



Highlights of [GAO-08-301](#), a report to congressional committees

### Why GAO Did This Study

Public Law No. 110-28 directed GAO to review how the Federal Emergency Management Agency (FEMA) develops its disaster cost estimates. Accordingly, GAO addressed the following questions: (1) What is FEMA’s process for developing and refining its cost estimates for any given disaster? (2) From 2000 through 2006, how close have cost estimates been to the actual costs for noncatastrophic (i.e., federal costs under \$500 million) natural disasters? (3) What steps has FEMA taken to learn from past experience and improve its management of disaster-related resources and what other opportunities exist? To accomplish this, GAO reviewed relevant FEMA documents and interviewed key officials. GAO also obtained and analyzed disaster cost data and determined that they were sufficiently reliable for the purposes of this review.

### What GAO Recommends

GAO makes a number of recommendations to the Secretary of Homeland Security to improve the information provided to decision makers; better inform future estimates, including the ability to incorporate past experience in those estimates; and improve the management of FEMA’s disaster-related resources. In commenting on a draft of this report DHS generally agreed with these recommendations. In addition, FEMA provided technical comments, which were incorporated where appropriate.

To view the full product, including the scope and methodology, click on [GAO-08-301](#). For more information, contact Susan J. Irving at (202) 512-9142 or [irvings@gao.gov](mailto:irvings@gao.gov).

## DISASTER COST ESTIMATES

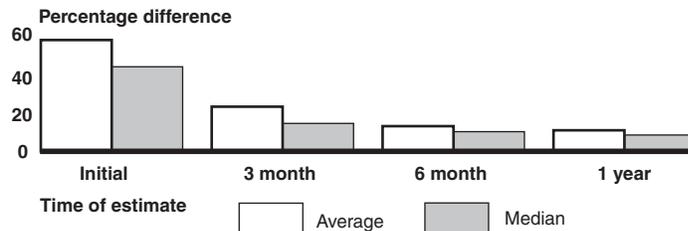
### FEMA Can Improve Its Learning from Past Experience and Management of Disaster-Related Resources

#### What GAO Found

After a disaster is declared, FEMA staff deployed to a joint field office work with state and local government officials and other relevant parties to develop and refine cost estimates. The overall estimate comprises individual estimates for FEMA’s assistance programs plus any related tasks assigned to other federal agencies (mission assignments) and FEMA administrative costs. The methods used to develop these estimates differ depending on program requirements including, in some cases, historical knowledge. FEMA officials told GAO that cost estimates are updated on a continuing basis.

Decision makers need accurate information to make informed choices and learn from past experience. FEMA officials stated that by 3 months after a declaration estimates are usually within 10 percent of actual costs—which they defined as reasonable. GAO’s analysis showed that decision makers did not have cost information within this 10 percent band until 6 months after the disaster declaration. These results cannot be generalized since this comparison could only be made for the 83 (24 percent) noncatastrophic natural disaster declarations for which final financial decisions had been made. Disaster coding issues also hamper FEMA’s ability to learn from past experience. For example, in several instances the code for the incident type and the description of the disaster declaration did not match.

**Percentage Difference between Estimated and Actual Disaster Costs for 83 Noncatastrophic Natural Disasters from 2000 through 2004**



Source: GAO analysis of data from FEMA’s Disaster Financial Status Report database, as of June 30, 2007.

Note: This figure covers noncatastrophic disaster declarations for which all financial decisions have been made. At the end of this review none of the disasters declared in 2005 or 2006 met the criterion. Because individual estimates were either greater or less than actual costs, GAO used absolute value to treat them the same in calculating differences between the two.

Officials described several ways in which FEMA has learned from past disasters and improved its management of disaster-related resources. For example, FEMA uses a national average to predict costs for expected applicants for Individual Assistance. FEMA has also taken several actions to professionalize and expand the responsibilities of its disaster comptrollers. Nonetheless, FEMA could further learn from past experience by conducting sensitivity analyses to identify the marginal effect various factors have on causing fluctuations in its estimates. FEMA could improve its management of disaster-related resources by developing standard procedures for staff involved in entering and updating cost estimate data in its database.