

SeismicWavestandown

How the National Earthquake Hazards Reduction Program Is Advancing Earthquake Safety

New Help for States Most at Risk

FEMA's Earthquake Hazards Reduction State Assistance Program

State Assistance Program FY 2009 Participants¹

Alabama

Alaska

Arizona

Arkansas

California

Georgia

Guam

Hawaii

Idaho

Illinois

Indiana

Kentucky

Maine

Mississippi

Missouri

Montana

Nevada

New Mexico

New York

North Carolina

Oregon

Puerto Rico

South Carolina

Tennessee

Utah

Vermont

Virgin Islands

Washington

Wyoming

hrough its participation in the National Earthquake Hazards Reduction Program (NEHRP), the Federal Emergency Management Agency (FEMA) plays a leading role in disseminating and implementing earthquake risk-reduction knowledge and strategies cultivated by NEHRP and others. To carry out this work, the agency collaborates with many partners, none more important than state governments. This year FEMA reestablished a dedicated program designed to strengthen its partnerships with state earthquake programs.

The Earthquake Hazards Reduction State Assistance Program is one part of FEMA's activities under the NEHRP Reauthorization Act of 2004, which directs the agency to support state efforts to mitigate seismic risks and thereby reduce future losses from earthquakes. FEMA will be providing program funds annually to states and U.S. territories that face serious earthquake hazards and that develop ways to effectively reduce risks posed by these hazards.

Recipients can use program funds for a range of eligible activities, including

- assessing needs for mitigation by delineating the seismic threats that are faced, their potential impacts on people and property, and the vulnerability of critical structures and lifelines;
- developing plans for mitigating existing vulnerabilities;
- updating building codes, zoning codes, and ordinances to enhance earthquake safety and resilience and to reduce the propagation of new vulnerabilities; and
- strengthening public awareness of earthquake risks to promote support for and engagement in mitigation and preparedness efforts.

Program funds are intended to supplement and leverage states' existing support for such activities.

Putting Initial Funds to Use

The program made awards to 29 states and territories in fiscal year (FY) 2009. This support, which totaled \$2.3 million, is being put to use to strengthen earthquake risk-reduction efforts in a variety of ways both traditional and innovative.

Some of the more traditional uses include preparing and distributing information for the public that describes seismic hazards within the state as well as recommended preparedness and mitigation strategies and resources. Many states are generating such educational and awareness information in the form of printed materials, videos, presentations, and radio and television public service announcements. Program funds are also helping states to train personnel in the use of FEMA's HAZUS earthquake risk-assessment software; to update state and county ha-

zard mitigation and preparedness plans; to support detailed, geologic seismic-hazard mapping in at-risk regions; to cosponsor earthquake awareness and mitigation conferences; and to review the adequacy of building codes and land use regulations in relation to seismic safety.

Examples of the many innovative applications include Missouri's plan to develop a manual and video that school administrators and facility managers can use to

¹ U.S. Department of Homeland Security, Fiscal Year 2009 Earthquake Hazards Reduction State Assistance Program Guidance: Guidance and Application Kit, June 2009.



assess seismic vulnerabilities in school buildings across the state. Similarly, Utah is screening a sample of its public schools (about 10 percent of the more than 800 schools in the state) for seismic vulnerabilities. This sampling will help officials gauge the need for statewide inspections and seismic rehabilitation of school buildings.

Hawaii is devoting some of its FY 2009 program support to an earthquake outreach program targeting the general public and schoolteachers. A weekend symposium is being planned at which scientists, engineers, and civil defense experts will provide information about the risks posed by earthquakes and about corresponding mitigation and preparedness measures. Teachers will receive additional instruction as well as guidance in creating lesson plans focused on earthquake hazards. This program will be offered in conjunction with similar state outreach efforts aimed at tsunami and volcano hazards.

California plans to use some of its funding for research on value-based messaging that can motivate residents to take responsibility for earthquake readiness. Funds are also being used to strengthen the Earthquake Country Alliance (ECA), California's statewide public-private coalition of earthquake-education stakeholder groups. Regional workshops are planned to broaden ECA participation and train local stakeholders in earthquake education, and leaders of participating groups will be convened to collaboratively plan ECA activities, including the annual "Great California ShakeOut" earthquake drill.

Support Targeted to Need

To the greatest degree practicable, support provided through the state assistance program is allocated according to states' level of exposure to earthquake hazards. Only states or territories in which there is the potential for damaging earthquake ground motions, as measured by the U.S. Geological Survey (USGS), are eligible to apply for program funding. New seismic hazard maps recently developed by USGS will be used in allocating program support for FY 2010.

For FY 2009, each eligible jurisdiction was targeted to receive a base allocation sufficient to facilitate meaningful

Over the coming year, FEMA's state assistance funds will help the California Emergency Management Agency continue to leverage the hard work of the state's broad-based coalition of earthquake education partners, extend the effectiveness of the Great California ShakeOut, and inspire Californians to take individual and group action to prepare for, protect against, and recover from earthquakes.

Kate Long Earthquake and Tsunami Program California Emergency Management Agency October 2009

contributions to seismic safety. The remaining funds were allocated in accordance with each state's annualized earthquake loss (AEL). The AEL, a standardized measure of seismic risk used by FEMA to produce earthquake loss estimates for the Nation, is the average dollar amount of damages sustained per year due to earthquakes.² The actual amounts awarded were negotiated through cooperative agreements established between recipients and their applicable FEMA regional office.

FEMA headquarters and regional staff are collaborating to refine and streamline the program application, monitoring, and reporting processes for FY 2010. Enhancements will be implemented through the use of FEMA's new Non-Disaster Grants System, an online tool that will be tailored for the state assistance program. FEMA's regional offices have already begun tracking the progress and accomplishments of the FY 2009 award recipients. The information gathered will help to enable, in the years ahead, synergistic advancements in the mitigation of participating states' seismic risks as program-supported activities and approaches are evaluated, refined, and shared.

For more information, visit www.nehrp.gov or send an email to info@nehrp.gov.









² For more information on the AEL and FEMA loss estimates, see *HAZUS-MH Estimated Annualized Earthquake Losses for the United States* (FEMA 366, April 2008), at www.fema.gov/library/viewRecord.do?id=3265.