gore's National Partnership for Reinventing Government designated FEMA as one of its 32 "high-impact" federal agencies.

FEMA'S BIG TURNAROUND

Since its reorganization in 1993, FEMA has significantly improved its ability to deal with disasters:

In fiscal 1998, FEMA took an average of 8 days to get relief checks to disaster victims, down from 10 days in 1997 and a high of 20 days in 1992.

Between 89 and 97 percent of disaster aid recipients responding to surveys rate FEMA favorably on ease of access, clarity of information, promptness of aid, compassion, and overall quality of service.

State, local, and nonprofit officials who have received disaster aid from FEMA give the agency positive ratings in the 70-80 percent range, exceeding baselines of 60-75 percent.

FEMA's mitigation programs prevent more than \$2.00 in disaster losses for every dollar spent.

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In fiscal year 1998, between 76 and 87 percent of enrollees in FEMA training courses said they learned things that improved their job performance. (For sources, see Table 2 below.)

FEMA did not always have such an enviable record. In fact, in the late 1980s, the agency was usually the butt of criticism:

Sen. Ernest Hollings (D-SC) characterized FEMA as "the sorriest bunch of bureaucratic jackasses I've ever known" in the wake of FEMA's much-criticized response to Hurricane Hugo in 1989. (Walsh 1998, p. A19)

Sen. Barbara Mikulski (D-MD) complained in 1992, "I am outraged by the federal government's pathetically sluggish and ill-planned response to the devastating disaster wrought by Hurricane Andrew in Florida and Louisiana, which has left many lives in shambles. Time and again, the federal government has failed to respond quickly and effectively to major disasters, and no lessons have been learned from past mistakes." (NAPA 1993, pp. 1-2)¹

Independent studies confirmed that FEMA needed changes. As early as 1985, two Arizona State University researchers noted:

[FEMA] is a creation of an incomplete reorganization designed to centralize the emergency management function. Yet, the centralization is not full or vital (assuming centralization can be effective), and the agency's authority and its relationship to the programs in other departments is unclear. (Mushkatel and Weschler 1985, p. 50)

The National Academy of Public Administration opined in February 1993, "FEMA has been ill-served by congressional and White House neglect, a fragmented statutory charter, irregular funding, and the uneven quality of its political executives appointed by past presidents." A case study by the Council for Excellence in Government stated, "Inheriting 30 political appointees, [FEMA] was regarded in some circles as the 'turkey farm' of the federal government." (Council for Excellence in Government, p. 1) Saundra Schneider, a professor at the University of South Carolina who has published numerous analyses of emergency management, summed up FEMA's problems:

It has no unifying vision of its own activities, it has no agency wide planning or management processes, and it has suffered from ineffective leadership.

Michael Gauldin, who served as President Clinton's press secretary when he was governor of Arkansas, described dealing with FEMA as "a nightmare...The money was always late if it came at all...If anybody came down from Washington, they were these suits who were there to roll over you." (Walsh 1998, p. A19)

¹ These are not the only such comments:

[&]quot;FEMA could screw up a two-car parade," said Rep. Norman Mineta (D-CA) after the 1989 Lomo Prieta earthquake. (Council for Excellence in Government, p. 1)

Moreover, it has not been given the legislative or executive support it needs to perform all of its emergency management responsibilities. (Schneider 1995, p. 156)

Now, FEMA gets compliments even from previously critical officials:

In 1993, Rep. Pete Stark (D-CA) introduced legislation to abolish FEMA. One year later, he withdrew his bill and complimented the agency on its improved performance. (Council for Excellence in Government, pp. 4-5)

Sen. Bob Graham (D-FL) characterized FEMA's response to floods, tornadoes, and fires in his home state as a "180-degree turnaround" from its response to Hurricane Andrew. (Mastering Disaster 1999, p. 2) Florida's director of emergency management agreed, calling FEMA "much more proactive, more sensitive to the consumer, in this case the disaster victim. They have just made a tremendous amount of improvement." California's director of emergency services commented that FEMA "has clearly exorcized the ghost of Hurricane Andrew." (Council for Excellence in Government, p. 4)²

President Clinton perhaps best summarized the agency's turnaround:

When I took office, the National Academy of Public Administration said this about FEMA: "FEMA is like a patient in triage. The President and Congress must decide whether to treat it or let it die." There was even a bill pending in Congress to abolish FEMA. And in 1992, as I traveled the country, I never went to a place that somebody didn't say something disparaging about it. Well, the bill is gone, and it may be the most popular agency in the entire federal government. (Clinton 1994)

How and why did FEMA improve its performance so rapidly, at a time when many federal agencies were still struggling to formulate strategic performance plans? Possible explanations cover a variety of factors, including the inspirational leadership of FEMA director James Lee Witt, use of computer technology, and a shift in mission emphasis from Cold War-era civil defense to natural disasters.

Sen. Tim Hutchinson (R-AR) once claimed FEMA was rivaled only by the Internal Revenue Service as the most disliked federal agency. But after tornadoes hit Arkansas in 1997, Hutchinson said FEMA's response demonstrated "an outstanding turnaround."

When Hurricane Andrew stuck Florida in 1992, the city of Miami's emergency director asked, "Where the hell's the cavalry on this one?" (Schneider 1995, p. 95) But in 1999 she commented, "FEMA didn't have the funding system or the capabilities before Andrew. Now it's like an assembly line...It's just straight-forward." (FEMA 1999c, p. 2.)

David Jones, chairman of the board of supervisors in Madison County, Virginia, called FEMA officials "more frustrating then helpful" when flash floods turned his county into a disaster area in 1995. The following year, both floods and FEMA returned. Jones noted, "They sent a much more professional group of people, and they didn't make promises they couldn't keep...It wasn't perfect, but it was certainly better." (Mastering Disaster 1999, p. 1)

² Other praise for FEMA includes:

A careful analysis, however, reveals that no single variable explains FEMA's success. Rather, FEMA improved its results through a collection of different but related management reforms. There was no "silver bullet." The agency did a number of things right at the same time, and the results for the whole were greater than the sum of the parts. Key accomplishments include changes in FEMA's mission, performance measures, organizational structure, knowledge systems, culture, and communication strategy.

MISSION AND PERFORMANCE MEASURES

FEMA's mission

FEMA's mission, adopted in 1993, is to "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." (FEMA 1997c, p. 5) This mission represents at least three changes from the 1980s.

First, the mission is explicitly stated. Prior to 1993, FEMA had never enunciated its overriding mission. This exacerbated management problems resulting from the way in which FEMA was created. The agency was created by putting under a single name functions from the Department of Housing and Urban Development, Department of Commerce, Department of Defense, Office of Science and Technology Policy, and General Services Administration. However, for its first 14 years of existence, the agency was never really an integrated organization. When the National Academy of Public Administration conducted a study of FEMA in 1992, "One interviewee described FEMA as 'a check-writing agency, an intelligence agency, a social service agency and insurance agency, with a fire administration thrown in." (NAPA 1993, pp. 42-43) The current, explicit mission represents a significant change from that description!

Second, the new mission emphasizes all hazards, which include natural disasters, hazardous spills, war, or terrorism. FEMA's previous mission was somewhat unclear, and some longtime FEMA employees said that the agency was always expected to deal with multiple kinds of hazards. But through the 1980s, the agency seemed largely focused on coordinating the domestic federal response to the emergency conditions created by a nuclear war. (NAPA 1993; Mastering Disaster 1999, p. 2) Between 1982 and 1992, FEMA spent 12 times as much money on preparing for nuclear war than on preparing for natural disasters. (Schneider 1995, p. 153) One 20-year FEMA veteran said, "There are people here I've met in the past five or six years that I'd never met before, because they were always behind locked doors doing contingency planning." With the end of the Cold War, the old mission was obsolete.

Third, the new mission takes a comprehensive approach aimed at finding the lowest cost and most effective ways of preventing loss of life and property. Rather than just responding to disasters and helping people rebuild afterward, FEMA seeks to

promote mitigation activities to get people and property permanently out of harm's way before a disaster occurs.

Mission is specific enough to guide action

The new mission provides clear direction to guide actions, as it names four specific things FEMA does to protect lives and property. The mission actually guided FEMA executives when they reorganized the agency in 1993:

The National Preparedness Directorate, which worked on classified national security operations, was eliminated and its employees moved to other parts of the organization. (Mastering Disaster 1999, p. 2.)

The agency now has five directorates that mirror the mission: Response and Recovery; Mitigation; Preparedness, Training, and Exercises; the Federal Insurance Administration, and the United States Fire Administration. The first three directorates directly parallel aspects of the mission. The remaining two administer legislatively-mandated programs in ways that support multiple aspects of FEMA's mission. The Federal Insurance Administration's flood insurance program aims to speed citizen recovery from floods and promote mitigation efforts that will reduce future losses. The United States Fire Administration encourages preparedness by training local fire fighters and promotes mitigation by educating the public about steps people can take to reduce the risk of fire. (FEMA 1997c, p. 11)

All employees are now expected to take a role in disaster preparedness or recovery operations. (Mastering Disaster 1999, p. 2)

Disaster-related grants to states are now tied directly to FEMA's mitigation, preparedness, response, and recovery mission. (FEMA 1997c, p. 54)

Mission reflects competencies

A key aspect of institution-building is articulation of the organization's special competence and reason for existence. (NAPA 1993, p. 42) A well-designed mission provides that articulation, and FEMA's current mission does so.

A clearly stated mission often reveals that an organization must build or acquire new competencies to fully accomplish its goals. In the case of FEMA, executives found that they already had a corps of experienced, professional disaster managers. The principal thing they needed was not new personnel, but a clear mission, performance measures, and new organizational structure. FEMA achieved positive results in the 1990s with largely the same career staff it had in the 1980s. "We knew our jobs," an employee commented. "It's just the way we were permitted to implement things that made us look like asses."

Mission guides creation of overall performance measures

From its mission, FEMA has developed three strategic goals, supporting objectives, and performance measures. These measures allow employees, customers, Congress, and taxpayers to determine whether FEMA is advancing its mission.

Accurate, results-based measures provide employees with both knowledge and incentives to do their jobs well. Well-crafted measures let employees know where they are doing a good job and where they need to improve. Measures can also motivate better performance, because the intrinsic satisfaction from a job well done is a powerful incentive. This is an especially critical factor in FEMA, because the agency has little ability to use large monetary incentives to reward superior performance.

Measures are also important for FEMA's principal customers, the disaster victims. They help victims plan their own responses to disasters by letting them know how soon they can expect to get various types of assistance and how effective are federal efforts to mitigate disaster damage.

Finally, accurate results measures create an opportunity for rational allocation of taxpayer dollars, because they allow legislators to determine whether the agency is giving taxpayers their money's worth. If all federal agencies produce similarly useful measures, lawmakers will have some objective criteria that they can use to determine which agencies should receive greater funding and which ones should receive less. In the future, agencies that fail to produce informative measures could find themselves at a severe disadvantage in the competition for tax dollars.

Table 1: FEMA Ten-Year (FY 2007) Strategic Goals and Objectives

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Strategic Goal/	Result measure	
Objective		
Protect lives and prevent loss of		
property from all hazards		
Reduce by 10 percent the risk of loss of life	Risk-measurement model under	
and injury from hazards	development by FEMA	
Reduce by 15 percent the risk of property	Comparison of actual losses in	
loss and economic disruption from hazards	communities where mitigation projects	
	have been undertaken against baseline loss	
	data gathered in FY 1999 and 2000	
	20	
	20 percent improvement in state and local	
	emergency management capabilities, as measured by a Capability Assessment for	
	Readiness	
Reduce human suffering and enhance	Readificas	
recovery of communities after disaster		
Reduce by 25 percent human suffering	Percentage of times FEMA and partners act	
from the impact of disasters	within 12 hours on state and local requests	
	for water, food, and shelter	
	, ,	
	Percentage increase in flood insurance	
	policies over 1998 baseline	
	Average length of time to provide	
	assistance checks to eligible individuals	
Increase by 20 percent the speed with	Average length of time it takes for	
which individuals, businesses, and public	states/localities to restore basic public	
entities recover from disasters by	services, vs. 1998 benchmark	
facilitating the restoration of public		
services	Average length of time to deliver assistance	
	to state governments, vs. 1998 benchmark	
	For non-flood disasters, assessment of	
	effects of assistance on lives of victims one	
	year after the disaster occurs	
Serve public in a timely/efficient manner	J	
Improve by 20 percent the efficiency with	Cost and productivity measures in several	
which FEMA delivers its services	major reengineered functions, vs. 1998	
	baseline	
Achieve and maintain 90 percent	Customer surveys	
satisfaction with FEMA services by	-	
internal and external customers		

Source: Federal Emergency Management Agency Strategic Plan (Sept. 30, 1997), pp. 13-39.

Mission guides creation of performance measures for sub-units

FEMA's mission is specific enough to let the agency's directorates create meaningful performance measures. As Table 2 shows, the directorates' performance measures tend to take three forms:

Objective results data. These are direct, observable measures of results. For example, the Federal Insurance Administration seeks to "reduce the burden of flood disasters on the American taxpayer." One way it does this is by using the National Flood Insurance Program to promote stricter building standards for new construction in floodplains. Property owners cannot buy flood insurance unless their local government has enacted building standards developed by the National Flood Insurance Program. FEMA estimates that implementation of these standards reduced flood losses by \$750 million in fiscal 1998. (FEMA 1999a, p. 45)

Surveys and assessments of results. Many of FEMA's results measures are based on customer surveys. Individual citizens and public sector organizations both receive disaster aid, and they are surveyed afterward to assess the quality of information FEMA provided, promptness, ease of access, flexibility, and overall quality of service. Depending on the question, between 89 and 97 percent of individuals give FEMA positive ratings; the numbers show some slight improvement over the past few years. Positive ratings from public sector and nonprofit aid recipients range from 70-80 percent – better than FEMA's baseline for comparison but short of the agency's goal of 80-90 percent.

Two FEMA directorates – Preparedness, Training, and Exercises, and the United States Fire Administration – offer courses for professionals in their fields. Both directorates survey their alumni to assess whether the information in the courses improves their ability to do their jobs. Between 76 and 87 percent of the respondents say they use what they learned in their work. In the case of the United States Fire Administration, surveys of the participants' supervisors reach the same conclusion. This latter type of survey is a clearer and more objective measure of actual results, since it relies on another person's assessment of the change in a participant's abilities.

The Preparedness, Training, and Exercise directorate also reports the results of the Capability Assessment for Readiness, an assessment of 13 state emergency management functions. Between 76 and 93 percent of states possess at least a basic capability in each function. This assessment might not be a clear measure of results, because it largely asks whether states have programs, plans, procedures, and resources in place to deal with disasters. However, about 90 percent of states base their assessment on their actual experience in real disasters, rather than untested plans. (FEMA 1997a, p. 7)

Activity measures. A final category of performance measures collected and reported by FEMA documents activity rather than results. These measures include enrollments in training courses, quantities of educational materials distributed, the number of customer inquiries generated by public relations campaigns to promote flood insurance, and the

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numbers of state governments and businesses that sign up as partners in various FEMA programs. Other activity measures simply report the accomplishment of particular tasks, such as preparation of a strategy, publication of a report, establishment of a task force, or completion of a major training exercise.

By themselves, activity measures provide no guarantee that concrete results will be achieved. But there are two circumstances under which they provide useful, results-related information. The first occurs when activity measures help clarify the significance of more direct result measures. FEMA's training activities, for example, report both the number of students and the responses from post-training surveys. The survey results are much more meaningful because we know how many people took the courses.

The second occurs when the activity measure is arguably a leading indicator of future results. Project Impact provides a good example here. This project seeks to reduce loss of life and property by encouraging communities, businesses, and individuals to retrofit buildings, strengthen building codes, and plan how they will respond to a disaster. In several locations struck by multiple hurricanes in this decade, specific Project Impact initiatives appear to have saved lives and dramatically reduced property damage.³ Given this experience, the number of communities and businesses signed up as partners in Project Impact could be a useful interim measure until future disasters provide a more direct test of the project's effects.

FEMA management appears well aware of the difference between result measures and activity measures. The deputy director of training, for example, noted that it is easy to count attendance at training sessions, but much harder to assess how the training improves people's performance. The training division currently relies largely on informal feedback to gauge how well it prepares FEMA employees to do their jobs, and its internal customers are not shy about saying what they think about the quality of the training.

³ In Wilmington, NC, the Public Safety Communications Tower was rebuilt to be flood and wind resistant. The tower had collapsed during Hurricane Fran, but withstood Hurricane Bonnie several years later. Hurricane Marilyn caused \$750 million worth of insured property losses in the Virgin Islands, but stricter building codes cut the insured losses from Hurricane Georges to \$5 million. (FEMA 1999a, pp. 15-16)

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Table 2: Performance Measures and Measured Performance

Directorate/	Performance	Measured
Program	Measures	Performance
Response and Recovery Individual Assistance	Post-disaster surveys of aid recipients re ease of access, quality and clarity of information, promptness of aid, compassion, overall quality of service.	Favorable responses from 89-97 percent of aid recipients, with slight improvement from FY 1995 to FY 1998.
	Length of wait to receive disaster housing assistance*	Assistance received an average of 8 days after application, down from 10 days in 1997 and a high of 20 days in 1992*
Response and Recovery Public Assistance (Assistance to state and local governments and nonprofit agencies)	Post-disaster surveys of state, local, and nonprofit officials. re consistency and flexibility of FEMA policies, quality of information, administrative burdens, timeliness of aid and overall satisfaction.	Positive ratings from 70-80 percent of those surveyed. These percentages exceed baselines of 60-75 percent, but fail to meet targets of 80-90 percent.
	Percentage of public assistance programs closed out within 2 years of the disaster declaration*	New process used in 18 disasters since it became operational on Oct. 1, 1998; none closed out as of March 1999.*
Mitigation Project Impact	Count the number of communities and businesses signed up as partners in building "disaster-resistant communities"	57 communities in 49 states by the end of FY 1998 500 business partners, including National Assn. of Broadcasters, Fannie Mae, and Associated Builders and Contractors
Mitigation Repetitive Loss Initiative (Flood Insurance)	Actions taken to convene task force on repetitive losses, develop loss- reduction strategy, and report to Congress	Task force convened and produced a study, report sent to Congress, strategy developed

Mitigation*	Cost-effectiveness of	\$2.54 worth of disaster
Mitigation*		1 '
Hazard Mitigation Grant	Hazard Mitigation Grants*	losses are avoided for every
Program		dollar spent on mitigation*
Preparation, Training,	States conduct Capacity	Criteria met or exceeded by
Exercises	Assessment for Readiness, a	76-93 percent of states,
State/local assistance	self-assessment of 13	depending on the specific
	emergency management	function evaluated
	functions	
Preparation, Training,	Measure activities that	FEMA reports various
Exercises	assist states in dealing with	numerical activity and
Hazard-specific programs	hazardous materials	funding measures
Trazar a specyte programs	emergencies, planning for	
	radiological emergencies,	States participating in
	and delivering emergency	Radiological Emergency
	aid to homeless and needy	Preparedness program have
	-	higher Capacity Assessment
	people	for Readiness scores
D (* 75 * *	26	
Preparation, Training,	Measure various training	Various activity measures
Exercises	activities, numbers of	
Training	students, and distribution of	
	information materials to the	
	public	
		3 months after course, 76
	Follow-on surveys of	percent of emergency
	emergency managers who	managers said they had
	took training courses	used the knowledge in their
	_	jobs; only 1 percent said it
		was not applicable.
Preparation, Training,	Conduct exercises, improve	Conducted largest civilian
Exercises	Emergency Management	disaster-response exercise
Exercises	Report System software,	in US history
	and provide technical	
	support	Software compiling
	Support	statistical info on
		emergency management
		exercises was improved

Federal Insurance Administration Flood Insurance	Statistics on sales of flood insurance	Numbers of policies increased by 7 percent from FY 1997 - FY 1998
	Estimates of taxpayer savings due to flood insurance sales and floodplain management Develop strategy to improve solvency of flood insurance program	\$750 million in flood losses avoided due to expanded enforcement of National Flood Insurance Program building standards Studies underway
	Enhance/expand partnerships to promote sale of flood insurance	FEMA activities generated 300,000 phone inquiries and 62,000 leads referred to insurance agents between 1995 and 1998.
United States Fire Administration	Measure training, information dissemination, and data collection activities.	Various activity measures Surveys: 87 percent of enrollees said the training improved their job performance, and their supervisors agreed.

Sources: Items marked with an * are from Federal Emergency Management Agency High Impact Agency Year 2000 Goals Status Report (March 1999), available at http://www.fema.gov/about/goalchart2.htm. All other information is from Federal Emergency Management Agency, Accountability Report for Fiscal Year 1998 (March 1999).

ORGANIZATIONAL STRUCTURE

Management scholars have identified three key aspects of organizational structure that, ideally, should reinforce each other: clearly-defined roles and responsibilities, decision-making authority concomitant with responsibilities, and a performance evaluation and incentive system that rewards people for producing good results. (Brickley, Smith, and Zimmerman 1997; Gable and Ellig 1993) The agency has made more changes in some of these areas than in others.

Clearly defined roles and responsibilities

FEMA's role in emergency management

In the late 1980s and early 1990s, some of FEMA's most significant problems stemmed from confusion about the entire agency's role in the emergency management process. When a disaster occurs, the federal government is not supposed to take over the disaster relief effort; its job is to provide support and resources when state and local governments cannot deal with the disaster on their own. Local officials are supposed to assess needs in their communities and make specific requests for help from their state governments. The governor's office then requests federal help if state resources are overwhelmed. All requests for federal aid are supposed to come through the governor's office.

Many of FEMA's high-profile "failures" occurred because one or more participants did not understand or could not stick to the distinct federal, state, and local roles:

When Hurricane Hugo hit the U.S. Virgin Islands in 1989, it knocked out most communication and transportation facilities. Initially, the territory's governor could not even contact Washington to request a federal disaster declaration. By the time the request got through, looting was so out of hand that the U.S. military had to restore order.

When Hugo landed in South Carolina, the state and federal governments were well prepared to preserve civil order and restore electric power. But officials in many isolated, smaller towns did not know that they had to ask for specific assistance, so they were frustrated when FEMA failed to show up. (Schneider 1995, pp. 102-112) In addition, Sen. Ernest Hollings and Mayor Joseph Riley of Charleston spent a great deal of effort trying to get help from the federal government directly instead of working through the governor's office. (Schneider 1990, p. 107)

When Hurricane Andrew stuck south Florida in 1993, many local officials expected the federal government to take over the relief effort rather than respond to their requests. "The perception of local officials was that they needed 'everything,' while the perplexed reaction of those at the federal and state levels was 'we can't send everything, can you please specify and prioritize?"" (NAPA

1993, p. 28) Gov. Lawton Chiles did not initially request federal troops, because he thought the National Guard would be sufficient to control looting. (Schnieder 1995, pp. 87-101)

When state and local officials understand their own roles and that of the federal government, emergency management goes much more smoothly. When Hugo struck North Carolina and Andrew struck Louisiana, requests for aid flowed smoothly from local to state to federal officials, and there were relatively fewer complaints. Federal handling of the Lomo Prieta earthquake in 1989 got mixed reviews, but here again problems usually occurred in localities whose officials did not do their own damage assessments and initiate requests for help. (Schneider 1995, pp. 113-60) The federal response to the Midwestern floods of 1993 and the Los Angeles earthquake of 1994 generated nowhere near the controversy attached to federal hurricane relief efforts a few years before.

Different results in different circumstances are more than just coincidence. Since 1993, FEMA has heavily emphasized partnerships with other levels of government and the private sector. One result is that officials at different levels better understand the role and responsibilities of the federal government in emergencies. More importantly, state and local officials are now more likely to know precisely what they need to do in order to get federal help.

Roles and responsibilities within FEMA

Within FEMA, the five directorates have clearly-defined areas of responsibility. Three directorates – response and recovery, mitigation, and preparedness and training – directly mirror the major elements of FEMA's mission. The two other directorates established by federal legislation also link their responsibilities with the agency's mission.

When Witt took charge of FEMA, he immediately signaled that a big shakeup was imminent by asking the most senior career employees to switch jobs. Eighty percent of the people in Senior Executive Service positions moved to different jobs. This change ensured that the head of each major area would bring a fresh perspective and new ideas. In addition, it reduced each manager's incentive to react defensively to subsequent changes, since none had a personal stake in defending the way his or her part of the organization had done things in the past. The job switches all became effective on the same day.

Interviews with longtime FEMA employees suggest that, in addition to the job switch, big changes also occurred in the ways that people approach their jobs. We identified two types of changes:

Individuals are more willing to actually take responsibility for things that they were supposed to be responsible for all along. They make decisions and accept

the resulting criticism or praise, whereas previously they were more prone to duck decisions or criticism.

Individuals have a much better understanding of how their specific responsibilities relate to FEMA's overall customer service mission. As a result, people focus on helping citizens prevent or solve problems, rather than simply complying with standard procedures.

Decision-making authority

FEMA's authority and independence

A significant unresolved issue is how fragmented congressional oversight responsibilities affect FEMA's ability to do its job. No single congressional committee oversees emergency management, but many have some degree of responsibility. FEMA's political appointees are confirmed by five different Senate committees. Its budget and programs are overseen by 20 committees. A 1993 study noted, "One FEMA document states that, in all about two-thirds of the House and Senate committees can get involved." (NAPA 1993, pp. 49, 69) The number of significant committees involved has declined in recent years as FEMA has redefined its mission to focus on natural disasters rather than civil defense. For example, the Armed Services Committees no longer exercises oversight over FEMA.

FEMA officials insist that the patchwork of oversight responsibilities has not hindered the agency's ability to do its job. The situation may create some additional government relations work, but to some extent, the nature of federal emergency management requires FEMA to build relationships with numerous legislators anyway.

This claim may be true. Nevertheless, it is likely that more streamlined congressional oversight could preserve accountability to legislators while allowing FEMA executives to spend more time dealing with disasters.

Politics may also impose another, more subtle constraint on decision-making authority within FEMA. Individual employees – particularly those with substantial authority – must always be sensitive to political concerns. Harmonious relationships with key federal or state leaders may occasionally take precedence over the agency's customer-focused mission. Of course, this potential problem is not one that the agency alone can fix, since it requires a certain degree of restraint on the part of elected officials.

Some observers (e.g., Schneider 1995) have suggested that FEMA's response abilities may be hampered by the fact that the agency does not have authority to command the use of resources owned by other parts of the federal government. In reality, FEMA has avoided this problem by contracting with other agencies through the Federal Response Plan. The plan specifies what resources FEMA can call upon in an emergency, and it also provides a mechanism for reimbursing other agencies for the cost.

Gaining other agencies' cooperation has not been a problem, according to FEMA executives, because "Anything we ask them to do, we pay for."

Individual decision-making authority

From the beginning, Witt focused on giving employees an amount of decision-making authority that matched the results for which they would be held responsible. The reorganization of FEMA was driven by a team of its career executives who were responsible for finding out from employees what things needed changing. (Council for Excellence in Government, p. 2)

One significant change involved eliminating several management layers. Prior to reorganization, many FEMA employees had as many as seven layers of management above them. (See Table 3.) At the lowest management level, some unit supervisors had as few as four people reporting to them! The reorganization completely eliminated the two lowest management levels and eliminated one middle level of management in most of the organization. (Two directorates were abolished, but since their people moved to other directorates, this does not constitute removal of a management layer.) The total number of administrative entities in the agency was cut in half over the course of three months.

Table 3: Management Layers and FEMA's Reorganization

Management Level	Effect of Reorganization
Agency Director	Retained
Directorate	Two eliminated
Office	Eliminated except for support functions
	in headquarters
Division	Retained
Branch	Retained
Team	Eliminated
Unit	Eliminated

The reorganization did not come without difficulty. One reason for the proliferation of management layers is that advancement under the federal pay system depends heavily on supervising other people. To preserve morale and ease the transition, FEMA's leadership sought to avoid demoting people as a result of the reorganization. Managers who lost their supervisory responsibilities usually moved to technical positions that allowed them to avoid pay cuts.

Other, more subtle changes sent a signal that individual employees had more authority to make the decisions they needed to make to do their jobs. Prior to 1993, virtually all correspondence was reviewed and signed by a member of senior management. Now, employees sign their own letters, and the only correspondence subject to review at the top is that which might have significant political ramifications.

A number of examples suggest that FEMA has moved to put decision-making authority in the hands of people closest to the problem:

Prior to reinvention, managers of disaster programs were reluctant to commit resources until everyone higher up had signed off. Today, such managers are more likely to use their own judgment and pre-position resources so they are available to help as needed.

Mitigation officials decide which buildings to purchase or relocate without having to involve the director's office in the decision.

A senior project officer noted that he has fairly wide latitude to make spending decisions with the funds allocated to his projects. He keeps higher-ups informed about what he is doing, and they have the opportunity to voice objections or concerns. This reflects the method of "management by exception." It sends the message that employees are free to take any action that is not prohibited, rather than only those actions for which they receive advance approval.

A number of FEMA employees we interviewed noted that various innovations and changes they implemented were not really new ideas. Rather, they felt like Witt's emphasis on customer focus and innovation gave them license to do things they had long felt should be done. One commented, "You don't hear, 'If there was a better way to do it, we'd have tried it."

Incentives

Incentives can take two general forms – extrinsic, material rewards given to employees, and intrinsic rewards that motivate people from within. FEMA appears to rely heavily on nonfinancial and intrinsic rewards.

All senior staff are evaluated based on their organizations' achievement of annual performance goals derived from the mission. At this time, FEMA does not formally link the pay of individuals elsewhere in the organization to the agency's performance goals. Employees are hired at salaries that reflect their education and experience. They move up the federal pay scale by achieving "satisfactory" performance ratings, and a "superior" rating can result in a "step pay increase" or promotion to a higher pay grade. (FEMA 1996) Annual bonuses are not linked to annual performance ratings, due to a perception that performance ratings tend to get inflated over time. Bonuses are relatively small, typically equal to between 1 and 2.5 percent of one's salary.

The agency has an award process that offers cash awards, prize certificates, or up to 40 hours of extra vacation time to employees or groups of employees whose exceptional performance has directly contributed to achievement of one of the agency's strategic goals and exemplified the agency's values. Employees who submit suggestions that improve the agency's efficiency and effectiveness are eligible for monetary awards of \$100-\$2500. The agency's highest award, the Director's Award, is entirely honorary

and usually given at the agency's awards ceremony. Any FEMA employee or group can nominate any other employee or group for an award. (FEMA 1997b) Most of the employees we asked about the reward system expressed dissatisfaction, largely because the total amount of reward money is small and spread among many people.

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For most FEMA employees, success at producing particular results is not directly linked to any substantial bonus or increase in pay. Several noted, though, that individuals who persist in promoting new ideas that work do have a better chance of getting step pay increases or promotions. Promotion brings both higher pay and expanded opportunities to implement one's ideas. However, one employee noted that the use of promotion as a reward has an accompanying weakness: it is difficult to move up the federal pay scale without taking responsibility for supervising more people. Such a practice invites the same classic mismatch of ability and responsibility created in the private sector when, for example, the best salesperson gets promoted to sales manager.

Overall, the financial rewards for superior performance at FEMA appear fairly small – but the intrinsic rewards are substantial. The agency tends to attract "fixers and scrappers who want to get something done," in the words of one employee. They enjoy the challenge, excitement, and fulfillment of helping others in crisis situations. One executive noted, "Once you work at FEMA, you can't [i.e., don't want to] work at any other federal agency, because it's so different." Employees who transferred to other federal agencies have often sought to return to FEMA, both because of the excitement and because the agency's small size fosters a sense of belonging. This situation represents a significant change from 1993, when half of FEMA employees surveyed said they would take a job elsewhere if offered one. (Council for Excellence in Government, p. 1)

The kinds of people attracted to FEMA will no doubt be more motivated in an environment where they have the freedom to make decisions and take action. A clearly-defined mission and clear, objective measures likely play a large role in building intrinsic motivation, because they help reveal when the agency has had an impact.

Even employees who had little good to say about the pay waxed enthusiastic about the motivational value of FEMA's accomplishments. When we asked what motivated people at FEMA, pride was evident in their responses:

"We don't have to wear bags over our heads when we go to meetings with other departments."

"Everyone likes to wear their FEMA jackets now."

"Seven years ago, if someone at a party asked me who I worked for, I'd just say, 'The federal government' and try to avoid telling them I worked for FEMA. Now I can tell them."

KNOWLEDGE SYSTEMS

Information gathering

One of the most critical information-gathering functions in FEMA is the process by which the agency takes applications for and disburses disaster relief funds to individuals. FEMA's challenge is to find out who needs help, obtain sufficient documentation of losses, and get money to victims in a timely fashion. In the early 1990s, this function was not very well-developed. In some disasters, such as the Northridge earthquake, long lines formed at local FEMA offices because many victims believed aid was provided on a first-come, first-served basis. People stood in line, received a number, and were told to come back and meet with someone else. In other cases, such as Hurricane Hugo in South Carolina, isolated victims in rural areas went without help for weeks because they did not know they were supposed to go to FEMA offices for help, and FEMA did not go looking for them.

FEMA sought to address this problem in 1990 by creating a national teleregistration center that would take aid applications and give victims a point of contact to monitor the status of their requests. Teleregistration got off to a rocky start, as the National Academy of Public Administration noted in 1993:

The teleregistration center in Denton, Texas, that the project staff visited provides an example. Although in existence for three years, it is a very rudimentary telephone answering service with a paper-intensive and error-prone process. Banks of minimally trained personnel fill out multi-carbon papered, handwritten forms based on calls from distraught disaster victims. This paper then goes through several more iterations of redundant sorting, collating, mailing, and data entry both at the teleregistration center and at a central processing office across town. With the many bottlenecks and inefficiencies involved, the ultimate customer of FEMA – the disaster victim – is not being well served. (NAPA 1993, p. 57)

At that time, FEMA could have written off teleregistration as a failed experiment and gone back to the slow, irritating, but time-tested bureaucratic process of registering in person. Instead, FEMA figured out how to make teleregistration work. About 85 percent of all aid applicants use it. (Hagerty and Gorski 1999, p. 29) Employees answering the phones now enter information on computer screens rather than paper forms. The computer tracking process lets victims make one phone call to find out their application status. FEMA inspectors use laptop and palm-held computers to download victims' addresses and upload inspection reports. Disaster victims now usually receive checks within seven days instead of 30 days. (Hagerty and Gorski 1999, p. 27)

Just as important as the technology, however, are the human changes in disaster aid registration. FEMA employees answering the phones have been trained to listen to victims' disaster stories and let them know about all forms of aid for which they are eligible, rather than just asking for answers to a list of standardized questions. In addition

to showing greater compassion, this approach actually saved time by reducing the number of repeat phone calls.

The improvements in the application process show up in post-disaster surveys of aid recipients for fiscal years 1995-98:

- 92 percent said applying for aid was easy and that they received clear instructions.
- 93 percent said they received clear and accurate information from FEMA.
- 90 percent said FEMA gave them an accurate estimate of how long it would take to get their checks.
- 98 percent said they were treated with respect and caring.

More than 90 percent said the quality of service was good or excellent. (FEMA 1999a, pp. 16-19)

Knowledge sharing

An organization's knowledge systems involve more than just storage and retrieval of data. Much useful knowledge is learned through experience and difficult to articulate.

Some of this knowledge passes from one employee to another through various informal means. FEMA's relatively small size -2300 full-time employees - works to its advantage here, as most people can get to know each other and find out who else is working on similar projects. A person faced with a new job can find out who else has relevant experience simply by asking around, and experienced people are usually willing to share what they know.

A more formal way of capturing some kinds of know-how is by establishing standard procedures and routines. Before FEMA's reinvention, for example, the headquarters operations center that supported employees in the field was essentially recreated every time a disaster struck. Now, FEMA has an operations center permanently in place, with computers and communications equipment ready to function at a moment's notice. The agency also established standard procedures for dealing for emergencies, such as a "time phase deployment list" that specifies what actions the agency has to take at what time to ensure that food, water, ice, plastic, and other emergency supplies reach a site as quickly as possible after a disaster strikes.

Another, significant challenge is capturing the experiential knowledge of key individuals, often regarded as "heroes," whose accumulated learning made the job of emergency management look easy. One method is to engage in a "hot wash" – a review meeting held immediately after a disaster to review the agency's performance and articulate lessons learned from the experience. Aside from this technique, FEMA has

few formal initiatives to share experiential knowledge, though senior managers recognize that this is an important issue that should be addressed.

ORGANIZATIONAL CULTURE

A common cultural theme in both FEMA documents and independent studies is the replacement of a bureaucratic focus on rules with a customer-centered emphasis on doing whatever can be legally done to solve people's problems. FEMA executives stated that in the past, the needs and requirements of programs often determined how customers were served. Now, the agency is more likely to redesign programs in response to customer needs. After the Northridge earthquake, for example, people stood in long lines to get assistance because that was simply the way the process worked. FEMA's redesign of the process was sparked in part by a Northridge victim who asked, "Why can't I just leave some information, and then you can contact me later?"

Several other examples illustrate the culture change. When Hurricane Hugo hit South Carolina in 1989, people whose homes and personal records were swept away by wind and floods were puzzled when told they were expected to provide documentation before they could receive assistance. (Schneider 1995, p. 110) But during the 1994 Los Angeles earthquake, "The agency appeared to be much less focused on standard operating procedures and bureaucratic red tape and more appropriately concerned with helping citizens in need." (Schneider 1998, p. 50) One FEMA supervisor commented, "Witt gave employees this sense that they needed to do whatever it took, within the law, of course, to get out there and get help to people as quickly as possible, bureaucracy be damned...There was this sense that we could sort out the administrative details later, if necessary, so long as people were getting the help they needed now." (Mastering Disaster 1999, p. 3)

Another example can be found in the way FEMA tries to help disaster victims who cannot receive federal aid money, such as churches and household pets. Under the agency's old culture, it would simply tell people there was nothing it could do. Now, FEMA employees are more likely to refer people to private charitable organizations that can help in these kinds of cases.

Values: Talking the talk vs. walking the talk

Like many organizations, FEMA has attempted to define its culture by enunciating a list of values. An important issue in assessing organizational values is not just whether the stated values support results-based management, but also whether the stated values are actually practiced. One indication is whether employee performance evaluations reflect the organization's values. FEMA has designated several values-related performance criteria as "critical;" failure to achieve acceptable performance on a critical criterion automatically leads to an "unacceptable" overall performance rating. For all employees, quality of work and customer service are both critical performance criteria. For supervisors, staff development and equal opportunity are also critical performance criteria. (FEMA Manual 1996, p. 3)

Personnel evaluations are not the only indication that FEMA's values are practiced. In a number of high-profile situations, FEMA presents examples of "walking the talk" in relation to specific values, as the accompanying table shows.

Table 4: FEMA Values in Practice

FEMA's Stated Values (Partial list)	Examples in Practice
,	
Customer Service	Customer service emphasis from top of organization
	Customer satisfaction surveys
	Mandatory 2-day customer relations training
	Critical factor in employee performance evaluations
Quality Work	Results measures based on quality
	Critical factor in employee performance evaluations
Continuous Improvement	Cost reduction and productivity goals
Creativity and Innovation	Hurricane Floyd rental assistance
	Tolerant attitude toward mistakes
Public Stewardship	Mitigation projects
(prudent management of tax dollars)	200 11
	Promotion of flood insurance to reduce disaster recovery costs
Partnership	FEMA coordinates rather than orders
(essential in "bottom up" U.S. emergency	Other federal agencies
management system)	State/local govts.
	Nonprofit agencies
	Private sector

Customer service, quality work, and continuous improvement

"What gets measured, gets done" is a common adage in management. FEMA seeks to ensure quality work and customer service through extensive measurement of various aspects of quality. Key examples include surveys of disaster victims and surveys of emergency personnel and firefighters who have taken the agency's training courses. All FEMA employees are also required to take two days of customer service training.

The commitment to continuous improvement is also evident in FEMA's cost and productivity improvement goals. The agency's first strategic plan under the Government Performance and Results Act announced a 10-year objective of improving efficiency by 20 percent. Objectives for the first five years include:

Reduce the amount of time it takes to deliver mitigation grants to states by 25 percent.

Achieve a 10 percent increase in cost efficiency in the response and recovery programs.

Decrease the cost per user of the National Emergency Training Center by 15 percent.

Improve efficiency and reduce costs of security, logistics, and occupational health and safety by 3-5 percent annually.

Propose revisions to make the National Flood Insurance Program financially sound.

All such goals carry a proviso that the agency must maintain the quality of service and level of benefits provided; the goal is to deliver the same or better service at a lower cost. (FEMA 1997c, pp. 28-33) The agency's attitude toward continuous improvement is best summed up in the response of one of the managers we interviewed: "It's never fast enough and never cheap enough."

Creativity and innovation

A sign in the FEMA Director Witt's office sets the tone for the rest of the organization: "Don't tell me we've never done it that way before."

It's possible to infer a lot about an organization's true commitment to innovation by observing its attitude toward mistakes. Since not all experiments succeed, organizations that tolerate mistakes have a better chance of promoting innovation. FEMA employees seem to believe that they have a degree of freedom to take risks and make honest mistakes. One noted that he could think of no cases in which anyone had been "slam-dunked" for making a single mistake.

Agency officials repeatedly emphasize that their goal is to aid disaster victims in whatever way the law allows. The evolution of disaster housing assistance provides one example. In the early 1990s, FEMA usually provided housing assistance by moving trailers into disaster areas. By the end of the decade, the agency instead offered funds to help people rent alternative housing or perform small repairs that would let them stay in their own homes; trailers were a last resort. After Hurricane Floyd, FEMA offered a new form of rental assistance for homeowners whose property the hurricane rendered uninhabitable. Traditionally, the agency gave such families an amount of money equal to

"fair market rent" for up to 18 months, but recipients had to recertify every three months that their homes were still uninhabitable. After Floyd, FEMA offered a one-time lump-sum payment of \$10,000. The lump sum payment reduces bureaucratic hassles and gives homeowners an incentive to get their homes repaired as quickly as possible.

Public stewardship

Some evidence of FEMA's commitment to careful use of tax dollars is anecdotal. For example, a bumper sticker on one executive's file cabinet reads, "Civil Servants Do It Better...With Less." Other evidence, such as FEMA's mitigation and flood insurance initiatives, is more substantial. The agency undertook these initiatives because data frequently showed that preventing and insuring against harms is less expensive than rebuilding.

FEMA can fund up to 75 percent of the cost of mitigation projects. Early calculations suggested that every dollar spent on mitigation saves \$2.54 in disaster relief and other costs. (FEMA 1999b) Subsequent studies reveal a consistent benefit/cost ratio. After the 1993 floods, the state of Iowa estimated that its efforts to remove structures from floodplains and protect public facilities from floods would save \$2.14 for each dollar spent. (Iowa Emergency Management Division, p. 2) FEMA purchases of "substantially damaged" structures under its Hazard Mitigation Grant Program are expected to save \$2.21 for every dollar spent. (Dewberry and Davis 1999a, p. 1) However, there is still room for more careful targeting of mitigation dollars; only 57 percent of these purchases produced expected savings exceeding their costs. (Dewberry and Davis 1999b, p. 6.)

Individual projects have produced substantially greater net benefits:

A retrofit to make a water pumping station in Memphis, TN, more resistant to earthquakes cost \$448,000, but it would cost \$17 million to replace the pumping station if a major earthquake occurred. Since the University of Memphis estimates that there is a 40-60 percent chance of a major earthquake in the area sometime during the next 15 years, the investment looked cost-effective to the city.

FEMA spent \$66.3 million to acquire or elevate 4600 "repetitive loss" properties in the Midwest whose owners had filed \$191 million worth of flood insurance claims between 1978 and 1995. (http://www.fema.gov/mit/cb_prog.htm)

In Tillamook County, OR, a project to build elevated "cow pads" at a cost of \$241,000 is expected to prevent \$5 million worth of cattle from drowning in the event of a flood.

Although flood insurance involves a degree of federal subsidy, insurance reduces federal outlays for disaster assistance, since insurance premiums help pay for

reconstruction that might otherwise be funded by federal grants or loans.⁴ For this reason, FEMA has aggressively promoted sales of flood insurance. Property owners cannot purchase federal flood insurance unless they live in a community that has enacted building codes designed to reduce flood damages. FEMA (1999a, p. 45) estimates that these building codes reduce flood damages by \$750 million annually.

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Partnership

For FEMA, genuine partnership with other levels of government and the private sector is essential if the agency is to achieve its mission. The agency pursues partnerships with multiple federal agencies through the Federal Response Plan, which specifies how FEMA can call upon and pay for other agencies' resources. FEMA has made significant strides in improving state and local governments' understanding of the role that various levels of government play in making disaster relief go smoothly. One of the agency's most publicized initiatives, Project Impact, mobilizes both public- and private sector decision-makers to take actions that will reduce the size of disaster losses in the future.

COMMUNICATION STRATEGY

Since 1993, FEMA has made significant strides in improving communication with five key constituencies: Congress, state and local governments, agency employees, disaster victims, and the news media. In 1997, for example, FEMA solicited comments on its draft strategic plan from a wide variety of affected people. The draft went to 50 states, 20 outside constituent organizations, 55 emergency management officials, 32 federal agency contacts, nine congressional committees or subcommittees, and 2,400 FEMA employees. The plan was announced to 2,700 individuals and organizations on FEMA's Internet news distribution list. It was posted on FEMA's web site, and 591 people accessed it. FEMA also consulted with the Consumer Product Safety Commission, Small Business Administration, Army Corps of Engineers, and Environmental Protection Agency. (FEMA 1997c, p. 54)

More specific examples of communication initiatives with key constituencies include:

Congress

Both FEMA employees and external observers give Witt high marks for political savvy -- particularly for taking the initiative in building relationships with members of Congress. Upon taking office, Witt met with chairs of all 20 committees with a stake in

⁴ Owners of buildings constructed after the federal government documented flood risks in its Flood Insurance Rate Maps pay premiums that fully reflect the risk of flood loss. To encourage communities to opt into the flood insurance program, owners of buildings constructed prior to the creation of the maps pay subsidized premiums equal to approximately 35-40 percent of the full risk premium. Unlike private insurers, FEMA cannot deny coverage or raise rates for a building owner who files multiple claims in a period of a few years.

FEMA, along with every member of Congress affected by the 1993 floods. (Council for Excellence in Government, p. 2) When a disaster threatens, Witt is on the phone with members of Congress from the affected states, letting them know what FEMA can do to help out. He welcomes any opportunity to meet with members of Congress or their staffs.

In addition to these "principal-to-principal" contacts, FEMA encourages congressional staff to find out what the agency is doing. Congressional staff are invited to the agency's annual briefing at the beginning of each hurricane season, as well as the twice-daily briefings that are held when a hurricane actually strikes the United States. During any type of disaster, FEMA staff continually update the staff of members in affected states, offering news and information that members can put in their own press releases. The overall goal is to proactively convey useful information to Congress in a way that advances FEMA's mission, rather than simply responding to congressional requests or deflecting attention altogether.

State and local officials

Another key aspect of the agency's communication strategy is its treatment of state and local officials. Independent studies suggest that several of FEMA's high-profile "failures" occurred because state or local officials simply expected the federal government to move in and take over during really big disasters. (See above, pp. 21-25) Prior to reinvention, FEMA tended to assume that if it did not hear from a state's governor, its help was not needed, and the agency interpreted its authorizing legislation in a way that prevented it from pre-positioning supplies and people. An experienced FEMA employee commented, "The attitude was, 'We'll help if the governor asks for a presidential disaster declaration, but if they don't ask for help, screw 'em!""

Since 1993, FEMA has worked hard to make sure that other levels of government understand their own and FEMA's role in the disaster management process. The agency even offers a course instructing officials at other levels of government how to ask for federal help in a disaster. Rather than simply waiting for a governor to request a presidential disaster declaration, FEMA officials keep in touch with their state counterparts when a disaster threatens, so they will already have a joint plan of action if a governor asks for federal help. FEMA regional directors get to know governors and their staffs, and the agency's field staff meet regularly with state emergency management staff. The agency also actively moves people and supplies into position so that they can act immediately once a federal disaster is declared. Even in the absence of a presidential disaster declaration, FEMA officials contact state officials to find out what they are doing and whether FEMA can facilitate help.

Disaster victims

FEMA practices two-way communication with a key group of customers, the disaster victims. After surveying victims about their satisfaction with the application process, the agency sent each victim a summary of the results, along with a short letter

from Witt explaining how the agency changed its practices in response to customer feedback. For example, FEMA initiated special customer service training for staff who deal with disaster victims over the phone. The agency also rewrote its surveys so they could be conducted over the phone, because many victims said they would much prefer to answer a telephone survey than fill out a written one.

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The agency has initiated broader communication efforts aimed at all people who live in areas hit by disasters. FEMA publishes a multi-issue disaster recovery newsletter that is handed out by agency employees and included as a supplement in local newspapers. The first issue typically describes the disaster; presents tips on repairing damage; lists federal, state, local, and nonprofit sources of assistance; and, if the disaster was a hurricane or flood, explains the benefits of flood insurance. Subsequent issues suggest how citizens can prepare for the next disaster and discuss the effects of mitigation initiatives, such as buyouts of properties in floodplains and Project Impact. In so doing, the newsletters reiterate response, recovery, preparedness, and mitigation themes that are central to FEMA's mission.

Employees

Prior to 1993, it's not clear what, if any, meaningful communication occurred between FEMA's top executives and its employees. FEMA directors made little effort to promote communication; some even sought to get private elevators and bathrooms that would further distance them from the employees. The classified nature of FEMA's national security work also hindered agency-wide discussion of mission, measures, and results.

In contrast, Witt stationed himself at FEMA's front door to introduce himself to employees, and he actively solicited ideas and suggestions. In 1995, any employee who wished could participate in an evaluation of Witt. More than 25 percent responded, and more than 100 wrote multi-page comments. The process turned into an opportunity for employees to state more generally what they liked and did not like about FEMA. Most gave Witt a great deal of credit for shaking up the agency, establishing a clear mission, and giving employees the support they needed to do their jobs. The most significant source of dissatisfaction was the agency's reward and recognition system, which was then redesigned in response to this revelation. More generally, FEMA has instituted a process by which all employees have the opportunity to evaluate their immediate supervisors anonymously. (FEMA Manual 1996, p. 9)

More regular and formal types of communication also cover genuinely substantive issues. The employee newsletter has the predictable features: success stories, reports of favorable media coverage, and a personal message from the director. The newsletter also includes quarterly reports on significant accomplishments in each of FEMA's regions, directorates, and offices. But the publication is more than just a morale booster; it also brings important but sensitive issues out into the open. In one edition

⁵ FEMA managers note that the new system is not especially popular either – largely because there simply isn't enough money to offer substantial rewards.

(March 29, 1996), Witt explained the review process and introduced a team he had established to deal with union complaints about the conduct of a FEMA division director. A note in another edition (Oct. 23, 1996) reminded employees that no one in FEMA has authority to issue opinions regarding interpretations of the law without consulting with the Office of the General Counsel.

News media

A disaster large enough to receive federal assistance is a disaster large enough to receive substantial media coverage. For this reason, the news media is a key constituency – not just because media coverage affects the agency's image, but also because media coverage can have a big effect on the agency's ability to do its job. The news media play a crucial role in disseminating disaster warnings and information about available federal assistance in a cost-effective manner.

In the hours or days immediately following a disaster, victims often mill about – literally or figuratively – trying to figure out what has happened, who is in charge, and how they can get help. The first people to reach the media with their interpretations of what is happening can have a big effect on the disaster relief effort by shaping citizens' expectations. FEMA's efforts in South Carolina after Hurricane Hugo, for example, were viewed as a failure in part because several prominent politicians immediately took to the airwaves and painted a picture of federal incompetence. In North Carolina, on the other hand, elected officials immediately explained what the federal government was doing to help, and the state methodically identified its areas of greatest need. (Schneider 1995) But in both cases, FEMA itself lacked a strong media presence. Its image was at the mercy of state and local officials, and more importantly, the agency passed up opportunities to get critical information to disaster victims.

Since reinvention, FEMA's director has aggressively used media coverage to reassure victims and convey critical information about what they can do to obtain help. Unlike previous FEMA directors, Witt serves as the organization's principal spokesman, and he is always available to explain to reporters how FEMA is dealing with a disaster. From the top down, agency officials give specific answers about what they are doing for disaster victims and what counts as success for FEMA. In this way, the agency avoids creating unrealistic expectations and false hopes. Cynics might regard this practice as a mere public relations ploy that improves the agency's image. However, the practice of managing expectations also gives disaster victims more realistic information, so that they more accurately understand where the federal government will help them and where they must take primary responsibility for themselves.

LEADERSHIP

FEMA employees attribute the agency's transformation to the change in leadership that occurred in 1993. Prior to then, most of the top FEMA officials had military backgrounds. They tended to run the agency "by the book" and expected to accomplish things by giving orders. Employee morale picked up in 1993 when the

administration announced that Witt would head the agency, though some initially wondered whether a man who lacked a college degree was up to the task. Witt brought a more relaxed management style that focused on results rather than rules. He signaled this change by standing at the door of FEMA headquarters to greet FEMA employees, going floor to floor to introduce himself, and showing up in blue jeans on Fridays.

In addition to setting a new tone, Witt possessed several other characteristics that contributed heavily to FEMA's success:

He is an experienced disaster manager at the state level, with first-hand knowledge of what it takes to respond to a disaster and experience with the frustrations of dealing with the pre-reinvention FEMA.

Because he was disaster manager in Arkansas, Witt enjoys the support and confidence of President Clinton. This eases the task of working with other federal agencies and instills confidence in FEMA employees.

FEMA's director is also a pro-active communicator with Congress, state and local officials, and the media. He has a "no-nonsense" reputation because he focuses on explaining what FEMA is doing and will do, rather than trying to "spin" a situation for maximum public relations or political advantage.

Through repeated statements and examples, Witt also continually pushed FEMA employees to understand who their customers are. Whether the customer is a disaster victim, a state or local official, or the news media, agency employees are encouraged to take the customer's needs as the starting point in determining what to do.

Of course, federal agencies have little control over the identity or quality of their politically appointed leaders. But Witt's example does demonstrate the critical role that committed and competent leadership plays in driving organizational change.

CONCLUSION

The experience of the Federal Emergency Management Agency confirms that it is possible for a federal agency to achieve major improvements in both performance and cost-effectiveness. Such achievements resulted not from a single "silver bullet," but from a collection of management actions that transformed a bureaucratic, process-driven organization into a responsive, results-driven organization. Key factors in FEMA's success include:

A clear mission accompanied by results-oriented performance measures.

Clear roles and responsibilities, coupled with a distribution of decision-making authority that allowed people to achieve the outcomes for which they were responsible.

Internal communication of results that fueled employees' intrinsic motivation.

Customer-friendly systems for gathering key information from disaster victims.

A small organizational size, which facilitates informal transfer of knowledge.

Core values that are actually implemented in practice.

Use of the organization's mission to shape communication strategies with key constituencies.

Leadership that drove a change from a rule-driven to a results-driven culture.

Can other agencies duplicate FEMA's achievements? Some of FEMA's success was no doubt driven by a credible congressional threat that the agency would be abolished in the early 1990s. Few federal agencies have this motivational advantage. However, other agencies will likely face increasing pressure to deliver improved results as entities like FEMA establish and report on credible performance measures that allow Congress and the executive branch to see what taxpayers are getting for their money. Agencies that fail to offer results-based measures will find themselves at a disadvantage in the competition for tax dollars. For this reason, pioneering agencies like FEMA give other agencies both helpful knowledge and powerful incentives that can facilitate change.

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THE IMPACT OF FEMA ON U.S. CORRUPTION:

IMPLICATIONS FOR POLICY

PETER T. LEESON AND RUSSELL S. SOBEL

EXECUTIVE SUMMARY

With the Hurricane Katrina debacle raising questions about public corruption's impact on disaster relief, corruption has once again become an important issue in American politics. This comment, however, analyzes not corruption's impact on disaster relief, but rather the impact that disaster relief has on corruption.

Disaster relief floods money and resources into the affected area, which provides public officials the incentive and opportunity to gain wealth through corrupt practices. Our analysis shows that states that receive more disaster relief also have more instances of public corruption.

Corruption not only hinders the effective management of disaster relief, but it also has long-term consequences for economic prosperity. More corruption is associated with lower growth and investment, and states that receive disaster relief often suffer from these effects.

When determining the best course of action, policy makers must remember that increased corruption is an unintended consequence of disaster relief. Increased oversight is unlikely to solve the problem of corruption because of the circumstances surrounding natural disaster. The time sensitive nature of the disaster relief means that protocol will take a backseat when disasters actually strike.

Policies that assume the federal government plays the primary role in disaster response are the most susceptible to corruption. Total elimination of public corruption generated by disaster relief will not be possible so long as FEMA relief exists. Any plan to reform disaster relief that intends to minimize corruption should recognize the role of local actors, presumably charities and business, and create space for them to react in time of crisis. Policy makers should recognize the consequences of disaster relief when dealing with urgent crises in order to make sure that they do not hinder the long-term prosperity of a community.

THE IMPACT OF FEMA ON U.S. CORRUPTION: IMPLICATIONS FOR POLICY

INTRODUCTION

A key insight of economics is the unintended, often undesirable, consequences of government activity. Although the idea that government policy may create harmful secondary effects is well-known, too often when policy makers craft policies designed to promote the public welfare they seem to ignore these effects. This Policy Comment demonstrates the harmful, secondary effects of government natural disaster relief.

Between 1990 and 2002, more than 10,000 public officials in the United States were convicted of crimes related to corruption. The majority of these convictions occurred in states also hit more severely by natural disasters. For instance, Mississippi, Florida, and South Dakota averaged 7.5 corruption-related convictions per 100,000 residents during these twelve years. In contrast, the national average was only four corruption-related convictions per 100,000 citizens. During the same period, Mississippi, Florida, and South Dakota averaged nearly 19 natural disasters each. The average state, however, suffered less than 12 natural disasters during this time. The most disaster-prone states are also the most corrupt.

Bad weather, per se, could not be responsible for this relationship. Hurricanes or earthquakes by themselves cannot make the states they strike more corrupt, but government-provided relief that follows these disasters can. Natural disasters trigger resource windfalls in affected states in the form of Federal Emergency Management Agency (FEMA) natural disaster relief. These windfalls create incentives for political actors to appropriate the newly-available resources. One of the chief ways they do this is through corruption, the abuse of their public authority for private gain.

Corruption creates problems. Chief among them is that corruption harms economic performance in several ways. Each of its harmful effects interrupts the process of wealth creation and may reduce economic progress. Continuing progress requires economic policy that minimizes public corruption. However, the only disaster relief policy consistent with this objective involves eliminating, or at least seriously reducing, the size of FEMA-provided disaster relief. Policy makers face a tradeoff. They may have less corruption but less FEMA relief or more FEMA relief but more corruption; they cannot have the best of both.

¹ We are concerned only with the effect of disaster relief on public sector corruption. We are not making any claim with regard to the size of that effect. We are simply saying that this effect exists and could be a threat to economic growth in the United States.

This Policy Comment explains how FEMAprovided disaster relief causes corruption in America. The fundamental, policy-relevant ideas in this comment are three-fold:

- Government-provided disaster relief generates unintended, undesirable consequences, manifested in the form of new incentives and opportunities for public corruption. Disaster-relief policy that does not bear this in mind will not only be ineffective, but will also likely exacerbate public corruption.
- To eliminate the harmful effects of public corruption, government must remove itself from the disaster-relief process; increased oversight of relief will not do. There are two reasons for this. First, increased relief oversight necessarily channels resources and efforts away from relief itself to montoring corruption. In doing so, it compromises the primary goal of disaster relief: assisting disaster victims. Second, the nature of public sector corruption makes corruption-oversight measures "time inconsistent." When the opportunity for profitable corruption arises in the wake of natural disaster, political agents are likely to break the stricter oversight policies devised today. Policy aimed at retarding the harmful effects of public corruption following natural disasters should focus on eradicating the root of its cause: FEMA-provided disaster relief.

• Disaster relief policies intended to minimize corruption should recognize that the potential for corruption increases when there is a distance between the dollars allocated and the dollars spent. Any plan for reforming disaster relief should recognize the role of local actors, presumably charities and businesses, and create space for them to react in time of crisis. Policies that assume the federal government plays the primary role in disaster response are the most susceptible to corruption.

We have organized this Policy Comment as follows. First, we discuss how public sector corruption adversely affects economic performance. We then explain how FEMA-provided disaster relief increases public corruption. Next, we empirically consider the magnitude of FEMA's effect on corruption in the United States. In the last section of this comment, we provide the policy implications of our analysis.

A. THE ECONOMIC IMPACT OF PUBLIC SECTOR CORRUPTION

Public sector corruption occurs when political officials abuse their public authority for private gain. There are three ways that political officials may do this. First, political officials may steal public funds directly through embezzlement. Second, political officials may transfer government funds indirectly to private parties for their (i.e., political officials') own gain. Bribes and kickbacks are good examples of this. A political agent in charge

of contracting out a government service may, for instance, offer the contract to the party willing to offer him the largest side payment instead of the best provider. Finally, public officials may manipulate the legal rules they are charged with enforcing, for their personal benefit. A regulatory inspector, for example, may solicit or accept bribes from private individuals subject to regulatory inspection in return for his approval.

In 1995, International Monetary Fund (IMF) economist, Paolo Mauro, published the first study that investigated the relationship between corruption and economic growth.² Mauro found that countries with more public sector corruption grow more slowly than those with less public sector corruption. Several reasons account for this finding:

1. Corruption directs public sector resources to unproductive ends that benefit political actors, but yield no benefit for society. For example, corrupt public officials may steal funds earmarked for critical infrastructure projects, such as roads, that would improve individuals' abilities to interact for mutual benefit. While corrupt political actors gain through this, society loses. Similarly, corruption directs private sector resources to satisfying corrupt political figures instead of wealthenhancing activities. This diversion of

resources, while profitable to corrupt politicians, constitutes a loss from the perspective of society. Resources that could have been employed for the production of goods or services are instead used to appease corrupt political actors. For instance, if prospective producers must bribe bureaucrats in order to start businesses, the resources they spend this way cannot be used to produce goods that would contribute to society's wealth.

2. Corruption thwarts the regular workings of the competitive process that tend to channel resources to their most highly valued uses. For example, in the absence of corruption, government agents select vendors because they are the most efficient suppliers and thus able to place the lowest bid. In the presence of corruption, however, this process does not work. Public agents instead choose vendors on grounds unrelated to their efficiency—because they agree to provide political support to the public agent charged with vendor selection for instance, or because they have the highest willingness to pay bribes. As a result, resources are channeled according to political criteria instead of economic criteria that tend to direct resources to the most capable producers.

² Paulo Mauro, "Corruption and Growth," Quarterly Journal of Economics, 110(3) (1995): 681-712.

3. Corruption lowers the payoff of wealthproducing activities and raises the payoff
of seeking government resources or even
becoming a corrupt political agent oneself. For example, if a producer must pay
bribes to corrupt political agents to
produce, he may find production less
profitable than becoming a political
agent, thereby drawing time and talent
away from activities that contribute to
social wealth.

These are the most direct ways that public sector corruption harms the process of wealth creation and economic growth. However, there are also less tangible, indirect harms that corruption imposes on the economy. For example, highly corrupt governments foster a general disregard for the rule of law, which society requires for economic growth. Significant corruption in one area, such as bribes demanded by bureaucrats from citizens to obtain permits or licenses to set up businesses, may spread to other areas of citizens' lives where they begin to see corruption as a reasonable way to achieve their ends.

An individual who has been forced to pay bribes to open his business and is later accused of committing a crime, for instance, may not wait this time for the relevant political actor, in this case the judge, to solicit his graft. He may offer it up himself and in doing so tempt the judge to accept his payment, even though in the absence of his offer the judge would have behaved honestly. In this way, corruption may spread and undermine

other important elements of the politico-economic order, which in the long run destroys society's capacity to create wealth. "Institution-destroying" effects of public sector corruption such as these are difficult to quantify and thus less frequently discussed, but they are very real all the same.

B. How FEMA CAUSES CORRUPTION

B.1 The "Windfall Curse"

Among the less developed countries of the world, a peculiar phenomenon exists. An abundance of natural resources leads not to wealth and prosperity, but to poverty. Economists call this counter-intuitive phenomenon the "natural resource curse," which the following logic explains at least partly. Rich and valuable natural resources, such as large oil deposits in the Middle East, create a windfall of resources to their owners. In most developing countries, like Nigeria, these owners are governments. The ability to exploit the resource cheaply creates cash inflows that fall on its owner with little effort. This windfall fuels corruption in two ways:

1. First, when the owner is the government, the presence of the resource increases the power of the government over the economic lives of its citizens. Since the bulk of the profits citizens can make in this economy stems from exploiting the natural resource, citizens need to be in the government's good graces. This situation creates new opportunities for govern-

ment officials in charge of access to the resource to solicit bribes or other forms of graft from citizens seeking to benefit from the resource-created windfalls.

2. Second, the resource's presence increases the value of being its political owner or a public gatekeeper to its access. This creates a flurry of activity by political actors to improve their status vis-à-vis the resource. One of the forms that this activity may take is corruption. For instance, political actors may engage in criminal behaviors at the behest of their superiors in an effort to gain increased authority over the valuable resource.

Research that examines the effect of foreign aid on corruption in developing countries corroborates the positive relationship between resource windfalls and government corruption. Recent work suggests that there is a "foreign aid curse" analogous to the "natural resource curse" discussed above.³ Like rich natural resources, foreign aid disbursements to governments in developing countries also create resource windfalls. These windfalls generate similar incentives and thus similar behaviors to those described above in the case of natural resources, including increased public sector corruption.

B.2 FEMA-Relief Windfalls

Government-provided natural disaster relief creates resource windfalls in much the same way that natural resources and foreign aid do. Under the current system of disaster relief, a disaster striking a state in the United States triggers the flow of federal relief from FEMA in the form of cash and supplies to the affected area. Federal relief constitutes a resource windfall for the recipient state. Financial resources and physical goods are channeled to the state through no effort of its own. Following our logic from the natural resource and foreign aid curses above, it is not difficult to anticipate the likely effect of natural disaster relief windfalls: they increase public sector corruption.

FEMA-relief creates three new avenues of public corruption following a natural disaster:

1. The first is new opportunities for direct expropriation of earmarked funds or physical resources. The influx of funds and resources suddenly in the control of state and local officials often proves too great a temptation to withstand. For example, an employee of Florida's Department of Health and Rehabilitative Services attempted to embezzle \$48,000 in FEMA relief following a 1998 hurri-

³ Simeon Djankov, Jose Montalvo, and Marta Reynal-Querol, "The Curse of Aid" (mimeo, 2005).

cane.⁴ Accusations of a similar nature have surfaced surrounding relief efforts following hurricanes Katrina and Rita.⁵

- 2. Second, natural disaster relief increases the ability of public officials to transfer government funds to private individuals for their own gain. These opportunities arise because of the structure of government relief efforts. For instance, for an individual to receive aid, a public official must assess the damage that the individual suffered and determine the amount of aid to be awarded. In this capacity, public officials enjoy new opportunities to facilitate individuals' fraudulent claims in return for bribes. This form of corruption can be very lucrative. In Louisiana, for example, Wayne P. Lawless, a Louisiana Department of Labor clerk, recently pleaded guilty to exchanging fraudulent disaster unemployment benefits for bribes.6
- The third new avenue of public corruption created by FEMA-relief windfalls is cronyism. In the aftermath of a disaster, public funds finance large rebuilding projects. These projects present political officials

with new opportunities to reward friends and supporters with lucrative contracts. This is what happened, for example, to the FEMA relief that went to rebuild bus shelters in Guam after it was hit in 1997 by Super Typhoon Paka. The Governor of Guam's Chief of Staff corruptly awarded the rebuilding contract to the Governor's primary business rival in return for the rival's support of the Governor in the 1998 gubernatorial campaign. Similarly, in Mississippi, reconstruction contractor Mitchell Kendrix and Army Corp of Engineers representative Paul Nelson pleaded guilty to a scheme in which Kendrix falsely approved loads of hurricane debris from Nelson in return for bribes. 8

B.3 Compounding Corruption

Several factors unique to the circumstances in which FEMA disperses relief compound the corruption problem that government-provided natural disaster relief creates:

1. First, owing to their largely uncontrollable and unpredictable natures, natural disasters breed chaos and confusion where they

⁴ "FEMA Worker Held for Trial in 1998 Scheme to Steal \$48,000," Insurance Journal, May 27, 2005.

⁵ See for instance "In Louisiana, Graft Inquiries Are Increasing," New York Times, March 18, 2006 and "FEMA Officials Arrested in New Orleans on Federal Public Bribery Charges," US Fed News, January 27, 2006.

⁶ Department of Justice, Press Release, July 17, 2006.

Department of Homeland Security, Semiannual Report to the Congress, April 1, 2004-December 30, 2004.

⁸ Eric Lipton, "Breathtaking' Waste and Fraud in Hurricane Aid," New York Times, June 27, 2006.

strike. The resulting mayhem facilitates new opportunities for relief-related corruption. In an environment of confusion, it is more difficult to monitor where relief resources are going and how they are being used. Since the likelihood that corruption will be detected drops considerably, this lowers the political actor's cost of engaging in abusive activities.

2. Adding to this problem is the issue of disaster relief prioritization. In the midst of a devastating natural disaster, evacuating victims, tending the injured, and finding provisions and shelter for refugees is, quite justifiably, considered more important than keeping an eye on unscrupulous political actors to ensure that they do not behave corruptly. The time-sensitive nature of many disaster-related relief activities demands that relief be a priority and corruption monitoring/punishment take a back seat. With attentions focused on relief activities instead of corruption. public officials are less likely to be caught engaging in corrupt activities. This leads them to undertake more corruption.

In the disaster's aftermath this situation is not much different. Until wreckage is removed, families are reunited, and reconstruction is underway, turning government's attention to public sector corruption seems inappropriate and unlikely. Typically, attention only turns

to public abuses that occurred in the midst of the disaster's chaos after the chaos has calmed down. Like above, these features of natural disasters make it easier to get away with abuses and so facilitate public sector corruption.

- 3. Third, the nature of the task FEMA faces during response, relief, and recovery efforts makes it difficult in many cases to assess the relief-related activities undertaken or overseen by political officials. Hauling debris, for example, is not an exact science. Neither is determining the level of damage to individuals' property. Relief and recovery-related activities such as these create ample latitude for corrupt public officials to engage in criminal behavior, such as accepting government finances for clean up without undertaking actual work.
- 4. Fourth, because natural disasters are irregular, so too is the flow of natural disaster relief. As a result, there tend be fewer and less effective checks on relief-related spending than other forms of government spending. There is less oversight and fewer well-defined mechanisms for detecting public abuse of disaster relief funds than there is, for instance, for the federal disbursement of educational monies to states. This has the effect of lowering the cost of engaging in disaster relief-related corruption, providing addi-

tional incentive for corrupt political actors to do so.

5. Lastly, the distance between government disaster relief disbursement, which is at the federal level, and disaster relief receipt, which is at the state or local level, contributes to heightened corruption created by disaster-relief windfalls. It is more difficult for the federal government to monitor resources used at the state and local level than it would be for state and local government authorities. The large separation between the principle—the federal government and the agent—state and local recipents reduces the cost of unscrupulous state and local public officials corruptly appropriating and distributing relief resources. This, of course, leads to greater corruption.

Each of the factors considered above are particular to natural disaster-generated relief windfalls under current American disaster relief policy. They tend to exacerbate the corruption-enhancing effect of FEMA relief, making its initial impact even worse. Thus, when it comes to corruption, FEMA-provided disaster relief is doubly damag-

ing. On the one hand, the windfalls it generates increase corruption in the form of activities such as bribes, kickbacks, etc. On the other hand, the unavoidable appearance of these windfalls in the midst of a natural disaster (the impetus for their disbursement in the first place) compounds this increase since windfalls appear at the worst possible time, when monitoring, detection, and punishing mechanisms for corruption are at their weakest.

C. EMPIRICAL EVIDENCE FOR THE IMPACT OF FEMA RELIEF ON CORRUPTION

In a recent study, the authors examine the relationship between FEMA relief spending and public sector corruption in the United States. This study measures corruption with the average number of corruption-related crime convictions per capita by state between 1990 and 1999. It estimates the impact of FEMA relief on state-level corruption by taking average FEMA relief received by each state per capita over this period and also controlling for a number of other variables that previous research identifies as important determinants of public corruption. For instance, more racially fragmented states tend to be more corrupt, as do poorer states, states with

⁹ Peter T. Leeson and Russell S. Sobel, "Weathering Corruption" (working paper, Mercatus Center at George Mason University, Arlington, VA, 2006).

laxer laws punishing public corruption, less educated states, more populous states, and states with greater income inequality.

Regional location may also be correlated with corruption. If, for instance, historical factors contribute to the level of corruption across states and these factors are clustered geographically, controlling for states' regional status will adjust for this. Other forms of government spending, both at the state and federal level, may also contribute to the level of corruption in states. To account for this, the authors' study also adjusts for non-FEMA related state spending and non-FEMA related federal spending in each state.

Finally, it is important to account for the direction of causation. For instance, while the "windfall curse" reasoning discussed above suggests that greater FEMA spending should increase corruption, it is also likely that states that are more corrupt have political actors who are more adept at corruptly attracting disaster relief resources in the first place. Political officials in a highly corrupt state, for example, may manipulate the appearance of the damage incurred following a natural disaster in order to attract more federal funds to corruptly appropriate. In order to correctly measure the impact of FEMA

relief on corruption, however, an empirical examination must make sure that it isolates only the arrow of causation going from FEMA relief to public corruption, excluding the arrow of causation that runs the opposite direction.

Questions like this that deal with the issue of causality can be difficult to overcome in empirical analyses. Fortunately, we were able to address this issue by using a third variable, ¹⁰ private insurance property claims from natural disasters.

Our results confirm the "windfall curse" logic discussed above and hinted at by the anecdotal evidence pointed to earlier in this section. relief FEMA-provided disaster increases American corruption. Each additional one dollar per capita in average annual FEMA relief increases corruption nearly 2.5 percent in the average state. Abolishing FEMA relief would reduce public sector corruption by more than 20 percent in the average state. The results of this study explain the seemingly bizarre relationship between bad weather and public sector corruption noted in this paper's introduction. Natural disasters create resource windfalls in the states they strike by triggering federally-provided natural disaster relief. Disaster relief windfalls in turn increase corruption. States that are more frequently and

¹⁰ We can isolate the causal arrow of interest by examining the connection between something we know cannot be manipulated by corrupt political actors and FEMA relief and then using the part of FEMA relief explained by this variable to investigate the impact of FEMA relief on corruption.

severely hit by natural disasters, such as Louisiana and Mississippi, attract more FEMA relief than other states, making them more corrupt than these other states as well.

D. IMPLICATIONS FOR POLICY

If policy makers want to reduce the extent of public corruption in the United States, then the most effective way to do so would be to reduce FEMA relief. Every reduction in one dollar per capita in average annual FEMA relief will reduce the average state's level of public corruption by about 2.5 percent. If the federal government did not provide FEMA relief to states following natural disasters, the average state's level of corruption would fall by about 22 percent.

Importantly, tinkering with federally-provided disaster relief, for instance by increasing government oversight of FEMA relief following natural disasters, is unlikely to be effective and may in fact interfere with the overriding objective of government disaster relief: assisting victims of natural disaster. There are three reasons for this:

1. As discussed above, the time-sensitive nature of natural disaster recovery, relief, and reconstruction puts a priority on assisting those in need instead of monitoring and bringing to justice unscrupulous political actors who use disaster-wrought havoc to corruptly appropriate relief-related resources or abuse in other ways

their positions of public authority for private gain. However, strengthening government oversight of public sector corruption following a natural disaster and devoting greater energy to this cause would necessarily come at the expense of the relief process's ultimate end of saving lives and restoring those that have been damaged. Each dollar or unit of time used to monitor public sector corruption is a dollar or unit of time that cannot be devoted to, for instance, evacuating disaster victims. Thus, although increased oversight of FEMA relief may raise the cost of corruption and thus reduce corruption somewhat, it would come at a cost most policy makers and other individuals, quite reasonably, would not be willing to pay.

2. More stringent mechanisms for monitoring and disciplining public sector corruption in the case of natural disaster are unlikely to be effective. Such mechanisms suffer from what economists call a "time-inconsistency problem." Although political actors may under normal circumstances desire to reduce public sector corruption, when a natural disaster hits and a myriad of new, highly profitable avenues of corruption related to relief activities emerge, they are unlikely to use the mechanisms they created before the disaster for monitoring relief-related corruption. The creation of new, profitable avenues of corruption following the disbursement of FEMA relief makes using these mechanisms more costly to them. Political actors' desires in non-disaster times are inconsistent with their desires after a disaster has actually hit. By applying the more stringent corruption-monitoring mechanisms they devised before the disaster, political agents forego more income in the form of increased opportunities for corruption. It is therefore less likely that they will actually make use of them.

- 3. There is also another problem of putting into practice more stringent corruption-detection mechanisms. If corrupt political actors devise these mechanisms, they will design mechanisms that do not effectively improve upon existing ones, so as not to upset their abilities to corruptly appropriate and transfer relief resources. Thus, if state-level officials are in charge of devising the new mechanisms, corrupt states—the states that need these mechanisms most—are unlikely to introduce more stringent corruption-detection mechanisms or punishments.
- 4. Disaster relief policies intended to minimize corruption should recognize that the potential for corruption increases when there is a distance between the dollars allocated and the dollars spent. Any plan for reforming disaster relief should recognize

- nize the role of local actors, presumably charities and businesses, and create space for them to react in time of crisis. Policies that assume that the federal government plays the primary role in disaster response are the most susceptible to corruption.
- 5. The longer FEMA is involved in a post-disaster context, the more opportunities there will be for corruption. In order to minimize the opportunity for corruption, FEMA should exit as soon as possible following a disaster. FEMA was not designed to operate months or years after a disaster, and policy reforms should recognize this.

At the very least, policy makers must be aware of the unintended, undesirable consequences of government-provided natural disaster relief. Although, for the reasons recounted above, it is unlikely that marginal changes in the process or oversight of FEMA relief would appreciably reduce the effect of FEMA relief on public corruption, it is critical that any disaster relief policy keep in mind the corruption-enhancing impact of providing natural disaster relief through government.

CONCLUSION

In this Policy Comment we explain the role of government-provided disaster relief in increasing public sector corruption in the United States. We first explain why and how corruption harms the wealth-creation process and may reduce economic

progress. We then discuss how resource windfalls, for instance from natural resources and foreign aid, alter the incentives of political actors and set in motion forces allowing them to engage in additional, unproductive corrupt activities. Next, we address how FEMA natural disaster relief creates similar resource windfalls that engender the same kind of public actor incentive shift and increased engagement in corruption.

This concatenation of factors explains the seemingly strange connection between U.S. states with bad weather and high levels of corruption. States located in places prone to more frequent and severe natural disasters receive more FEMA relief. When a natural disaster strikes, federal relief to the affected areas creates a resource windfall in the state hit by the disaster. This resource windfall leads to increased corruption, causing states that receive more FEMA relief to be more corrupt than others.

The results of a study we conducted estimates that each additional one dollar per capita in average annual FEMA relief increases public sector corruption nearly 2.5 percent in the average state. The average state's level of corruption would fall by over 20 percent if policy makers totally abandoned FEMA relief.

Policy makers must bear in mind that government disaster relief generates unintended, undesirable consequences. In the case of natural disaster relief, these manifest in the form of increased corruption. Policy proposals that would only tinker with the existing system by strengthening oversight of FEMA relief and monitoring of relief-related activities more closely are unlikely to work and may jeopardize disaster relief's ultimate goal: assisting disaster victims.

Stronger relief oversight and disaster-related corruption monitoring devotes precious time and resources to a subsidiary concern when disaster victims urgently need recovery and relief. Furthermore, such changes are time-inconsistent; political actors have little incentive to implement these mechanisms following a natural disaster. Finally, so long as the windfall exists, corrupt political actors have an incentive to stay one step ahead of the new rules. The best way to reduce the corruption-creating impact of FEMA relief is to reduce this relief's size. Total elimination of public corruption generated by disaster relief will not be possible so long as FEMA relief exists.

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