Highlights of GAO-22-105016, a report to congressional committees.

# Why GAO Did This Study

Established in 1977, NEHRP aims to help reduce the risks to life and property from earthquakes. NEHRP's initiatives include strengthening community resilience through improved design and construction methods, conducting research to better understand the impacts from earthquakes, and providing outreach and education. NEHRP is comprised of four federal agencies (FEMA, NIST, NSF, and the U.S. Geological Survey) that promote and support NEHRP's initiatives for strengthening earthquake resilience.

The National Earthquake Hazards Reduction Program Reauthorization Act of 2018 includes a provision for GAO to assess the program's efforts. This report examines, among other things, NEHRP's progress in identifying gaps and strengthening resilience to earthquakes, and its activities to identify and communicate about research priorities. GAO reviewed NEHRP's strategic plans, agency guidance, and external communications; compared procedures to leading practices for interagency collaboration; and interviewed federal and state officials, among others.

#### What GAO Recommends

GAO is making seven recommendations, including that NEHRP agencies conduct a national assessment to identify progress and remaining gaps in earthquake resilience; develop strategies to better communicate research priorities; and follow leading practices to identify and leverage resources. NIST, NSF, and FEMA concurred with our recommendations.

View GAO-22-105016. For more information, contact Chris Currie at (404) 679-1875 curriec@gao.gov

#### May 2022

# **EARTHQUAKES**

# Opportunities Exist to Further Assess Risk, Build Resilience, and Communicate Research

## What GAO Found

The National Earthquake Hazards Reduction Program (NEHRP) has goals outlined in its most recent Strategic Plan for fiscal years (FY) 2009-2013 for the improvement of earthquake resilience in communities nationwide. However, officials from the National Institute of Science and Technology (NIST) said that a national risk assessment has not been done to identify improvements and remaining gaps in resilience. The Federal Emergency Management Agency (FEMA) initiated some efforts to identify improvements by collecting data on the adoption of building codes. The NEHRP agencies are currently working to update the Strategic Plan FY 2022-2029. By conducting a national risk assessment, NEHRP would gain greater awareness of earthquake resilience improvements and be better positioned in planning long-term goals and objectives toward closing remaining gaps.

## Damage to Anchorage, Alaska Following a Magnitude 7.1 Earthquake in 2018



Source: United States Geological Survey. | GAO-22-105016

Accomplishing NEHRP's strategic objectives requires developing and applying research in the geological, engineering, and social sciences areas. NEHRP identifies research priorities, and many of the NEHRP agencies award grants to entities such as universities or state and local agencies, to conduct research. While the communication mechanisms used by the National Science Foundation (NSF) include program solicitations, program descriptions, and letters issued to research entities, they do not communicate NEHRP's strategic research priorities. By developing strategies to better communicate its research priorities, NEHRP can help ensure that they are met.

NEHRP's Program Coordination Working Group is responsible for coordinating the implementation of NEHRP's strategic research priorities and has followed leading practices for leadership and outcomes. However, the working group did not follow two leading practices for accountability and resources. For example, the working group did not track and monitor progress, and did not identify and leverage resources needed to achieve outcomes for research priorities. Identifying resources would enable the interagency group to leverage all relevant resources across the NEHRP agencies, and better align them with research priorities. Further, the identification of resources would provide an opportunity for the working group to build programmatic partnerships aimed at strengthening earthquake resilience.

United States Government Accountability Office