

NATIONAL EARTHQUAKE HAZARDS REDUCTION
PROGRAM REAUTHORIZATION ACT OF 2025

JANUARY 12, 2026.—Ordered to be printed

Mr. WESTERMAN, from the Committee on Natural Resources,
submitted the following

R E P O R T

together with

ADDITIONAL VIEWS

[To accompany H.R. 3168]

[Including cost estimate of the Congressional Budget Office]

The Committee on Natural Resources, to whom was referred the bill (H.R. 3168) to reauthorize the Earthquake Hazards Reduction Act of 1977, and for other purposes, having considered the same, reports favorably thereon without amendment and recommends that the bill do pass.

PURPOSE OF THE LEGISLATION

The purpose of H.R. 3168 is to reauthorize the Earthquake Hazards Reduction Act of 1977, and for other purposes.

BACKGROUND AND NEED FOR LEGISLATION

The U.S. Geological Survey (USGS) is in charge of monitoring and reporting earthquakes, assessing damage, and researching their causes and effects.¹ The National Earthquake Hazards Reduction Program (NEHRP)² is aimed at gaining a better under-

¹“Earthquake Hazards Program,” U.S. Geological Survey, <https://www.usgs.gov/programs/earthquake-hazards>.

²42 U.S.C. 7704.

standing of earthquakes while also reducing risks in the U.S.³ NEHRP is a joint-agency effort led by the National Institute of Standards and Technology (NIST), with support from the USGS, the National Science Foundation, and the Federal Emergency Management Agency (FEMA).⁴ These agencies work together in various scientific pursuits, but they also have individual goals for mitigating damage from earthquakes.

NEHRP was first authorized in 1977⁵ with the goal of managing the impacts of earthquakes on life, property, and the economy.⁶ The program was designed to achieve this goal through a large, coordinated effort between the community of earthquake professionals in academia, businesses, government agencies, and codes and standards organizations that develop earthquake building codes.⁷ NEHRP has been reauthorized several times, most recently in 2018.⁸ The 2018 reauthorization established the first operational earthquake early warning system in the U.S., aptly named ShakeAlert.⁹

ShakeAlert operates in California, Oregon, and Washington and aims to quickly alert people who are in the affected areas of an earthquake.¹⁰ This application, run by the USGS, can save thousands of lives and millions of dollars by alerting an individual's phone or other electronic device, notifying them that an earthquake has been detected. The application has been successfully integrated into several industries across the West Coast, including the Metrolink in southern California¹¹ where it has been integrated into Metrolink's Positive Train Control systems to automatically slow or stop trains when an alert is received.¹² H.R. 3168 reauthorizes NEHRP through Fiscal Year (FY) 2030.

COMMITTEE ACTION

H.R. 3168 was introduced on May 1, 2025, by Representative David Valadao (R-CA). The bill was referred to the Committee on Natural Resources, and within the Committee to the Subcommittee on Energy and Mineral Resources. The bill was also referred to the Committees on Science, Space, and Technology and Transportation and Infrastructure. On May 20, 2025, the Subcommittee on Energy and Mineral Resources held a hearing on the bill. On June 25, 2025, the Committee on Natural Resources met to consider the bill. The Subcommittee on Energy and Mineral Resources was discharged from further consideration of H.R. 3168 by unanimous consent. The bill was ordered favorably reported to the House of Representatives by unanimous consent.

³Linda R. Rowan, "The National Earthquake Hazards Reduction Program (NEHRP): Overview and Issues for Congress," Congressional Research Service, November 4, 2024, <https://www.congress.gov/crs-product/R43141>.

⁴*Id.*

⁵42 U.S.C. 7704.

⁶"The National Earthquake Hazards Reduction Program (NEHRP) Overview," Federal Emergency Management Agency, July 2019, https://www.fema.gov/sites/default/files/documents/fema_nehrp_overview_fact_sheet.pdf.

⁷*Id.*

⁸P.L. 115-307.

⁹*Id.*

¹⁰*Id.*

¹¹"Case Studies," ShakeAlert, <https://www.shakealert.org/education-and-outreach/case-studies/>.

¹²*Id.*

HEARINGS

For the purposes of clause 3(c)(6) of House rule XIII, the following hearing was used to develop or consider this measure: hearing by the Subcommittee on Energy and Mineral Resources held on May 20, 2025.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 designates the bill as the “National Earthquake Hazards Reduction Program Reauthorization Act of 2025”.

Section 2. Improvements to National Earthquake Hazards Reduction program

Section 2 makes technical changes to the Earthquake Hazards Reduction Act to include Tribal governments in NEHRP activities. It also adds the Chair of the Federal Communications Commission (FCC) as a Member of the Interagency Coordinating Committee on Earthquake Hazards Reduction and adds the Chair of the Scientific Earthquake Studies Advisory Committee as a Member of the Advisory Committee on Earthquake Hazards Reduction.

Section 2 further clarifies USGS’s responsibility by requiring the agency to coordinate with the Chair of the FCC, Administrator of the National Oceanic and Atmospheric Administration, and Administrator of the FEMA on data sharing and resource allocation in the event of an oceanic earthquake and tsunami. Section 2 also extends USGS’s responsibilities to include communicating with State, local, and Tribal governments on earthquake early warning improvements, as well as expanding the earthquake early warning system to include additional high-risk areas for increased detection and providing aftershock notifications when a significant earthquake is detected.

Section 3. Authorization of appropriations

Section 3 authorizes appropriations for this program through FY 2030 at current funding levels of \$83,403,000 per year.

COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

Regarding clause 2(b)(1) of rule X and clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee on Natural Resources’ oversight findings and recommendations are reflected in the body of this report.

COMPLIANCE WITH HOUSE RULE XIII AND
CONGRESSIONAL BUDGET ACT

1. *Cost of Legislation and the Congressional Budget Act.* With respect to the requirements of clause 3(c)(2) and (3) of rule XIII of the Rules of the House of Representatives and sections 308(a) and 402 of the Congressional Budget Act of 1974, the Committee has received the following estimate for the bill from the Director of the Congressional Budget Office:

H.R. 3168, National Earthquake Hazards Reduction Program Reauthorization Act of 2025 As ordered reported by the House Committee on Natural Resources on June 25, 2025			
By Fiscal Year, Millions of Dollars	2025	2025-2030	2025-2035
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	0	383	409
Increases <i>net direct spending</i> in any of the four consecutive 10-year periods beginning in 2036?	No	Statutory pay-as-you-go procedures apply?	No
		Mandate Effects	
Increases <i>on-budget deficits</i> in any of the four consecutive 10-year periods beginning in 2036?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

H.R. 3168 would amend the Earthquake Hazards Reduction Act of 1977 to make changes to the National Earthquake Hazards Reduction Program, an interagency program focused on reducing earthquake-related risks to life and property. H.R. 3168 also would authorize appropriations of \$83 million annually for fiscal years 2026 through 2030 for the U.S. Geological Survey (USGS) to implement the program. Of that amount, \$30 million would be used for the Advanced National Seismic System which disseminates real-time information to communities about seismic activity to support response efforts.

Additionally, the bill would require the USGS to coordinate with the Federal Communications Commission and other agencies to improve and expand early warning systems for earthquakes, aftershocks, and tsunamis. The agencies also would be required to report to the Congress every two years about activities related to the program.

CBO assumes that the bill will be enacted near the end of calendar year 2025 and that the authorized amounts will be provided for each year beginning in 2026. In 2024, the USGS allocated \$100 million for the program from funds provided in the appropriation acts for that year. Based on historical spending patterns, CBO estimates that reauthorizing the program would cost \$383 million over the 2025–2030 period and \$26 million after 2030, assuming appropriation of the authorized amounts.

The costs of the legislation, detailed in Table 1, fall within budget function 300 (natural resources and environment).

TABLE 1.—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER H.R. 3168

	By fiscal year, millions of dollars—						
	2025	2026	2027	2028	2029	2030	2025–2030
Authorization	0	83	83	83	83	83	415
Estimated Outlays	0	60	78	81	82	82	383

On June 24, 2025, CBO transmitted a cost estimate for S. 320, the National Earthquake Hazard Reduction Program Reauthoriza-

tion Act of 2025, as ordered reported by the Senate Committee on Commerce, Science, and Transportation on April 30, 2025. The Senate bill would authorize appropriations for multiple agencies for different amounts and for a different period than the House bill. The estimates reflect those differences.

The CBO staff contact for this estimate is Aurora Swanson. The estimate was reviewed by H. Samuel Papenfuss, Deputy Director of Budget Analysis.

PHILLIP L. SWAGEL,
Director, Congressional Budget Office.

2. *General Performance Goals and Objectives.* As required by clause 3(c)(4) of rule XIII, the general performance goal or objective of this bill is to reauthorize the Earthquake Hazards Reduction Act of 1977, and for other purposes.

EARMARK STATEMENT

This bill does not contain any Congressional earmarks, limited tax benefits, or limited tariff benefits as defined under clause 9(e), 9(f), and 9(g) of rule XXI of the Rules of the House of Representatives.

UNFUNDED MANDATES REFORM ACT STATEMENT

According to the Congressional Budget Office, H.R. 3168 contains no unfunded mandates as defined by the Unfunded Mandates Reform Act.

EXISTING PROGRAMS

Directed Rule Making. This bill does not contain any directed rule makings.

Duplication of Existing Programs. This bill does not establish or reauthorize a program of the federal government known to be duplicative of another program. Such program was not included in any report from the Government Accountability Office to Congress pursuant to section 21 of Public Law 111–139 or identified in the most recent Catalog of Federal Domestic Assistance published pursuant to the Federal Program Information Act (Public Law 95–220, as amended by Public Law 98–169) as relating to other programs.

APPLICABILITY TO LEGISLATIVE BRANCH

The Committee finds that the legislation does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act.

PREEMPTION OF STATE, LOCAL OR TRIBAL LAW

Any preemptive effect of this bill over state, local, or tribal law is intended to be consistent with the bill’s purposes and text and the Supremacy Clause of Article VI of the U.S. Constitution.

CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill,

as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italics, and existing law in which no change is proposed is shown in roman):

EARTHQUAKE HAZARDS REDUCTION ACT OF 1977

* * * * *

SEC. 5. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established the National Earthquake Hazards Reduction Program.

(2) PROGRAM ACTIVITIES.—The activities of the Program shall be designed to—

(A) develop effective measures for earthquake hazards reduction;

(B) promote the adoption of earthquake hazards reduction measures by Federal, State, [and local] *local, and Tribal* governments, national standards and model code organizations, architects and engineers, building owners, and others with a role in planning [and constructing], *designing, constructing, evaluating, and retrofitting* buildings, structures, and lifeline infrastructure through—

(i) grants, contracts, cooperative agreements, and technical assistance;

[(ii) development of standards, guidelines, and voluntary consensus codes for earthquake hazards reduction for buildings, structures, and lifeline infrastructure;]

(ii) development of standards, guidelines, and voluntary standards, guidelines, and consensus codes for earthquake hazards reduction for buildings, structures, and lifeline infrastructure, including post-earthquake recovery-based performance objectives that address re-occupancy and downtime of community-prioritized buildings, structures, and services provided by lifeline infrastructure;

(iii) development and maintenance of a repository of information, including technical data, on seismic risk, community resilience, [and hazards reduction; and] *functional recovery, and other hazards reduction topics;*

(iv) publishing *and maintaining* a systematic set of maps of active faults and folds, liquefaction susceptibility, *in coordination with the National Tsunami Hazards Mitigation Program, tsunami susceptibility,* susceptibility for earthquake induced landslides, and other seismically induced hazards; and

(C) improve the understanding of earthquakes and their effects on communities, buildings, structures, and lifeline infrastructure, through interdisciplinary research that involves engineering, natural sciences, and social, economic, and decisions sciences; and

(D) continue the development of the Advanced National Seismic System, including earthquake early warning capabilities and the Global Seismographic Network.

(3) INTERAGENCY COORDINATING COMMITTEE ON EARTHQUAKE HAZARDS REDUCTION.—

(A) IN GENERAL.—There is established an Interagency Coordinating Committee on Earthquake Hazards Reduction chaired by the Director of the National Institute of Standards and Technology (referred to in this subsection as the “Director”).

(B) MEMBERSHIP.—In addition to the Director, the committee shall be composed of—

- (i) the Administrator of the Federal Emergency Management Agency;
- (ii) the Director of the United States Geological Survey;
- (iii) the Director of the National Science Foundation;
- (iv) the Director of the Office of Science and Technology Policy; and
- (v) the Director of the Office of Management and Budget.

(C) MEETINGS.—The Committee shall meet not less frequently than once each year at the call of the Director.

(D) DUTIES.—

(i) GENERAL DUTY.—The Interagency Coordinating Committee shall oversee the planning, management, and coordination of the Program.

(ii) SPECIFIC DUTIES.—The duties of the Interagency Coordinating Committee include the following:

(I) Developing, not later than 6 months after the date of the enactment of the National Earthquake Hazards Reduction Program Reauthorization Act of 2004 and updating periodically—

(aa) a strategic plan that establishes goals and priorities for the Program activities described under subsection (a)(2); and

(bb) a detailed management plan to implement such strategic plan.

(II) Developing a coordinated interagency budget for the Program that will ensure appropriate balance among the Program activities described under subsection (a)(2), and, in accordance with the plans developed under subclause (I), submitting such budget to the Director of the Office of Management and Budget at the time designated by the Director for agencies to submit biennial budgets.

(III) Developing interagency memorandums of understanding with any relevant Federal agencies on data sharing and resource commitment in the event of an earthquake disaster.

(IV) Coordinating with the Interagency Coordinating Committee on Windstorm Impact Reduction and other natural hazards coordination com-

mittees as the Director determines appropriate to share data and best practices.

(V) Coordinating with the Administrator of the National Aeronautics and Space Administration and the Administrator of the National Oceanic and Atmospheric Administration on data sharing and resource allocation to ensure judicious use of Government resources and the free-flowing exchange of information related to earthquakes *and associated secondary hazards*.

(VI) Coordinating with the Secretary of Agriculture and the Secretary of the Interior on the use of public lands for earthquake monitoring and research stations, and related data collection.

(VII) Coordinating with the Secretary of Transportation and the Secretary of Housing and Urban Development on the effects of earthquakes on transportation and housing stocks.

(VIII) Coordinating with the Chair of the Federal Communications Commission on the timely broadcasting of emergency alerts generated by the earthquake early warning system.

(iii) ASSISTANCE FROM SECRETARY OF AGRICULTURE AND SECRETARY OF THE INTERIOR.—To the extent practicable, the Secretary of Agriculture and the Secretary of the Interior shall expedite any request for a permit to use public land under clause (ii)(VI).

(4) BIENNIAL REPORT.—

(A) IN GENERAL.—Not less frequently than once every two years, the Interagency Coordinating Committee shall submit to the Committee on Commerce, Science, and Transportation, the Committee on Energy and Natural Resources, and the Committee on Homeland Security and Governmental Affairs of the Senate and the Committee on Science, Space, and Technology, the Committee on Energy and Commerce, the Committee on Natural Resources, and the Committee on Homeland Security of the House of Representatives a report on the Program. Such report shall include—

(i) the Program budget for the current fiscal year for each agency that participates in the Program, and for each major goal established for the Program activities **【under paragraph (3)(D)(i)(I)】** *under paragraph (3)(D)(ii)(I)*;

(ii) the proposed Program budget for the next fiscal year for each agency that participates in the Program, and for each major goal established for the Program activities **【under paragraph (3)(D)(i)(I)】** *under paragraph (3)(D)(ii)(I)*;

(iii) a description of the activities and results of the Program during the previous year, including an assessment of the effectiveness of the Program in furthering the goals established in the strategic plan **【under paragraph (3)(D)(i)(I)】** *under paragraph (3)(D)(ii)(I)*;

(iv) a description of the extent to which the Program has incorporated the recommendations of the Advisory Committee;

(v) a description of activities, including budgets for the current fiscal year and proposed budgets for the next fiscal year, that are carried out by Program agencies and contribute to the Program, but are not included in the Program;

(vi) a description of the activities, including budgets for the current fiscal year and proposed budgets for the following fiscal year, related to the grant program carried out under subsection (b)(2)(A)(i); and

(vii) a statement regarding whether the Administrator of the Federal Emergency Management Agency has lowered or waived the cost share requirement for assistance provided under subsection (b)(2)(A)(i).

(B) SUPPORT FOR PREPARATION OF REPORT.—Each head of a Program agency shall submit to the Director of the National Institute of Standards and Technology such information as the Director may request for the preparation of a report under subparagraph (A) not later than 90 days after the date on which the Director requests such information.

(5) ADVISORY COMMITTEE.—

(A) IN GENERAL.—The Director shall establish an Advisory Committee on Earthquake Hazards Reduction of at least 11 members, none of whom may be an employee (as defined in subparagraphs (A) through (F) of section 7342(a)(1) of title 5, United States Code, including *the Chair of the Scientific Earthquake Studies Advisory Committee* and representatives of research and academic institutions, industry standards development organizations, State [and local government], *local, and Tribal governments*, and financial communities who are qualified to provide advice on earthquake hazards reduction and represent all related scientific, architectural, and engineering disciplines. The recommendations of the Advisory Committee shall be considered by Federal agencies in implementing the Program.

(B) ASSESSMENT.—The Advisory Committee shall assess—

(i) trends and developments in the science and engineering of earthquake hazards reduction;

(ii) effectiveness of the Program in carrying out the activities under (a)(2);

(iii) the need to revise the Program; and

(iv) the management, coordination, implementation, and activities of the Program.

(C) REPORT.—Not later than 1 year after the date of enactment of the National Earthquake Hazards Reduction Program Reauthorization Act of 2004 and at least once every 2 years thereafter, the Advisory Committee shall report to the Director on its findings of the assessment carried out under subparagraph (B) and its recommendations for ways to improve the Program. In developing rec-

ommendations, the Committee shall consider the recommendations of the United States Geological Survey Scientific Earthquake Studies Advisory Committee.

(D) APPLICATION OF CHAPTER 10 OF TITLE 5, UNITED STATES CODE.—Section 1013 of title 5, United States Code, shall not apply to the Advisory Committee.

(b) RESPONSIBILITIES OF PROGRAM AGENCIES.—

(1) LEAD AGENCY.—The National Institute of Standards and Technology shall have the primary responsibility for planning and coordinating the Program. In carrying out this paragraph, the Director of the Institute shall—

(A) ensure that the Program includes the necessary steps to promote the implementation of earthquake hazard reduction measures by Federal, State, and local governments, national standards and model building code organizations, architects and engineers, and others with a role in planning and constructing buildings and lifeline infrastructure;

(B) support the development of performance-based seismic engineering tools, and work with appropriate groups to promote the commercial application of such tools, through earthquake-related building codes, standards, and construction practices;

(C) request the assistance of Federal agencies other than the Program agencies, as necessary to assist in carrying out this Act; and

(D) work with the Federal Emergency Management Agency, the National Science Foundation, and the United States Geological Survey, to develop a comprehensive plan for earthquake engineering research to provide new and effectively use existing testing facilities and laboratories (existing at the time of the development of the plan), upgrade facilities and equipment as needed, and integrate new, innovative testing approaches to the research infrastructure in a systematic manner.

(2) DEPARTMENT OF HOMELAND SECURITY; FEDERAL EMERGENCY MANAGEMENT AGENCY.—

(A) PROGRAM RESPONSIBILITIES.—The Administrator of the Federal Emergency Management Agency—

(i) shall operate a program of grants and assistance to enable States to develop mitigation, preparedness, and response plans, purchase necessary instrumentation, prepare inventories and conduct seismic safety inspections of critical structures and lifeline infrastructure, update building, land use planning, and zoning codes and ordinances to enhance seismic safety, increase earthquake awareness and education, and provide assistance to multi-State groups for such purposes;

(ii) shall support the implementation of a comprehensive earthquake education, outreach, and public awareness program, including development of materials and their wide dissemination to all appropriate audiences and support public access to locality-specific information that may assist the public in preparing

for, mitigating against, responding to and recovering from earthquakes and related disasters;

(iii) shall, in conjunction with the Director of the National Institute of Standards and Technology, other Federal agencies, and private sector groups, use research results to support the preparation, maintenance, and wide dissemination of seismic resistant design guidance and related information on building codes, standards, and practices for new and existing buildings, structures, and lifeline infrastructure, aid in the development of performance-based design guidelines and methodologies, and support model codes that are cost effective and affordable in order to promote better practices within the design and construction industry and reduce losses from earthquakes;

(iv) shall enter into cooperative agreements or contracts with States and local jurisdictions and other Federal agencies to establish demonstration projects on earthquake hazard mitigation, to link earthquake research and mitigation efforts with emergency management programs, or to prepare educational materials for national distribution; and

(v) shall support the Director of the National Institute of Standards and Technology in the completion of programmatic goals.

(B) STATE ASSISTANCE PROGRAM CRITERIA.—In order to qualify for assistance under subparagraph (A)(i), a State must—

(i) demonstrate that the assistance will result in enhanced seismic safety in the State;

(ii) provide 25 percent of the costs of the activities for which assistance is being given, except that the Administrator may lower or waive the cost-share requirement for these activities for a small impoverished community, as defined in section 203 of the Disaster Relief Act of 1974 (42 U.S.C. 5133(a)); and

(iii) meet such other requirements as the Administrator shall prescribe.

(3) UNITED STATES GEOLOGICAL SURVEY.—The United States Geological Survey shall report on significant domestic and international earthquakes and conduct research and other activities necessary to characterize and identify earthquake hazards, assess earthquake risks, monitor seismic activity, and improve earthquake forecasts. In carrying out this paragraph, the Director of the United States Geological Survey shall—

(A) conduct a systematic assessment of the seismic risks in each region of the Nation prone to earthquakes, including, where appropriate, the establishment and operation of intensive monitoring projects on hazardous faults, seismic microzonation studies in urban and other developed areas where earthquake risk is determined to be significant, and engineering seismology studies;

(B) work with officials of State [and local], *local*, and *Tribal* governments to ensure that they are knowledgeable about the specific seismic risks in their areas;

(C) develop standard procedures, in consultation with the Administrator of the Federal Emergency Management Agency, *the Chair of the Federal Communications Commission*, and the Director of the National Institute of Standards and Technology, for issuing earthquake alerts and early warnings;

(D) *coordinate with the Administrator of the National Oceanic and Atmospheric Administration and the Administrator of the Federal Emergency Management Agency on data sharing and resource allocation to support a timely response to oceanic earthquakes and tsunamis;*

(E) *in consultation with the Chair of the Federal Communications Commission, ensure that earthquake alerts and early warnings are broadcast as rapidly and reliably as possible, in the predominant languages in the affected region, to ensure maximum warning time for nearby persons;*

(F) *expand the earthquake early warning system within and to additional high risk hazard areas, including making improvements as practicable to improve detection and increase the time between warning messages and perceptible ground motion;*

(G) *coordinating with affected State and Tribal governments on earthquake early warning system improvements;*

(H) *issue earthquake forecasts, when appropriate, for aftershocks associated with significant earthquakes in the United States;*

[(D)] (I) issue when necessary and feasible, and notify the Administrator of the Federal Emergency Management Agency, *the Chair of the Federal Communications Commission*, the Director of the National Institute of Standards and Technology, and State and local officials, an alert and an earthquake warning;

[(E)] (J) operate, including the National Earthquake Information Center, a forum for the international exchange of earthquake information which shall—

(i) promote the exchange of information on earthquake research and earthquake preparedness between the United States and other nations;

(ii) maintain a library containing selected reports, research papers, and data produced through the Program;

(iii) answer requests from other nations for information on United States earthquake research and earthquake preparedness programs; and

(iv) direct foreign requests to the agency involved in the Program which is best able to respond to the request;

[(F)] (K) operate a National Seismic System;

[(G)] (L) support regional seismic networks, which shall complement the National Seismic Network**;** and**;**

[(H)] (M) work with the National Science Foundation, the Federal Emergency Management Agency, and the National Institute of Standards and Technology to develop a

comprehensive plan for earthquake engineering research to effectively use existing testing facilities and laboratories (in existence at the time of the development of the plan), upgrade facilities and equipment as needed, and integrate new, innovative testing approaches to the research infrastructure in a systematic manner[.];

[(I)] (N) work with other Program agencies to coordinate Program activities with similar earthquake hazards reduction efforts in other countries, to ensure that the Program benefits from relevant information and advances in those countries;

[(J)] (O) maintain suitable seismic hazard maps and data in support of building codes for structures and lifeline infrastructure, including *maps of natural hazards associated with earthquakes* and additional maps needed for performance-based design approaches; and

[(K)] (P) support the Director of the National Institute of Standards and Technology in the completion of programmatic goals.

(4) NATIONAL SCIENCE FOUNDATION.—

(A) IN GENERAL.—The National Science Foundation shall be responsible for funding research on earth sciences to improve the understanding of the causes and behavior of earthquakes, on earthquake engineering, and on human response to earthquakes. In carrying out this paragraph, the Director of the National Science Foundation shall—

(i) encourage prompt dissemination of significant findings, sharing of data, samples, physical collections, and other supporting materials, and development of intellectual property so research results can be used by appropriate organizations to mitigate earthquake damage;

(ii) in addition to supporting individual investigators, support university research consortia, State agencies, State geological surveys, and centers for research in geosciences and in earthquake engineering;

(iii) work closely with the United States Geological Survey to support applied science in the production of a systematic series of earthquake-related geologic hazard maps, and to identify geographic regions of national concern that should be the focus of targeted solicitations for earthquake-related research proposals;

(iv) support research that improves the safety and performance of buildings, structures, and lifeline systems using experimental and computational facilities;

(v) emphasize, in earthquake engineering research, development of economically feasible methods to retrofit existing buildings and to protect lifeline infrastructure to mitigate earthquake damage;

(vi) support research that studies the political, economic, and social factors that influence the implementation of hazard reduction measures;

(vii) include to the maximum extent practicable diverse institutions, including Historically Black Colleges and Universities and those serving large propor-

tions of Hispanics, Native Americans, Asian-Pacific Americans, and other underrepresented populations;

(viii) develop, in conjunction with the Federal Emergency Management Agency, the National Institute of Standards and Technology, and the United States Geological Survey, a comprehensive plan for earthquake engineering research to effectively use existing testing facilities and laboratories (in existence at the time of the development of the plan), upgrade facilities and equipment as needed, and integrate new, innovative testing approaches to the research infrastructure in a systematic manner; and

(ix) support the Director of the National Institute of Standards and Technology in the completion of programmatic goals.

(B) IDENTIFICATION OF FUNDING.—The National Science Foundation shall—

(i) to the extent practicable, note in any notice of Program funding or other funding possibilities under the Program that the funds are part of the Program;

(ii) to the extent practicable, track the awarding of Federal funds through the Program; and

(iii) not less frequently than once every 2 years, submit to the director of the Program a report specifying the amount of Federal funds awarded to conduct research that enhances the understanding of earthquake science.

(5) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—In addition to the lead agency responsibilities described under paragraph (1), the National Institute of Standards and Technology shall be responsible for carrying out research and development to improve community resilience through building codes and standards and practices for structures and lifeline infrastructure. In carrying out this paragraph, the Director of the National Institute of Standards and Technology shall—

(A) work closely with national standards and model building code organizations, in conjunction with the Agency, to promote the implementation of research results;

(B) promote better building practices among architects and engineers;

(C) work closely with national standards organizations to develop seismic safety standards and practices for new and existing lifeline infrastructure;

(D) support the development and commercial application of cost effective and affordable performance-based seismic engineering by providing technical support for seismic engineering practices and related building code, standards, and practices development; and

(E) work with the National Science Foundation, the Federal Emergency Management Agency, and the United States Geological Survey to develop a comprehensive plan for earthquake engineering research to effectively use existing testing facilities and laboratories (in existence at the time of the development of the plan), upgrade facilities and equipment as needed, and integrate new, innovative test-

ing approaches to the research infrastructure in a systematic manner.

(c) BUDGET COORDINATION.—

(1) GUIDANCE.—The Interagency Coordinating Committee shall each year provide guidance to the other Program agencies concerning the preparation of requests for appropriations for activities related to the Program, and shall prepare, in conjunction with the other Program agencies, an annual Program budget to be submitted to the Office of Management and Budget.

(2) REPORTS.—Each Program agency shall include with its annual request for appropriations submitted to the Office of Management and Budget a report that—

(A) identifies each element of the proposed Program activities of the agency;

(B) specifies how each of these activities contributes to the Program; and

(C) states the portion of its request for appropriations allocated to each element of the Program.

* * * * *

SEC. 12. AUTHORIZATION OF APPROPRIATIONS.

(a)(1) GENERAL.—There are authorized to be appropriated to the President to carry out the provisions of section 5 and 6 of this Act (in addition to any authorizations for similar purposes included in other Acts and the authorizations set forth in subsections (b) and (c) of this section), not to exceed \$1,000,000 for the fiscal year ending September 30, 1978, not to exceed \$2,000,000 for the fiscal year ending September 30, 1979, and not to exceed \$2,000,000 for the fiscal year ending September 30, 1980.

(2) There are authorized to be appropriated to the Director to carry out the provisions of sections 5 and 6 of this Act for the fiscal year ending September 30, 1981—

(A) \$1,000,000 for continuation of the Interagency Committee on Seismic Safety in Construction and the Building Seismic Safety Council programs,

(B) \$1,500,000 for plans and preparedness for earthquake disasters,

(C) \$500,000 for prediction response planning,

(D) \$600,000 for architectural and engineering planning and practice programs,

(E) \$1,000,000 for development and application of a public education program,

(F) \$3,000,000 for use by the National Science Foundation in addition to the amount authorized to be appropriated under subsection (c), which amount includes \$2,400,000 for earthquake policy research and \$600,000 for the strong ground motion element of the siting program, and

(G) \$1,000,000 for use by the Center for Building Technology, National Bureau of Standards in addition to the amount authorized to be appropriated under subsection (d) for earthquake activities in the Center.

(3) There are authorized to be appropriated to the Director for the fiscal year ending September 30, 1982, \$2,000,000 to carry out the provisions of section 5 and 6 of this Act.

(4) There are authorized to be appropriated to the Director, to carry out the provisions of section 5 and 6 of this Act, \$1,281,000 for the fiscal year ending September 30, 1983.

(5) There are authorized to be appropriated to the Director, to carry out the provisions of section 5 and 6 of this Act, for the fiscal year ending September 30, 1984, \$3,705,000 and for the fiscal year ending September 30, 1985, \$6,096,000.

(6) There are authorized to be appropriated to the Director, to carry out the provisions of section 5 and 6 of this Act, for the fiscal year ending September 30, 1986, \$5,596,000, and for the fiscal year ending September 30, 1987, \$5,848,000.

(7) There are authorized to be appropriated to the Director of the Agency, to carry out this Act, \$5,778,000 for the fiscal year ending September 30, 1988, \$5,788,000 for the fiscal year ending September 30, 1989, \$8,798,000 for the fiscal year ending September 30, 1990, \$14,750,000 for the fiscal year ending September 30, 1991, \$19,000,000 for the fiscal year ending September 30, 1992, \$22,000,000 for the fiscal year ending September 30, 1993, \$25,000,000 for the fiscal year ending September 30, 1995, \$25,750,000 for the fiscal year ending September 30, 1996, \$20,900,000 for the fiscal year ending September 30, 1998, \$21,500,000 for the fiscal year ending September 30, 1999; \$19,861,000 for the fiscal year ending September 30, 2001, of which \$450,000 is for National Earthquake Hazard Reduction Program-eligible efforts of an established multi-state consortium to reduce the unacceptable threat of earthquake damages in the New Madrid seismic region through efforts to enhance preparedness, response, recovery, and mitigation; \$20,705,000 for the fiscal year ending September 30, 2002; and \$21,585,000 for the fiscal year ending September 30, 2003.

(8) There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this title—

- (A) \$21,000,000 for fiscal year 2005,
- (B) \$21,630,000 for fiscal year 2006,
- (C) \$22,280,000 for fiscal year 2007,
- (D) \$22,950,000 for fiscal year 2008,
- (E) \$23,640,000 for fiscal year 2009,
- (F) \$8,758,000 for fiscal year 2019,
- (G) \$8,758,000 for fiscal year 2020,
- (H) \$8,758,000 for fiscal year 2021,
- (I) \$8,758,000 for fiscal year 2022, and
- (J) \$8,758,000 for fiscal year 2023,

of which not less than 10 percent of available program funds actually appropriated shall be made available each such fiscal year for supporting the development of performance-based, cost-effective, and affordable design guidelines and methodologies in codes for buildings, structures, and lifeline infrastructure.

(b) GEOLOGICAL SURVEY.—(1) There are authorized to be appropriated to the Secretary of the Interior for purposes for carrying out, through the Director of the United States Geological Survey, the responsibilities that may be assigned to the Director under this Act not to exceed \$27,500,000 for the fiscal year ending September 30, 1978; not to exceed \$35,000,000 for the fiscal year ending September 30, 1979; not to exceed \$40,000,000 for the fiscal year end-

ing September 30, 1980; \$32,484,000 for the fiscal year ending September 30, 1981; \$34,425,000 for the fiscal year ending September 30, 1982; \$31,843,000 for the fiscal year ending September 30, 1983; \$35,524,000 for the fiscal year ending September 30, 1984; \$37,300,200 for the fiscal year ending September 30, 1985; \$35,578,000 for the fiscal year ending September 30, 1986; \$37,179,000 for the fiscal year ending September 30, 1987; \$38,540,000 for the fiscal year ending September 30, 1988; \$41,819,000 for the fiscal year ending September 30, 1989; \$55,283,000 for the fiscal year ending September 30, 1990, of which \$8,000,000 shall be for earthquake investigations under section 11; \$50,000,000 for the fiscal year ending September 30, 1991; \$54,500,000 for the fiscal year ending September 30, 1992; \$62,500,000 for the fiscal year ending September 30, 1993; \$49,200,000 for the fiscal year ending September 30, 1995; \$50,676,000 for the fiscal year ending September 30, 1996; \$52,565,000 for the fiscal year ending September 30, 1998, of which \$3,800,000 shall be used for the Global Seismic Network operated by the Agency; and \$54,052,000 for the fiscal year ending September 30, 1999, of which \$3,800,000 shall be used for the Global Seismic Network operated by the Agency. There are authorized to be appropriated to the Secretary of the Interior for purposes of carrying out, through the Director of the United States Geological Survey, the responsibilities that may be assigned to the Director under this Act \$48,360,000 for fiscal year 2001, of which \$3,500,000 is for the Global Seismic Network and \$100,000 is for the Scientific Earthquake Studies Advisory Committee established under section 210 of the Earthquake Hazards Reduction Authorization Act of 2000; \$50,415,000 for fiscal year 2002, of which \$3,600,000 is for the Global Seismic Network and \$100,000 is for the Scientific Earthquake Studies Advisory Committee; and \$52,558,000 for fiscal year 2003, of which \$3,700,000 is for the Global Seismic Network and \$100,000 is for the Scientific Earthquake Studies Advisory Committee. Of the amounts authorized to be appropriated under this paragraph, at least—

(A) \$8,000,000 of the amount authorized to be appropriated for the fiscal year ending September 30, 1998;

(B) \$8,250,000 of the amount authorized for the fiscal year ending September 30, 1999;

(C) \$9,000,000 of the amount authorized to be appropriated for fiscal year 2001;

(D) \$9,250,000 of the amount authorized to be appropriated for fiscal year 2002; and

(E) \$9,500,000 of the amount authorized to be appropriated for fiscal year 2003,

shall be used for carrying out a competitive, peer-reviewed program under which the Director, in close coordination with and as a complement to related activities of the United States Geological Survey, awards grants to, or enters into cooperative agreements with, State and local governments and persons or entities from the academic community and the private sector.

(2) There are authorized to be appropriated to the United States Geological Survey for carrying out this title—

(A) \$77,000,000 for fiscal year 2005, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(B) \$84,410,000 for fiscal year 2006, of which not less than \$36,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(C) \$85,860,000 for fiscal year 2007, of which not less than \$36,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(D) \$87,360,000 for fiscal year 2008, of which not less than \$36,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(E) \$88,900,000 for fiscal year 2009, of which not less than \$36,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(F) \$83,403,000 for fiscal year 2019, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 7707 of this title;

(G) \$83,403,000 for fiscal year 2020, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 7707 of this title;

(H) \$83,403,000 for fiscal year 2021, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 7707 of this title;

(I) \$83,403,000 for fiscal year 2022, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 7707 of this title; **[and]**

(J) \$83,403,000 for fiscal year 2023, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 7707 of this title**[.]**;

(K) \$83,403,000 for fiscal year 2026, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(L) \$83,403,000 for fiscal year 2027, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(M) \$83,403,000 for fiscal year 2028, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;

(N) \$83,403,000 for fiscal year 2029, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13;
and

(O) \$83,403,000 for fiscal year 2030, of which not less than \$30,000,000 shall be made available for completion of the Advanced National Seismic System established under section 13.

(c) NATIONAL SCIENCE FOUNDATION.—(1) To enable the Foundation to carry out responsibilities that may be assigned to it under this Act, there are authorized to be appropriated to the Foundation not to exceed \$27,500,000 for the fiscal year ending September 30,

1978; not to exceed \$35,000,000 for the fiscal year ending September 30, 1979; not to exceed \$40,000,000 for the first year ending September 30, 1980; \$26,600,000 for the fiscal year ending September 30, 1981; \$27,150,000 for the fiscal year ending September 30, 1982; \$25,000,000 for the fiscal year ending September 30, 1983; \$25,800,000 for the fiscal year ending September 30, 1984; \$28,665,000 for the fiscal year ending September 30, 1985; \$27,760,000 for the fiscal year ending September 30, 1986; \$29,009,000 for the fiscal year ending September 30, 1987; \$28,235,000 for the fiscal year ending September 30, 1988; \$31,634,000 for the fiscal year ending September 30, 1989; \$38,454,000 for the fiscal year ending September 30, 1990. Of the amounts authorized for Engineering under section 101(d)(1)(B) of the National Science Foundation Authorization Act of 1988, \$24,000,000 is authorized for carrying out this Act for the fiscal year ending September 30, 1991, and of the amounts authorized for Geosciences under section 101(d)(1)(D) of the National Science Foundation Authorization Act of 1988, \$13,000,000 is authorized for carrying out this Act for the fiscal year ending September 30, 1991. Of the amounts authorized for Research and Related Activities under section 101(e)(1) of the National Science Foundation Authorization Act of 1988, \$29,000,000 is authorized for engineering research under this Act, and \$14,750,000 is authorized for geosciences research under this Act, for the fiscal year ending September 30, 1992. Of the amounts authorized for Research and Related Activities under section 101(f)(1) of the National Science Foundation Authorization Act of 1988, \$34,500,000 is authorized for engineering research under this Act, and \$17,500,000 is authorized for geosciences research under this Act, for the fiscal year ending September 30, 1993. There are authorized to be appropriated, out of funds otherwise authorized to be appropriated to the National Science Foundation: (1) \$16,200,000 for engineering research and \$10,900,000 for geosciences research for the fiscal year ending September 30, 1995, (2) \$16,686,000 for engineering research and \$11,227,000 for geosciences research for the fiscal year ending September 30, 1996, (3) \$18,450,000 for engineering research and \$11,920,000 for geosciences research for the fiscal year ending September 30, 1998, (4) \$19,000,000 for engineering research and \$12,280,000 for geosciences research for the fiscal year ending September 30, 1999. There are authorized to be appropriated to the National Science Foundation \$19,000,000 for engineering research and \$11,900,000 for geosciences research for fiscal year 2001; \$19,808,000 for engineering research and \$12,406,000 for geosciences research for fiscal year 2002; and \$20,650,000 for engineering research and \$12,933,000 for geosciences research for fiscal year 2003.

(2) There are authorized to be appropriated to the National Science Foundation for carrying out this title—

- (A) \$38,000,000 for fiscal year 2005;
- (B) \$39,140,000 for fiscal year 2006;
- (C) \$40,310,000 for fiscal year 2007;
- (D) \$41,520,000 for fiscal year 2008;
- (E) \$42,770,000 for fiscal year 2009;
- (F) \$54,000,000 for fiscal year 2019,
- (G) \$54,000,000 for fiscal year 2020,

- (H) \$54,000,000 for fiscal year 2021,
- (I) \$54,000,000 for fiscal year 2022, and
- (J) \$54,000,000 for fiscal year 2023.

(d) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—(1) To enable the National Institute of Standards and Technology to carry out responsibilities that may be assigned to it under this Act, there are authorized to be appropriated \$425,000 for the fiscal year ending September 30, 1981; \$425,000 for the fiscal year ending September 30, 1982; \$475,000 for the fiscal year ending September 30, 1983; \$475,000 for the fiscal year ending September 30, 1984; \$498,750 for the fiscal year ending September 30, 1985; \$499,000 for the fiscal year ending September 30, 1986; \$521,000 for the fiscal year ending September 30, 1987; \$525,000 for the fiscal year ending September 30, 1988; \$525,000 for the fiscal year ending September 30, 1989; \$2,525,000 for the fiscal year ending September 30, 1990; \$1,000,000 for the fiscal year ending September 30, 1991; \$3,000,000 for the fiscal year ending September 30, 1992; and \$4,750,000 for the fiscal year ending September 30, 1993. There are authorized to be appropriated, out of funds otherwise authorized to be appropriated to the National Institute of Standards and Technology, \$1,900,000 for the fiscal year ending September 30, 1995; \$1,957,000 for the fiscal year ending September 30, 1996; \$2,000,000 for the fiscal year ending September 30, 1998; \$2,060,000 for the fiscal year ending September 30, 1999; \$2,332,000 for fiscal year 2001; \$2,431,000 for fiscal year 2002, and \$2,534,300 for fiscal year 2003.

(2) There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this title—

- (A) \$10,000,000 for fiscal year 2005,
- (B) \$11,000,000 for fiscal year 2006,
- (C) \$12,100,000 for fiscal year 2007,
- (D) \$13,310,000 for fiscal year 2008,
- (E) \$14,640,000 for fiscal year 2009,
- (F) \$5,900,000 for fiscal year 2019,
- (G) \$5,900,000 for fiscal year 2020,
- (H) \$5,900,000 for fiscal year 2021,
- (I) \$5,900,000 for fiscal year 2022, and
- (J) \$5,900,000 for fiscal year 2023.

of which \$2,000,000 shall be made available each such fiscal year for supporting the development of performance-based, cost-effective, and affordable codes for buildings, structures, and lifeline infrastructure.

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ADDITIONAL VIEWS

H.R. 3168 would reauthorize the National Earthquake Hazards Reduction Program (NEHRP) through FY 2030 and includes multiple improvements. Established in 1977, NEHRP's role includes reducing earthquake hazards, improving understanding of earthquakes and their effects, and developing the Advanced Seismic System, a nationwide network of seismic stations operated by the U.S. Geological Survey (USGS). NEHRP also includes programs within the Federal Emergency Management Agency (FEMA), the National Institute of Standards and Technology (NIST), and the National Science Foundation (NSF); however, H.R. 3168 does not include the parts of the program beyond the USGS. Senate companion legislation with broader reauthorization is led by Sen. Padilla (D-CA) and Sen. Murkowski (R-AK).

I support H.R. 3168 and urge passage of a comprehensive program reauthorization.

JARED HUFFMAN,
Ranking Member.

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