



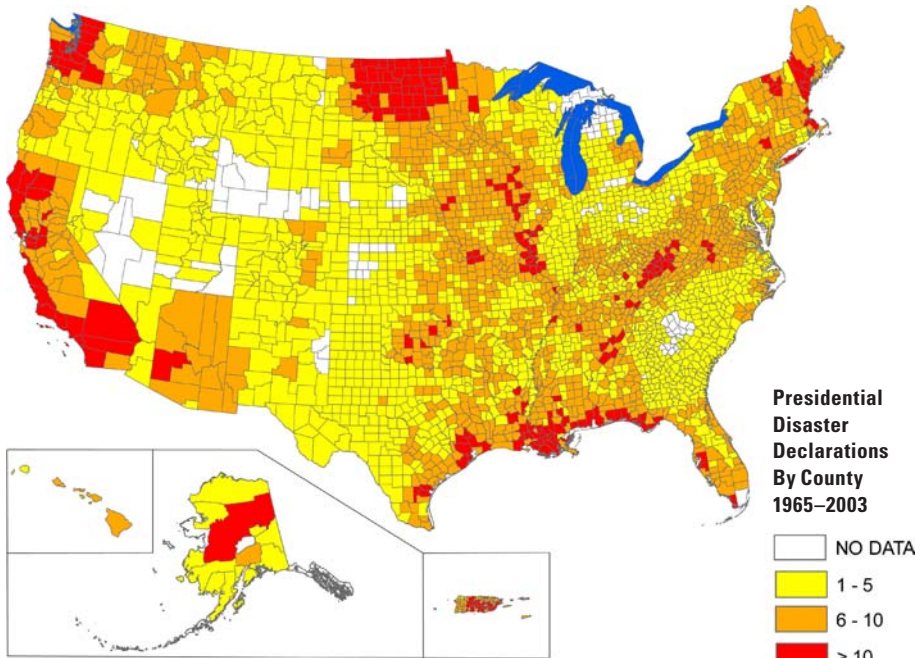
## Natural Hazards – A National Threat

USGS Science Helps Build Safer Communities

## The USGS Role in Reducing Disaster Losses

In the United States each year, natural hazards cause hundreds of deaths and cost billions of dollars in disaster aid, disruption of commerce, and destruction of homes and critical infrastructure. Although the number of lives lost to natural hazards each year generally has declined, the economic cost of major disaster response and recovery continues to rise. Each decade, property damage from natural hazards events doubles or triples. The United States is second only to Japan in economic damages resulting from natural disasters.

A major goal of the U.S. Geological Survey (USGS) is to reduce the vulnerability of the people and areas most at risk from natural hazards. Working with partners throughout all sectors of society, the USGS provides information, products, and knowledge to help build more resilient communities.



Presidential Disaster Declarations in the United States and Territories by county from 1965–2003 reflect the broad geographic distribution and human impacts of earthquakes, floods, hurricanes, landslides, tsunamis, volcanoes and wildfires. (Map not to Scale. Source: FEMA)

Natural Hazards Impacts:	USGS Science Seeks to Achieve:
<ul style="list-style-type: none"> <li>• Earthquakes have the highest potential for causing catastrophic casualties, property damage, and economic disruption.</li> <li>• Over 75 percent of declared Federal disasters are related to floods.</li> <li>• More than half of the U.S. population lives within 50 miles of a coast. Many of these areas, especially the Atlantic and Gulf coasts, will be in the direct path of future hurricanes.</li> <li>• Landslides affect every State, causing \$3.5 billion dollars annually in damages and between 25 and 50 deaths.</li> <li>• The United States faces significant tsunami threats to the West Coast, Hawaii, Alaska, and island territories in the Caribbean and the Pacific.</li> <li>• The United States has 169 active volcanoes capable of producing a wide range of hazards that threaten people and infrastructure on the ground as well as aircraft in flight.</li> <li>• In 2004, wildfires burned more than 8 million acres in 40 States.</li> </ul>	<ul style="list-style-type: none"> <li>• Rapid earthquake impact assessments delivered to emergency managers</li> <li>• Real-time flood inundation mapping to support emergency response</li> <li>• Predictions of coastal impacts 48 hours before hurricane landfall</li> <li>• Tsunami risk maps for all coastal areas that may be at risk</li> <li>• Better predictions of where and when landslides will occur</li> <li>• Early detection of volcanic activity to allow maximum response time</li> <li>• Real-time wildfire condition information to support rapid firefighting activity</li> <li>• Integrated information about multiple hazards to create new products that are useful for reducing loss of life and property from natural hazards.</li> </ul>