

NATURAL HAZARDS RISK REDUCTION ACT OF 2011

SEPTEMBER 12, 2012.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. HALL, from the Committee on Science, Space, and Technology, submitted the following

R E P O R T

together with

DISSENTING VIEWS

[To accompany H.R. 3479]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, Space, and Technology, to whom was referred the bill (H.R. 3479) to reauthorize Federal natural hazards reduction programs, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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I. AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the “Natural Hazards Risk Reduction Act of 2011”.

SEC. 2. TABLE OF CONTENTS.

The table of contents for this Act is as follows:

Sec. 1. Short title.
Sec. 2. Table of contents.

TITLE I—EARTHQUAKES

Sec. 101. Short title.
Sec. 102. Definitions.
Sec. 103. National Earthquake Hazards Reduction Program.
Sec. 104. Post-Earthquake Investigations Program.
Sec. 105. Authorization of appropriations.

TITLE II—WIND

Sec. 201. Short title.
Sec. 202. Definitions.
Sec. 203. National Windstorm Impact Reduction Program.
Sec. 204. National Advisory Committee on Windstorm Impact Reduction.
Sec. 205. Authorization of appropriations.

TITLE III—INTERAGENCY COORDINATION

Sec. 301. Interagency Coordinating Committee on Natural Hazards Risk Reduction.
Sec. 302. Coordination of Federal disaster research, development, and technology transfer.
Sec. 303. Authorizations.

TITLE IV—FIRE RESEARCH PROGRAM

Sec. 401. Fire research program.

TITLE I—EARTHQUAKES

SEC. 101. SHORT TITLE.

This title may be cited as the “National Earthquake Hazards Reduction Program Reauthorization Act of 2011”.

SEC. 102. DEFINITIONS.

Section 4 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7703) is amended by striking paragraphs (8) and (9).

SEC. 103. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

Section 5 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7704) is amended—

(1) in subsection (a)—

(A) in paragraph (1), by inserting “to be administered, as provided under this section, by the National Institute of Standards and Technology, the Federal Emergency Management Agency, the United States Geological Survey, and the National Science Foundation” after “Reduction Program”;

(B) in paragraph (2)—

(i) by amending subparagraph (A) to read as follows:

“(A) research and develop effective methods, tools, and technologies to reduce the risk posed by earthquakes to the built environment, especially to lessen the risk to existing structures and lifelines;”;

(ii) in subparagraph (B), by inserting “and retrofitting” after “planning and constructing”;

(iii) by striking “and” at the end of subparagraph (C);

(iv) in subparagraph (D), by striking the period at the end and inserting “, as appropriate; and”; and

(v) by adding at the end the following new subparagraph:

“(E) support public education and outreach to assist different populations, including individuals and households with special needs, in preparing for and responding to earthquake-related disasters.”; and

(C) by striking paragraphs (3) through (5);

(2) in subsection (b)—

(A) by amending paragraph (1) to read as follows:

“(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 components to promote the implementation of earthquake hazards risk 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, constructing, and retrofitting structures and lifelines;

“(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 model building codes, voluntary standards, and construction best practices;

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

“(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 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; and

“(E) when warranted by research or investigative findings, issue recommendations to assist in informing the development of model codes, and provide information to Congress on the use of such recommendations.”;

(B) in paragraph (3)—

(i) in subparagraph (A), by striking “seismic microzonation” and inserting “detailed seismic hazard and risk”;

(ii) by amending subparagraphs (F) and (G) to read as follows:

“(F) operate, in cooperation with the National Science Foundation, a Global Seismographic Network for detection of earthquakes around the world and research into fundamental earth processes;

“(G) support the operation of regional seismic networks in areas of higher seismic risk.”;

(iii) by striking the period at the end of subparagraph (H) and inserting a semicolon; and

(iv) by amending subparagraph (I) to read as follows:

“(I) work with other Program agencies to maintain awareness of, and where appropriate coordinate with, earthquake risk reduction efforts in other countries to ensure that the Program benefits from relevant information and advances in those countries; and”;

(C) in paragraph (4)(D), by striking “of the George” and all that follows through “Reduction Program” and inserting “of institutions engaged in research and the implementation of the National Earthquake Hazards Reduction Program, which may include the George E. Brown Jr. Network for Earthquake Engineering Simulation”; and

(D) in paragraph (5)—

(i) in subparagraph (C)—

(I) by inserting “and other stakeholders with relevant expertise” after “standards organizations”; and

(II) by inserting “and” after the semicolon at the end;

(ii) by striking “; and” at the end of subparagraph (D) and inserting a period; and

(iii) by striking subparagraph (E);

(3) by redesignating subsection (c) as subsection (d);

(4) by inserting after subsection (b) the following new subsection:

“(c) ADVISORY COMMITTEE ON EARTHQUAKE HAZARDS REDUCTION.—

“(1) IN GENERAL.—The Director of the National Institute of Standards and Technology shall establish an Advisory Committee on Earthquake Hazards Reduction, which shall be composed of at least 11 members, none of whom may be employees of the Federal Government, including representatives of research and academic institutions, industry standards development organizations, emergency management agencies, State and local government, and business 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.

“(2) ASSESSMENTS.—The Advisory Committee on Earthquake Hazards Reduction shall offer assessments on—

“(A) trends and developments in the natural, social, and engineering sciences and practices of earthquake hazards impact mitigation;

“(B) the priorities of the Program’s Strategic Plan;

“(C) the coordination of the Program; and

“(D) any revisions to the Program which may be necessary.

“(3) COMPENSATION.—The members of the Advisory Committee established under this subsection shall serve without compensation.

“(4) REPORTS.—At least every 2 years, the Advisory Committee shall report to the Director of the National Institute of Standards and Technology on the assessments carried out under paragraph (2) and its recommendations for ways to improve the Program.

“(5) TERMINATION.—The Advisory Committee established under this subsection shall terminate not later than 5 years after the date of enactment of the Natural Hazards Risk Reduction Act of 2011.”; and

(5) in subsection (d)(1), as so redesignated by paragraph (3) of this section, by inserting “on Natural Hazards Risk Reduction established under section 301 of the Natural Hazards Risk Reduction Act of 2011” after “Interagency Coordinating Committee”.

SEC. 104. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.

Section 11 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7705e) is amended by inserting “and utilizing the coordination expertise of the lead Program agency” after “consultation with each Program agency”.

SEC. 105. AUTHORIZATION OF APPROPRIATIONS.

(a) IN GENERAL.—Section 12 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7706) is amended to read as follows:

“SEC. 12. AUTHORIZATION OF APPROPRIATIONS.

“(a) FEDERAL EMERGENCY MANAGEMENT AGENCY.—There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this Act—

“(1) \$6,400,000 for fiscal year 2012;

“(2) \$6,400,000 for fiscal year 2013; and

“(3) \$6,400,000 for fiscal year 2014.

“(b) UNITED STATES GEOLOGICAL SURVEY.—There are authorized to be appropriated to the United States Geological Survey for carrying out this Act—

“(1) \$57,700,000 for fiscal year 2012;

“(2) \$57,700,000 for fiscal year 2013; and

“(3) \$57,700,000 for fiscal year 2014.

“(c) NATIONAL SCIENCE FOUNDATION.—There are authorized to be appropriated to the National Science Foundation for carrying out this Act—

“(1) \$53,800,000 for fiscal year 2012;

“(2) \$53,800,000 for fiscal year 2013; and

“(3) \$53,800,000 for fiscal year 2014.

“(d) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this Act—

“(1) \$4,100,000 for fiscal year 2012;

“(2) \$4,100,000 for fiscal year 2013; and

“(3) \$4,100,000 for fiscal year 2014.”.

(b) CONFORMING AMENDMENT.—Section 14 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7708) is amended—

(1) by striking “(a) ESTABLISHMENT.—”; and

(2) by striking subsection (b).

TITLE II—WIND

SEC. 201. SHORT TITLE.

This title may be cited as the “National Windstorm Impact Reduction Act Reauthorization of 2011”.

SEC. 202. DEFINITIONS.

Section 203(1) of the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15702(1)) is amended by striking “Director of the Office of Science and Technology Policy” and inserting “Director of the National Institute of Standards and Technology”.

SEC. 203. NATIONAL WINDSTORM IMPACT REDUCTION PROGRAM.

Section 204 of the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15703) is amended—

(1) by striking subsections (a), (b), and (c) and inserting the following:

“(a) ESTABLISHMENT.—There is established the National Windstorm Impact Reduction Program, the purpose of which is to achieve major measurable reductions in the losses of life and property from windstorms through a coordinated Federal effort, in cooperation with other levels of government, academia, and the private sector, aimed at improving the understanding of windstorms and their impacts and developing and encouraging the implementation of cost-effective mitigation measures to reduce those impacts.

“(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 shall—

“(A) ensure that the Program includes the necessary components to promote the implementation of windstorm risk 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 lifelines;

“(B) support the development of performance-based engineering tools, and work with appropriate groups to promote the commercial application of such tools, including through wind-related model building codes, voluntary standards, and construction best practices;

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

“(D) coordinate all Federal post-windstorm investigations; and

“(E) when warranted by research or investigative findings, issue recommendations to assist in informing the development of model codes, and provide information to Congress on the use of such recommendations.

“(2) 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 model building codes, voluntary standards, and best practices for the design, construction, and retrofit of buildings, structures, and lifelines.

“(3) NATIONAL SCIENCE FOUNDATION.—The National Science Foundation shall support research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

“(4) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.—The National Oceanic and Atmospheric Administration shall support atmospheric sciences research and data collection to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

“(5) FEDERAL EMERGENCY MANAGEMENT AGENCY.—The Federal Emergency Management Agency shall support the development of risk assessment tools and effective mitigation techniques, windstorm-related data collection and analysis, public outreach, information dissemination, and implementation of mitigation measures consistent with the Agency’s all-hazards approach.”;

(2) by redesignating subsection (d) as subsection (c);

(3) in subsection (c), as so redesignated by paragraph (2) of this section, amend paragraph (4)(A) to read as follows:

“(A) development of improved outreach and implementation mechanisms to translate—

“(i) existing information and research findings into cost-effective and affordable practices for design and construction professionals, and State and local officials; and

“(ii) research, including social science research, into windstorm risk mitigation and preparedness strategies for individuals and households, including individuals and households with special needs, and businesses;”;

(4) by striking subsections (e) and (f).

SEC. 204. NATIONAL ADVISORY COMMITTEE ON WINDSTORM IMPACT REDUCTION.

Section 205 of the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15704) is amended to read as follows:

“SEC. 205. NATIONAL ADVISORY COMMITTEE ON WINDSTORM IMPACT REDUCTION.

“(a) **IN GENERAL.**—The Director of the National Institute of Standards and Technology shall establish an Advisory Committee on Windstorm Impact Reduction, which shall be composed of at least 7 members, none of whom may be employees of the Federal Government, including representatives of research and academic institutions, industry standards development organizations, emergency management agencies, State and local government, and business communities who are qualified to provide advice on windstorm impact 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) **ASSESSMENTS.**—The Advisory Committee on Windstorm Impact Reduction shall offer assessments on—

- “(1) trends and developments in the natural, social, and engineering sciences and practices of windstorm impact mitigation;
- “(2) the priorities of the Program’s Strategic Plan;
- “(3) the coordination of the Program; and
- “(4) any revisions to the Program which may be necessary.

“(c) **COMPENSATION.**—The members of the Advisory Committee established under this section shall serve without compensation.

“(d) **REPORTS.**—At least every 2 years, the Advisory Committee shall report to the Director on the assessments carried out under subsection (b) and its recommendations for ways to improve the Program.

“(e) **TERMINATION.**—The Advisory Committee shall terminate not later than 5 years after the date of enactment of the Natural Hazards Risk Reduction Act of 2011.”.

SEC. 205. AUTHORIZATION OF APPROPRIATIONS.

Section 207 of the National Windstorm Impact Reduction Act of 2004 (42 U.S.C. 15706) is amended to read as follows:

“SEC. 207. AUTHORIZATION OF APPROPRIATIONS.

“(a) **FEDERAL EMERGENCY MANAGEMENT AGENCY.**—There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this title—

- “(1) \$4,000,000 for fiscal year 2012;
- “(2) \$4,000,000 for fiscal year 2013; and
- “(3) \$4,000,000 for fiscal year 2014.

“(b) **NATIONAL SCIENCE FOUNDATION.**—There are authorized to be appropriated to the National Science Foundation for carrying out this title—

- “(1) \$9,400,000 for fiscal year 2012;
- “(2) \$9,400,000 for fiscal year 2013; and
- “(3) \$9,400,000 for fiscal year 2014.

“(c) **NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.**—There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this title—

- “(1) \$5,300,000 for fiscal year 2012;
- “(2) \$5,300,000 for fiscal year 2013; and
- “(3) \$5,300,000 for fiscal year 2014.

“(d) **NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.**—There are authorized to be appropriated to the National Oceanic and Atmospheric Administration for carrying out this title—

- “(1) \$2,700,000 for fiscal year 2012;
- “(2) \$2,700,000 for fiscal year 2013; and
- “(3) \$2,700,000 for fiscal year 2014.”.

TITLE III—INTERAGENCY COORDINATION**SEC. 301. INTERAGENCY COORDINATING COMMITTEE ON NATURAL HAZARDS RISK REDUCTION.**

(a) **ESTABLISHMENT.**—There is established an Interagency Coordinating Committee on Natural Hazards Risk Reduction, chaired by the Director of the National Institute of Standards and Technology.

(b) **MEMBERSHIP.**—In addition to the chair, the Committee shall be composed of—

- (1) the heads of—
 - (A) the Federal Emergency Management Agency;

- (B) the United States Geological Survey;
 - (C) the National Oceanic and Atmospheric Administration;
 - (D) the National Science Foundation;
 - (E) the Office of Science and Technology Policy; and
 - (F) the Office of Management and Budget; and
- (2) the head of any other Federal agency the chair considers appropriate.
- (c) MEETINGS.—The Committee shall meet not less than 1 time a year at the call of the Director of the National Institute of Standards and Technology.
- (d) GENERAL PURPOSE AND DUTIES.—The Committee shall oversee the planning and coordination of the National Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program, and shall make proposals for planning and coordination of any other Federal research for natural hazard mitigation that the Committee considers appropriate.
- (e) STRATEGIC PLANS.—The Committee shall develop and submit to Congress, not later than one year after the date of enactment of this Act—
- (1) a Strategic Plan for the National Earthquake Hazards Reduction Program that includes—
 - (A) prioritized goals for such Program that will mitigate against the loss of life and property from future earthquakes;
 - (B) short-term, mid-term, and long-term research objectives to achieve those goals;
 - (C) a description of the role of each Program agency in achieving the prioritized goals;
 - (D) the methods by which progress towards the goals will be assessed;
 - (E) an explanation of how the Program will foster the transfer of research results into outcomes, such as improved model building codes;
 - (F) a description of how the George E. Brown, Jr. Network for Earthquake Engineering Simulation and the Advanced National Seismic Research and Monitoring System may be used in achieving the prioritized goals and research objectives; and
 - (G) an explanation of how the Program will coordinate its activities with other Federal agencies performing activities relevant to the Program; and
 - (2) a Strategic Plan for the National Windstorm Impact Reduction Program that includes—
 - (A) prioritized goals for such Program that will mitigate against the loss of life and property from future windstorms;
 - (B) short-term, mid-term, and long-term research objectives to achieve those goals;
 - (C) a description of the role of each Program agency in achieving the prioritized goals;
 - (D) the methods by which progress towards the goals will be assessed;
 - (E) an explanation of how the Program will foster the transfer of research results into outcomes, such as improved model building codes; and
 - (F) an explanation of how the Program will coordinate its activities with other Federal agencies performing activities relevant to the Program.
- (f) PROGRESS REPORTS.—Not later than 18 months after the date of enactment of this Act, the Committee shall submit to the Congress—
- (1) a report on the progress of the National Earthquake Hazards Reduction Program that includes—
 - (A) a description of the activities funded under the Program, a description of how these activities align with the prioritized goals and research objectives established in the Strategic Plan, and the budgets, per agency, for these activities;
 - (B) the outcomes achieved by the Program for each of the goals identified in the Strategic Plan;
 - (C) a description of any recommendations made to change existing building codes that were the result of Program activities;
 - (D) a description of activities carried out under section 11 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7705e), including a description of agency activities and the amount of funding provided for each investigation; and
 - (E) a description of the extent to which the Program has incorporated recommendations from the Advisory Committee on Earthquake Hazards Reduction; and
 - (2) a report on the progress of the National Windstorm Impact Reduction Program that includes—
 - (A) a description of the activities funded under the Program, a description of how these activities align with the prioritized goals and research objec-

tives established in the Strategic Plan, and the budgets, per agency, for these activities;

(B) the outcomes achieved by the Program for each of the goals identified in the Strategic Plan;

(C) a description of any recommendations made to change existing building codes that were the result of Program activities; and

(D) a description of the extent to which the Program has incorporated recommendations from the Advisory Committee on Windstorm Impact Reduction.

(g) **COORDINATED BUDGET.**—The Committee shall develop a coordinated budget for the National Earthquake Hazards Reduction Program and a coordinated budget for the National Windstorm Impact Reduction Program. These budgets shall be submitted to the Congress at the time of the President’s budget submission for each fiscal year.

SEC. 302. COORDINATION OF FEDERAL DISASTER RESEARCH, DEVELOPMENT, AND TECHNOLOGY TRANSFER.

Not later than 2 years after the date of enactment of this Act, the Subcommittee on Disaster Reduction of the Committee on Environment and Natural Resources of the National Science and Technology Council shall submit a report to the Congress detailing—

(1) current Federal research, development, and technology transfer activities, including those of the National Laboratories, that address hazard mitigation for natural disasters, including earthquakes, windstorms, wildfires, floods, and the current budgets for these activities;

(2) areas of research that are common to two or more of the hazards identified in paragraph (1);

(3) opportunities to create synergies between the research activities for the hazards identified in paragraph (1); and

(4) the status of coordination of Federal disaster research, development, and technology transfer activities including those of the National Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program.

SEC. 303. AUTHORIZATIONS.

No additional funds are authorized to carry out this title. This title shall be carried out using amounts otherwise authorized or appropriated.

TITLE IV—FIRE RESEARCH PROGRAM

SEC. 401. FIRE RESEARCH PROGRAM.

Section 16(a)(1) of the National Institute of Standards and Technology Act (15 U.S.C. 278f(a)(1)) is amended—

(1) in subparagraph (D), by inserting “fires at the wildland-urban interface that are the result of natural causes,” after “but not limited to,”; and

(2) in subparagraph (E), by inserting “fires at the wildland-urban interface that are the result of natural causes,” after “types of fires, including”.

II. PURPOSE AND SUMMARY

The purpose of H.R. 3479, the *Natural Hazards Risk Reduction Act of 2011*, sponsored by Representative Biggert (R-IL-13), is to reauthorize the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Program (NWIRP) through Fiscal Year 2014. NEHRP and NWIRP are two multi-agency programs that support efforts to mitigate the impacts of natural hazards through targeted research and development to better understand and prepare for earthquakes and windstorms.

III. BACKGROUND AND NEED FOR THE LEGISLATION

Portions of all 50 states are vulnerable to earthquake hazards, although risks vary across the country and within individual states. According to the United States Geologic Survey (USGS), twenty-six urban areas in fourteen U.S. states face significant seis-

mic risk.¹ Though infrequent, earthquakes are unique among natural hazards in that they strike without warning. Earthquakes proceed as cascades, in which the primary effects of faulting and ground shaking induce secondary effects such as landslides, liquefaction, and tsunamis. These secondary effects set off destructive processes within the built environment: structures collapse; people are injured or killed; infrastructure is disrupted; and business interruption begins.² The socioeconomic effects of large earthquakes can reverberate for decades.

Millions of Americans live in areas vulnerable to storms with damaging winds. Windstorms take lives, destroy homes and businesses, and cause billions of dollars of damage every year. 2011 was an exceptionally destructive year—the deadliest year for tornadoes in the U.S. since 1936. There were an estimated 550 fatalities attributed to tornadoes alone in 2011³ (compared to 564 American deaths in the 10 years prior combined).⁴ As populations continue to grow in areas prone to hurricanes, tornadoes, and windstorms, vulnerability to severe weather will only increase.

The National Earthquake Hazards Reduction Program

Congress created the National Earthquake Hazards Reduction Program (NEHRP) in 1977 with the passage of the Earthquake Hazards Reduction Act (P.L. 95–124). Created largely in response to the 1964 Alaska Earthquake and the San Fernando Earthquake of 1971, the original program called on 10 federal agencies to coordinate research and development activities to implement an earthquake prediction system; develop design and construction methods for earthquake resilience; identify seismic hazards, and make model building code and land-use recommendations; increase the understanding of earthquake risks; and educate the public about earthquakes. The 1980 reauthorization of the program designated the Federal Emergency Management Agency (FEMA) as the lead agency.

The 2004 reauthorization of NEHRP (P.L. 108–360) changed the lead agency from FEMA to the National Institute of Standards and Technology (NIST). This change reflected concern that FEMA, newly located in the Department of Homeland Security (DHS), was focused on broader threats, rather than natural hazard mitigation. In addition, the legislation established an Interagency Coordinating Committee composed of the directors of NIST, FEMA, the National Science Foundation (NSF), the United States Geological Survey (USGS), the Office of Science and Technology Policy (OSTP), and the Office of Management and Budget (OMB). To ensure coordination, the Interagency Committee was required to meet annually and to develop a strategic plan and a coordinated inter-agency budget.

Over the past 30 years, NEHRP activities have been instrumental in developing and advancing earthquake knowledge, seismic building codes, and raising the awareness of officials and the general public about earthquake hazards.

¹ <http://pubs.usgs.gov/fs/2006/3016/2006-3016.pdf>.

² *National Earthquake Resilience: Research, Implementation, and Outreach*, National Research Council of the National Academies, 2011, http://www.nap.edu/catalog.php?record_id=13092.

³ <http://www.spc.noaa.gov/climo/online/monthly/newm.html>.

⁴ <http://www.norman.noaa.gov/2009/03/us-annual-tornado-death-tolls-1875-present/>.

The National Windstorm Impact Reduction Program

The National Windstorm Impact Reduction Program (NWIRP) was established in the last reauthorization of NEHRP. The legislation directed the National Oceanic and Atmospheric Administration (NOAA), NIST, NSF, and FEMA to support activities to improve the understanding of windstorms and their impacts, and to develop and encourage the implementation of cost-effective mitigation measures to reduce these impacts. The program was authorized for three years through Fiscal Year 2008.

OSTP submitted a NWIRP implementation plan in April 2006, which assessed programs relevant to the goals of NWIRP across eight federal agencies and identified important areas of research that were not covered by current activities. Knowledge gaps were identified in the three broad categories of research authorized in the original NWIRP Act: understanding windstorms; assessing the impacts of windstorms; and mitigation against the effects of windstorms. The implementation plan also recommended a continued role for the Interagency Working Group within the National Science and Technology Council's (NSTC) Committee on Environment and Natural Resources, Subcommittee on Disaster Reduction.

IV. HEARING SUMMARY

On April 7, 2011, the Subcommittee on Technology and Innovation of the Committee on Science, Space, and Technology held a hearing in anticipation of the reauthorization of NEHRP to examine earthquake risk in the United States and to review efforts supporting the development of earthquake hazard reduction measures, and the creation of disaster-resilient communities. The hearing examined various elements of the Nation's level of earthquake preparedness and resiliency including the U.S. capability to detect earthquakes and issue notifications and warnings, coordination between federal, state and local stakeholders for earthquake emergency preparation, and research and development measures supported by the federal government to improve the scientific understanding of earthquakes.

The Committee received testimony from Dr. Jack Hayes, the Director of the National Earthquake Hazards Reduction Program (NEHRP) at the National Institute of Standards and Technology; Mr. Jim Mullen, the Director of the Washington State Emergency Management Division and the President of the National Emergency Management Association; Mr. Chris Poland, the Chairman and Chief Executive Officer of Degenkolb Engineers and the Chairman of the NEHRP Advisory Committee; and Dr. Vicki McConnell, Oregon State Geologist and the Director of the Oregon Department of Geology and Mineral Industries.

V. COMMITTEE CONSIDERATION

On November 15, 2011 the Subcommittee on Technology and Innovation met to consider the Committee Print of the *Natural Hazards Risk Reduction Act of 2011* and ordered it favorably forwarded to the Full Committee, as amended, by a record vote of 10 yeas and 4 nays.

On November 18, 2011, Rep. Judy Biggert (R-IL) along with Rep. Randy Neugebauer (R-TX), Rep. Ralph Hall (R-TX), Rep.

Lamar Smith (R–TX), and Rep. Steven Palazzo (R–MS) introduced the text of the amended Committee Print as H.R. 3479, the *Natural Hazards Risk Reduction Act of 2011*. H.R. 3479 was referred to the Committee on Science, Space, and Technology, the Committee on Transportation and Infrastructure, and the Committee on Natural Resources.

On December 1, 2011, the Committee on Science, Space, and Technology met in open markup session and adopted H.R. 3479, as amended, by a record vote of 21 yeas to 12 nays. A motion to order H.R. 3479, favorably reported to the House, as amended, was agreed to by voice vote.

VI. COMMITTEE VOTES

Clause 3(b) of rule XIII of the Rules of the House of Representatives requires the Committee to list the record votes on the motion to report legislation and amendments thereto. The Committee adopted H.R. 3479, as amended, by a record vote of 21 yeas to 12 nays. A motion to order H.R. 3479, favorably reported to the House, as amended, was agreed to by voice vote.

During Subcommittee on Technology and Innovation consideration of the Committee Print of the *Natural Hazards Risk Reduction Act of 2011*, the following amendments were considered:

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
Subcommittee on Technology and Innovation Markup
November 15, 2011

AMENDMENT ROSTER

Committee Print, the "Natural Hazards Risk Reduction Act of 2011"

No.	Amendment	Summary	Results
1	Ms. Edwards Amendment in the Nature of A Substitute (001)	Complete substitute of the Committee Print. Amends two statutes not currently amended by the Committee Print; Includes numerous new findings; Amends current law to expand earthquake and wind activities of the agencies; Authorizes the programs until FY 2015 (5 year authorization) at higher authorization levels and increases the funding each fiscal year for a total increase of \$618 million when compared with the Committee Print.	Not Agreed To by a Vote of 3 Ayes and 10 Noes
2	Ms. Biggert (045)	Adds supporting "public outreach and education" to the activities of the NEHRP program; eliminates mandatory use of the George E Brown Jr. Network for Earthquake Engineering Simulation; requires NEHRP and NWIRP advisory board termination after five years; requires both advisory boards to assess trends in development in "social sciences" as well as "natural and engineering sciences"; adds language to ensure coordination of activities within the Federal government; makes various technical changes	Agreed To By Voice Vote
3	Mr. Hall (011)	Removes the change of leadership and funding for post-earthquake investigations proposed in the Committee Print (returns the current leadership responsibility and funding to USGS) while also requiring USGS to utilize the coordination expertise of NEHRP's overall lead agency (NIST) when conducting such investigations	Agreed To By Voice Vote
4	Mr. Lipinski (036)	Amends the overall program activities to reduce windstorm impacts to include the development of improved outreach and implementation mechanisms through "research, including social science research" into windstorm risk mitigation and preparedness	Agreed To By Voice Vote
5	Mr. Lujan (003)	Amends the National Institute of Standards and Technology Act to allow research into fires "at the wildland-urban interface"	Withdrawn

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th
Subcommittee on Technology and Innovation
 Subcommittee Roll Call

U. S. House of Representatives

Number of Members (10/7) Quorum: 6 to vote Working Quorum: 9 to report

DATE: Tuesday, November 15, 2011

Bill: Committee Print - To reauthorize federal natural hazards reduction programs, and for other purposes.

Amendment Sponsor: Ms. Edwards AMENDMENT NO. 001 ROLL CALL NO. 1

Not Agreed to by a Roll Call
 Vote of 3 Aye – 10 No

	MEMBER	AYE	NO	PRESENT	NOT VOTING
1	Mr. QUAYLE, <i>Chair</i> - AR		X		
2	Mr. SMITH - TX		X		
3	Mrs. BIGGERT - <i>IL vice chair</i>		X		
4	Mr. NEUGEBAUER - TX		X		
5	Mr. McCAUL - TX		X		
6	Mr. FLEISCHMANN - TN		X		
7	Mr. RIGELL - VA		X		
8	Mr. HULTGREN - IL		X		
9	Mr. CRAVAACK - MN		X		
10	Mr. HALL, <i>ex officio</i> - TX		X		
1	Ms. EDWARDS, <i>Ranking</i> - MD	X			
2	Mr. SARBANES - MD				
3	Ms. WILSON - FL				
4	Mr. LIPINSKI - IL	X			
5	Ms. GIFFORDS - AR				
6	Mr. LUJÁN - NM	X			
7	Ms. JOHNSON, <i>ex officio</i> - TX				
	TOTALS	3	10		

During Full Committee consideration of H.R. 3479 the following amendments were considered:

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
Full Committee Markup
December 1, 2011

AMENDMENT ROSTER

H. R. 3479, the "Natural Hazards Risk Reduction Act of 2011"

No.	Amendment	Summary	Results
1	Mrs. Biggert (048)	Provides flexibility in the specific use of NSF's NEES center in the NEHRP strategic plan; requires the report on the NEHRP to include a description of post-earthquake investigation activities carried out under the program; expands the coordination report in Section 302 to include information on research, development and technology transfer activities of the National Labs.	Agreed to by Voice Vote
2	Mr. Clarke (050)	Specifies that the NEHRP public education and outreach should assist "different populations, including individuals with special needs"; specifies that the NWIRP outreach and implementation mechanisms to translate research, including social science research, into windstorm risk mitigation and preparedness strategies for individuals and households include "individuals and households with special needs".	Agreed to by Voice Vote
3	Ms. Lofgren (010)	Specifies that the lead agency of the NEHRP program shall "coordinate all Federal post-earthquake investigations"; transfers the authority for post-earthquake investigations to NIST from USGS; increases the funding for NIST each fiscal year (3 year authorization) for a total increase of \$10.9 million.	Not Agreed to by a roll call vote of 11 Yeas and 20 Noes
4	Ms. Woolsey (006)	Increases funding for NEHRP by a total increase of \$209.6 million over the 3 year authorization ; increases funding for NWIRP by a total increase of \$14.7 million over the 3 year authorization; total increase of \$224.3 million	Not Agreed to by a roll call vote of 12 Yeas and 21 Noes
5	Ms. Edwards (007)	Increases funding for NEHRP each fiscal year for a total increase of \$177.4 million over the 3 year authorization; increases funding for NWIRP each fiscal year for a total increase of \$21.2 million over the 3 year authorization; total increase of \$198.6 million	Not Agreed to by voice vote

6	Mr. Lujan (003)	Amends the National Institute of Standards and Technology Act to allow research into fires "at the wildland-urban interface that are the result of natural causes"	Agreed to by Voice Vote
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COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th

Full Committee Roll Call

U. S. House OF Representatives

Number of Members (23/17) Quorum: 14 to vote Working Quorum: 21 to report

DATE: December 1, 2011

Bill: H. R. 3479

AMENDMENT NO. 010

ROLL CALL NO. 1

Amendment Sponsor: Ms. Lofgren

Not agreed to by a vote of

11 aye and 20 no

	MEMBER	AYE	NO	PRESENT	NOT VOTING
1	Mr. HALL, <i>Chair - TX</i>		X		
2	Mr. SENSENBRENNER – <i>WI **</i>		X		
3	Mr. SMITH - <i>TX</i>				
4	Mr. ROHRBACHER - <i>CA</i>		X		
5	Mr. BARTLETT - <i>MD</i>		X		
6	Mr. LUCAS - <i>OK</i>		X		
7	Mrs. BIGGERT - <i>IL</i>		X		
8	Mr. AKIN - <i>MO</i>				
9	Mr. NEUGEBAUER - <i>TX</i>		X		
10	Mr. McCAUL - <i>TX</i>		X		
11	Mr. BROUN - <i>GA</i>		X		
12	Mrs. ADAMS - <i>FL</i>		X		
13	Mr. QUAYLE - <i>AZ</i>		X		
14	Mr. FLEISCHMANN - <i>TN</i>		X		
15	Mr. RIGELL - <i>VA</i>		X		
16	Mr. PALAZZO - <i>MS</i>		X		
17	Mr. BROOKS - <i>AL</i>		X		
18	Mr. HARRIS - <i>MD</i>		X		
19	Mr. HULTGREN - <i>IL</i>		X		
20	Mr. CRAVAACK - <i>MN</i>		X		
21	Mr. BUCSHON - <i>IN</i>		X		
22	Mr. BENISHEK - <i>MI</i>		X		
23	Vacancy				
1	Ms. JOHNSON, <i>Ranking - TX</i>	X			
2	Mr. COSTELLO - <i>IL</i>				
3	Ms. WOOLSEY - <i>CA</i>	X			
4	Ms. LOFGREN - <i>CA</i>	X			
5	Mr. MILLER - <i>NC</i>	X			
6	Mr. LIPINSKI - <i>IL</i>				
7	Ms. GIFFORDS - <i>AZ</i>				
8	Ms. EDWARDS - <i>MD</i>	X			
9	Ms. FUDGE - <i>OH</i>	X			
10	Mr. LUJÁN - <i>NM</i>				
11	Mr. TONKO - <i>NY</i>	X			
12	Mr. McNERNEY - <i>CA</i>	X			
13	Mr. SARBANES - <i>MD</i>	X			
14	Ms. SEWELL - <i>AL</i>	X			
15	Ms. WILSON - <i>FL</i>				
16	Mr. CLARKE - <i>MI</i>	X			
17	Vacancy				
		11	20		
	TOTALS				

** Vice Chair

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th

Full Committee Roll Call

U. S. House OF Representatives

Number of Members (23/17) Quorum: 14 to vote Working Quorum: 21 to report

DATE: December 1, 2011

Bill: H. R. 3479

AMENDMENT NO. 006

ROLL CALL NO. 2

Amendment Sponsor: Ms. Woolsey

Not agreed to by a vote of

12 aye and 21 no

MEMBER	AYE	NO	PRESENT	NOT VOTING
1 Mr. HALL, <i>Chair</i> - TX		X		
2 Mr. SENSENBRENNER - WI **		X		
3 Mr. SMITH - TX		X		
4 Mr. ROHRBACHER - CA		X		
5 Mr. BARTLETT - MD		X		
6 Mr. LUCAS - OK		X		
7 Mrs. BIGGERT - IL		X		
8 Mr. AKIN - MO				
9 Mr. NEUGEBAUER - TX		X		
10 Mr. McCAUL - TX		X		
11 Mr. BROUN - GA		X		
12 Mrs. ADAMS - FL		X		
13 Mr. QUAYLE - AZ		X		
14 Mr. FLEISCHMANN - TN		X		
15 Mr. RIGELL - VA		X		
16 Mr. PALAZZO - MS		X		
17 Mr. BROOKS - AL		X		
18 Mr. HARRIS - MD		X		
19 Mr. HULTGREN - IL		X		
20 Mr. CRAVAACK - MN		X		
21 Mr. BUCSHON - IN		X		
22 Mr. BENISHEK - MI		X		
23 Vacancy				
1 Ms. JOHNSON, <i>Ranking</i> - TX	X			
2 Mr. COSTELLO - IL	X			
3 Ms. WOOLSEY - CA	X			
4 Ms. LOFGREN - CA	X			
5 Mr. MILLER - NC	X			
6 Mr. LIPINSKI - IL				
7 Ms. GIFFORDS - AZ				
8 Ms. EDWARDS - MD	X			
9 Ms. FUDGE - OH	X			
10 Mr. LUJÁN - NM				
11 Mr. TONKO - NY	X			
12 Mr. McNERNEY - CA	X			
13 Mr. SARBANES - MD	X			
14 Ms. SEWELL - AL	X			
15 Ms. WILSON - FL				
16 Mr. CLARKE - MI	X			
17 Vacancy				
TOTALS	12	21		

** Vice Chair

VII. SUMMARY OF MAJOR PROVISIONS OF THE BILL

TITLE I—EARTHQUAKES

National Earthquake Hazards Reduction Program

H.R. 3479 identifies the four agencies that make up National Earthquake Hazards Reduction Program (NEHRP): the National Institute of Standards and Technology (NIST), the Federal Emergency Management Agency (FEMA), the United States Geological Survey (USGS), and the National Science Foundation (NSF). The bill defines the responsibilities of NIST as the lead Program agency and updates the responsibilities of the Program agencies, further detailing current activities.

H.R. 3479 amends the Earthquake Hazards Reduction Act of 1977 to reauthorize and update an existing Advisory Committee for NEHRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

The bill amends the Earthquake Hazards Reduction Act of 1977 to direct USGS to utilize the coordination expertise of the lead program agency in organizing post-earthquake investigations.

Title I of H.R. 3479 authorizes a total of \$366,000,000 for the NEHRP agencies (NIST, FEMA, USGS, and NSF) for Fiscal Years 2012 through 2014.

TITLE II—WIND

National Windstorm Impact Reduction Program

H.R. 3479 identifies the four agencies that make up the National Windstorm Impact Reduction Program (NWIRP): NIST, NSF, the National Oceanic and Atmospheric Administration (NOAA), and FEMA. The bill defines NIST as the new lead program agency; and assigns it the responsibilities including: planning and coordinating the Program; supporting the development of performance-based engineering tools; requesting the assistance of Federal agencies other than Program agencies as necessary; coordinating all Federal post-windstorm investigations; and issuing recommendations related to model building codes as warranted based on research or investigative findings.

H.R. 3479 amends the National Windstorm Impact Reduction Act of 2004 to reauthorize and update an existing Advisory Committee for NWIRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions, as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

Title II of H.R. 3479 authorizes a total of \$64,200,000 for the NWIRP agencies (NIST, FEMA, NOAA, and NSF) for fiscal years 2012 through 2014.

TITLE III—INTERAGENCY COORDINATION

Interagency Coordinating Committee on Natural Hazards Risk Reduction

H.R. 3479 combines the Interagency Coordinating Committee on Earthquake Hazards Reduction and the National Windstorm Impact Reduction Program Interagency Working Group into one Interagency Coordinating Committee on Natural Hazards Risk Reduction, chaired by the Director of NIST and comprised of the heads of FEMA, USGS, NOAA, NSF, the Office of Science and Technology Policy (OSTP), the Office of Management and Budget (OMB), and the head of any other Federal agency the chair of the Committee considers appropriate.

Coordination of Federal Disaster Research, Development, and Technology Transfer

The bill requires the existing Subcommittee on Disaster Reduction of the Committee on Environment and Natural Resources of the National Science and Technology Council, to submit a report to Congress 18 months after the date of enactment identifying the current Federal research, development, and technology transfer activities that address mitigation for all types of natural hazards, and how such activities are being coordinated to reduce duplication among the various research programs.

TITLE IV—FIRE RESEARCH PROGRAM

Fire Research Program

This section amends the National Institute of Standards and Technology Act to include research into fires at the wildland-urban interface that are the result of natural causes.

VIII. COMMITTEE VIEWS

National Earthquake Hazards Reduction Program

NEHRP is an important resource for improving public safety. The research and development efforts of the program have led to improved understanding of the location and effects of earthquake hazards as well as how to build and design structures to withstand earthquakes. In many earthquake-prone communities, the existing built environment would not withstand a strong earthquake, and developing tools and methods to retrofit existing structures should be a high priority for NEHRP.

The Advisory Committee of the Earthquake Hazards Reduction Program has recommended that the coordination of post-earthquake investigations be transferred from USGS to NIST.⁵ The Interagency Coordinating Committee responded to the recommendation with a number of prerequisites before such a transfer should take place, including providing additional staffing and research resources to NIST to take on the additional responsibility.⁶ The Science, Space, and Technology Committee did not believe adequate resources were available at NIST to lead the earthquake in-

⁵ http://www.nehrp.gov/pdf/may_2009_letter2.pdf.

⁶ <http://www.nehrp.gov/pdf/2009ACEHRReportResponse.pdf>.

vestigations program within the current budget constraints, and therefore, found the transfer unadvisable.

National Windstorm Impact Reduction Program

Although the program was created in 2004, the NWIRP program implementation and coordination has been insufficient. NIST leadership will ensure agency efforts for wind-hazard mitigation research, development, and technology transfer are coordinated, transparent, and effective. As with the earthquake program, developing measures to cost-effectively retrofit existing structures is of high importance, as is developing methods to mitigate the impacts of windstorms on infrastructure and lifelines.

Interagency coordination

The Interagency Coordinating Committee for NEHRP has been effective and should continue to ensure the agencies' activities are well-coordinated through strategic planning. The members of this committee should give the same attention and consideration to the NWIRP as well. Federal agencies should take advantage of opportunities for more coordination of research and development (R&D) across different natural hazards. An important initial step is to identify specific types of R&D efforts where coordination and collaboration across different natural hazards is possible. The Committee believes that the National Science and Technology Council's Subcommittee on Disaster Reduction can build on its previous efforts in the Grand Challenges for Disaster Reduction and identify areas where current federal natural hazards R&D efforts can be better coordinated.

Authorizations

For the NEHRP program, funding levels were set for each participating agency at the fiscal year 2012 request from the Administration. This collective amount is approximately six percent below the enacted level of funding in fiscal year 2011.

The Congress recognized the country's fiscal challenges and passed the Budget Control Act of 2011 in August. This legislation is expected to result in automatic reductions in discretionary programs in fiscal year 2013 of 7.8 percent. Furthermore, cuts to discretionary spending are in addition to those cuts resulting from the discretionary spending caps. According to the Congressional Research Service, after taking those two provisions into account, total discretionary spending is not expected to regain its 2011 level until 2021 in nominal terms.

The Committee commends the Administration for recognizing the realities of the discretionary budget in its request for the NEHRP program. We believe both NEHRP and NWIRP are critical programs that need to be reauthorized, and therefore, provided for a three year reauthorization for both programs. However, the Committee believes that authorizing them at levels higher than the President's request would not be appropriate in this instance, and likely to result in the agencies having to reduce funding for other important research programs.

IX. COMMITTEE OVERSIGHT FINDINGS

Pursuant to clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee held an oversight hearing and made findings that are reflected in the descriptive portions of this report.

X. STATEMENT OF GENERAL PERFORMANCE GOALS AND OBJECTIVES

In accordance with clause 3(c)(4) of rule XIII of the Rules of the House of Representatives, the performance goals and objectives of the Committee are reflected in the descriptive portions of this report, including the goal to reauthorize the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Program (NWIRP) to support efforts to mitigate the impacts of natural hazards through targeted research and development to better understand and prepare for earthquakes and windstorms.

XI. NEW BUDGET AUTHORITY, ENTITLEMENT AUTHORITY, AND TAX EXPENDITURES

In compliance with clause 3(c)(2) of rule XIII of the Rules of the House of Representatives, the Committee adopts as its own the estimate of new budget authority, entitlement authority, or tax expenditures or revenues contained in the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

XII. ADVISORY ON EARMARKS

In compliance with clause 9(e), 9(f), and 9(g) of rule XXI, the Committee finds that H.R. 3479, the “Natural Hazards Risk Reduction Act of 2011”, contains no earmarks.

XIII. COMMITTEE COST ESTIMATE

The Committee adopts, as its own, the cost estimate prepared by the Director of the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

XIV. CONGRESSIONAL BUDGET OFFICE ESTIMATE

Pursuant to clause 3(c)(3) of rule XIII of the Rules of the House of Representatives, the following is the cost estimate provided by the Congressional Budget Office pursuant to section 402 of the Congressional Budget Act of 1974.

JANUARY 10, 2012.

Hon. RALPH M. HALL,
Chairman, Committee on Science, Space, and Technology,
House of Representatives, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 3479, the Natural Hazards Risk Reduction Act of 2011.

If you wish further details on this estimate, we will be pleased to provide them. The CBO staff contact is Jeff LaFave.

Sincerely,

DOUGLAS W. ELMENDORF.

Enclosure.

H.R. 3479—Natural Hazards Risk Reduction Act of 2011

Summary: H.R. 3479 would reauthorize federal programs aimed at developing methods to reduce damage caused by earthquakes and windstorms. The bill also would reauthorize an interagency advisory committee to coordinate those programs. Assuming appropriation of the authorized and necessary amounts, CBO estimates that implementing the legislation would cost \$285 million over the 2012–2017 period and \$10 million after 2017. Enacting H.R. 3479 would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

H.R. 3479 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 3479 is shown in the following table. The costs of this legislation fall within budget functions 250 (general science, space, and technology), 300 (natural resources and environment), 370 (commerce and housing credit), and 450 (community and regional development).

Basis of estimate: For this estimate, CBO assumes that H.R. 3479 will be enacted early in 2012 and that the authorized and necessary amounts will be appropriated for each fiscal year. Estimated outlays are based on historical spending patterns for similar activities.

	By fiscal year, in millions of dollars—						
	2012	2013	2014	2015	2016	2017	2012–2017
CHANGES IN SPENDING SUBJECT TO APPROPRIATION							
Title I: National Earthquake Hazards Reduction Program:							
Estimated Authorization Level ^a	1	122	122	0	0	0	245
Estimated Outlays	0	52	91	57	25	11	236
Title II: National Windstorm Impact Reduction Program:							
Estimated Authorization Level ^a	8	21	21	0	0	0	50
Estimated Outlays	4	10	16	12	5	2	49
Total Changes:							
Estimated Authorization Level	9	143	143	0	0	0	295
Estimated Outlays	4	63	107	68	30	13	285

^a The estimated authorization level for fiscal year 2012 reflects the difference between the amounts authorized under the bill for the National Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program and the amounts appropriated for fiscal year 2012 for those programs. Because some of the affected agencies have not allocated their fiscal year 2012 appropriations, CBO estimated the amounts that would be allocated to the program based on information from the agencies.

National Earthquake Hazards Reduction Program

Over the 2012–2014 period, title I would authorize the appropriation of \$57.7 million a year for the United States Geological Survey (USGS), \$53.8 million a year for the National Science Foundation (NSF), \$6.4 million a year for the Federal Emergency Management Agency (FEMA), and \$4.1 million a year for the National Institute

of Standards and Technology (NIST) to carry out the National Earthquake Hazards Reduction Program.

The affected agencies have received appropriations for fiscal year 2012; however, some of those agencies have not allocated those funds to specific programs. Based on information provided by USGS, FEMA, and NIST, CBO estimates that those agencies' allocations for the National Earthquake Hazards Reduction Program will exceed the amounts authorized under the bill and, therefore, no additional funds would be required for those agencies in 2012. Because CBO estimates that NSF's allocation of fiscal year 2012 appropriations for the program will be \$1 million less than the amount that would be authorized by H.R. 3479, we estimate that the agency would receive an additional appropriation of \$1 million in 2012, assuming appropriation of the authorized amounts.

In total, CBO estimates that implementing the provisions of title I would cost \$236 million over the 2012–2017 period and \$9 million after 2017.

National Windstorm Impact Reduction Program

Over the 2012–2014 period, title II would authorize the appropriation of \$9.4 million a year for NSF, \$5.3 million a year for NIST, \$4 million a year for FEMA, and \$2.7 million a year for the National Oceanic and Atmospheric Administration (NOAA) to carry out the National Windstorm Impact Reduction Program.

The affected agencies have received appropriations for fiscal year 2012; however, some of those agencies have not allocated those funds to specific programs. Based on information provided by NSF, CBO estimates that the agency's allocation for activities carried out under the National Windstorm Impact Reduction Program will exceed the amount authorized under the bill and, therefore, no additional funds would be required for the agency in 2012. Because CBO estimates that allocations of fiscal year 2012 appropriations by FEMA, NIST, and NOAA for the program will total \$8 million less than the amounts that would be authorized by H.R. 3479, we estimate that those agencies would receive additional appropriations totaling \$8 million in 2012, assuming appropriation of the authorized amounts.

In total, CBO estimates that implementing the provisions of title II would cost \$49 million over the 2012–2017 period and \$1 million after 2017.

Pay-As-You-Go considerations: None.

Intergovernmental and private-sector impact: H.R. 3479 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments.

Previous CBO estimate: On June 20, 2011, CBO transmitted a cost estimate for S. 646, the Natural Hazards Risk Reduction Act of 2011, as ordered reported by the Senate Committee on Commerce, Science, and Transportation on May 5, 2011. That bill would authorize appropriations totaling \$846 million over the 2012–2015 period, whereas H.R. 3479 would authorize appropriations totaling \$430 million over the 2012–2014 period for similar activities. In addition, because the cost estimate for S. 646 was completed before the affected agencies received their fiscal year 2012 appropriations, the estimate for that bill did not account for

amounts received in 2012 prior to the bill's assumed enactment date. The cost estimates for S. 646 and H.R. 3479 reflect those differences.

Estimate prepared by: Federal costs: Jeff LaFave; Impact on state, local, and tribal governments: Ryan Miller; Impact on the private sector: Amy Petz.

Estimate approved by: Theresa Gullo, Deputy Assistant Director for Budget Analysis.

XV. FEDERAL MANDATES STATEMENT

The Committee adopts as its own the estimate of Federal mandates prepared by the Director of the Congressional Budget Office pursuant to section 423 of the Unfunded Mandates Reform Act.

XVI. ADVISORY COMMITTEE STATEMENT

No new advisory committees within the meaning of section 5(b) of the Federal Advisory Committee Act were created by the legislation. H.R. 3479 reauthorized an Advisory Committee on Earthquake Hazards Reduction and a National Advisory Committee on Windstorm Impact Reduction. Both terminate 5 years after the date of enactment of H.R. 3479.

XVII. 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.

XVIII. SECTION-BY-SECTION ANALYSIS

The Natural Hazards Risk Reduction Act of 2011

Section 1. Short title

This section sets forth the short title as the "Natural Hazards Risk Reduction Act of 2011."

Section 2. Table of Contents

This section provides a table of contents.

TITLE I. EARTHQUAKES

Section 101. Short title

This section sets forth the short title for Title I as the "National Earthquake Hazards Reduction Program Reauthorization Act of 2011."

Section 102. Definitions

This section removes the definitions of the "Interagency Coordination Committee" and the "Advisory Committee" from Section 4 of the Earthquake Hazards Reduction Act of 1977.

Section 103. National Earthquake Hazards Reduction Program

This section identifies the four agencies that make up National Earthquake Hazards Reduction Program (NEHRP): the National Institute of Standards and Technology (NIST), the Federal Emer-

gency Management Agency (FEMA), the United States Geological Survey (USGS), and the National Science Foundation (NSF). This section also amends the Earthquake Hazards Reduction Act of 1977 to detail NEHRP activities, which include research and development into effective methods, tools, and technologies to reduce the risk posed by earthquakes to the built environment and to lessen the risk to existing structures and lifelines.

Section 103 defines the responsibilities of NIST as the lead Program agency, which include: planning and coordinating the Program; supporting the development of performance-based seismic engineering tools; requesting the assistance of Federal agencies other than Program agencies as necessary; working with Program agencies to develop a comprehensive plan for earthquake engineering research to use existing facilities and laboratories; and issuing recommendations related to model codes when warranted by research or investigative findings. This section also updates the responsibilities of the Program agencies, further detailing current activities.

Finally, this section amends the Earthquake Hazards Reduction Act of 1977 to reauthorize and update an existing Advisory Committee for NEHRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions, as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

Section 104. Post-Earthquake Investigation Program

This section amends the Earthquake Hazards Reduction Act of 1977 to direct USGS to utilize the coordination expertise of the lead program agency in organizing post-earthquake investigations.

Section 105. Authorization of appropriations

This section provides authorizations of appropriations as follows:
 For FEMA: \$6,400,000 for each fiscal year 2012 through 2014.
 For USGS: \$57,700,000 for each fiscal year 2012 through 2014.
 For NSF: \$53,800,000 for each fiscal year 2012 through 2014.
 For NIST: \$4,100,000 for each fiscal year 2012 through 2014.

TITLE II. WIND

Section 201. Short title

This section establishes the short title for this Title of the bill as the “National Windstorm Impact Reduction Act Reauthorization of 2011.”

Section 202. Definitions

This section amends the National Windstorm Impact Reduction Act of 2004 to define the “Director” of the Program as the Director of the National Institute of Standards and Technology rather than the Director of the White House Office of Science and Technology Policy (OSTP).

Section 203. National Windstorm Impact Reduction Program

This section identifies the four agencies that make up the National Windstorm Impact Reduction Program (NWIRP): NIST, NSF, the National Oceanic and Atmospheric Administration (NOAA), and FEMA; defines NIST as the lead program agency; and assigns responsibilities to the four program agencies.

As the new lead agency, NIST's activities include planning and coordinating the Program; supporting the development of performance-based engineering tools; requesting the assistance of Federal agencies other than Program agencies, as necessary; coordinating all Federal post-windstorm investigations; and issuing recommendations related to model building codes when warranted by research or investigative findings. In addition to the lead agency responsibilities, NIST shall also conduct research and development to improve model building codes, voluntary standards, and best practices for the design, construction, and retrofit of buildings, structures, and lifelines.

NSF activities include research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

NOAA activities include the support of atmospheric science research and data collection to improve the understanding of the behavior of windstorms and the impact on buildings, structures, and lifelines.

FEMA activities include the development of risk assessment tools and effective mitigation techniques; data collection and analysis; and public outreach, information dissemination, and implementation of mitigation measures.

Section 204. National Advisory Committee on Windstorm Impact Reduction

This section amends the National Windstorm Impact Reduction Act of 2004 to reauthorize and update an existing Advisory Committee for NWIRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions, as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

Section 205. Authorization of appropriations

This section provides authorizations of appropriations as follows:

For FEMA: \$4,000,000 for each fiscal year 2012 through 2014.

For NSF: \$9,400,000 for each fiscal year 2012 through 2014.

For NIST: \$5,300,000 for each fiscal year 2012 through 2014.

For NOAA: \$2,700,000 for each fiscal year 2012 through 2014.

TITLE III. INTERAGENCY COORDINATION

Sec. 301. Interagency Coordinating Committee on Natural Hazards Risk Reduction

This section combines the Interagency Coordinating Committee on Earthquake Hazards Reduction and the National Windstorm Impact Reduction Program Interagency Working Group into one Interagency Coordinating Committee on Natural Hazards Risk Re-

duction, chaired by the Director of NIST and comprised of the heads of FEMA, USGS, NOAA, NSF, the Office of Science and Technology Policy (OSTP), the Office of Management and Budget (OMB), and the head of any other Federal agency the chair of the Committee considers appropriate. The section instructs the Committee to plan and coordinate NEHRP and NWIRP, including the development of a strategic plan for each program, a progress report on each program, and a coordinated budget for both NEHRP and NWIRP.

Sec. 302. Coordination of Federal disaster research, development, and technology transfer

This section requires the existing Subcommittee on Disaster Reduction, of the Committee on Environment and Natural Resources of the National Science and Technology Council, to submit a report to Congress identifying the current Federal research, development, and technology transfer activities that address mitigation for all types of natural hazards, and how such activities are being coordinated to reduce duplication among the various research programs.

Sec. 303. Authorizations

This section clarifies that no additional funding is authorized to carry out the title.

TITLE IV. FIRE RESEARCH PROGRAM

Sec. 401. Fire Research Program

This section amends the National Institute of Standards and Technology Act to include research into fires at the wildland-urban interface that are the result of natural causes.

XIX. 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 italic, existing law in which no change is proposed is shown in roman):

EARTHQUAKE HAZARDS REDUCTION ACT OF 1977

* * * * *

SEC. 4. DEFINITIONS.

As used in this Act, unless the context otherwise requires:

(1) * * *

* * * * *

[(8) The term "Interagency Coordinating Committee" means the Interagency Coordinating Committee on Earthquake Hazards Reduction established under section 5(a).

[(9) The term "Advisory Committee" means the Advisory Committee established under section 5(a)(5).]

SEC. 5. NATIONAL EARTHQUAKE HAZARDS REDUCTION PROGRAM.

(a) ESTABLISHMENT.—

(1) IN GENERAL.—There is established the National Earthquake Hazards Reduction Program *to be administered, as pro-*

vided under this section, by the National Institute of Standards and Technology, the Federal Emergency Management Agency, the United States Geological Survey, and the National Science Foundation.

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

[(A) develop effective measures for earthquake hazards reduction;]

(A) research and develop effective methods, tools, and technologies to reduce the risk posed by earthquakes to the built environment, especially to lessen the risk to existing structures and lifelines;

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

(i) * * *

* * * * *

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

(D) develop, operate, and maintain an Advanced National Seismic Research and Monitoring System established under section 13 of the Earthquake Hazards Reduction Act of 1977 (42 U.S.C. 7707), the George E. Brown, Jr. Network for Earthquake Engineering Simulation established under section 14 of that Act (42 U.S.C. 7708), and the Global Seismographic Network[.], *as appropriate; and*

(E) support public education and outreach to assist different populations, including individuals and households with special needs, in preparing for and responding to earthquake-related disasters.

[(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.—The committee shall be composed of the directors of—

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

[(C) MEETINGS.—The Committee shall meet not less than 3 times a year at the call of the Director.

[(D) PURPOSE AND DUTIES.—The Interagency Coordinating Committee shall oversee the planning, manage-

ment, and coordination of the Program. The Interagency Coordinating Committee shall—

[(i) develop, not later than 6 months after the date of enactment of the National Earthquake Hazards Reduction Program Reauthorization Act of 2004 and update periodically—

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

[(II) a detailed management plan to implement such strategic plan; and

[(ii) develop 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 clause (i), submit such budget to the Director of the Office of Management and Budget at the time designated by that office for agencies to submit annual budgets.

[(4) ANNUAL REPORT.—The Interagency Coordinating Committee shall transmit, at the time of the President's budget request to Congress, an annual report to the Committee on Science and the Committee on Resources of the House of Representatives, and the Committee on Commerce, Science, and Transportation of the Senate. Such report shall include—

[(A) 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 subparagraph (3)(A);

[(B) 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 subparagraph (3)(A);

[(C) 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 (3)(A);

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

[(E) 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; and

[(F) 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).

[(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 rep-

representatives of research and academic institutions, industry standards development organizations, State and local government, 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 recommendations, the Committee shall consider the recommendations of the United States Geological Survey Scientific Earthquake Studies Advisory Committee.

[(D) FEDERAL ADVISORY COMMITTEE ACT APPLICATION.—Section 14 of the Federal Advisory Committee Act (5 App. U.S.C. 14) 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 lifelines;

[(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 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.】

(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 components to promote the implementation of earthquake hazards risk 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, constructing, and retrofitting structures and lifelines;*

(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 model building codes, voluntary standards, and construction best practices;*

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

(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 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; and*

(E) *when warranted by research or investigative findings, issue recommendations to assist in informing the development of model codes, and provide information to Congress on the use of such recommendations.*

* * * * *

(3) *UNITED STATES GEOLOGICAL SURVEY.*—*The United States Geological Survey shall conduct research and other activities necessary to characterize and identify earthquake hazards, assess earthquake risks, monitor seismic activity, and improve earthquake predictions. 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】 detailed seismic hazard and risk studies in urban and other developed areas where earthquake risk is determined to be significant, and engineering seismology studies;*

* * * * *

【(F) operate a National Seismic System;

【(G) support regional seismic networks, which shall complement the National Seismic Network; and】

(F) operate, in cooperation with the National Science Foundation, a Global Seismographic Network for detection of earthquakes around the world and research into fundamental earth processes;

(G) support the operation of regional seismic networks in areas of higher seismic risk;

(H) 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) 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; and]

(I) work with other Program agencies to maintain awareness of, and where appropriate coordinate with, earthquake risk reduction efforts in other countries to ensure that the Program benefits from relevant information and advances in those countries; and

* * * * *

(4) NATIONAL SCIENCE FOUNDATION.—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—

(A) * * *

* * * * *

(D) support research that improves the safety and performance of buildings, structures, and lifeline systems using large-scale experimental and computational facilities [of the George E. Brown Jr. Network for Earthquake Engineering Simulation and other institutions engaged in research and the implementation of the National Earthquake Hazards Reduction Program] of institutions engaged in research and the implementation of the National Earthquake Hazards Reduction Program, which may include the George E. Brown Jr. Network for Earthquake Engineering Simulation;

* * * * *

(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 building codes and standards and practices for structures and lifelines. In carrying out this paragraph, the

Director of the National Institute of Standards and Technology shall—

(A) * * *

* * * * *

(C) work closely with national standards organizations and other stakeholders with relevant expertise to develop seismic safety standards and practices for new and existing lifelines; and

(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 testing approaches to the research infrastructure in a systematic manner.]

(c) ADVISORY COMMITTEE ON EARTHQUAKE HAZARDS REDUCTION.—

(1) IN GENERAL.—The Director of the National Institute of Standards and Technology shall establish an Advisory Committee on Earthquake Hazards Reduction, which shall be composed of at least 11 members, none of whom may be employees of the Federal Government, including representatives of research and academic institutions, industry standards development organizations, emergency management agencies, State and local government, and business 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.

(2) ASSESSMENTS.—The Advisory Committee on Earthquake Hazards Reduction shall offer assessments on—

(A) trends and developments in the natural, social, and engineering sciences and practices of earthquake hazards impact mitigation;

(B) the priorities of the Program's Strategic Plan;

(C) the coordination of the Program; and

(D) any revisions to the Program which may be necessary.

(3) COMPENSATION.—The members of the Advisory Committee established under this subsection shall serve without compensation.

(4) REPORTS.—At least every 2 years, the Advisory Committee shall report to the Director of the National Institute of Standards and Technology on the assessments carried out under paragraph (2) and its recommendations for ways to improve the Program.

(5) *TERMINATION.*—*The Advisory Committee established under this subsection shall terminate not later than 5 years after the date of enactment of the Natural Hazards Risk Reduction Act of 2011.*

[(c)] (d) BUDGET COORDINATION.—

(1) *GUIDANCE.*—*The Interagency Coordinating Committee on Natural Hazards Risk Reduction established under section 301 of the Natural Hazards Risk Reduction Act of 2011 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.*

* * * * *

SEC. 11. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.

There is established within the United States Geological Survey a post-earthquake investigations program, the purpose of which is to investigate major earthquakes, so as to learn lessons which can be applied to reduce the loss of lives and property in future earthquakes. The United States Geological Survey, in consultation with each Program agency *and utilizing the coordination expertise of the lead Program agency*, shall organize investigations to study the implications of the earthquake in the areas of responsibility of each Program agency. The investigations shall begin as rapidly as possible and may be conducted by grantees and contractors. The Program agencies shall ensure that the results of investigations are disseminated widely. The Director of the Survey is authorized to utilize earthquake expertise from the Agency, the National Science Foundation, the National Institute of Standards and Technology, other Federal agencies, and private contractors, on a reimbursable basis, in the conduct of such earthquake investigations. At a minimum, investigations under this section shall include—

(1) * * *

* * * * *

[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, and

[(E) \$23,640,000 for fiscal year 2009,

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 lifelines.

[(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 ending 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 Research and Monitoring 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 Research and Monitoring 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 Research and Monitoring 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 Research and Monitoring System established under section 13; and

[(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 Research and Monitoring 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 geo-

sciences 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; and
- [(E) \$42,770,000 for fiscal year 2009.

[(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, and
- [(E) \$14,640,000 for fiscal year 2009,

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 lifelines.]

SEC. 12. AUTHORIZATION OF APPROPRIATIONS.

(a) *FEDERAL EMERGENCY MANAGEMENT AGENCY.*—*There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this Act—*

- (1) \$6,400,000 for fiscal year 2012;
- (2) \$6,400,000 for fiscal year 2013; and
- (3) \$6,400,000 for fiscal year 2014.

(b) *UNITED STATES GEOLOGICAL SURVEY.*—*There are authorized to be appropriated to the United States Geological Survey for carrying out this Act—*

- (1) \$57,700,000 for fiscal year 2012;
- (2) \$57,700,000 for fiscal year 2013; and
- (3) \$57,700,000 for fiscal year 2014.

(c) *NATIONAL SCIENCE FOUNDATION.*—*There are authorized to be appropriated to the National Science Foundation for carrying out this Act—*

- (1) \$53,800,000 for fiscal year 2012;
- (2) \$53,800,000 for fiscal year 2013; and
- (3) \$53,800,000 for fiscal year 2014.

(d) *NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.*—*There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this Act—*

- (1) \$4,100,000 for fiscal year 2012;
- (2) \$4,100,000 for fiscal year 2013; and
- (3) \$4,100,000 for fiscal year 2014.

* * * * *

SEC. 14. NETWORK FOR EARTHQUAKE ENGINEERING SIMULATION.

[(a) *ESTABLISHMENT.*—]The Director of the National Science Foundation shall establish the George E. Brown, Jr. Network for Earthquake Engineering Simulation that will upgrade, link, and integrate a system of geographically distributed experimental facilities for earthquake engineering testing of full-sized structures and their components and partial-scale physical models. The system shall be integrated through networking software so that integrated models and databases can be used to create model-based simulation, and the components of the system shall be interconnected with a computer network and allow for remote access, information sharing, and collaborative research.

[(b) *AUTHORIZATION OF APPROPRIATIONS.*—In addition to amounts appropriated under section 12(c), there are authorized to be appropriated to the National Science Foundation for the George E. Brown, Jr. Network for Earthquake Engineering Simulation—

- [(1) \$28,200,000 for fiscal year 2001;
- [(2) \$24,400,000 for fiscal year 2002;
- [(3) \$4,500,000 for fiscal year 2003;
- [(4) \$17,000,000 for fiscal year 2004;

- [(5) \$20,000,000 for fiscal year 2005, all of which shall be available for operations and maintenance;
- [(6) \$20,400,000 for fiscal year 2006, all of which shall be available for operations and maintenance;
- [(7) \$20,870,000 for fiscal year 2007, all of which shall be available for operations and maintenance;
- [(8) \$21,390,000 for fiscal year 2008, all of which shall be available for operations and maintenance; and
- [(9) \$21,930,000 for fiscal year 2009, all of which shall be available for operations and maintenance.]

**NATIONAL WINDSTORM IMPACT REDUCTION ACT OF
2004**

* * * * *

**TITLE II—WINDSTORM IMPACT
REDUCTION**

* * * * *

SEC. 203. DEFINITIONS.

In this title:

- (1) DIRECTOR.—The term “Director” means the [(Director of the Office of Science and Technology Policy)] *Director of the National Institute of Standards and Technology*.

* * * * *

SEC. 204. NATIONAL WINDSTORM IMPACT REDUCTION PROGRAM.

[(a) ESTABLISHMENT.—There is established the National Windstorm Impact Reduction Program.

[(b) OBJECTIVE.—The objective of the Program is the achievement of major measurable reductions in losses of life and property from windstorms. The objective is to be achieved through a coordinated Federal effort, in cooperation with other levels of government, academia, and the private sector, aimed at improving the understanding of windstorms and their impacts and developing and encouraging implementation of cost-effective mitigation measures to reduce those impacts.

[(c) INTERAGENCY WORKING GROUP.—Not later than 90 days after the date of enactment of this Act, the Director shall establish an Interagency Working Group consisting of representatives of the National Science Foundation, the National Oceanic and Atmospheric Administration, the National Institute of Standards and Technology, the Federal Emergency Management Agency, and other Federal agencies as appropriate. The Director shall designate an agency to serve as Chair of the Working Group and be responsible for the planning, management, and coordination of the Program, including budget coordination. Specific agency roles and responsibilities under the Program shall be defined in the implementation plan required under subsection (e). General agency responsibilities shall include the following:

- [(1) The National Institute of Standards and Technology shall support research and development to improve building

codes and standards and practices for design and construction of buildings, structures, and lifelines.

【(2) The National Science Foundation shall support research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

【(3) The National Oceanic and Atmospheric Administration shall support atmospheric sciences research to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

【(4) The Federal Emergency Management Agency shall support the development of risk assessment tools and effective mitigation techniques, windstorm-related data collection and analysis, public outreach, information dissemination, and implementation of mitigation measures consistent with the Agency's all-hazards approach.】

(a) *ESTABLISHMENT.*—*There is established the National Windstorm Impact Reduction Program, the purpose of which is to achieve major measurable reductions in the losses of life and property from windstorms through a coordinated Federal effort, in cooperation with other levels of government, academia, and the private sector, aimed at improving the understanding of windstorms and their impacts and developing and encouraging the implementation of cost-effective mitigation measures to reduce those impacts.*

(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 shall—*

(A) *ensure that the Program includes the necessary components to promote the implementation of windstorm risk 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 lifelines;*

(B) *support the development of performance-based engineering tools, and work with appropriate groups to promote the commercial application of such tools, including through wind-related model building codes, voluntary standards, and construction best practices;*

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

(D) *coordinate all Federal post-windstorm investigations; and*

(E) *when warranted by research or investigative findings, issue recommendations to assist in informing the development of model codes, and provide information to Congress on the use of such recommendations.*

(2) *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 model building codes, voluntary standards,*

and best practices for the design, construction, and retrofit of buildings, structures, and lifelines.

(3) *NATIONAL SCIENCE FOUNDATION.—The National Science Foundation shall support research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.*

(4) *NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.—The National Oceanic and Atmospheric Administration shall support atmospheric sciences research and data collection to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.*

(5) *FEDERAL EMERGENCY MANAGEMENT AGENCY.—The Federal Emergency Management Agency shall support the development of risk assessment tools and effective mitigation techniques, windstorm-related data collection and analysis, public outreach, information dissemination, and implementation of mitigation measures consistent with the Agency’s all-hazards approach.*

[(d)] (c) PROGRAM COMPONENTS.—

(1) * * *

* * * * *

(4) **WINDSTORM IMPACT REDUCTION.—**Activities to reduce windstorm impacts shall include—

[(A) development of improved outreach and implementation mechanisms to translate existing information and research findings into cost-effective and affordable practices for design and construction professionals, and State and local officials;]

(A) development of improved outreach and implementation mechanisms to translate—

(i) existing information and research findings into cost-effective and affordable practices for design and construction professionals, and State and local officials; and

(ii) research, including social science research, into windstorm risk mitigation and preparedness strategies for individuals and households, including individuals and households with special needs, and businesses;

* * * * *

[(e) IMPLEMENTATION PLAN.—Not later than 1 year after date of enactment of this title, the Interagency Working Group shall develop and transmit to the Congress an implementation plan for achieving the objectives of the Program. The plan shall include—

[(1) an assessment of past and current public and private efforts to reduce windstorm impacts, including a comprehensive review and analysis of windstorm mitigation activities supported by the Federal Government;

[(2) a description of plans for technology transfer and coordination with natural hazard mitigation activities supported by the Federal Government;

[(3) a statement of strategic goals and priorities for each Program component area;

[(4) a description of how the Program will achieve such goals, including detailed responsibilities for each agency; and

[(5) a description of plans for cooperation and coordination with interested public and private sector entities in each program component area.

[(f) BIENNIAL REPORT.—The Interagency Working Group shall, on a biennial basis, and not later than 180 days after the end of the preceding 2 fiscal years, transmit a report to the Congress describing the status of the windstorm impact reduction program, including progress achieved during the preceding two fiscal years. Each such report shall include any recommendations for legislative and other action the Interagency Working Group considers necessary and appropriate. In developing the biennial report, the Interagency Working Group shall consider the recommendations of the Advisory Committee established under section 205.]

[SEC. 205. NATIONAL ADVISORY COMMITTEE ON WINDSTORM IMPACT REDUCTION.

[(a) ESTABLISHMENT.—The Director shall establish a National Advisory Committee on Windstorm Impact Reduction, consisting of not less than 11 and not more than 15 non-Federal members representing a broad cross section of interests such as the research, technology transfer, design and construction, and financial communities; materials and systems suppliers; State, county, and local governments; the insurance industry; and other representatives as designated by the Director.

[(b) ASSESSMENT.—The Advisory Committee shall assess—

[(1) trends and developments in the science and engineering of windstorm impact reduction;

[(2) the effectiveness of the Program in carrying out the activities under section 204(d);

[(3) the need to revise the Program; and

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

[(c) BIENNIAL REPORT.—At least once every two years, the Advisory Committee shall report to Congress and the Interagency Working Group on the assessment carried out under subsection (b).

[(d) SUNSET EXEMPTION.—Section 14 of the Federal Advisory Committee Act shall not apply to the Advisory Committee established under this section.]

SEC. 205. NATIONAL ADVISORY COMMITTEE ON WINDSTORM IMPACT REDUCTION.

(a) IN GENERAL.—The Director of the National Institute of Standards and Technology shall establish an Advisory Committee on Windstorm Impact Reduction, which shall be composed of at least 7 members, none of whom may be employees of the Federal Government, including representatives of research and academic institutions, industry standards development organizations, emergency management agencies, State and local government, and business communities who are qualified to provide advice on windstorm impact 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) ASSESSMENTS.—The Advisory Committee on Windstorm Impact Reduction shall offer assessments on—

- (1) trends and developments in the natural, social, and engineering sciences and practices of windstorm impact mitigation;
- (2) the priorities of the Program's Strategic Plan;
- (3) the coordination of the Program; and
- (4) any revisions to the Program which may be necessary.

(c) **COMPENSATION.**—*The members of the Advisory Committee established under this section shall serve without compensation.*

(d) **REPORTS.**—*At least every 2 years, the Advisory Committee shall report to the Director on the assessments carried out under subsection (b) and its recommendations for ways to improve the Program.*

(e) **TERMINATION.**—*The Advisory Committee shall terminate not later than 5 years after the date of enactment of the Natural Hazards Risk Reduction Act of 2011.*

* * * * *

[SEC. 207. AUTHORIZATION OF APPROPRIATIONS.

[(a) FEDERAL EMERGENCY MANAGEMENT AGENCY.—*There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this title—*

- [(1) \$8,700,000 for fiscal year 2006;**
- [(2) \$9,400,000 for fiscal year 2007; and**
- [(3) \$9,400,000 for fiscal year 2008.**

[(b) NATIONAL SCIENCE FOUNDATION.—*There are authorized to be appropriated to the National Science Foundation for carrying out this title—*

- [(1) \$8,700,000 for fiscal year 2006;**
- [(2) \$9,400,000 for fiscal year 2007; and**
- [(3) \$9,400,000 for fiscal year 2008.**

[(c) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—*There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this title—*

- [(1) \$3,000,000 for fiscal year 2006;**
- [(2) \$4,000,000 for fiscal year 2007; and**
- [(3) \$4,000,000 for fiscal year 2008.**

[(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.—*There are authorized to be appropriated to the National Oceanic and Atmospheric Administration for carrying out this title—*

- [(1) \$2,100,000 for fiscal year 2006;**
- [(2) \$2,200,000 for fiscal year 2007; and**
- [(3) \$2,200,000 for fiscal year 2008.]**

SEC. 207. AUTHORIZATION OF APPROPRIATIONS.

(a) FEDERAL EMERGENCY MANAGEMENT AGENCY.—*There are authorized to be appropriated to the Federal Emergency Management Agency for carrying out this title—*

- (1) \$4,000,000 for fiscal year 2012;**
- (2) \$4,000,000 for fiscal year 2013; and**
- (3) \$4,000,000 for fiscal year 2014.**

(b) NATIONAL SCIENCE FOUNDATION.—*There are authorized to be appropriated to the National Science Foundation for carrying out this title—*

- (1) \$9,400,000 for fiscal year 2012;**
- (2) \$9,400,000 for fiscal year 2013; and**
- (3) \$9,400,000 for fiscal year 2014.**

(c) NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY.—
There are authorized to be appropriated to the National Institute of Standards and Technology for carrying out this title—

- (1) \$5,300,000 for fiscal year 2012;
- (2) \$5,300,000 for fiscal year 2013; and
- (3) \$5,300,000 for fiscal year 2014.

(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION.—
There are authorized to be appropriated to the National Oceanic and Atmospheric Administration for carrying out this title—

- (1) \$2,700,000 for fiscal year 2012;
- (2) \$2,700,000 for fiscal year 2013; and
- (3) \$2,700,000 for fiscal year 2014.

* * * * *

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY ACT

* * * * *

SEC. 16. (a) There is hereby established within the Department of Commerce a Fire Research Center which shall have the mission of performing and supporting research on all aspects of fire with aim of providing scientific and technical knowledge applicable to the prevention and control of fires. The content and priorities of the research program shall be determined in consultation with the Administrator of the United States Fire Administration. In implementing this section, the Secretary is authorized to conduct, directly or through contracts or grants, a fire research program, including—

(1) basic and applied fire research for the purpose of arriving at an understanding of the fundamental processes underlying all aspects of fire. Such research shall include scientific investigations of—

(A) * * *

* * * * *

(D) the early stages of fires in buildings and other structures, structural subsystems and structural components in all other types of fires, including, but not limited to, *fires at the wildland-urban interface that are the result of natural causes*, forest fires, brush fires, fires underground, oil blowout fires, and waterborne fires, with the aim of improving early detection capability;

(E) the behavior of fires involving all types of buildings and other structures and their contents (including mobile homes and highrise buildings, construction materials, floor and wall coverings, coatings, furnishings, and other combustible materials), and all other types of fires, including *fires at the wildland-urban interface that are the result of natural causes*, forest fires, brush fires, fires underground, oil blowout fires, and waterborne fires;

* * * * *

XX. EXCHANGE OF COMMITTEE CORRESPONDENCE



U.S. House of Representatives
Committee on Transportation and Infrastructure
Washington, DC 20515

John L. Mica
Chairman

Nick J. Rahall, III
Ranking Member

James W. Coon II, Chief of Staff

James H. Zola, Democrat Chief of Staff

March 20, 2012

The Honorable Ralph M. Hall
Chairman
Committee on Science, Space, and Technology
2321 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Hall:

I am writing to you concerning the jurisdictional interest of the Committee on Transportation and Infrastructure in H.R. 3479, the "Natural Hazards Risk Reduction Act of 2011", which was referred to the Committee on Science, Space, and Technology, and in addition to the Committee on Transportation and Infrastructure.

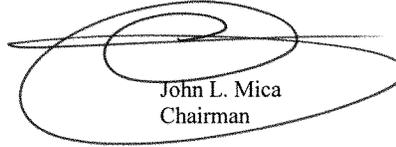
I recognize and appreciate your desire to bring this legislation before the House of Representatives in an expeditious manner, and accordingly, I will waive further consideration of this bill in Committee. This waiver, of course, is conditional upon our mutual understanding that agreeing to waive consideration of this bill should not be construed as waiving, reducing, or affecting the jurisdiction of the Committee on Transportation and Infrastructure over H.R. 3479 or similar legislation.

Further, the Committee on Transportation and Infrastructure reserves the right to seek the appointment of conferees during any House-Senate conference convened on H.R. 3479 or similar legislation. I request your commitment to support any request by the Committee on Transportation and Infrastructure for the appointment of conferees on H.R. 3479 or similar legislation.

I would appreciate a copy of this letter and your response be placed in the *Congressional Record* during consideration of H.R. 3479 on the House floor.

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, consisting of several overlapping loops and a horizontal line, positioned above the printed name.

John L. Mica
Chairman

cc: The Honorable Nick J. Rahall, II, Ranking Member, Committee on Transportation and Infrastructure.
The Honorable Eddie Bernice Johnson, Ranking Member, Committee on Science, Space, and Technology
Mr. John Sullivan, Parliamentarian

RALPH M. HALL, TEXAS
CHAIRMAN

EDDIE BERNICE JOHNSON, TEXAS
RANKING MEMBER

U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY

2321 RAYBURN HOUSE OFFICE BUILDING
WASHINGTON, DC 20515-6301
(202) 225-6371
www.science.house.gov

March 20, 2012

The Honorable John L. Mica
Chairman
Committee on Transportation and Infrastructure
2165 Rayburn House Office Building
Washington, DC 20515

Dear Chairman Mica:

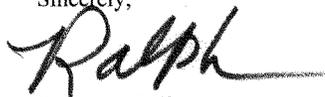
Thank you for your letter regarding H.R. 3479, the "Natural Hazards Risk Reduction Act of 2011".

I appreciate your willingness to support expediting floor consideration of this legislation, notwithstanding the inclusion of provisions under the jurisdiction of the Committee on Transportation and Infrastructure. I understand and agree that your willingness to waive further consideration of the bill is without prejudice to your Committee's jurisdictional interest in this or similar legislation. In the event a House-Senate conference is convened on H.R. 3479 or similar legislation, I would support your request to be represented on those provisions over which the Committee on Transportation and Infrastructure has jurisdiction.

A copy of your letter and this response will be included in the *Congressional Record* during consideration of H.R. 3479 on the House floor.

I value your cooperation and look forward to working with you as this important legislation moves forward.

Sincerely,



Ralph M. Hall
Chairman
Committee on Science, Space, and Technology

cc: The Honorable John Boehner, Speaker
The Honorable Eric Cantor, Majority Leader
The Honorable Eddie Bernice Johnson, Ranking Member, Committee on Science,
Space, and Technology
The Honorable Nick J. Rahall, Ranking Member, Committee on Transportation
and Infrastructure
Mr. John Sullivan, Parliamentarian

XXI. DISSENTING VIEWS

We strongly support the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Program (NWIRP), but we must reluctantly oppose H.R. 3479, *the Natural Hazards Risk Reduction Act of 2011*, because of the damage this bill will do to these vital programs.

Americans face significant exposure to natural hazards, and each year natural hazards cause significant damage in communities throughout the U.S. It is estimated that the economic costs associated with the unprecedented number of disasters experienced in the U.S. this year alone will exceed \$45 billion.

We believe that the best way to minimize the loss of lives and property, as well as moderate disruptions to our economy, is by helping our communities become more resilient to disasters. NEHRP and NWIRP have proven track records in bolstering the resiliency of our communities through advancements in monitoring and building practices and increased awareness and preparation by the public.

As the authorizing Committee with jurisdiction over these important programs, it is our responsibility to outline the objectives of the programs as well as the role and responsibilities of each of the agencies involved. Additionally, we have an obligation to authorize the funding that we believe is needed by the agencies to effectively carry out all of what we have required of them.

Unfortunately, H.R. 3479 proposes drastic cuts to the authorization levels of these critical programs. It reduces the authorization level for NEHRP by 36 percent and NWIRP by 14 percent when compared to the last year the programs were authorized. Furthermore, it weakens both programs by cutting the programs by 6 percent below fiscal year 2011 spending levels.

We do not have any reason to believe, nor has the Committee received any testimony that would support the premise that these agencies need any less money to carry out their responsibilities than we determined was necessary when we last authorized these programs in 2004 under Republican leadership. Yet, H.R. 3479 fails to take a single step to reduce or minimize the obligations of these agencies to justify the reduction in authorized funding. Without a corresponding reduction in responsibilities, we are doing nothing less than setting these agencies up to fail.

Democratic Members of the Committee attempted to reverse these proposed cuts and ensure that the agencies have the resources necessary to fulfill their Congressional mandates. One amendment would have restored funding authorizations to the levels included in the last authorization. Another amendment would have replaced the authorization numbers with the authorization numbers in the bipartisan bill that passed the House last Congress and is currently making its way through the Senate. These were

both reasonable and informed amendments, and we are disappointed that they were rejected along party lines.

In addition to our concerns about cutting funding for these important programs, we are disappointed that the bill fails to implement a 2008 NEHRP Advisory Committee recommendation that the National Institute for Standards and Technology (NIST) take over responsibility for coordinating post-earthquake investigations. In 2004, NIST was given the task of serving as the lead agency for NEHRP, and it follows that NIST should be responsible for coordinating all of the program's activities, including post-earthquake investigations.

The bipartisan bill that passed the House last Congress included this transfer. The bipartisan bill currently moving through the Senate also includes this change. In fact, the original version of H.R. 3479 considered by the Technology and Innovation Subcommittee last month also included this change. Unfortunately, at the Subcommittee markup, a Republican amendment was accepted that reversed the transfer of this responsibility. We do not suspect that the Majority had a change of heart with respect to whether the transfer to NIST is the best policy. Instead, we believe they were constrained by their legislative protocols and could not provide NIST with the resources necessary to coordinate post-earthquake investigations without also slashing funding from the other NEHRP agencies that are already struggling to meet their responsibilities under the program.

We believe that, as an authorizing Committee, our first and foremost concern should be establishing the best policy. That is why a Democratic amendment was offered to reinstate the transfer of responsibility for post-earthquake investigations to NIST and to increase NIST's authorization to accommodate this new responsibility. We are disappointed that this amendment was also rejected along party lines.

We share the Majority's interest in getting a reauthorization of these important programs enacted into law as quickly as possible, but not at the cost of damaging the ability of these programs to effectively carry out their mission to save American lives and limit property damage. We sincerely hope that we will be able to work together in a bipartisan manner to accomplish these goals as we move forward.

EDDIE BERNICE JOHNSON.

LYNN WOOLSEY.

JERRY F. COSTELLO.

ZOE LOFGREN.

TERRI SEWELL.

JERRY MCNERNEY.

PAUL TONKO.

MARCIA L. FUDGE.

HANSEN CLARKE.

BRAD MILLER.

DONNA F. EDWARDS.

**XXII. PROCEEDINGS OF THE SUBCOMMITTEE
ON TECHNOLOGY AND INNOVATION'S
MARKUP ON COMMITTEE PRINT,
THE NATURAL HAZARDS RISK REDUCTION
ACT OF 2011**

TUESDAY, November 15, 2011

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON TECHNOLOGY AND INNOVATION,
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
Washington, DC.

The Subcommittee met, pursuant to call, at 1:04 p.m., in Room 2318 of the Rayburn House Office Building, Hon. Benjamin Quayle [Chairman of the Subcommittee] presiding.

Chairman QUAYLE. Good afternoon. The Subcommittee of Technology and Innovation will come to order. Pursuant to notice the Subcommittee on Technology and Innovation meets today to consider the following measure. Committee Print, the "Natural Hazards Risk Reduction Act of 2011."

We will now proceed with the markup beginning with opening statements. I am going to be brief as it is my intention to yield the balance of my time to Ms. Biggert.

I am pleased to call the markup this morning for consideration of the Committee Print of the Natural Hazards Risk Reduction Act of 2011.

As we have tragically witnessed this year, earthquakes and windstorms take lives, destroy homes and businesses, and cause billions of dollars of damage in the United States and around the world. The effects of these disasters can reverberate for decades. Portions of all 50 states are vulnerable to earthquake hazards, and according to the United States Geological Survey 26 urban areas in 14 U.S. states face significant seismic risk.

Though infrequent, earthquakes are unique among natural hazards in that they strike without warning. Millions of Americans across the U.S. live in areas vulnerable to storms with damaging winds, and as populations continue to grow in areas prone to hurricanes, tornados, and windstorms, our vulnerability to severe weather will only increase.

This past April our subcommittee held a hearing examining earthquake risks in the United States and our efforts to develop hazard reduction measures. I am pleased that Congresswoman Biggert plans to introduce the "Natural Hazards Risk Reduction Act of 2011," which will address important research and development activities to reduce the risk and impact of earthquake and windstorm hazards.

I want to thank Representative Biggert and Representative Neugebauer for collaborating on this effort. I look forward to moving this important legislation forward.

[The prepared statement of Mr. Quayle follows:]

PREPARED STATEMENT OF CHAIRMAN BEN QUAYLE

I am pleased to call the markup this morning for consideration of a Committee Print of the Natural Hazards Risk Reduction Act of 2011.

As we have tragically witnessed this year, earthquakes and windstorms take lives, destroy homes and businesses, and cause billions of dollars of damage in the United States and around the world. The effects of these disasters can reverberate for decades.

Portions of all 50 states are vulnerable to earthquake hazards, and according to the United States Geologic Survey, twenty-six urban areas in fourteen U.S. states face significant seismic risk. Though infrequent, earthquakes are unique among natural hazards in that they strike without warning.

Millions of Americans across the U.S. live in areas vulnerable to storms with damaging winds, and as populations continue to grow in areas prone to hurricanes, tornadoes, and windstorms, our vulnerability to severe weather will only increase.

This past April, our Subcommittee held a hearing examining earthquake risk in the United States and our efforts to develop hazard reduction measures. I am pleased that Congresswoman Biggert plans to introduce the Natural Hazards Risk Reduction Act of 2011, which will address important research and development activities to reduce the risk and impact of earthquake and windstorm hazards.

The Committee Print we are considering today will reauthorize the activities of the National Earthquake Hazards Reduction Program (NEHRP, "KNEE-hurp") and the National Windstorm Impact Reduction Program (NWIRP, "N-whirp"). Over the years, NEHRP has been instrumental in developing and advancing earthquake knowledge, seismic building codes, and raising the awareness of both officials and the general public to earthquake hazards. NWIRP has supported activities to improve the understanding of windstorms and their impacts, and to develop and encourage the implementation of cost-effective mitigation measures to reduce these effects. Both programs are targeted federal research and development efforts to mitigate the loss of life and property due to wind and earthquake related hazards.

I want to thank Representatives Biggert and Neugebauer for collaborating on this effort, and I look forward to moving this important legislation forward. I yield the balance of my time to the gentle lady from Illinois, for any comments she may have.

Chairman QUAYLE. I yield the balance of my time to the gentle lady from Illinois for any comments she may have.

Mrs. BIGGERT. Thank you, Mr. Chairman, and thank you for scheduling this important markup today, I haven't had the opportunity to congratulate the Ranking Member Edwards for taking over this important Subcommittee.

The Natural Hazards Risk Reduction Act of 2011 reauthorizes two important multi-agency programs that address hazards faced by millions of Americans. The National Earthquake Hazard Reduction Program, also known as NEHRP, whose name should be very difficult to talk about, and the National Windstorm Impact Reduction Program, known as NWIRP, support research and development to better understand and prepare for earthquakes and windstorms.

Briefly, the committee print includes a few changes to NEHRP Program that improves its mission and reduces duplicity. These changes include reauthorizing the program for three years, further detailing the role of NIST as the lead program agency, updating the existing advisory committee for NEHRP to offer recommendations and assessments on programs, developments, priorities, and coordination. The committee print also directs an interagency coordinating committee chaired by the director of NIST with overseeing the planning and coordination of both the earthquake and wind hazard programs.

The single interagency coordinating committee replaces two separate interagency committees overseeing the current earthquake and windstorm programs and provides a framework for coordination of a multi-hazards approach to mitigating national disasters.

As co-chair of the High Performance Building Caucus we frequently hold briefings on building safety and security, a defining attribute of a high-performing building. In fact, we held a briefing in April on seismic readiness of the U.S. building inventory and the importance of updating building codes and standards to mitigate our risks in communities.

The NEHRP data and monitoring information is the foundation for those safety codes and standards. Without it we wouldn't understand what areas of our country are most risk prone and what areas are least prepared. That is why I believe the reauthorization of this program is important for all of us. A little knowledge and improvement in earthquake risk measures go a long way in protecting life and property.

Mr. Chairman, the committee print has been endorsed by the American Geophysical Union and the National Council of Structural Engineers Associations, and I urge members to support this legislation and yield the balance of time to Mr. Neugebauer for any comments he may have on the National Windstorm Impact Reduction Program.

[The prepared statement of Mrs. Biggert follows:]

PREPARED STATEMENT OF REPRESENTATIVE JUDY BIGGERT

Mr. Chairman, thank you for scheduling this important markup today.

The Natural Hazards Risk Reduction Act of 2011 reauthorizes two important multi-agency programs that address hazards faced by millions of Americans. The National Earthquake Hazard Reduction Program, also known as NEHRP ["KNEE-HURP"] and the National Windstorm Impact Reduction Program, known as NWIRP ["N-WHIRP"] support research and development to better understand and prepare for earthquakes and windstorms.

Briefly, the committee print includes a few changes to the NEHRP program that improve its mission and reduce duplication. Those changes include:

- Reauthorizing the program for three years;
- Further detailing the role of NIST as the lead program agency of NEHRP;
- Updating the existing Advisory Committee for NEHRP to offer recommendations and assessments on program developments, priorities, and coordination.
- The Committee Print also directs an interagency coordinating committee, chaired by the Director of NIST, with overseeing the planning and coordination of both the earthquake and wind hazards programs. The single interagency coordinating committee replaces two separate interagency committees overseeing the current earthquake and windstorm programs, and provides a framework for coordination of a multi-hazards approach to mitigating natural disasters.

As co-chair of the High Performance Buildings Caucus, we frequently hold briefings on building 'safety and security', a defining attribute of a high-performing building. In fact, we held a briefing in April on the seismic readiness of the U.S. building inventory and the importance of updated building codes and standards to mitigating risk in communities. The NEHRP data and monitoring information is the foundation for those safety codes and standards. Without it, we wouldn't understand what areas of our country are most risk-prone - and what areas are least prepared.

That's why I believe the reauthorization of this program is important for all of us; a little knowledge and improvement in earthquake risk measures go a long way in protecting life and property.

Mr. Chairman, the Committee Print has been endorsed by the American Geophysical Union and the National Council of Structural Engineers Associations. I urge Members to support this legislation, and I hope we can see it through the rest of the legislative process in a timely manner.

I now yield the balance of my time to Mr. Neugebauer for any comments he may have on the National Windstorm Impact Reduction Program.

Mr. NEUGEBAUER. I thank the gentlewoman, and I will be brief as well. The Natural Hazards Risk Reduction Act of 2011 as mentioned authorizes the National Windstorm Impact Reduction Program or NWIRP Program that I first introduced in 2004. It focuses on mitigating the damage from wind hazards through research designed to help us better understand the behavior and impacts of windstorms.

The program includes research and development to improve model codes, voluntary standards, and construction practices for buildings and lifelines, basic research to better understand windstorms, atmospheric science research, and data collection and the development of risk assessment tools and mitigation techniques.

The original authorization for NWIRP expired in 2008, and although some agency work in this area has continued, it is currently difficult to determine the impact of agency activities and spending on wind hazards or reduction measures. This committee print makes changes to NWIRP to bring increased transparency to the program, including naming NIST as the lead program agency which would ensure improved coordination and planning for agency activities.

I would like to thank Chairman Quayle for holding this markup today and Representative Biggert for her commitment to reauthorizing these programs. I would also like to note that the Windstorm Bill I introduced in October, which has been included in the Natural Hazards Risk Reduction Act has been endorsed by the American Society of Civil Engineers. I believe we should work to get these important programs reauthorized, and I look forward to working with other members to strengthen this committee print in preparation for introduction.

Chairman QUAYLE. Thank you, Mr. Neugebauer and Mrs. Biggert. I now recognize Ms. Edwards for five minutes to present her opening remarks.

Ms. EDWARDS. Thank you, Chairman Quayle and thank you to Mrs. Biggert and Mr. Neugebauer for your contributions and for holding today's markup to reauthorize two important programs; the National Earthquake Hazards Reduction Program, Ms. Biggert, I share your concern, NEHRP, and the National Windstorm Impact Reduction Program, NWIRP.

The reauthorization of these programs is very timely as there have been a record number of declared federal disasters in the U.S. this year resulting in economic damage exceeding \$45 billion. It is already the deadliest year for tornados in the United States since 1936, with 550 fatalities so far. The images of devastation from our colleague Congresswoman Sewell's district in Alabama and those of an almost completely flattened Joplin, Missouri, were nothing less than heartbreaking. Even in my own district and state we suffered hurricane and wind damage this year, and I have had earthquake damage, in fact, at my home.

The best way to minimize the loss of lives and property caused by natural disasters as well as reduce disruptions for our economy is to create communities that are disaster resilient. NEHRP and NWIRP support research and development programs to better understand earthquakes and windstorms and their impact and to improve the resiliency of buildings and critical lifelines.

This work has led to advancements in monitoring and building practices and has increased awareness and preparation by the public. Today's committee print makes a number of important improvements to these programs, including establishing NIST as the lead agency for both NEHRP and NWIRP and placing the responsibility for inner-agency coordination in the hands of agency directors who have the authority to make both budgetary and programmatic decisions.

I am pleased that we are also able to work together over the last week on additional changes that we will consider as part of the manager's amendment.

Despite this and my strong support for the reauthorizations of these programs, I do still have some concerns with the committee print that we are considering today. First, even though these programs have proven track records in bolstering the resiliency of our communities and reducing the costs associated with natural hazards and despite the fact that experts have expressed concern that sufficient—insufficient funding has negatively impacted the implementation of these programs and contributed to the loss of low-cost mitigation opportunities, the committee print that we are considering today cuts the funding authorizations for these programs and then freezes funding over the authorization period.

When we consider the devastating losses that have plagued the United States this year and the potential costs associated with a larger-scale disaster like the earthquake in Japan, this course of action seems irresponsible.

I urge my colleagues to consider the long-term savings these programs will provide. Studies of FEMA's Pre-Disaster Mitigation Program have shown that for every dollar we invest in mitigation activities we actually save \$3 to \$4 in recovery costs. We can and should be doing more to help our communities be prepared so we can realize those cost savings.

In addition, despite the leadership's attempts to clarify authorization protocol, confusion remains. Not only is it increasingly difficult for my Democratic colleagues to understand what the rules of the road are at any given moment or how to craft amendments that comply with them, I think this uncertainty has actually resulted in some bad policy.

In this case we have a combination of seemingly arbitrary numbers that seem to be justified only by an effort to comply with certain protocol and not on real-world need and the experiences that we have had in our communities.

I also want to take a moment to talk about a disturbing trend that seems to be emerging, and that is on bills that have traditionally enjoyed bipartisan support. Such as this there has been a startling lack of outreach, although to be fair, the majority did ask for input on today's committee print, which I do appreciate, but only because the previously-scheduled markup was postponed due to factors not within control of the majority. And so thankfully we have had an opportunity to participate at some level in this committee print.

In the last Congress the markup of the previous iteration of the bill was preceded by weeks and perhaps months of outreach and negotiation with minority. As a result we incorporated many Re-

publican ideas, legislative priorities in the bill, and Ranking Member Smith agreed to be an original cosponsor. That bill ultimately passed I think on a suspension vote by a vote of 335 to 50, which included the support of many notable Republican members, including our Speaker Majority Leader Cantor and Majority Whip, Kevin McCarthy.

This was a terrific example of bipartisan legislating, and it was a better bill as a result of the process. I think the bipartisanship does take work, and it takes a willingness, and I know a willingness certainly that I shared with Mrs. Biggert to compromise, and I think that has been noticeably lacking, at least in this process.

So I sincerely hope that the members of the subcommittee can move forward in a more productive and bipartisan manner in the future and particularly on issues such as these which have historically benefited from bipartisan support, and I would note that over on the Senate side this has moved in a bipartisan fashion, and it would seem that if we want to get to a point where we have a bill that is signed into law, that we should proceed in that direction.

And with that I yield.

[The prepared statement of Ms. Edwards follows:]

PREPARED STATEMENT OF RANKING MEMBER DONNA EDWARDS

Thank you, Chairman Quayle, for holding today's markup to reauthorize two important programs, the National Earthquake Hazards Reduction Program-or NEHRP [knee-herp] and the National Windstorm Impact Reduction Program-or NWIRP [N-werp].

The reauthorization of these programs is very timely as there have been a record number of declared Federal disasters in the U.S. this year, resulting in economic damage exceeding \$45 billion. It is already the deadliest year for tornadoes in the U.S. since 1936, with 550 fatalities so far. The images of devastation from our colleague Congresswoman Sewell's district in Alabama and those of an almost completely flattened Joplin, Missouri were nothing less than heartbreaking.

The best way to minimize the loss of lives and property caused by natural disasters, as well as reduce disruptions to our economy, is to create communities that are disaster resilient. NEHRP and NWIRP support research and development programs to better understand earthquakes and windstorms and their impact, and to improve the resiliency of buildings and critical lifelines. This work has led to advancements in monitoring and building practices, and has increased awareness and preparation by the public.

Today's Committee Print makes a number of important improvements to these programs, including establishing NIST as the lead agency for both NEHRP and NWIRP and placing the responsibility for interagency coordination in the hands of agency directors who have the authority to make both budgetary and programmatic decisions. I am pleased that we were also able to work together over the last week on additional changes that we will consider as part of the Manager's Amendment.

Despite this and my strong support for the reauthorization of these programs, I do have some concerns with the Committee Print that we are considering today. First, even though these programs have proven track records in bolstering the resiliency of our communities and reducing the cost associated with natural hazards, and despite the fact that experts have expressed concern that insufficient funding has negatively impacted the implementation of these programs and contributed to the loss of low-cost mitigation opportunities, the Committee Print cuts the funding authorization for these programs and then freezes funding over the authorization period. When we consider the devastating losses that have plagued the U.S. this year and the potential costs associated with a large-scale disaster like the earthquake in Japan, this course of action seems irresponsible.

I urge my colleagues to consider the long-term savings these programs will provide. Studies of FEMA's pre-disaster mitigation program have shown that for every dollar we invest in mitigation activities, we save \$3 to \$4 dollars in recovery costs. We can, and should, be doing more to help our communities be prepared so we can realize these cost savings.

In addition, despite your attempts to clarify authorization protocols, confusion remains. Not only is it increasingly difficult for my Democratic colleagues to understand what the rules of the road are at any given moment or how to craft amendments that comply with them, I believe that the uncertainty is resulting in bad policy. In this case, we have a combination of seemingly arbitrary numbers that seem to be justified only by an effort to comply with an absurd protocol and not on any real-world need.

I also want to take a moment to talk about a disturbing trend that seems to be emerging. On bills which have traditionally enjoyed bipartisan support, there has been a startling lack of outreach by the Majority prior to markup. To be fair, the Majority did ask for our input on today's Committee Print, but only because the previously-scheduled markup was postponed due to factors not within the control of the Majority. Had this markup proceeded as originally scheduled, we would not have been provided an opportunity for input.

In the last Congress, the markup of the previous iteration of this bill was preceded by weeks, and perhaps months, of outreach to and negotiation with the Minority. As a result, we actively incorporated Republican ideas and legislative priorities into the bill, and Ranking Member Smith agreed to be an original co-sponsor. That bill ultimately passed the House by a vote of 335-50, which included the support of the following notable Republican Members: Ms. Biggert, Speaker John Boehner, Majority Leader Eric Cantor, and Majority Whip Kevin McCarthy. This was a great example of bipartisan legislating, and it was a better bill as a result of the process. Bipartisanship takes work, and it takes a willingness to compromise that has been noticeably lacking by the Majority this Congress.

I sincerely hope that the members of this subcommittee can move forward in a productive and bipartisan manner in the future, particularly on issues such as these which have historically benefitted from bipartisan support. That's what produces good policy, and that's what our constituents want us to do.

Thank you. I yield back the balance of my time.

Chairman QUAYLE. Thank you, Ms. Edwards. There being no further discussion, without objection all member opening statements will be placed in the record at this point.

We will now consider the committee print, "The Natural Hazards Risk Reduction Act of 2011." Without objection I ask unanimous consent that the committee print is considered as read and open to amendment at any point and that members proceed with amendments in the order listed on the roster. So ordered.

[The Committee Print appears in the Appendix:]

Chairman QUAYLE. Are there any amendments to the committee print?

Ms. EDWARDS. Mr. Chairman, I do have an amendment at the desk.

Chairman QUAYLE. Are you ready to proceed with your amendment in the nature of a substitute?

Ms. EDWARDS. I am.

Chairman QUAYLE. The clerk shall report the amendment.

The CLERK. Amendment number 001, amendment in the nature of a substitute to the committee print offered by Ms. Edwards of Maryland.

[The amendment appears in the Appendix:]

Chairman QUAYLE. I ask unanimous consent to dispense with the reading.

Without objection, so ordered.

I recognize the gentlelady for five minutes to explain her amendment.

Ms. EDWARDS. Thank you, Mr. Chairman. Today I am offering an amendment in the nature of a substitute. This substitute is actually based on the text of the bipartisan bill from last Congress. I firmly believe that this bill is a better starting point for our sub-

committee because it stands a better chance of actually being enacted into law.

I do want to thank Mrs. Biggert for working with me on the manager's amendment to address some concerns in the underlying bill. I hope this subcommittee continues to work together and in the future will work together from the outset to conceive the best legislative product that can receive support on both sides of the aisle.

Given the bipartisan cooperation that has taken place on the Senate side, Senators Boxer and Hutchison in reporting hazards reduction legislation out of the Senate Commerce Committee, it seems that this is one place where this subcommittee might also strike a bipartisan agreement.

The bill from last Congress was a product of extensive bipartisan negotiations between members of this committee. We sought to make the bill something of which all of the members of this committee could be proud. We solicited suggestions and feedback from the minority and made changes based on that feedback.

As I stated earlier, this included months and weeks of negotiation and included making significant adjustments to the authorization levels we had originally proposed. As a result then Ranking Member Smith joined as an original cosponsor of the bill, and it was passed by this committee unanimously.

In contrast, the committee print that we are considering today was shared with us just days before the originally-scheduled markup, and there was no attempt to incorporate our feedback. Although obviously with the postponement we were able to incorporate feedback, which I appreciate Ms. Biggert's support in, in the committee print, and we did appreciate that unexpected postponement that allowed an opportunity to share our concerns.

I am pleased that we are going to address some of the low-hanging fruit through the manager's amendment later today, something that should—that would not have taken place had the markup proceeded as originally scheduled.

Unfortunately, though, this collaboration has not spilled over to our most significant concerns with the bill. Namely the low authorization levels and decision to flat fund these agencies over the life of the bill. Last Congress we made changes to our authorization numbers to ensure it had bipartisan support. Unfortunately, the majority has not shown a similar willingness this time around.

Last Congress we also worked with the other committees with jurisdiction over these programs to ensure that their priorities were reflected. In order for a bill to get to the floor and pass it needs the support of these other committees. We shared our draft bill with our colleagues on these other committees and ended up making changes, including changes to some of the authorization numbers to get their support.

As a result of these efforts our bill passed the House on the suspension calendar. Unfortunately, in this case I am concerned that majority has not worked closely enough with the other committees of jurisdiction to ensure a clear and smooth process through the House.

I would point out that the agencies which drew the short straws in this effort are agencies which are primarily or wholly outside of

this committee's jurisdiction. It makes me question the commitment of the majority to actually move a bill through the House and similarly through the Senate that we can get to the President's desk for his signature. We seem to be thumbing our noses, in fact, at these other committees.

In addition, our bill from last Congress is a bill that is currently moving through the Senate. The bill already has been reported out of the Senate Commerce Committee, and as we understand it from our colleagues in the Senate, it is likely to be considered and passed by the Senate in the near future.

If we are committed to getting these programs reauthorized, the truth is that we need the support of the Senate. We know our previous bill has the Senate support, but I am not confident that we will get it with this committee print.

The Senate bill also has the support of more than 15 stakeholder organizations representing engineers, scientists, building code officials, architects, and emergency management response leaders. Certainly the top priority of the stakeholders is to get these programs reauthorized, but I am also fairly certain that they would uniformly prefer the Senate bill over this committee print.

The language in this substitute is identical to the language contained in the bill that passed the House last Congress with two slight modifications. Since the fiscal year 2012 NWIRP numbers for NIST and NOAA in the committee print are closer to the numbers we originally proposed last Congress before we negotiated them down with then Ranking Member Smith in an effort to garner his support, we have chosen to include the majority's authorization numbers for NIST and NOAA in this amendment and adjust those numbers for inflation for fiscal years 2013 and 2014.

Mr. Chairman, let us get these important programs reauthorized. Let us move the bill that we know can garner bipartisan support in the House and that concurrently has bipartisan support and momentum in the Senate. I urge adoption of this substitute amendment.

Chairman QUAYLE. I thank the Ranking Member Edwards for her amendment, and I will rise in opposition. I am opposed to this amendment for a number of reasons, not the least of which being that it would negate the entire committee print before us.

This amendment increases the funding authorization levels well above the committee print into President's requested levels for the first fiscal year and continues to increase spending every year of the authorization.

It also authorizes the program for five years rather than 3. In the difficult fiscal crisis our country is facing, the current committee print represents a responsible reauthorization of two programs which are important to our national safety and security. A number of organizations have supported the committee print, demonstrating support for reauthorization, and Congresswoman Biggert has presented a vehicle that will provide a real opportunity for reauthorization of the programs.

The amendment in the nature of a substitute also modifies and expands the activities of the agencies. We must be cognizant of our budget environment, and therefore, the committee print does not add significantly to agency responsibilities but rather provides

guidance on continuing ongoing programs in need of reauthorization.

Additionally, the amendment in the nature of a substitute expands the committee print and the statutes that are not currently addressed in the bill.

Finally, I understand that the manager's amendment that Representative Biggert intends to offer today was worked out in a bipartisan manner, and I believe that amendment represents a good-faith effort to meet in the middle on a number of issues. While we were not able to include everything in that amendment, there are a number of changes included in that amendment that strengthen the committee print. And while there are areas of policy differences, they were not so substantial as to merit consideration of an entirely different vehicle at today's markup in the form of this amendment in the nature of a substitute.

For these reasons I must oppose the gentlelady's amendment in the nature of a substitute.

Is there any further discussion on the amendment?

The gentlelady from Illinois, Mrs. Biggert.

Mrs. BIGGERT. Thank you, Mr. Chairman, and I am sorry that we haven't reached an agreement here. I always try to be the most bipartisan and this has worked, for example, in the Financial Services Committee this year. We worked with everybody and found that a bill passed out of Financial Services, the National Flood Bill, 54 to nothing, which everybody turned around and said, what happened? It was so unusual for that committee.

This Committee to me has always had a very bipartisan nature. That is one of the reasons that I really like serving on it, so I am concerned about all the rhetoric that I have just heard. This is a different Congress, and a different sponsor. This is a different make up of the Committee; we have reached out to the other Committees that may have jurisdiction, and there was one that said that they didn't want anything to do with it, and if it went over there, it was going to be a problem.

So, we have tried to cut this as closely as we can to be able to get this to the Floor and to get it over to the Senate. It is also a different Senate than what was set up there.

I do have three concerns, and that is the five-year authorization, and I would think that the three years is better in these economic times, and the flat funding as the chairman said was at the President's request instead of the ascending increases in out year spending that totals \$618 million more than the committee print and adds \$113 million more over a comparative three years. We just can't afford it right now. We can't spend money that we don't have, and if we keep it lower, we have much more of an opportunity of being able to reauthorize these programs.

The committee print closely parallels current mission and responsibility of hazards research versus the expanding scope of research beyond current statute, and you have to remember that this is a committee print. There is no bill yet, and that is why we have done this is to have the input, and I know that my staff has spent a lot of time with your staff and other members over there, and I think that is the way that this should work.

And so I just don't think that we can go back to the former bill, and with that I would oppose the amendment.

Chairman QUAYLE. I thank the gentlelady.

Is there any further discussion on the amendment?

Chairman HALL. Mr. Chairman.

Chairman QUAYLE. Chairman of the full committee, Mr. Hall.

Chairman HALL. I would like to oppose the amendment. I am not happy to, but I listened very carefully to the young lady, and she always is eloquent and makes good points, but when she talks about low-hanging fruit, you know, that is usually the most expensive because it is the easiest gathered.

And I looked at this first and had my mind made up that I couldn't be for it because it added over \$100 million, and I looked a little closer. It is not just \$100 million. It is \$618 million when compared with the committee print. This isn't the time to be spending that kind of money or extending the time of authorization.

For those reasons I oppose the amendment and urge a no vote.

Chairman QUAYLE. I thank the Chairman. Is there any further discussion on the amendment?

Hearing no further discussion on the amendment, are there any amendments to the amendment in the nature of a substitute?

Hearing none, the vote occurs on the amendment in the nature of a substitute offered by the gentlelady from Maryland. All those in favor, say aye. Those opposed, say no. The no's have it, and the amendment is not agreed to.

Ms. EDWARDS. Mr. Chairman, I would ask for a recorded vote.

Chairman QUAYLE. The clerk will call the roll.

The CLERK. Chairman Quayle?

Chairman QUAYLE. No.

The CLERK. Chairman Quayle votes no.

Mr. Smith?

Mr. SMITH. No.

The CLERK. Mr. Smith votes no.

Mrs. Biggert?

Mrs. BIGGERT. No.

The CLERK. Mrs. Biggert votes no.

Mr. Neugebauer?

Mr. NEUGEBAUER. No.

The CLERK. Mr. Neugebauer votes no.

Mr. McCaul?

Mr. MCCAUL. No.

The CLERK. Mr. McCaul votes no.

Mr. Fleischmann?

Mr. FLEISCHMANN. No.

The CLERK. Mr. Fleischmann votes no.

Mr. Rigell?

Mr. RIGELL. No.

The CLERK. Mr. Rigell votes no.

Mr. Hultgren?

Mr. HULTGREN. No.

The CLERK. Mr. Hultgren votes no.

Mr. Cravaack?

Mr. CRAVAACK. No.

The CLERK. Mr. Cravaack votes no.

Mr. Hall?

Chairman HALL. No.

The CLERK. Mr. Hall votes no.

Ms. Edwards?

Ms. EDWARDS. Aye.

The CLERK. Ms. Edwards votes aye.

Mr. Sarbanes?

[No response.]

Ms. Wilson?

[No response.]

Mr. Lipinski?

Mr. LIPINSKI. Aye.

The CLERK. Mr. Lipinski votes aye.

Ms. Giffords?

[No response.]

Mr. Lujan?

Mr. LUJAN. Aye.

The CLERK. Mr. Lujan votes aye.

Ms. Johnson?

[No response.]

Chairman QUAYLE. The clerk will report.

The CLERK. Mr. Chairman, three members vote aye, and ten members vote no.

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th
Subcommittee on Technology and Innovation
 Subcommittee Roll Call

U. S. House of Representatives

Number of Members (10/7) Quorum: 6 to vote Working Quorum: 9 to report

DATE: Tuesday, November 15, 2011

Bill: Committee Print - To reauthorize federal natural hazards reduction programs, and for other purposes.

Amendment Sponsor: Ms. Edwards AMENDMENT NO. 001 ROLL CALL NO. 1

Not Agreed to by a Roll Call

Vote of 3 Aye – 10 No

	MEMBER	AYE	NO	PRESENT	NOT VOTING
1	Mr. QUAYLE, <i>Chair</i> - AR		X		
2	Mr. SMITH - TX		X		
3	Mrs. BIGGERT - <i>IL vice chair</i>		X		
4	Mr. NEUGEBAUER - TX		X		
5	Mr. McCAUL - TX		X		
6	Mr. FLEISCHMANN - TX		X		
7	Mr. RIGELL - VA		X		
8	Mr. HULTGREN - IL		X		
9	Mr. CRAVAACK - MN		X		
10	Mr. HALL, <i>ex officio</i> - TX		X		
1	Ms. EDWARDS, <i>Ranking</i> - MD	X			
2	Mr. SARBANES - MD				
3	Ms. WILSON - FL				
4	Mr. LIPINSKI - IL	X			
5	Ms. GIFFORDS - AR				
6	Mr. LUJÁN - NM	X			
7	Ms. JOHNSON, <i>ex officio</i> - TX				
	TOTALS	3	10		

Chairman QUAYLE. The amendment is not agreed to.
Are there any other amendments to the committee print?
For what purpose does the gentlelady seek recognition?

Mrs. BIGGERT. Mr. Chairman, I have an amendment at the desk.
Chairman QUAYLE. The next amendment is offered by the gentlelady from Illinois, Mrs. Biggert. The clerk will report the amendment.

The CLERK. Amendment number 0045, amendment to the committee print offered by Mrs. Biggert of Illinois.

[The amendment appears in the Appendix.]

Chairman QUAYLE. I ask unanimous consent to dispense with the reading.

Without objection, so ordered.

The gentlelady is recognized for five minutes to explain her amendment.

Mrs. BIGGERT. Thank you, Mr. Chairman. The amendment before us was worked out in a bipartisan manner among committee staff, and I believe represents a good-faith effort to meet in the middle on a number of issues. While we were not able to include everything in this amendment, there are a number of changes included that strengthen the committee print, and I appreciate the Ranking Member's willingness to work with me on these provisions.

Briefly, the manager's amendment includes the following provisions. Number one is to add social science to the trends in science that the Advisory Committee for the Earthquake and Wind Program should examine.

Number two, it articulates that one of the activities of the NEHRP Program is supporting public education and outreach to help prepare for and respond to earthquakes. Number three, it provides for the termination of the Earthquake and Windstorm Advisory Committees five years after enactment.

And number four, strengthens the coordination of research, development, strategic planning, and budgeting across the federal disaster programs. The manager amendment I think adds language to ensure coordination, not duplication, of disaster activities within the Federal Government.

And with that I would urge support for the amendment.

Chairman QUAYLE. I thank the gentlelady for her amendment and for her good-faith efforts working in a bipartisan manner to strengthen the bill. I urge my colleagues to support this amendment.

Are there any other comments or Members who want to discuss the amendment?

Ms. Edwards.

Ms. EDWARDS. Mr. Chairman, I just want to say I am pleased to support Ms. Biggert in this manager's amendment, and I do appreciate that with the committee print having had our ability to have the—to have input on the committee print, although, obviously, there are other things that we would like to do to strengthen it, it is really important for us to have had a role in trying to strengthen what is before us.

And so I appreciate her willingness to work with us. The amendment makes some important improvements to the committee print. For example, we have been concerned on this side of the aisle that

activities within NEHRP and NWIRP are not sufficiently coordinated with relevant activities at non-program agencies. Specifically in hearings earlier this year we heard from officials at the Department of Homeland Security, Science and Technology Directorate, and the Department of Transportation's Research and Innovation Technology Administration about work they were performing to improve the disaster resiliency of our Nation's communities to earthquakes.

However, when asked how those efforts were being coordinated with NEHRP, they indicated there was limited interaction. We need to make sure that we are leveraging resources across the entire Federal Government and that one agency is not duplicating efforts already underway at another agency.

Therefore, I am pleased that we were able to work together to bolster inner-agency coordination in this manager's amendment. The manager's amendment also addresses our concerns about terminating the advisory committees at the end of the authorization period. If I have learned anything during my time in Congress it is that even well-intentioned efforts to get programs reauthorized on time fall short.

I am pleased that the manager's amendment ensures that the agencies will continue to benefit from the oversight and counsel of the advisory committees even if we are unable to get reauthorization—a reauthorization bill over the finish line before the authorization expires.

These improvements as well as a number of other important changes make the bill we are considering today better, and I, again, want to thank Mrs. Biggert for working with this side to address some of our concerns in the manager's amendment, and I urge its adoption.

Chairman QUAYLE. I thank the gentlelady.

Is there further discussion on the amendment?

If no, the vote occurs on the amendment. All in favor, say aye. Those opposed, say no. The ayes have it, and the amendment is agreed to.

Are there any other amendments to the committee print?

Chairman HALL. Mr. Chairman.

Chairman QUAYLE. For what purpose does the gentleman seek recognition?

Chairman HALL. I have an amendment at the desk, amendment number 011.

Chairman QUAYLE. The next amendment is offered by the gentleman from Texas, Mr. Hall. The clerk will report the amendment.

The CLERK. Amendment number 011, amendment to the committee print offered by Mr. Hall of Texas.

[The amendment appears in the Appendix:]

Chairman QUAYLE. I ask unanimous consent to dispense with the reading.

Without objection, so ordered.

The gentleman is recognized for five minutes to explain the amendment.

Chairman HALL. Thank you, Mr. Chairman, for holding the markup, and I appreciate the interest and efforts of both Mrs.

Biggert and Congressman Neugebauer and the minority, the support that they have given.

The committee print before us today proposes to change the leadership of the earthquake investigations from the United States Geological Survey to the National Institute for Standards and Technology. However, after gathering additional feedback from various stakeholders we talk about how it will better go in the Senate and how it would better progress as it moves across the Floor.

It appears that we need a better understanding of the current system of investigation before transferring this responsibility to NIST. So my amendment would essentially maintain the status quo, keeping the current responsibility and funding for post-earthquake investigations at the U.S. Geological Survey, while also asking USGS to use the coordination expertise of the Earthquake Program's lead agency, NIST, when conducting such investigations.

I urge its adoption and yield back the balance of my time.

Chairman QUAYLE. I thank the gentleman, and I will recognize myself in support of this amendment.

I thank the chairman of the full committee for his amendment, which removes the transfer of responsibility and the funding for the coordination of post-earthquake investigations from the United States Geological Survey to NIST. Rather than transferring this role to NIST, this amendment directs USGS to utilize the coordination expertise of NIST in organizing investigations on the implications of earthquakes by each of the agencies in the NEHRP Program.

Furthermore, the amendment adjusts the authorization amounts of the United States Geological Survey and the National Institute of Standards and Technology, bringing both program authorizations in line with the Administration's agency's fiscal year 2012 budget request.

In the difficult fiscal crisis our country is facing, the amendment represents a good-faith effort and a responsible reauthorization of the program. I look forward to continuing to work with Chairman Hall and other members of the committee, and I urge all of my colleagues to support the amendment.

Is there further discussion on the amendment?

Ms. EDWARDS. Mr. Chairman.

Chairman QUAYLE. The gentlelady from Maryland, Ms. Edwards.

Ms. EDWARDS. Thank you, Mr. Chairman. Unfortunately, although I appreciate that Chairman Hall wants to make sure that NIST is not forced to take on responsibility for coordinating post-earthquake investigation if it is not provided with funding it needs to fulfill that responsibility, but I am concerned that the motivation for the amendment is not really the best policy. Instead its compliance with the confusing set of legislative protocols regarding where we are pushing and pulling funding.

We just spoke to the importance of the advisory committees here and yet the NEHRP advisory committee in its 2008 report recommended the transfer of post-earthquake investigations from USGS to NIST, consistent with NIST's role as the program's lead agency. In hearing after hearing we heard expert testimony praise the job NIST had done as a lead agency.

Furthermore, the experts are in agreement that it is appropriate for NIST to also coordinate post-earthquake investigations under the program, and when we talked to NEHRP agencies about making this change in the bipartisan bill passed by the House last Congress, they were supportive of the change.

The bipartisan bill making its way through the Senate right now, which is based on the bipartisan House bill from last Congress, also authorizes this transfer.

But as I understand it both USGS and FEMA have understandably expressed concern that their authorizations were cut by 13 percent and 18 percent below current spending levels in the committee print so that the NIST authorization level could be raised to accommodate the transfer of the responsibility.

And so it is not that the policy is wrong. It is that the funding levels are wrong, and the other agencies have suffered cuts that have to be absorbed. The truth is that all of the NEHRP agencies including USGS and FEMA are already under-funded at existing spending levels. The NEHRP Advisory Committee and the stakeholder community at large have indicated that current spending levels are inadequate and the pace of implementation of the program is being compromised to the point that opportunities for low-cost mitigation measures are being lost.

The NEHRP agencies can't afford any further spending cuts. That is clear, and in this time of budget uncertainty, federal agencies are fighting to protect every single cent.

But here is the rub. Either we think it is good policy for NIST to coordinate post-earthquake investigations or we don't. Either we take the recommendations of the advisory committee or we don't, and we if we think it is good policy, we should authorize that transfer and provide NIST with the resources it needs to carry out the responsibility, and those resources should not come at the expense of other NEHRP agencies who are already struggling to meet their responsibilities under the program.

As an authorizing committee our primary objective should be to make good and reasonable policies. Unfortunately, what this amendment proposes doesn't have anything to do with what is good or reasonable in terms of the policy implication. Instead it is only concern is compliance with what I believe are misguided funding protocols.

We simply can't legislate in this kind of way. It doesn't serve the American people, and we will suffer disasters that we won't be able to respond to because we are approaching this in the wrong way. The members of this committee, our agencies, and our constituents deserve better than that, and for this reason I cannot support the amendment.

And with that I yield.

Chairman QUAYLE. Thank the gentlelady.

Is there further discussion on the amendment?

If no, the vote occurs on the amendment. All in favor, say aye. Those opposed, say no. The ayes have it, and the amendment is agreed to.

Are there any other amendments to the committee print?

Mr. LIPINSKI. I have an amendment at the desk.

Chairman QUAYLE. The next amendment is offered by the gentleman from Illinois, Mr. Lipinski. The clerk will report the amendment.

The CLERK. Amendment number 036, amendment to the committee print offered by Mr. Lipinski of Illinois.

[The amendment appears in the Appendix:]

Chairman QUAYLE. I ask unanimous consent to dispense with the reading.

Without objection, so ordered.

The gentleman is recognized for five minutes to explain the amendment.

Mr. LIPINSKI. Thank you, Mr. Chairman. I would like to begin by thanking my fellow Illinoisan, my neighbor, Ms. Biggert, for authorizing this committee print. As well as thanking her, Chairman Hall, and Chairman Quayle for working with me to address some of my concerns in the manager's amendment.

There is one additional issue I would like to address in this amendment that I am offering. An amendment to ensure that social science research is adequately included in the National Windstorm Impact Reduction Program.

This year's tornado season was one of the worst in this country's history, killing 546 people and causing \$6.5 billion in damage throughout the midwest and the south. I believe that research into resilient structures as envisioned by this legislation's authors will certainly help reduce the impact of these storms.

But in addition a better understanding of how both organizations and individuals respond to disasters will lead to more resilient institutions in response and planning strategies that save lives. Many people erroneously believe that calling 911 after a major disaster will bring them help within an hour, the highway overpasses are a good place to shelter from a tornado, or that opening windows can help equalize pressure to prevent damage to a house.

None of these are true, and I think social science research is important if we want to understand why these myths are so pervasive and that we can better inform Americans about safe actions to take, or if we want to improve institutional structures, disaster response plans, or risk assessments, that is how the institutions that we have set up, local law enforcement, others respond to these disasters. We want to make improvements to that. Social science research can help.

My amendment would include social science research in end work in a similar manner to how it is now included in the Earthquake Hazards Reduction Program in this legislation. When tornadoes or hurricanes strike, the behavior of people and organizations matter, and I believe that the Impact Reduction Program should include what we know about behavior.

Adopting my amendment would make sure that we are using all the information at our disposal to improve disaster resiliency strategies for our communities and to help make Americans safer.

I urge my colleagues to support this amendment, and I thank you, Mr. Chairman. I yield back the balance of my time.

Chairman QUAYLE. Thank you, Mr. Lipinski, and I want to thank you for your amendment, and I appreciate your desire to include language regarding the use of social science research to in-

form windstorm risk mitigation and preparedness strategies in NWIRP. The bipartisan manager's amendment considered today includes provisions adding social science to the list of different scientific disciplines assessed by the advisory committees for both the wind and earthquake programs.

I am concerned about highlighting the role of research and social sciences over other types of science research. I just—what are you considering to be included in social science?

And I yield to you to answer these questions.

Mr. LIPINSKI. Thank you, Mr. Chairman.

The information about—such as what people know about response, what—how people, first of all, how people respond to disasters, how then they expect the institutions that we have set up, mostly law enforcement, others that they go and deal with, how they interact with them when there is an emergency. How they respond to warnings that come from say the National Weather Service, understand what they do so that we have a much better understanding of the behavior that people engage in because I think people can be much safer than they are. Those myths that I had mentioned, I mean, certainly those are things that, you know, I remember hearing growing up, opening windows to equalize the pressure would make a difference.

Those things don't work. There are things that people can do, I believe, that work, and I think by bringing social science research and learning about people's behaviors, learning about institutions' behaviors. The communications between different jurisdictions in an emergency. These are all types of things that can help in—to mitigate problems that occur, windstorms. We just included this in NEHRP with the manager's amendment, and I think that would also be helpful in this section of the bill.

Chairman QUAYLE. Reclaiming my time, I just am concerned about how the specificity of listing this type of research when other types of research aren't specified in this bill. I just don't know if this is going to create some unintended consequences of focusing on and highlighting social science research.

Do you think that it is necessary to include this type of specificity when they are already doing this type of research going forward? Is this specificity actually needed when that will be a part of the broader research that is going to go on with NWIRP and NEHRP?

And I yield to the gentleman.

Mr. LIPINSKI. Thank you. Well, the only place when it comes to NWIRP that the social science research is included is in the advisory committee's assessment of the program, and I think if we are going to say in an advisory committee's assessment of the program that we should use social science research, I think it also makes sense to include that in the broader part of this section of this legislation.

Ad it was included in the bill that passed out of this committee on last year, and I think it would be good to continue to include that because it is something that is sometimes forgotten and not considered. That is why we included it last year.

Chairman QUAYLE. I guess it goes back to the question, is the specificity for social sciences necessary in the broader bill when

other types of research are not specifically labeled out? When you do list things, a lot of interpretation will go, well, they did list social sciences, but they didn't list others. So social sciences should take precedence.

And I yield to you just to try to clarify that.

Mr. LIPINSKI. Well, a 2006 National Research Council's report on NEHRP noted that the efforts are needed to compare catastrophic events and to examine societal responses in relation to variables such as warning time, magnitude, scope, and duration of impact. And the report found that more social science research is needed to understand long-term disaster recovery.

So the NRC said that more social science research is necessary when it comes to emergencies, and so I think that is why we included that last year in this bill because NRC says it has been missing, and it tends to be overlooked.

Chairman QUAYLE. Okay. Well, thank you, and I think I just do have some concerns—I agree with you that people need to understand this, but specifying this in this manner, I don't know if it is the best way to go about it when we already do have the advisory committee where it is specified out.

But I do appreciate what you are trying to accomplish, and is there any further discussion on the amendment?

The gentlelady from Maryland is recognized.

Ms. EDWARDS. Mr. Chairman, thank you. I didn't think I would speak, but I want to thank the gentleman from Illinois, and I have to tell you when I joined this committee and sat through a number of hearings that we held on the importance of social science research, it was something actually completely new to me, but I think as my colleague rightfully points out, that if we want to create communities that are resilient to disasters, we need to understand the behavior of the people in those communities. This includes understanding what an individual does when a tornado or hurricane warning is issued, as well as what motivates people to develop an emergency plan or to retrofit their home to withstand high winds associated with tornadoes or hurricanes before they happen.

We can also perform all the engineering and natural science research we like, but in the grand scheme of things if we don't have a clear understanding of the human element in disaster mitigation, preparedness, and response, then the efforts may be for naught.

Building disaster-resilient communities will take an inner-disciplinary approach that includes social science research in order to make sure that we have strong communities. I would note that in the underlying statute there actually are a couple of the areas where specific kinds of research are specified.

So, for example, there is research, development, and technology transfer to improve loss estimation and risk assessment. There is research, development, and technology transfer to improve simulation and computational modeling and windstorm impacts. This would add another area of research in an area where there are certain areas of specificity with respect to research.

And I think it would be a strong component because it wouldn't do us any good to have, you know, all the other research that we do, the engineering changes that we make, and then not to under-

stand how it is that people are going to respond in a natural disaster.

And with that I yield.

Chairman QUAYLE. Thank the gentlelady.

Is there further discussion on the amendment?

If no, the vote occurs on the amendment. All in favor, say aye. All opposed, no. The ayes have it. The amendment is agreed to.

Are there any other amendments to the committee print?

Mr. LUJAN. Mr. Chairman, I have an amendment at the desk.

Chairman QUAYLE. The next amendment is offered by the gentleman from New Mexico, Mr. Lujan. The clerk will report the amendment.

The CLERK. Amendment number 003, amendment to the committee print offered by Mr. Lujan of New Mexico.

[The amendment appears in the Appendix:]

Chairman QUAYLE. I ask unanimous consent to dispense with the reading.

Without objection, so ordered.

The gentleman is recognized for five minutes to explain his amendment.

Mr. LUJAN. Thank you, Mr. Chairman.

The bipartisan version of this bill from last Congress included a fire research title to ensure that NIST continues to carry out important research on fires in the wildland-urban interface, which is where homes and communities are tucked in and intermixed with wildlands such as forests and grasslands.

Unfortunately, that title is missing from the committee print that we are considering today. As more and more communities are expanding into areas in and around forests and other wildlands, it is more critical than ever that we conduct this important research.

For this reason my amendment restores this important fire research provision. Since the bipartisan bill passed the House last Congress, the severity of the U.S. fire problem has grown, and the amount of damage caused by fires at the wildland-urban interface has risen.

In fact, from January through September of this year we saw more than 7.7 million acres burn across the U.S. This is the fifth worst year on record for wildfires with the southwest being hit particularly hard. According to the National Inner-agency Fire Center, there have been more than 7,000 wildfires in New Mexico, Arizona, and Texas. Both my State of New Mexico and neighboring Arizona have seen more than a million acres burned.

In fact, both States have suffered the largest wildfires in their histories. The wildfire which burned in the White Mountains in eastern Arizona and western New Mexico was declared the largest fire in Arizona history, causing an estimated \$109 million in damage, burning over half a million acres, destroying 72 buildings, and injuring 16 people.

Also in June the Las Conchas fire in my district burned more than 104,000 acres in just 6 days. More than 100 buildings were destroyed, and 15 people were injured by the fire, which blackened the slopes of the Hemus Mountains and threatened both the Los Alamos, the community of Los Alamos and the Los Alamos National Laboratory.

The truth is while we do not currently have a complete understanding of how fires behave in the wildland-urban interface, this lack of understanding is limiting our ability to develop effective fire safety systems and technologies. In the Fire Prevention and Control Act of 1974 we charged NIST with supporting fire research to help preserve and control fires. My amendment updates the statute to ensure that NIST continues to conduct research on fires occurring specifically in the wildland-urban interface.

This fire research will help us minimize the spread of wildland fires into communities through tools that predict and reduce fire risks, post-fire investigations, improve fire codes and standards, and safe and effective use of emerging fire technologies. Addressing these research needs is essential if we are going to reduce losses from fire and increase the resiliency of buildings and infrastructure.

Mr. Chairman, I urge adoption of this commonsense amendment and yield back the balance of my time.

Chairman QUAYLE. I thank the gentleman. I want to thank him for his amendment and appreciate his desire to amend the National Institute of Standards and Technology Act to include the ability for NIST to conduct research into fires at wildland-urban interface.

In general I am supportive of NIST conducting this work. However, it is important to consider how this amendment changes the scope of the Natural Hazards Risk Reduction Act, which amends the Earthquake Hazards Reduction Act of 1977 and the National Windstorm Impact Reduction Act of 2004.

I am concerned about Mr. Lujan's amending the National Institute of Standards and Technology Act, potentially opening the bill to provisions that are not in NEHRP or NWIRP Programs.

Thus I would ask that Mr. Lujan consider withdrawing this amendment. I would welcome the chance the work together on this subject as the committee print moves forward through the legislative process because it is a very important issue, and I look forward to working with the gentleman from New Mexico going forward, if you would be willing to withdraw your amendment.

Mr. LUJAN. If the chairman would yield.

Chairman QUAYLE. I yield.

Mr. LUJAN. Mr. Chairman, I understand and appreciate the majority's concerns about how the provisions may open us up to non-related amendments from the House Floor, and I certainly respect the desire to preserve this committee's product, and I am very open to working on some agreeable language if there is a hard commitment to do so before full committee markup.

Chairman QUAYLE. Absolutely.

Mr. LUJAN. With that being said, Mr. Chairman, I withdraw the amendment.

Chairman QUAYLE. Thank you, Mr. Lujan.

The amendment is withdrawn for the record.

Are there any other amendments to the committee print?

Hearing none, the question is on the committee print, the "Natural Hazards Risk Reduction Act of 2011," as amended. All those in favor will say aye. All those opposed will say no. In the opinion of the chair the ayes have it.

Ms. EDWARDS. Mr. Chairman.

Chairman QUAYLE. The gentlelady from Maryland.

Ms. EDWARDS. Well, finish up first. I would ask for a recorded vote.

Chairman QUAYLE. Recorded vote. The clerk will call the roll.

The CLERK. Mr. Quayle?

Chairman QUAYLE. Aye.

The CLERK. Mr. Quayle votes aye.

Mr. Smith?

Mr. SMITH. Aye.

The CLERK. Mr. Smith votes aye.

Mrs. Biggert?

Mrs. BIGGERT. Aye.

The CLERK. Mrs. Biggert votes aye.

Mr. Neugebauer?

Mr. NEUGEBAUER. Aye.

The CLERK. Mr. Neugebauer votes aye.

Mr. McCaul?

Mr. MCCAUL. Aye.

The CLERK. Mr. McCaul votes aye.

Mr. Fleischmann?

Mr. FLEISCHMANN. Aye.

The CLERK. Mr. Fleischmann votes aye.

Mr. Rigell?

Mr. RIGELL. Aye.

The CLERK. Mr. Rigell votes aye.

Mr. Hultgren?

[No response.]

The CLERK. Mr. Cravaack?

Mr. CRAVAACK. Aye.

The CLERK. Mr. Cravaack votes aye.

Mr. Hall?

Chairman HALL. Aye.

The CLERK. Mr. Hall votes aye.

Ms. Edwards?

Ms. EDWARDS. No.

The CLERK. Ms. Edwards votes no.

Mr. Sarbanes?

Mr. SARBANES. No.

The CLERK. Mr. Sarbanes votes no.

Ms. Wilson?

[No response.]

The CLERK. Mr. Lipinski?

[No response.]

The CLERK. Ms. Giffords?

[No response.]

The CLERK. Mr. Lujan?

Mr. LUJAN. No.

The CLERK. Mr. Lujan votes no.

Ms. Johnson?

Ms. JOHNSON. No.

The CLERK. Ms. Johnson votes no.

Chairman QUAYLE. The clerk will report. Mr. Hultgren.

The CLERK. Mr. Hultgren is not recorded.

Chairman QUAYLE. The gentleman from Illinois?

Mr. HULTGREN. Aye.

The CLERK. Mr. Hultgren votes aye.

Chairman QUAYLE. Any other members who want to be recognized?

The clerk will report.

The CLERK. Mr. Chairman, ten members voting aye, and four members voting no.

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th
Subcommittee on Technology and Innovation

Subcommittee Roll Call

U. S. House of Representatives

Number of Members (10/7) Quorum: 6 to vote Working Quorum: 9 to report

DATE: Tuesday, November 15, 2011

Bill: Committee Print - To reauthorize federal natural hazards reduction programs, and for other purposes.

Amendment Sponsor: AMENDMENT NO. ROLL CALL NO.

Final Passage

Agreed to by a Roll Call Vote of
 10 Aye – 4 No

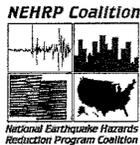
	MEMBER	AYE	NO	PRESENT	NOT VOTING
1	Mr. QUAYLE, <i>Chair</i> - AR	X			
2	Mr. SMITH - TX	X			
3	Mrs. BIGGERT - IL <i>vice chair</i>	X			
4	Mr. NEUGEBAUER - TX	X			
5	Mr. McCAUL - TX	X			
6	Mr. FLEISCHMANN - TN	X			
7	Mr. RIGELL - VA	X			
8	Mr. HULTGREN - IL	X			
9	Mr. CRAVAACK - MN	X			
10	Mr. HALL, <i>ex officio</i> - TX	X			
1	Ms. EDWARDS, <i>Ranking</i> - MD		X		
2	Mr. SARBANES - MD		X		
3	Ms. WILSON - FL				
4	Mr. LIPINSKI - IL				
5	Ms. GIFFORDS - AR				
6	Mr. LUJÁN - NM		X		
7	Ms. JOHNSON, <i>ex officio</i> - TX		X		
	TOTALS	10	4		

Chairman QUAYLE. The committee print is agreed to.
The gentlelady from Illinois is recognized.

Mrs. BIGGERT. Mr. Chairman, I would like to ask unanimous consent to include in the hearing record letters of support for the reauthorization of the Natural Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program from the American Geophysical Union, the American Society of Civil Engineers, the National Earthquake Hazards Risk Reduction Coalition, and the National Council of Structural Engineers Association.

Chairman QUAYLE. Without objection, so ordered.
[The information follows:]

ADDITIONAL MATERIAL FOR THE RECORD SUBMITTED BY REPRESENTATIVE JUDY
BIGGERT



November 14, 2011

The Honorable Ben Quayle
Chairman
Technology and Innovation Subcommittee
Committee on Science, Space, and Technology
U.S. House of Representatives
Washington, DC 20515

The Honorable Donna Edwards
Ranking Member
Technology and Innovation Subcommittee
Committee on Science, Space, and Technology
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Quayle and Ranking Member Edwards:

On behalf of the nation's earthquake professionals - scientists, engineers, architects, building code officials, and emergency management and response leaders - we wish to thank the Subcommittee on Technology and Innovation of the House Science, Space and Technology Committee for holding a mark-up on November 15th to consider Representative Judy Biggert's bill, the "Natural Hazards Risk Reduction Act of 2011". **The Coalition urges the Subcommittee to move forward with reauthorization of the National Earthquake Hazards Reduction Program (NEHRP).**

For More Information:
202/789-7830 (ASCE)
510/451-9905 (EERI)
www.nehrp.org

The NEHRP Coalition encourages realistic, comprehensive, and affordable measures to reduce the harmful effects of earthquakes nationwide. The Coalition represents the views of over 250,000 scientists, engineers, architects, and emergency response leaders of the earthquake community.

We want to make it clear that the earthquake community stands united in our opinion that the federal government's most effective tool in mitigating the potentially devastating impact of earthquakes is a robust NEHRP. The Coalition remains steadfast in support of a NEHRP that is able to carry out its recently adopted Strategic Plan. This plan lays out a roadmap for a nation that is earthquake-resilient in public safety, economic strength, and national security. With that in mind, the Coalition is concerned about the lower authorization levels in the draft. We fully recognize the fiscal challenges Congress faces, but we remain firm in our belief that a robust NEHRP will not only save lives, but will also mitigate economic loss and save the federal government millions in reduced disaster relief in the years to come. **Specifically, the Coalition urges the Subcommittee to increase authorizations in the draft legislation to at least the FY 2011 appropriated levels of \$7.8 million for the Federal Emergency Management Agency (FEMA), \$4.1 million for the National Institute of Standards and Technology (NIST), \$53.8 million for the National Science Foundation (NSF), and \$61.4 million for the U.S. Geological Survey (USGS).**

Through NEHRP, the federal government has engaged in seismic monitoring, mapping, research, testing, engineering and related reference materials for building code development, mitigation, and emergency preparedness. NEHRP has served as the backbone for protecting U.S. citizens, their property and the national economy from the devastating effects of large earthquakes. Although NEHRP is well known for its research programs, it is also the source for hundreds of new technologies, maps, design techniques, and standards that are used by design professionals every day to mitigate risks and save lives, protect property, and reduce adverse economic impacts.

Reauthorized by Public Law 108-360 in 2004, the program underwent the most significant changes in its history including a change in leadership, the creation of the Interagency Coordinating Council, and the Advisory Committee on Earthquake Hazards Reduction. These are changes that the community supported and believes have and will continue to pay important dividends for the nation. This authorization expired in October of 2009.

Once again, the Coalition urges the Subcommittee to move forward and reauthorize a robust NEHRP. If the Coalition can be of more assistance, please do not hesitate to contact Martin Hight, the American Society of Civil Engineers' Senior Manager of Government Relations at 202-789-7843 or mhight@asce.org.

cc. The Honorable Ralph Hall, Chairman, Committee on Science, Space and Technology
The Honorable Eddie Bernice Johnson, Ranking Member, Committee on Science, Space and Technology
The Honorable Judy Biggert

American Council of Engineering Companies
American Geological Institute
American Geophysical Union
American Institute of Architects
American Society of Civil Engineers
Association of Environmental and Engineering Geologists
Boise State University
Cascadia Region Earthquake Workgroup
Consortium of Universities for Research in Earthquake Engineering
Earthquake Engineering Research Institute
International Code Council
National Council of Structural Engineers Associations
National Emergency Management Association
National Fire Protection Association
National Institute of Building Sciences
Portland Cement Association



2 November 2011

The Honorable Ben Quayle
 Chairman
 1419 Longworth House Office Bldg.
 Washington, DC 20515

The Honorable Donna Edwards
 Ranking Member
 318 Cannon House Office Bldg.
 Washington, DC 20515

Dear Chairman Quayle and Ranking Member Edwards:

The American Geophysical Union (AGU), on behalf of its 60,000 Earth and space scientists, writes to you in support of the Natural Hazards Risk Reduction Act of 2011. The economic, public health, and safety consequences of natural hazards, such as earthquakes, hurricanes, and tornadoes, can be devastating and no state or region in the U.S. is immune.

In 39 states, 75 million people live in areas at significant risk of an earthquake. From January 2000 through September 2011, there were more than 43,500 earthquakes in the U.S.; half of those were magnitude 3.0 or greater. USGS is the only agency responsible for monitoring these hazards and is renowned worldwide for its work. Cuts to these programs would endanger millions of Americans.

More than 18,000 people died and more than one-third of a trillion dollars in damage was done (in 2006 dollars) as a result of the 30 costliest hurricanes and tropical storms in U.S. mainland history. Funding for programs such as the National Hurricane Center and the Hurricane Hunter Jet is crucial to provide lifesaving data and helps determine a hurricane's path.

National Oceanic and Atmospheric Administration forecasts, warnings and the associated responses produce approximately \$3 billion in savings during a typical hurricane season. From 2001-2005 alone, there were more than 6,600 tornadoes in the U.S.; the only state not affected was Rhode Island. Combined, the ten costliest tornadoes since 1950 caused more than \$9 billion in damage (in 2007 dollars).

Each dollar spent on mitigation related to wind, flooding, and earthquakes saves society an average of four dollars. Federal agencies provide critical research, education, and tools that increase our understanding of and inform the public about the threat of natural hazards. We ask you to support these life-saving programs.

Sincerely,

A handwritten signature in black ink that reads "Christine McEntee".

Christine McEntee
 Executive Director/CEO
 American Geophysical Union



November 14, 2011

The Honorable Ben Quayle
 Chairman
 Technology and Innovation Subcommittee
 Committee on Science, Space, and Technology
 U.S. House of Representatives
 Washington, DC 20515

The Honorable Donna Edwards
 Ranking Member
 Technology and Innovation Subcommittee
 Committee on Science, Space, and Technology
 U.S. House of Representatives
 Washington, DC 20515

101 Constitution Avenue, NW, Suite 375 East
 Washington, DC 20001-2179
 (800) 548-ASCE(2723) toll free (202) 789-7850
 (202) 789-7859 fax ■ www.ASCE.org

Dear Chairman Quayle and Ranking Member Edwards:

On behalf of the more than 140,000 members of the American Society of Civil Engineers (ASCE), I am writing to thank you for your leadership and support for moving forward with Representative Judy Biggert's draft legislation "National Hazards Risk Reduction Act of 2011". ASCE fully supports the bill which would reauthorize the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Program. As the representative of the profession most responsible for design of the nation's public works infrastructure, we are pleased to see the Committee on Commerce, Science, and Transportation moving forward on this important matter.

ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents civil engineers in private practice, government, industry and academia who are dedicated to the advancement of the science and profession of civil engineering.

Created by Congress in 1977, NEHRP has provided the resources and leadership that have led to significant advances in understanding the precise risk earthquakes pose and the best ways to counter those risks. ASCE feels it is in the nation's best interest to move forward as quickly as possible to ensure the continued effectiveness of this vital program. We are also pleased to see the reauthorization of the National Windstorm Impact Reduction Program as part of the bill; the wind program has the potential to match NEHRP in its ability to save lives and property.

Thank you for the opportunity to express our views. If ASCE can be of more assistance, please do not hesitate to contact Martin Hight, ASCE's Senior Manager of Government Relations at 202-789-7843 or mhight@asce.org.

Sincerely,

Andrew W. Herrmann, P.E., SECB, F.ASCE
 President



 NATIONAL COUNCIL OF STRUCTURAL ENGINEERS ASSOCIATIONS

November 2, 2011

The Honorable Ben Quayle
 Chairman
 Technology and Innovation Subcommittee
 Committee on Science, Space, and Technology
 U.S. House of Representatives
 Washington, DC 20515

The Honorable Donna Edwards
 Ranking Member
 Technology and Innovation Subcommittee
 Committee on Science, Space, and Technology
 U.S. House of Representatives
 Washington, DC 20515

Dear Chairman Quayle and Ranking Member Edwards:

Representing practicing engineers throughout the United States, the National Council of Structural Engineers Associations (NCSEA) expresses its strong support of the bill which would reauthorize the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Act (NWIRA).

As the national voice for practicing structural engineers, NCSEA advances the practice of structural engineering and protects the public's right to safe, sustainable and cost effective buildings, bridges and other structures. NCSEA's volunteer code committees advocate for safe and effective building codes that will assure a safe and resilient built environment that can adequately protect the public welfare. NEHRP and NWIRA have been key to this goal. Fundamental research undertaken and supported by USGS, NOAA, and NSF under NEHRP and NWIRA, as well as the development of implementation tools and support of the building code development process undertaken jointly by NIST and FEMA under these programs and act, are critical to the nation's earthquake and windstorm safety and resilience. Together, the efforts of the NEHRP and NWIRA agencies enable improvement of our building codes, as well as the development and implementation of practical and effective means to improve our infrastructure against future earthquake and windstorm disasters.

We believe that Congress needs to move as quickly as possible on reauthorization. We do not want to see, nor do we believe that you want to see, the nation's risk of losses due to earthquakes, windstorms, tsunamis and other cascading events become much greater than previous policy goals have deemed acceptable for our Nation. We believe and request that your subcommittee will send a strong message to the Administration and Appropriations committees, that addressing the Nation's earthquake and windstorm risks is a priority.

Sincerely,

Thomas A. DiBlasi, President, National Council of Structural Engineers Associations

C: Martin Hight, American Society of Civil Engineers
 Jeanne M. Vogelzang, Executive Director, NCSEA

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(202) 789-7859 fax www.ASCE.org

November 1, 2011

The Honorable Randy Neugebauer
U. S. House of Representatives
Washington, DC 20515

Dear Congressman Neugebauer:

On behalf of the American Society of Civil Engineers (ASCE) I would like to thank you for your sponsorship of H.R. 3272, the National Windstorm Impact Reduction Reauthorization Act of 2011. Your continuing leadership on this important issue is greatly appreciated by the civil engineering community.

ASCE stands ready to offer any assistance we can to you and to other members of Congress in moving this legislation to the floor of the House and on to the Senate. ASCE is firmly convinced that a unified national program addressing efficient wind-resistant design and construction, early warning and detection, improved emergency response, and public education and awareness will result in a significant reduction in losses, both human and economic.

Please do not hesitate to call on ASCE to provide technical information and outreach to colleagues. As the organization representing the profession most responsible for the nation's public works infrastructure and built environment, ASCE is well positioned to support your efforts. Additionally, ASCE is ready to call on the expertise of our fellow engineering and scientific colleagues as needed.

Please contact Martin Hight, ASCE's Senior Manager of Government Relations at 202-789-7843 or mhight@asce.org if we can be of more assistance. Once again, thank you for your continuing leadership on this important issue.

Sincerely,

A handwritten signature in black ink, appearing to read "A. W. Herrmann". The signature is written in a cursive style and is followed by a horizontal line.

Andrew W. Herrmann, P.E., SECB, F.ASCE
President

Chairman QUAYLE. I now recognize myself to offer a motion. I move that subcommittee forward the committee print, the "Natural Hazards Risk Reduction Act of 2011," as amended to the full committee.

Furthermore, I move that staff be instructed to prepare the subcommittee report and make necessary technical and conforming changes.

Questions on the motion to forward the committee print as amended. Those in favor, say aye. Those opposed, no. The ayes have it, and the committee print is favorably reported.

Without objection the motion to reconsider is laid upon the table. I move that members may have two subsequent calendar days in which to submit supplemental minority or additional views on the measure.

Without objection, so ordered.

This concludes our subcommittee markup. The chairman declares the subcommittee adjourned.

[Whereupon, at 1:57 p.m., the subcommittee was adjourned.]

Appendix:

COMMITTEE PRINT: THE NATURAL HAZARDS RISK REDUCTION
ACT OF 2011, SECTION-BY-SECTION ANALYSIS, AMENDMENTS,
AMENDMENT ROSTER

[COMMITTEE PRINT]

OCTOBER 31, 2011

112TH CONGRESS
1ST SESSION**H. R.** _____

To reauthorize Federal natural hazards reduction programs, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mrs. BIGGERT introduced the following bill; which was referred to the Committee on _____

A BILL

To reauthorize Federal natural hazards reduction programs, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Natural Hazards Risk
5 Reduction Act of 2011”.

6 **SEC. 2. TABLE OF CONTENTS.**

7 The table of contents for this Act is as follows:

Sec. 1. Short title.
Sec. 2. Table of contents.

1 (A) in paragraph (1), by inserting “to be
2 administered, as provided under this section, by
3 the National Institute of Standards and Tech-
4 nology, the Federal Emergency Management
5 Agency, the United States Geological Survey,
6 and the National Science Foundation” after
7 “Reduction Program”;

8 (B) by amending paragraph (2)(A) to read
9 as follows:

10 “(A) research and develop effective meth-
11 ods, tools, and technologies to reduce the risk
12 posed by earthquakes to the built environment,
13 especially to lessen the risk to existing struc-
14 tures and lifelines;” and

15 (C) by striking paragraphs (3) through
16 (5);

17 (2) in subsection (b)—

18 (A) by amending paragraph (1) to read as
19 follows:

20 “(1) LEAD AGENCY.—The National Institute of
21 Standards and Technology shall have the primary
22 responsibility for planning and coordinating the Pro-
23 gram. In carrying out this paragraph, the Director
24 of the Institute shall—

1 “(A) ensure that the Program includes the
2 necessary components to promote the imple-
3 mentation of earthquake hazards risk reduction
4 measures by Federal, State, and local govern-
5 ments, national standards and model building
6 code organizations, architects and engineers,
7 and others with a role in planning, con-
8 structing, and retrofitting structures and life-
9 lines;

10 “(B) support the development of perform-
11 ance-based seismic engineering tools, and work
12 with appropriate groups to promote the com-
13 mercial application of such tools, through earth-
14 quake-related model building codes, voluntary
15 standards, and construction best practices;

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

19 “(D) work with the Federal Emergency
20 Management Agency, the National Science
21 Foundation, and the United States Geological
22 Survey, to develop a comprehensive plan for
23 earthquake engineering research to effectively
24 use existing testing facilities and laboratories
25 (existing at the time of the development of the

1 plan), upgrade facilities and equipment as need-
2 ed, and integrate new, innovative testing ap-
3 proaches to the research infrastructure in a sys-
4 tematic manner;

5 “(E) coordinate all Federal post-earth-
6 quake investigations; and

7 “(F) when warranted by research or inves-
8 tigative findings, issue recommendations to as-
9 sist in informing the development of model
10 codes, and provide information to Congress on
11 the use of such recommendations.”;

12 (B) in paragraph (3)—

13 (i) in subparagraph (A), by striking
14 “seismic microzonation” and inserting “de-
15 tailed seismic hazard and risk”;

16 (ii) by amending subparagraphs (F)
17 and (G) to read as follows:

18 “(F) operate, in cooperation with the Na-
19 tional Science Foundation, a Global Seis-
20 mographic Network for detection of earth-
21 quakes around the world and research into fun-
22 damental earth processes;

23 “(G) support the operation of regional seis-
24 mic networks in areas of higher seismic risk.”;

1 (iii) by striking the period at the end
2 of subparagraph (H) and inserting a semi-
3 colon; and

4 (iv) by amending subparagraph (I) to
5 read as follows:

6 “(I) work with other Program agencies to
7 maintain awareness of, and where appropriate
8 coordinate with, earthquake risk reduction ef-
9 forts in other countries to ensure that the Pro-
10 gram benefits from relevant information and
11 advances in those countries; and”;

12 (C) in paragraph (5)—

13 (i) in subparagraph (C)—

14 (I) by inserting “and other stake-
15 holders with relevant expertise” after
16 “standards organizations”; and

17 (II) by inserting “and” after the
18 semicolon at the end;

19 (ii) by striking “; and” at the end of
20 subparagraph (D) and inserting a period;
21 and

22 (iii) by striking subparagraph (E);

23 (3) by redesignating subsection (c) as sub-
24 section (d);

1 (4) by inserting after subsection (b) the fol-
2 lowing new subsection:

3 “(c) ADVISORY COMMITTEE ON EARTHQUAKE HAZ-
4 ARDS REDUCTION.—

5 “(1) IN GENERAL.—The Director of the Na-
6 tional Institute of Standards and Technology shall
7 establish an Advisory Committee on Earthquake
8 Hazards Reduction, which shall be composed of at
9 least 11 members, none of whom may be employees
10 of the Federal Government, including representa-
11 tives of research and academic institutions, industry
12 standards development organizations, emergency
13 management agencies, State and local government,
14 and business communities who are qualified to pro-
15 vide advice on earthquake hazards reduction and
16 represent all related scientific, architectural, and en-
17 gineering disciplines. The recommendations of the
18 Advisory Committee shall be considered by Federal
19 agencies in implementing the Program.

20 “(2) ASSESSMENTS.—The Advisory Committee
21 on Earthquake Hazards Reduction shall offer as-
22 sessments on—

23 “(A) trends and developments in the nat-
24 ural and engineering sciences and practices of
25 earthquake hazards impact mitigation;

1 “(B) the priorities of the Program’s Stra-
2 ategie Plan;

3 “(C) the coordination of the Program; and

4 “(D) any revisions to the Program which
5 may be necessary.

6 “(3) COMPENSATION.—The members of the Ad-
7 visory Committee established under this subsection
8 shall serve without compensation.

9 “(4) REPORTS.—At least every 2 years, the Ad-
10 visory Committee shall report to the Director of the
11 National Institute of Standards and Technology on
12 the assessments carried out under paragraph (2)
13 and its recommendations for ways to improve the
14 Program.

15 “(5) CHARTER.—Notwithstanding section
16 14(b)(2) of the Federal Advisory Committee Act (5
17 U.S.C. App), the Advisory Committee shall not be
18 required to file a charter subsequent to its initial
19 charter, filed under section 9(e) of such Act, before
20 the termination date specified in paragraph (6) of
21 this subsection.

22 “(6) TERMINATION.—The Advisory Committee
23 established under this subsection shall terminate on
24 September 30, 2014.”; and

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9

1 (5) in subsection (d)(1), as so redesignated by
2 paragraph (3) of this section, by inserting “on Nat-
3 ural Hazards Risk Reduction established under sec-
4 tion 301 of the Natural Hazards Risk Reduction Act
5 of 2011” after “Interagency Coordinating Com-
6 mittee”.

7 **SEC. 104. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.**

8 Section 11 of the Earthquake Hazards Reduction Act
9 of 1977 (42 U.S.C. 7705e) is amended—

10 (1) by striking “United States Geological Sur-
11 vey” in each of the first 2 sentences and inserting
12 “lead program agency”; and

13 (2) by striking “The Director of the Survey”
14 and all that follows through “such earthquake inves-
15 tigations.”.

16 **SEC. 105. AUTHORIZATION OF APPROPRIATIONS.**

17 (a) IN GENERAL.—Section 12 of the Earthquake
18 Hazards Reduction Act of 1977 (42 U.S.C. 7706) is
19 amended to read as follows:

20 **“SEC. 12. AUTHORIZATION OF APPROPRIATIONS.**

21 **“(a) FEDERAL EMERGENCY MANAGEMENT AGEN-**
22 **CY.—**There are authorized to be appropriated to the Fed-
23 eral Emergency Management Agency for carrying out this
24 Act—

25 “(1) \$6,400,000 for fiscal year 2012;

1 “(2) \$6,400,000 for fiscal year 2013; and

2 “(3) \$6,400,000 for fiscal year 2014.

3 “(b) UNITED STATES GEOLOGICAL SURVEY.—There
4 are authorized to be appropriated to the United States Ge-
5 ological Survey for carrying out this Act—

6 “(1) \$54,200,000 for fiscal year 2012;

7 “(2) \$54,200,000 for fiscal year 2013; and

8 “(3) \$54,200,000 for fiscal year 2014.

9 “(c) NATIONAL SCIENCE FOUNDATION.—There are
10 authorized to be appropriated to the National Science
11 Foundation for carrying out this Act—

12 “(1) \$53,800,000 for fiscal year 2012;

13 “(2) \$53,800,000 for fiscal year 2013; and

14 “(3) \$53,800,000 for fiscal year 2014.

15 “(d) NATIONAL INSTITUTE OF STANDARDS AND
16 TECHNOLOGY.—There are authorized to be appropriated
17 to the National Institute of Standards and Technology for
18 carrying out this Act—

19 “(1) \$7,500,000 for fiscal year 2012;

20 “(2) \$7,500,000 for fiscal year 2013; and

21 “(3) \$7,500,000 for fiscal year 2014.”.

22 “(b) CONFORMING AMENDMENT.—Section 14 of the
23 National Earthquake Hazards Reduction Act of 1977 (42
24 U.S.C. 7708) is amended—

25 (1) by striking “(a) ESTABLISHMENT.—”; and

1 (2) by striking subsection (b).

2 **TITLE II—WIND**

3 **SEC. 201. SHORT TITLE.**

4 This title may be cited as the “National Windstorm
5 Impact Reduction Act Reauthorization of 2011”.

6 **SEC. 202. DEFINITIONS.**

7 Section 203(1) of the National Windstorm Impact
8 Reduction Act of 2004 (42 U.S.C. 15702(1)) is amended
9 by striking “Director of the Office of Science and Tech-
10 nology Policy” and inserting “Director of the National In-
11 stitute of Standards and Technology”.

12 **SEC. 203. NATIONAL WINDSTORM IMPACT REDUCTION PRO-**
13 **GRAM.**

14 Section 204 of the National Windstorm Impact Re-
15 duction Act of 2004 (42 U.S.C. 15703) is amended—

16 (1) by striking subsections (a), (b), and (c) and
17 inserting the following:

18 “(a) **ESTABLISHMENT.**—There is established the Na-
19 tional Windstorm Impact Reduction Program, the purpose
20 of which is to achieve major measurable reductions in the
21 losses of life and property from windstorms through a co-
22 ordinated Federal effort, in cooperation with other levels
23 of government, academia, and the private sector, aimed
24 at improving the understanding of windstorms and their
25 impacts and developing and encouraging the implementa-

1 tion of cost-effective mitigation measures to reduce those
2 impacts.

3 “(b) RESPONSIBILITIES OF PROGRAM AGENCIES.—

4 “(1) LEAD AGENCY.—The National Institute of
5 Standards and Technology shall have the primary
6 responsibility for planning and coordinating the Pro-
7 gram. In carrying out this paragraph, the Director
8 shall—

9 “(A) ensure that the Program includes the
10 necessary components to promote the imple-
11 mentation of windstorm risk reduction meas-
12 ures by Federal, State, and local governments,
13 national standards and model building code or-
14 ganizations, architects and engineers, and oth-
15 ers with a role in planning and constructing
16 buildings and lifelines;

17 “(B) support the development of perform-
18 ance-based engineering tools, and work with ap-
19 propriate groups to promote the commercial ap-
20 plication of such tools, including through wind-
21 related model building codes, voluntary stand-
22 ards, and construction best practices;

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

1 “(D) coordinate all Federal post-windstorm
2 investigations; and

3 “(E) when warranted by research or inves-
4 tigative findings, issue recommendations to as-
5 sist in informing the development of model
6 codes, and provide information to Congress on
7 the use of such recommendations.

8 “(2) NATIONAL INSTITUTE OF STANDARDS AND
9 TECHNOLOGY.—In addition to the lead agency re-
10 sponsibilities described under paragraph (1), the Na-
11 tional Institute of Standards and Technology shall
12 be responsible for carrying out research and develop-
13 ment to improve model building codes, voluntary
14 standards, and best practices for the design, con-
15 struction, and retrofit of buildings, structures, and
16 lifelines.

17 “(3) NATIONAL SCIENCE FOUNDATION.—The
18 National Science Foundation shall support research
19 in engineering and the atmospheric sciences to im-
20 prove the understanding of the behavior of wind-
21 storms and their impact on buildings, structures,
22 and lifelines.

23 “(4) NATIONAL OCEANIC AND ATMOSPHERIC
24 ADMINISTRATION.—The National Oceanic and At-
25 mospheric Administration shall support atmospheric

1 sciences research to improve the understanding of
2 the behavior of windstorms and their impact on
3 buildings, structures, and lifelines.

4 “(5) FEDERAL EMERGENCY MANAGEMENT
5 AGENCY.—The Federal Emergency Management
6 Agency shall support the development of risk assess-
7 ment tools and effective mitigation techniques, wind-
8 storm-related data collection and analysis, public
9 outreach, information dissemination, and implemen-
10 tation of mitigation measures consistent with the
11 Agency’s all-hazards approach.”;

12 (2) by redesignating subsection (d) as sub-
13 section (e); and

14 (3) by striking subsections (e) and (f).

15 **SEC. 204. NATIONAL ADVISORY COMMITTEE ON WIND-**
16 **STORM IMPACT REDUCTION.**

17 Section 205 of the National Windstorm Impact Re-
18 duction Act of 2004 (42 U.S.C. 15704) is amended to
19 read as follows:

20 **“SEC. 205. NATIONAL ADVISORY COMMITTEE ON WIND-**
21 **STORM IMPACT REDUCTION.**

22 “(a) IN GENERAL.—The Director of the National In-
23 stitute of Standards and Technology shall establish an Ad-
24 visory Committee on Windstorm Impact Reduction, which
25 shall be composed of at least 7 members, none of whom

1 may be employees of the Federal Government, including
2 representatives of research and academic institutions, in-
3 dustry standards development organizations, emergency
4 management agencies, State and local government, and
5 business communities who are qualified to provide advice
6 on windstorm impact reduction and represent all related
7 scientific, architectural, and engineering disciplines. The
8 recommendations of the Advisory Committee shall be con-
9 sidered by Federal agencies in implementing the Program.

10 “(b) ASSESSMENTS.—The Advisory Committee on
11 Windstorm Impact Reduction shall offer assessments on—

12 “(1) trends and developments in the natural
13 and engineering sciences and practices of windstorm
14 impact mitigation;

15 “(2) the priorities of the Program’s Strategic
16 Plan;

17 “(3) the coordination of the Program; and

18 “(4) any revisions to the Program which may
19 be necessary.

20 “(e) COMPENSATION.—The members of the Advisory
21 Committee established under this section shall serve with-
22 out compensation.

23 “(d) REPORTS.—At least every 2 years, the Advisory
24 Committee shall report to the Director on the assessments

1 carried out under subsection (b) and its recommendations
2 for ways to improve the Program.

3 “(e) CHARTER.—Notwithstanding section 14(b)(2) of
4 the Federal Advisory Committee Act (5 U.S.C. App), the
5 Advisory Committee shall not be required to file a charter
6 subsequent to its initial charter, filed under section 9(e)
7 of such Act, before the termination date specified in sub-
8 section (f) of this section.

9 “(f) TERMINATION.—The Advisory Committee shall
10 terminate on September 30, 2014.”.

11 **SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

12 Section 207 of the National Windstorm Impact Re-
13 duction Act of 2004 (42 U.S.C. 15706) is amended to
14 read as follows:

15 **“SEC. 207. AUTHORIZATION OF APPROPRIATIONS.**

16 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
17 CY.—There are authorized to be appropriated to the Fed-
18 eral Emergency Management Agency for carrying out this
19 title—

20 “(1) \$4,000,000 for fiscal year 2012;

21 “(2) \$4,000,000 for fiscal year 2013; and

22 “(3) \$4,000,000 for fiscal year 2014.

23 “(b) NATIONAL SCIENCE FOUNDATION.—There are
24 authorized to be appropriated to the National Science
25 Foundation for carrying out this title—

1 “(1) \$9,400,000 for fiscal year 2012;

2 “(2) \$9,400,000 for fiscal year 2013; and

3 “(3) \$9,400,000 for fiscal year 2014.

4 “(e) NATIONAL INSTITUTE OF STANDARDS AND
5 TECHNOLOGY.—There are authorized to be appropriated
6 to the National Institute of Standards and Technology for
7 carrying out this title—

8 “(1) \$5,300,000 for fiscal year 2012;

9 “(2) \$5,300,000 for fiscal year 2013; and

10 “(3) \$5,300,000 for fiscal year 2014.

11 “(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
12 ISTRATION.—There are authorized to be appropriated to
13 the National Oceanic and Atmospheric Administration for
14 carrying out this title—

15 “(1) \$2,700,000 for fiscal year 2012;

16 “(2) \$2,700,000 for fiscal year 2013; and

17 “(3) \$2,700,000 for fiscal year 2014.”.

18 **TITLE III—INTERAGENCY**
19 **COORDINATION**

20 **SEC. 301. INTERAGENCY COORDINATING COMMITTEE ON**
21 **NATURAL HAZARDS RISK REDUCTION.**

22 (a) ESTABLISHMENT.—There is established an Inter-
23 agency Coordinating Committee on Natural Hazards Risk
24 Reduction, chaired by the Director of the National Insti-
25 tute of Standards and Technology.

1 (b) MEMBERSHIP.—In addition to the chair, the
2 Committee shall be composed of—

3 (1) the heads of—

4 (A) the Federal Emergency Management
5 Agency;

6 (B) the United States Geological Survey;

7 (C) the National Oceanic and Atmospheric
8 Administration;

9 (D) the National Science Foundation;

10 (E) the Office of Science and Technology
11 Policy; and

12 (F) the Office of Management and Budget;
13 and

14 (2) the head of any other Federal agency the
15 chair considers appropriate.

16 (c) MEETINGS.—The Committee shall meet not less
17 than 2 times a year at the call of the Director of the Na-
18 tional Institute of Standards and Technology.

19 (d) GENERAL PURPOSE AND DUTIES.—The Com-
20 mittee shall oversee the planning and coordination of the
21 National Earthquake Hazards Reduction Program and
22 the National Windstorm Impact Reduction Program, and
23 shall make proposals for planning and coordination of any
24 other Federal research for natural hazard mitigation that
25 the Committee considers appropriate.

1 (e) STRATEGIC PLANS.—The Committee shall de-
2 velop and submit to Congress, not later than one year
3 after the date of enactment of this Act—

4 (1) a Strategic Plan for the National Earth-
5 quake Hazards Reduction Program that includes—

6 (A) prioritized goals for such Program that
7 will mitigate against the loss of life and prop-
8 erty from future earthquakes;

9 (B) short-term, mid-term, and long-term
10 research objectives to achieve those goals;

11 (C) a description of the role of each Pro-
12 gram agency in achieving the prioritized goals;

13 (D) the methods by which progress to-
14 wards the goals will be assessed;

15 (E) an explanation of how the Program
16 will foster the transfer of research results into
17 outcomes, such as improved model building
18 codes; and

19 (F) a description of how the George E.
20 Brown, Jr. Network for Earthquake Engineer-
21 ing Simulation and the Advanced National Seis-
22 mic Research and Monitoring System will be
23 used in achieving the prioritized goals and re-
24 search objectives; and

1 (2) a Strategic Plan for the National Wind-
2 storm Impact Reduction Program that includes—

3 (A) prioritized goals for such Program that
4 will mitigate against the loss of life and prop-
5 erty from future windstorms;

6 (B) short-term, mid-term, and long-term
7 research objectives to achieve those goals;

8 (C) a description of the role of each Pro-
9 gram agency in achieving the prioritized goals;

10 (D) the methods by which progress to-
11 wards the goals will be assessed; and

12 (E) an explanation of how the Program
13 will foster the transfer of research results into
14 outcomes, such as improved model building
15 codes.

16 (f) PROGRESS REPORTS.—Not later than 18 months
17 after the date of enactment of this Act, the Committee
18 shall submit to the Congress—

19 (1) a report on the progress of the National
20 Earthquake Hazards Reduction Program that in-
21 cludes—

22 (A) a description of the activities funded
23 under the Program, a description of how these
24 activities align with the prioritized goals and re-
25 search objectives established in the Strategic

1 Plan, and the budgets, per agency, for these ac-
2 tivities;

3 (B) the outcomes achieved by the Program
4 for each of the goals identified in the Strategic
5 Plan;

6 (C) a description of any recommendations
7 made to change existing building codes that
8 were the result of Program activities; and

9 (D) a description of the extent to which
10 the Program has incorporated recommendations
11 from the Advisory Committee on Earthquake
12 Hazards Reduction; and

13 (2) a report on the progress of the National
14 Windstorm Impact Reduction Program that in-
15 cludes—

16 (A) a description of the activities funded
17 under the Program, a description of how these
18 activities align with the prioritized goals and re-
19 search objectives established in the Strategic
20 Plan, and the budgets, per agency, for these ac-
21 tivities;

22 (B) the outcomes achieved by the Program
23 for each of the goals identified in the Strategic
24 Plan;

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1 (C) a description of any recommendations
2 made to change existing building codes that
3 were the result of Program activities; and

4 (D) a description of the extent to which
5 the Program has incorporated recommendations
6 from the Advisory Committee on Windstorm
7 Impact Reduction.

8 (g) COORDINATED BUDGET.—The Committee shall
9 develop a coordinated budget for the National Earthquake
10 Hazards Reduction Program and a coordinated budget for
11 the National Windstorm Impact Reduction Program.
12 These budgets shall be submitted to the Congress at the
13 time of the President’s budget submission for each fiscal
14 year.

15 **SEC. 302. COORDINATION OF FEDERAL DISASTER RE-**
16 **SEARCH, DEVELOPMENT, AND TECHNOLOGY**
17 **TRANSFER.**

18 Not later than 2 years after the date of enactment
19 of this Act, the Subcommittee on Disaster Reduction of
20 the Committee on Environment and Natural Resources of
21 the National Science and Technology Council shall submit
22 a report to the Congress detailing—

23 (1) current Federal research, development, and
24 technology transfer activities that address hazard
25 mitigation for natural disasters, including earth-

1 quakes, windstorms, wildfires, floods, and the cur-
2 rent budgets for these activities;

3 (2) areas of research that are common to two
4 or more of the hazards identified in paragraph (1);

5 (3) opportunities to create synergies between
6 the research activities for the hazards identified in
7 paragraph (1); and

8 (4) coordination of Federal disaster research,
9 development, and technology transfer activities
10 through the Interagency Coordinating Committee on
11 Natural Hazards Risk Reduction established under
12 section 301 and the Advisory Committees estab-
13 lished under section 5(c) of the Earthquake Hazards
14 Reduction Act of 1977, as added by section 103(4)
15 of this Act, and section 205 of the National Wind-
16 storm Impact Reduction Act of 2004, as amended
17 by section 204 of this Act.

18 **SEC. 303. AUTHORIZATIONS.**

19 No additional funds are authorized to carry out this
20 title. This title shall be carried out using amounts other-
21 wise authorized or appropriated.

SECTION-BY-SECTION DESCRIPTION OF COMMITTEE PRINT: THE NATURAL HAZARDS
RISK REDUCTION ACT OF 2011

Section 1. Short Title

This section sets forth the short title as the "National Hazards Risk Reduction Act of 2011."

Section 2. Table of Contents

This section provides a table of contents.

Title I. EARTHQUAKES

Section 101. Short Title

This section sets forth the short title for Title I as the "National Earthquake Hazards Reduction Program Reauthorization Act of 2011."

Section 102. Definitions

This section removes the definitions of the "Interagency Coordination Committee" and the "Advisory Committee" from Section 4 of the National Earthquake Hazards Reduction Act of 1977.

Section 103. National Earthquake Hazards Reduction Program

This section identifies the four agencies that make up National Earthquake Hazards Reduction Program (NEHRP): the National Institute of Standards and Technology (NIST), the Federal Emergency Management Agency (FEMA), the United States Geological Survey (USGS), and the National Science Foundation (NSF). This section also amends the Earthquake Hazards Reduction Act of 1977 to detail NEHRP activities, which include researching and developing effective methods, tools, and technologies to reduce the risk posed by earthquakes to the built environment, especially to lessen the risk to existing structures and lifelines.

Section 103 defines the responsibilities of NIST as the lead Program agency, which include: planning and coordinating the Program; supporting the development of performance-based seismic engineering tools; requesting the assistance of Federal agencies other than Program agencies as necessary; working with Program agencies to develop a comprehensive plan for earthquake engineering research to use existing facilities and laboratories; coordinating all Federal post-earthquake investigations; and issuing recommendations to assist in informing model codes when warranted by research or investigative findings. This section also updates the responsibilities of the Program agencies, further detailing current activities.

Finally, this section amends the Earthquake Hazards Reduction Act of 1977 to reauthorize and update an existing Advisory Committee for NEHRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

Section 104. Post-Earthquake Investigation Program

This section amends the Earthquake Hazards Reduction Act of 1977 reassigning to NIST the lead agency responsibility for the NEHRP post-earthquake investigations program. The lead agency shall continue to be responsible for coordinating investigations after major earthquakes, in order to gather information and data to learn lessons that may be applied to reduce the loss of life and property in future earthquakes.

Section 105. Authorization of Appropriations

This section provides authorizations of appropriations as follows:

For FEMA: \$6,400,000 for each fiscal year 2012 through 2014.

For USGS: \$54,200,000 for each fiscal year 2012 through 2014.

For NSF: \$53,800,000 for each fiscal year 2012 through 2014.

For NIST: \$7,500,000 for each fiscal year 2012 through 2014.

Title II. WIND

Section 201. Short Title

This section establishes the short title for this Title of the bill as the "National Windstorm Impact Reduction Act Reauthorization Act of 2011."

Section 202. Definitions

This section amends the National Windstorm Impact Reduction Act of 2004 to define the "Director" of the Program as the Director of the National Institute of Standards and Technology rather than the Director of the White House Office of Science and Technology Policy (OSTP).

Section 203. National Windstorm Impact Reduction Program

This section identifies the four agencies that make up the National Windstorm Impact Reduction Program (NWIRP): NIST, NSF, the National Oceanic and Atmospheric Administration (NOAA), and FEMA; defines NIST as the lead program agency; and assigns responsibilities to the four program agencies.

As the new lead agency, NIST's activities include planning and coordinating the Program; supporting the development of performance-based engineering tools; requesting the assistance of Federal agencies other than Program agencies as necessary; coordinating all Federal post-windstorm investigations; and issuing recommendations to assist in informing model codes when warranted by research or investigative findings. In addition to the lead agency responsibilities, NIST shall also conduct research and development to improve model building codes, voluntary standards, and best practices for the design, construction, and retrofit of buildings, structures, and lifelines.

NSF activities include research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

NOAA activities include the support of atmospheric science research to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

FEMA activities include the development of risk assessment tools and effective mitigation techniques; data collection and analysis; and public outreach, information dissemination and implementation of mitigation measures.

Section 204. National Advisory Committee on Windstorm Impact Reduction

This section amends the National Windstorm Impact Reduction Act of 2004 to reauthorize and update an existing Advisory Committee for NWIRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

Section 205. Authorization of Appropriations

This section provides authorizations of appropriations as follows:

For FEMA: \$4,000,000 for each fiscal year 2012 through 2014.

For NSF: \$9,400,000 for each fiscal year 2012 through 2014.

For NIST: \$5,300,000 for each fiscal year 2012 through 2014.

For NOAA: \$2,700,000 for each fiscal year 2012 through 2014.

Title III. INTERAGENCY COORDINATION

Sec. 301. Interagency Coordinating Committee on Natural Hazards Risk Reduction

This section combines the Interagency Coordinating Committee on Earthquake Hazards Reduction and the National Windstorm Impact Reduction Program Interagency Working Group into one Interagency Committee on Natural Hazards Risk Reduction, chaired by the Director of NIST and comprised of the heads of FEMA, USGS, NOAA, NSF, the Office of Science and Technology Policy (OSTP), the Office of Management and Budget (OMB), and the head of any other Federal agency the chair of the Committee considers appropriate. The section instructs the Interagency Committee to plan and coordinate NEHRP and NWIRP, including the development

of a strategic plan for each program, a progress report on each program, and a coordinated budget for both NEHRP and NWIRP.

Sec. 302. Coordination of Federal Disaster Research, Development, and Technology Transfer

This section requires the existing Subcommittee on Disaster Reduction, of the Committee on Environment and Natural Resources of the National Science and Technology Council, to submit a report to Congress identifying the current Federal research, development, and technology transfer activities that address mitigation for all types of natural hazards, and opportunities to create synergies and reduce duplication among the various research activities.

Sec. 303. Authorizations

This section clarifies that no additional funding is authorized to carry out the title.

AMENDMENTS

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AMENDMENT IN THE NATURE OF A SUBSTITUTE
TO THE COMMITTEE PRINT
OFFERED BY Ms. Edwards

Strike all after the enacting clause and insert the following:

1 SECTION 1. SHORT TITLE.

2 This Act may be cited as the "Natural Hazards Risk
3 Reduction Act of 2011".

4 SEC. 2. FINDINGS.

5 Congress finds the following:

6 (1) The United States faces significant risks
7 from many types of natural hazards, including
8 earthquakes, hurricanes, tornadoes, wildfires, and
9 floods. Increasing numbers of Americans are living
10 in areas prone to these hazards.

11 (2) Earthquakes occur without warning and can
12 have devastating effects. According to the U.S. Geo-
13 logical Survey, two recent earthquakes, the
14 Northridge Earthquake in 1994, and the Loma
15 Prieta Earthquake in 1989, killed nearly 100 people,
16 injured 12,757, and caused \$33 billion in damages.
17 Nearly all States face some level of seismic risk.

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1 Twenty-six urban areas in 14 States have a signifi-
2 cant seismic risk.

3 (3) Severe weather is the most costly natural
4 hazard, measured on a per year basis. According to
5 data from the National Weather Service over the
6 last 10 years, tornadoes, thunderstorms, and hurri-
7 canes have caused an average of 226 fatalities and
8 \$16 billion of property damage per year. The 2005
9 hurricane season was one of the most destructive in
10 United States history, killing 1,836 people, and
11 causing \$80 billion in damage.

12 (4) The United States Fire Administration re-
13 ports that 38 percent of new home construction in
14 2002 was in areas adjacent to, or intermixed with,
15 wildlands. Fires in the wildland-urban interface are
16 costly. For example, the 2007 California Witch fire
17 alone caused \$1.3 billion in insured property losses,
18 according to the Insurance Services Office (ISO). In
19 addition, Government Accountability Office reported
20 in 2007 that the Federal spending for wildfire sup-
21 pression between 2001 and 2005 was, on average,
22 \$2.9 billion per year.

23 (5) Developing better knowledge about natural
24 hazard phenomena and their effects is crucial to as-
25 sessing the risks these hazards pose to communities.

1 Instrumentation, monitoring, and data gathering to
2 characterize earthquakes and wind events are impor-
3 tant activities to increase this knowledge.

4 (6) Current building codes and standards can
5 mitigate the damages caused by natural hazards.
6 The Institute for Business and Home Safety esti-
7 mated that the \$19 billion in damage caused by
8 Hurricane Andrew in 1994 could have been reduced
9 by half if such codes and standards were in effect.
10 Research for the continuous improvement of building
11 codes, standards, and design practices—and for de-
12 veloping methods to retrofit existing structures—is
13 crucial to mitigating losses from natural hazards.

14 (7) Since its creation in 1977, the National
15 Earthquake Hazards Reduction Program (NEHRP)
16 has supported research to develop seismic codes,
17 standards, and building practices that have been
18 widely adopted. The NEHRP Recommended Provi-
19 sions for Seismic Regulations for New Buildings and
20 Other Structures and the Guidance for Seismic Per-
21 formance Assessment of Buildings are two examples.

22 (8) Research to understand the institutional,
23 social, behavioral, and economic factors that influ-
24 ence how households, businesses, and communities
25 perceive risk and prepare for natural hazards, and

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1 how well they recover after a disaster, can increase
2 the implementation of risk mitigation measures.

3 (9) A major goal of the Federal natural haz-
4 ards-related research and development effort should
5 be to reduce the loss of life and damage to commu-
6 nities and infrastructure through increasing the
7 adoption of hazard mitigation measures.

8 (10) Research, development, and technology
9 transfer to secure infrastructure is vitally important.
10 Infrastructure that supports electricity, transpor-
11 tation, drinking water, and other services is vital im-
12 mediately after a disaster, and their quick return to
13 function speeds the economic recovery of a disaster-
14 impacted community.

15 **TITLE I—EARTHQUAKES**

16 **SEC. 101. SHORT TITLE.**

17 This title may be cited as the “National Earthquake
18 Hazards Reduction Program Reauthorization Act of
19 2011”.

20 **SEC. 102. FINDINGS.**

21 Section 2 of the Earthquake Hazards Reduction Act
22 of 1977 (42 U.S.C. 7701) is repealed.

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1 **SEC. 103. DEFINITIONS.**

2 Section 4 of the Earthquake Hazards Reduction Act
3 of 1977 (42 U.S.C. 7703) is amended by striking para-
4 graphs (8) and (9).

5 **SEC. 104. NATIONAL EARTHQUAKE HAZARDS REDUCTION**
6 **PROGRAM.**

7 Section 5 of the Earthquake Hazards Reduction Act
8 of 1977 (42 U.S.C. 7704) is amended—

9 (1) in subsection (a)—

10 (A) by amending paragraph (2) to read as
11 follows:

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

14 “(A) research and develop effective meth-
15 ods, tools, and technologies to reduce the risk
16 posed by earthquakes to the built environment,
17 especially to lessen the risk to existing struc-
18 tures and lifelines;

19 “(B) improve the understanding of earth-
20 quakes and their effects on households, busi-
21 nesses, communities, buildings, structures, and
22 lifelines, through interdisciplinary and multi-
23 disciplinary research that involves engineering,
24 natural sciences, and social sciences; and

25 “(C) facilitate the adoption of earthquake
26 risk reduction measures by households, busi-

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1 nesses, communities, local, State, and Federal
2 governments, national standards and model
3 building code organizations, architects and engi-
4 neers, building owners, and others with a role
5 in planning for disasters and planning, con-
6 structing, retrofitting, and insuring buildings,
7 structures, and lifelines through—
8 “(i) grants, contracts, cooperative
9 agreements, and technical assistance;
10 “(ii) development of standards, guide-
11 lines, voluntary consensus standards, and
12 other design guidance for earthquake haz-
13 ards risk reduction for buildings, struc-
14 tures, and lifelines;
15 “(iii) outreach and information dis-
16 semination to communities on location-spe-
17 cific earthquake hazards and methods to
18 reduce the risks from those hazards; and
19 “(iv) development and maintenance of
20 a repository of information, including tech-
21 nical data, on seismic risk and hazards re-
22 duction.”; and
23 (B) by striking paragraphs (3) through
24 (5);

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1 (2) by amending subsection (b) to read as fol-
2 lows:

3 “(b) RESPONSIBILITIES OF PROGRAM AGENCIES.—

4 “(1) LEAD AGENCY.—The National Institute of
5 Standards and Technology (in this section referred
6 to as the ‘Institute’) shall be responsible for plan-
7 ning and coordinating the Program. In carrying out
8 this paragraph, the Director of the Institute shall—

9 “(A) ensure that the Program includes the
10 necessary components to promote the imple-
11 mentation of earthquake hazards risk reduction
12 measures by households, businesses, commu-
13 nities, local, State, and Federal governments,
14 national standards and model building code or-
15 ganizations, architects and engineers, building
16 owners, and others with a role in preparing for
17 disasters, or the planning, constructing, retro-
18 fitting, and insuring of buildings, structures,
19 and lifelines;

20 “(B) support the development of perform-
21 ance-based seismic engineering tools, and work
22 with the appropriate groups to promote the
23 commercial application of such tools, through
24 earthquake-related building codes, standards,
25 and construction practices;

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1 “(C) ensure the use of social science re-
2 search and findings in informing research and
3 technology development priorities, commu-
4 nicating earthquake risks to the public, devel-
5 oping earthquake risk mitigation strategies, and
6 preparing for earthquake disasters;

7 “(D) coordinate all Federal post-earth-
8 quake investigations; and

9 “(E) when warranted by research or inves-
10 tigative findings, issue recommendations for
11 changes in model codes to the relevant code de-
12 velopment organizations, and report back to
13 Congress on whether such recommendations
14 were adopted.

15 “(2) NATIONAL INSTITUTE OF STANDARDS AND
16 TECHNOLOGY.—In addition to the lead agency re-
17 sponsibilities described under paragraph (1), the In-
18 stitute shall be responsible for carrying out research
19 and development to improve building codes and
20 standards and practices for buildings, structures,
21 and lifelines. In carrying out this paragraph, the Di-
22 rector of the Institute shall—

23 “(A) work, in conjunction with other ap-
24 propriate Federal agencies, to support the de-

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1 development of improved seismic standards and
2 model codes;

3 “(B) in coordination with other appro-
4 priate Federal agencies, work closely with
5 standards and model code development organi-
6 zations, professional societies, and practicing
7 engineers, architects, and others involved in the
8 construction of buildings, structures, and life-
9 lines, to promote better building practices, in-
10 cluding by—

11 “(i) developing technical resources for
12 practitioners on new knowledge and stand-
13 ards of practice; and

14 “(ii) developing methods and tools to
15 facilitate the incorporation of earthquake
16 engineering principles into design and con-
17 struction practices;

18 “(C) develop tools, technologies, methods,
19 and practitioner guidance to feasibly and cost-
20 effectively retrofit existing buildings and struc-
21 tures to increase their earthquake resiliency;
22 and

23 “(D) work closely with national standards
24 organizations, and other interested parties, to

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1 develop seismic safety standards and practices
2 for new and existing lifelines.

3 “(3) FEDERAL EMERGENCY MANAGEMENT
4 AGENCY.—

5 “(A) IN GENERAL.—The Federal Emer-
6 gency Management Agency (in this paragraph
7 referred to as the ‘Agency’), consistent with the
8 Agency’s all hazards approach, shall be respon-
9 sible for facilitating the development and adop-
10 tion of standards, model building codes, and
11 better seismic building practices, developing
12 tools to assess earthquake hazards, promoting
13 the adoption of hazard mitigation measures,
14 and carrying out a program of direct assistance
15 to States and localities to mitigate earthquake
16 risks to buildings, structures, lifelines, and com-
17 munities.

18 “(B) DIRECTOR’S DUTIES.—The Director
19 of the Agency shall—

20 “(i) work closely with other relevant
21 Federal agencies, standards and model
22 building code development organizations,
23 architects, engineers, and other profes-
24 sionals, to facilitate the development and
25 adoption of standards, model codes, and

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1 design and construction practices to in-
2 crease the earthquake resiliency of new
3 and existing buildings, structures, and life-
4 lines in the—

5 “(I) preparation, maintenance,
6 and wide dissemination of design
7 guidance, model building codes and
8 standards, and practices to increase
9 the earthquake resiliency of new and
10 existing buildings, structures, and life-
11 lines;

12 “(II) development of perform-
13 ance-based design guidelines and
14 methodologies supporting model codes
15 for buildings, structures, and lifelines;
16 and

17 “(III) development of methods
18 and tools to facilitate the incorpora-
19 tion of earthquake engineering prin-
20 ciples into design and construction
21 practices;

22 “(ii) develop tools, technologies, and
23 methods to assist local planners, and oth-
24 ers, to model and predict the potential im-

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1 pact of earthquake damage in seismically
2 hazardous areas; and

3 “(iii) support the implementation of a
4 comprehensive earthquake education and
5 public awareness program, including the
6 development of materials and their wide
7 dissemination to all appropriate audiences,
8 and support public access to locality-spe-
9 cific information that may assist the public
10 in preparing for, mitigating against, re-
11 sponding to, and recovering from earth-
12 quakes and related disasters.

13 “(C) STATE ASSISTANCE GRANT PRO-
14 GRAM.—The Director of the Agency shall oper-
15 ate a program of grants and assistance to en-
16 able States to develop mitigation, preparedness,
17 and response plans, compare inventories and
18 conduct seismic safety inspections of critical
19 structures and lifelines, update building and
20 zoning codes and ordinances to enhance seismic
21 safety, increase earthquake awareness and edu-
22 cation, and encourage the development of
23 multistate groups for such purposes. The Direc-
24 tor shall operate such programs in coordination
25 with the all hazards mitigation and prepared-

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1 ness programs authorized by the Robert T.
2 Stafford Disaster Relief and Emergency Assistance
3 Act (42 U.S.C. 5121 et seq.), in order to
4 ensure that such programs are as consistent as
5 possible. In order to qualify for assistance
6 under this subparagraph, a State must—

7 “(i) demonstrate that the assistance
8 will result in enhanced seismic safety in
9 the State;

10 “(ii) provide 50 percent of the costs of
11 the activities for which assistance is being
12 given, except that the Director may lower
13 or waive the cost-share requirement for
14 these activities in exceptional cases of economic
15 hardship; and

16 “(iii) meet such other requirements as
17 the Director of the Agency shall prescribe.

18 “(D) FEDERAL EMERGENCY MANAGEMENT
19 AGENCY ROLE AND RESPONSIBILITY.—Nothing
20 in this Act shall be construed to diminish the
21 role and responsibility of the Federal Emergency
22 Management Agency with regard to all
23 hazards preparedness, response, recovery, and
24 mitigation.

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1 “(4) UNITED STATES GEOLOGICAL SURVEY.—
2 The United States Geological Survey (in this para-
3 graph referred to as the ‘Survey’) shall conduct re-
4 search and other activities necessary to characterize
5 and identify earthquake hazards, assess earthquake
6 risks, monitor seismic activity, and provide real-time
7 earthquake information. In carrying out this para-
8 graph, the Director of the Survey shall—

9 “(A) conduct a systematic assessment of
10 the seismic risks in each region of the Nation
11 prone to earthquakes, including, where appro-
12 priate, the establishment and operation of in-
13 tensive monitoring projects on hazardous faults,
14 detailed seismic hazard and risk studies in
15 urban and other developed areas where earth-
16 quake risk is determined to be significant, and
17 engineering seismology studies;

18 “(B) work with officials of State and local
19 governments to ensure that they are knowledge-
20 able about the specific seismic risks in their
21 areas;

22 “(C) develop standard procedures, in con-
23 sultation with the Director of the Federal
24 Emergency Management Agency, for issuing
25 earthquake alerts, including aftershock

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1 advisories, and, to the extent possible, ensure
2 that such alerts are compatible with the Inte-
3 grated Public Alerts and Warning System pro-
4 gram authorized by section 202 of the Robert
5 T. Stafford Disaster Relief and Emergency As-
6 sistance Act (42 U.S.C. 5132);

7 “(D) issue when justified, and notify the
8 Director of the Federal Emergency Manage-
9 ment Agency of, an earthquake prediction or
10 other earthquake advisory, which may be evalu-
11 ated by the National Earthquake Prediction
12 Evaluation Council;

13 “(E) operate, as integral parts of the Ad-
14 vanced National Seismic Research and Moni-
15 toring System, a National Earthquake Informa-
16 tion Center and a national seismic network, to-
17 gether providing timely and accurate informa-
18 tion on earthquakes world-wide;

19 “(F) support the operation of regional seis-
20 mic networks in areas of higher seismic risk;

21 “(G) develop and support seismic instru-
22 mentation of buildings and other structures to
23 obtain data on their response to earthquakes
24 for use in engineering studies and assessment
25 of damage;

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1 “(H) monitor and assess Earth surface de-
2 formation as it pertains to the evaluation of
3 earthquake hazards and impacts;

4 “(I) work with other Program agencies to
5 maintain awareness of, and where appropriate
6 cooperate with, earthquake risk reduction ef-
7 forts in other countries, to ensure that the Pro-
8 gram benefits from relevant information and
9 advances in those countries;

10 “(J) maintain suitable seismic hazard
11 maps in support of building codes for structures
12 and lifelines, including additional maps needed
13 for performance-based design approaches, and,
14 to the extent possible, ensure that such maps
15 are developed consistent with the multihazard
16 advisory maps authorized by section 203(k) of
17 the Robert T. Stafford Disaster Relief and
18 Emergency Assistance Act (42 U.S.C. 5133(k));

19 “(K) conduct a competitive, peer-reviewed
20 process which awards grants and cooperative
21 agreements to complement and extend related
22 internal Survey research and monitoring activi-
23 ties; and

24 “(L) operate, in cooperation with the Na-
25 tional Science Foundation, a Global Seis-

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1 mographic Network for detection of earth-
2 quakes around the world and research into fun-
3 damental earth processes.

4 “(5) NATIONAL SCIENCE FOUNDATION.—The
5 National Science Foundation shall be responsible for
6 funding basic research that furthers the under-
7 standing of earthquakes, earthquake engineering,
8 and community preparation and response to earth-
9 quakes. In carrying out this paragraph, the Director
10 of the National Science Foundation shall—

11 “(A) support multidisciplinary and inter-
12 disciplinary research that will improve the resil-
13 iency of communities to earthquakes, includ-
14 ing—

15 “(i) research that improves the safety
16 and performance of buildings, structures,
17 and lifelines, including the use of the large-
18 scale experimental and computational fa-
19 cilities of the George E. Brown, Jr. Net-
20 work for Engineering Earthquake Simula-
21 tion;

22 “(ii) research to support more effec-
23 tive earthquake mitigation and response
24 measures, such as developing better knowl-
25 edge of the specific types of vulnerabilities

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1 faced by segments of the community vul-
2 nerable to earthquakes, addressing the bar-
3 riers they face in adopting mitigation and
4 preparation measures, and developing
5 methods to better communicate the risks of
6 earthquakes and to promote mitigation;
7 and

8 “(iii) research on the response of com-
9 munities, households, businesses, and
10 emergency responders to earthquakes;

11 “(B) support research to understand
12 earthquake processes, earthquake patterns, and
13 earthquake frequencies;

14 “(C) encourage prompt dissemination of
15 significant findings, sharing of data, samples,
16 physical collections, and other supporting mate-
17 rials, and development of intellectual property
18 so research results can be used by appropriate
19 organizations to mitigate earthquake damage;

20 “(D) work with other Program agencies to
21 maintain awareness of, and where appropriate
22 cooperate with, earthquake risk reduction re-
23 search efforts in other countries, to ensure that
24 the Program benefits from relevant information
25 and advances in those countries; and

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1 “(E) include to the maximum extent prac-
2 ticable diverse institutions, including Histori-
3 cally Black Colleges and Universities, Hispanic-
4 serving institutions, Tribal Colleges and Univer-
5 sities, Alaska Native-serving institutions, and
6 Native Hawaiian-serving institutions.”; and
7 (3) in subsection (c)(1) by inserting “on Nat-
8 ural Hazards Risk Reduction established under sec-
9 tion 301 of the Natural Hazards Risk Reduction Act
10 of 2011” after “Interagency Coordinating Com-
11 mittee”.

12 **SEC. 105. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.**

13 Section 11 of the Earthquake Hazards Reduction Act
14 of 1977 (42 U.S.C. 7705e) is amended by striking “There
15 is established” and all that follows through “conduct of
16 such earthquake investigations.” and inserting “The Pro-
17 gram shall include a post-earthquake investigations pro-
18 gram, the purpose of which is to investigate major earth-
19 quakes so as to learn lessons which can be applied to re-
20 duce the loss of lives and property in future earthquakes.
21 The lead Program agency, in consultation with each Pro-
22 gram agency, shall organize investigations to study the im-
23 plications of the earthquakes in the areas of responsibility
24 of each Program agency. The investigations shall begin
25 as rapidly as possible and may be conducted by grantees

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1 and contractors. The Program agencies shall ensure that
2 the results of the investigations are disseminated widely.”.

3 **SEC. 106. AUTHORIZATION OF APPROPRIATIONS.**

4 (a) IN GENERAL.—Section 12 of the Earthquake
5 Hazards Reduction Act of 1977 (42 U.S.C. 7706) is
6 amended—

7 (1) by adding at the end of subsection (a) the
8 following:

9 “(9) There are authorized to be appropriated to the
10 Federal Emergency Management Agency for carrying out
11 this Act—

12 “(A) \$10,238,000 for fiscal year 2011;

13 “(B) \$10,545,000 for fiscal year 2012;

14 “(C) \$10,861,000 for fiscal year 2013;

15 “(D) \$11,187,000 for fiscal year 2014; and

16 “(E) \$11,523,000 for fiscal year 2015.”;

17 (2) by adding at the end of subsection (b) the
18 following:

19 “(3) There are authorized to be appropriated to the
20 United States Geological Survey for carrying out this
21 Act—

22 “(A) \$90,000,000 for fiscal year 2011, of which
23 \$36,000,000 shall be made available for completion
24 of the Advanced National Seismic Research and
25 Monitoring System;

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1 “(B) \$92,100,000 for fiscal year 2012, of which
2 \$37,000,000 shall be made available for completion
3 of the Advanced National Seismic Research and
4 Monitoring System;

5 “(C) \$94,263,000 for fiscal year 2013, of which
6 \$38,000,000 shall be made available for completion
7 of the Advanced National Seismic Research and
8 Monitoring System;

9 “(D) \$96,491,000 for fiscal year 2014, of which
10 \$39,000,000 shall be made available for completion
11 of the Advanced National Seismic Research and
12 Monitoring System; and

13 “(E) \$98,786,000 for fiscal year 2015, of which
14 \$40,000,000 shall be made available for completion
15 of the Advanced National Seismic Research and
16 Monitoring System.”;

17 (3) by adding at the end of subsection (c) the
18 following:

19 “(3) There are authorized to be appropriated to the
20 National Science Foundation for carrying out this Act—

21 “(A) \$64,125,000 for fiscal year 2011;

22 “(B) \$66,049,000 for fiscal year 2012;

23 “(C) \$68,030,000 for fiscal year 2013;

24 “(D) \$70,071,000 for fiscal year 2014; and

25 “(E) \$72,173,000 for fiscal year 2015.”; and

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1 (4) by adding at the end of subsection (d) the
2 following:

3 “(3) There are authorized to be appropriated to the
4 National Institute of Standards and Technology for ear-
5 rying out this Act—

6 “(A) \$7,000,000 for fiscal year 2011;

7 “(B) \$7,700,000 for fiscal year 2012;

8 “(C) \$7,931,000 for fiscal year 2013;

9 “(D) \$8,169,000 for fiscal year 2014; and

10 “(E) \$8,414,000 for fiscal year 2015.”

11 (b) CONFORMING AMENDMENT.—Section 14 of the
12 National Earthquake Hazards Reduction Act of 1977 (42
13 U.S.C. 7708) is amended—

14 (1) by striking “(a) ESTABLISHMENT.—”; and

15 (2) by striking subsection (b).

16 **TITLE II—WIND**

17 **SEC. 201. SHORT TITLE.**

18 This title may be cited as the “National Windstorm
19 Impact Reduction Act Reauthorization of 2011”.

20 **SEC. 202. PURPOSE.**

21 Section 202 of the National Windstorm Impact Re-
22 duction Act of 2004 (42 U.S.C. 15701) is amended to
23 read as follows:

1 **“SEC. 202. PURPOSE.**

2 “It is the purpose of the Congress in this title to
3 achieve a major measurable reduction in losses of life and
4 property from windstorms through the establishment and
5 maintenance of an effective Windstorm Impact Reduction
6 Program. The objectives of such Program shall include—

7 “(1) the education of households, businesses,
8 and communities about the risks posed by wind-
9 storms, and the identification of locations, struc-
10 tures, lifelines, and segments of the community
11 which are especially vulnerable to windstorm damage
12 and disruption, and the dissemination of information
13 on methods to reduce those risks;

14 “(2) the development of technologically and eco-
15 nomically feasible design and construction methods
16 and procedures to make new and existing structures,
17 in areas of windstorm risk, windstorm resilient, giv-
18 ing high priority to the development of such methods
19 and procedures for lifelines, structures associated
20 with a potential high loss of life, and structures that
21 are especially needed in times of disasters, such as
22 hospitals and public safety and shelter facilities;

23 “(3) the implementation, in areas of major
24 windstorm risk, of instrumentation to record and
25 gather data on windstorms and the characteristics of
26 the wind during those events, and continued re-

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1 search to increase the understanding of windstorm
2 phenomena;

3 “(4) the development, publication, and pro-
4 motion, in conjunction with State and local officials
5 and professional organizations, of model building
6 codes and standards and other means to encourage
7 consideration of information about windstorm risk in
8 making decisions about land use policy and construc-
9 tion activity; and

10 “(5) the facilitation of the adoption of wind-
11 storm risk mitigation measures in areas of wind-
12 storm risk by households, businesses, and commu-
13 nities through outreach, incentive programs, and
14 other means.”.

15 **SEC. 203. DEFINITIONS.**

16 Section 203(1) of the National Windstorm Impact
17 Reduction Act of 2004 (42 U.S.C. 15702(1)) is amended
18 by striking “Director of the Office of Science and Tech-
19 nology Policy” and inserting “Director of the National In-
20 stitute of Standards and Technology”.

21 **SEC. 204. NATIONAL WINDSTORM IMPACT REDUCTION PRO-**
22 **GRAM.**

23 Section 204 of the National Windstorm Impact Re-
24 duction Act of 2004 (42 U.S.C. 15703) is amended to
25 read as follows:

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1 **“SEC. 204. NATIONAL WINDSTORM IMPACT REDUCTION**
2 **PROGRAM.**

3 “(a) ESTABLISHMENT.—There is established the Na-
4 tional Windstorm Impact Reduction Program.

5 “(b) PROGRAM ACTIVITIES.—The activities of the
6 Program shall be designed to—

7 “(1) research and develop cost-effective, feasible
8 methods, tools, and technologies to reduce the risks
9 posed by windstorms to the built environment, espe-
10 cially to lessen the risk to existing structures and
11 lifelines;

12 “(2) improve the understanding of windstorms
13 and their impacts on households, businesses, com-
14 munities, buildings, structures, and lifelines, through
15 interdisciplinary and multidisciplinary research that
16 involves engineering, natural sciences, and social
17 sciences; and

18 “(3) facilitate the adoption of windstorm risk
19 reduction measures by households, businesses, com-
20 munities, local, State and Federal governments, na-
21 tional standards and model building code organiza-
22 tions, architects and engineers, building owners, and
23 others with a role in planning for disasters and plan-
24 ning, constructing, retrofitting, and insuring build-
25 ings, structures, and lifelines through—

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1 “(A) grants, contracts, cooperative agree-
2 ments, and technical assistance;

3 “(B) development of hazard maps, stand-
4 ards, guidelines, voluntary consensus standards,
5 and other design guidance for windstorm risk
6 reduction for buildings, structures, and lifelines;

7 “(C) outreach and information dissemina-
8 tion to communities on site specific windstorm
9 hazards and ways to reduce the risks from
10 those hazards; and

11 “(D) development and maintenance of a
12 repository of information, including technical
13 data, on windstorm hazards and risk reduction;

14 “(e) RESPONSIBILITIES OF PROGRAM AGENCIES.—

15 “(1) LEAD AGENCY.—The National Institute of
16 Standards and Technology (in this section referred
17 to as the ‘Institute’) shall be responsible for plan-
18 ning and coordinating the Program. In carrying out
19 this paragraph, the Director of the Institute shall—

20 “(A) ensure that the Program includes the
21 necessary components to promote the imple-
22 mentation of windstorm risk reduction meas-
23 ures by households, businesses, communities,
24 local, State, and Federal governments, national
25 standards and model building code organiza-

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1 tions, architects and engineers, building owners,
2 and others with a role in planning and pre-
3 paring for disasters, and planning constructing,
4 and retrofitting, and insuring buildings, struc-
5 tures, and lifelines;

6 “(B) support the development of perform-
7 ance-based engineering tools, and work with the
8 appropriate groups to promote the commercial
9 application of such tools, through wind-related
10 building codes, standards, and construction
11 practices;

12 “(C) ensure the use of social science re-
13 search and findings in informing the develop-
14 ment of technology and research priorities, in
15 communicating windstorm risks to the public,
16 in developing windstorm risk mitigation strate-
17 gies, and in preparing for windstorm disasters;

18 “(D) coordinate all Federal post-windstorm
19 investigations; and

20 “(E) when warranted by research or inves-
21 tigative findings, issue recommendations for
22 changes in model codes to the relevant code de-
23 velopment organizations, and report back to
24 Congress on whether such recommendations
25 were adopted.

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1 “(2) NATIONAL INSTITUTE OF STANDARDS AND
2 TECHNOLOGY.—In addition to the lead agency re-
3 sponsibilities described under paragraph (1), the In-
4 stitute shall be responsible for carrying out research
5 and development to improve model codes, standards,
6 design guidance and practices for the construction
7 and retrofit of buildings, structures, and lifelines. In
8 carrying out this paragraph, the Director of the In-
9 stitute shall—

10 “(A) support the development of instru-
11 mentation, data processing, and archival capa-
12 bilities, and standards for the instrumentation
13 and its deployment, to measure wind, wind
14 loading, and other properties of severe wind and
15 structure response;

16 “(B) coordinate with other appropriate
17 Federal agencies to make the data described in
18 subparagraph (A) available to researchers,
19 standards and code developers, and local plan-
20 ners;

21 “(C) support the development of tools and
22 methods for the collection of data on the loss of
23 and damage to structures, and data on sur-
24 viving structures after severe windstorm events;

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1 “(D) improve the knowledge of the impact
2 of severe wind on buildings, structures, lifelines,
3 and communities;

4 “(E) develop cost-effective windstorm im-
5 pact reduction tools, methods, and technologies;

6 “(F) work, in conjunction with other ap-
7 propriate Federal agencies, to support the de-
8 velopment of wind standards and model codes;
9 and

10 “(G) in conjunction with other appropriate
11 Federal agencies, work closely with standards
12 and model code development organizations, pro-
13 fessional societies, and practicing engineers, ar-
14 chitects, and others involved in the construction
15 of buildings, structures, and lifelines, to pro-
16 mote better building practices, including by—

17 “(i) supporting the development of
18 technical resources for practitioners to im-
19 plement new knowledge; and

20 “(ii) supporting the development of
21 methods and tools to incorporate wind en-
22 gineering principles into design and con-
23 struction practices.

24 “(3) FEDERAL EMERGENCY MANAGEMENT
25 AGENCY.—The Federal Emergency Management

1 Agency, consistent with the Agency's all hazards ap-
2 proach, shall support the development of risk assess-
3 ment tools and effective mitigation techniques, assist
4 with windstorm-related data collection and analysis,
5 and support outreach, information dissemination,
6 and implementation of windstorm preparedness and
7 mitigation measures by households, businesses, and
8 communities, including by—

9 “(A) working to develop or improve risk-
10 assessment tools, methods, and models;

11 “(B) work closely with other appropriate
12 Federal agencies to develop and facilitate the
13 adoption of windstorm impact reduction meas-
14 ures, including by—

15 “(i) developing cost-effective retrofit
16 measures for existing buildings, structures,
17 and lifelines to improve windstorm per-
18 formance;

19 “(ii) developing methods, tools, and
20 technologies to improve the planning, de-
21 sign, and construction of new buildings,
22 structures, and lifelines;

23 “(iii) supporting the development of
24 model wind codes and standards for build-
25 ings, structures, and lifelines; and

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1 “(iv) developing technical resources
2 for practitioners that reflect new knowl-
3 edge and standards of practice; and

4 “(C) develop and disseminate guidelines
5 for the construction of windstorm shelters.

6 Nothing in this Act shall be construed to diminish
7 the role and responsibility of the Federal Emergency
8 Management Agency with regard to all hazards pre-
9 paredness, response, recovery, and mitigation.

10 “(4) NATIONAL OCEANIC AND ATMOSPHERIC
11 ADMINISTRATION.—The National Oceanic and At-
12 mospheric Administration shall support atmospheric
13 sciences research and data collection to improve the
14 understanding of the behavior of windstorms and
15 their impact on buildings, structures, and lifelines,
16 including by—

17 “(A) working with other appropriate Fed-
18 eral agencies to develop and deploy instrumen-
19 tation to measure speed and other characteris-
20 tics of wind, and to collect, analyze, and make
21 available such data;

22 “(B) working with officials of State and
23 local governments to ensure that they are
24 knowledgeable about, and prepared for, the spe-
25 cific windstorm risks in their area;

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1 “(C) supporting the development of suit-
2 able wind speed maps and other derivative
3 products that support building codes and other
4 hazard mitigation approaches for buildings,
5 structures, and lifelines, and, to the extent pos-
6 sible, ensure that such maps and other deriva-
7 tive products are developed consistent with the
8 multihazard advisory maps authorized by sec-
9 tion 203(k) of the Robert T. Stafford Disaster
10 Relief and Emergency Assistance Act (42
11 U.S.C. 5133(k));

12 “(D) conducting a competitive, peer-re-
13 viewed process which awards grants and cooper-
14 ative agreements to complement the National
15 Oceanic and Atmospheric Administration’s
16 wind-related and storm surge-related research
17 and data collection activities;

18 “(E) working with other appropriate Fed-
19 eral agencies and State and local governments
20 to develop or improve risk-assessment tools,
21 methods, and models; and

22 “(F) working with other appropriate Fed-
23 eral agencies to develop storm surge models to
24 better understand the interaction between wind-
25 storms and bodies of water.

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1 “(5) NATIONAL SCIENCE FOUNDATION.—The
2 National Science Foundation shall be responsible for
3 funding basic research that furthers the under-
4 standing of windstorms, wind engineering, and com-
5 munity preparation and response to windstorms. In
6 carrying out this paragraph, the Director of the Na-
7 tional Science Foundation shall—

8 “(A) support multidisciplinary and inter-
9 disciplinary research that will improve the resil-
10 iency of communities to windstorms, includ-
11 ing—

12 “(i) research that improves the safety
13 and performance of buildings, structures,
14 and lifelines;

15 “(ii) research to support more effec-
16 tive windstorm mitigation and response
17 measures, such as developing better knowl-
18 edge of the specific types of vulnerabilities
19 faced by segments of the community vul-
20 nerable to windstorms, addressing the bar-
21 riers they face in adopting mitigation and
22 preparation measures, and developing
23 methods to better communicate the risks of
24 windstorms and to promote mitigation; and

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1 “(iii) research on the response of com-
2 munities to windstorms, including on the
3 effectiveness of the emergency response,
4 and the recovery process of communities,
5 households, and businesses;
6 “(B) support research to understand wind-
7 storm processes, windstorm patterns, and wind-
8 storm frequencies;
9 “(C) encourage prompt dissemination of
10 significant findings, sharing of data, samples,
11 physical collections, and other supporting mate-
12 rials, and development of intellectual property
13 so research results can be used by appropriate
14 organizations to mitigate windstorm damage;
15 “(D) work with other Program agencies to
16 maintain awareness of, and where appropriate
17 cooperate with, windstorm risk reduction re-
18 search efforts in other countries, to ensure that
19 the Program benefits from relevant information
20 and advances in those countries; and
21 “(E) include to the maximum extent prac-
22 ticable diverse institutions, including Histori-
23 cally Black Colleges and Universities, Hispanic-
24 serving institutions, Tribal Colleges and Univer-

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1 sities, Alaska Native-serving institutions, and
2 Native Hawaiian-serving institutions.”.

3 **SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

4 Section 207 of the National Windstorm Impact Re-
5 duction Program of 2004 (42 U.S.C. 15706) is amended
6 to read as follows:

7 **“SEC. 207. AUTHORIZATION OF APPROPRIATIONS.**

8 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
9 CY.—There are authorized to be appropriated to the Fed-
10 eral Emergency Management Agency for carrying out this
11 title—

12 “(1) \$9,682,000 for fiscal year 2011;

13 “(2) \$9,972,500 for fiscal year 2012;

14 “(3) \$10,271,600 for fiscal year 2013;

15 “(4) \$10,579,800 for fiscal year 2014; and

16 “(5) \$10,897,200 for fiscal year 2015.

17 “(b) NATIONAL SCIENCE FOUNDATION.—There are
18 authorized to be appropriated to the National Science
19 Foundation for carrying out this title—

20 “(1) \$9,682,000 for fiscal year 2011;

21 “(2) \$9,972,500 for fiscal year 2012;

22 “(3) \$10,271,600 for fiscal year 2013;

23 “(4) \$10,579,800 for fiscal year 2014; and

24 “(5) \$10,897,200 for fiscal year 2015.

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1 “(e) NATIONAL INSTITUTE OF STANDARDS AND
2 TECHNOLOGY.—There are authorized to be appropriated
3 to the National Institute of Standards and Technology for
4 carrying out this title—

5 “(1) \$4,120,000 for fiscal year 2011;

6 “(2) \$5,300,000 for fiscal year 2012;

7 “(3) \$5,460,000 for fiscal year 2013;

8 “(4) \$5,620,000 for fiscal year 2014; and

9 “(5) \$5,790,000 for fiscal year 2015.

10 “(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
11 STRATION.—There are authorized to be appropriated to
12 the National Oceanic and Atmospheric Administration for
13 carrying out this title—

14 “(1) \$2,266,000 for fiscal year 2011;

15 “(2) \$2,700,000 for fiscal year 2012;

16 “(3) \$2,780,000 for fiscal year 2013;

17 “(4) \$2,860,000 for fiscal year 2014; and

18 “(5) \$2,950,000 for fiscal year 2015.”.

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1 **TITLE III—INTERAGENCY CO-**
2 **ORDINATING COMMITTEE ON**
3 **NATURAL HAZARDS RISK RE-**
4 **DUCTION**

5 **SEC. 301. INTERAGENCY COORDINATING COMMITTEE ON**
6 **NATURAL HAZARDS RISK REDUCTION.**

7 (a) IN GENERAL.—There is established an Inter-
8 agency Coordinating Committee on Natural Hazards Risk
9 Reduction, chaired by the Director of the National Insti-
10 tute of Standards and Technology.

11 (1) MEMBERSHIP.—In addition to the chair,
12 the Committee shall be composed of—

13 (A) the directors of—

14 (i) the Federal Emergency Manage-
15 ment Agency;

16 (ii) the United State Geological Sur-
17 vey;

18 (iii) the National Oceanic and Atmos-
19 pheric Administration;

20 (iv) the National Science Foundation;

21 (v) the Office of Science and Tech-
22 nology Policy; and

23 (vi) the Office of Management and
24 Budget; and

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1 (B) the head of any other Federal agency
2 the Committee considers appropriate.

3 (2) MEETINGS.—The Committee shall not meet
4 less than 2 times a year at the call of the Director
5 of the National Institute of Standards and Tech-
6 nology.

7 (3) GENERAL PURPOSE AND DUTIES.—The
8 Committee shall oversee the planning and coordina-
9 tion of the National Earthquake Hazards Reduction
10 Program and the National Windstorm Impact Re-
11 duction Program, and shall make proposals for plan-
12 ning and coordination of any other Federal research
13 for natural hazard mitigation that the Committee
14 considers appropriate.

15 (4) STRATEGIC PLANS.—The Committee shall
16 develop and submit to Congress, not later than one
17 year after the date of enactment of this Act—

18 (A) a Strategic Plan for the National
19 Earthquake Hazards Reduction Program that
20 includes—

21 (i) prioritized goals for such Program
22 that will mitigate against the loss of life
23 and property from future earthquakes;

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- 1 (ii) short-term, mid-term, and long-
2 term research objectives to achieve those
3 goals;
- 4 (iii) a description of the role of each
5 Program agency in achieving the
6 prioritized goals;
- 7 (iv) the methods by which progress to-
8 wards the goals will be assessed;
- 9 (v) an explanation of how the Pro-
10 gram will foster the transfer of research
11 results onto outcomes, such as improved
12 building codes;
- 13 (vi) a description of the role of social
14 science in informing the development of
15 the prioritized goals and research objec-
16 tives; and
- 17 (vii) a description of how the George
18 E. Brown, Jr. Network for Earthquake
19 Engineering Simulation and the Advanced
20 National Seismic Research and Monitoring
21 System will be used in achieving the
22 prioritized goals and research objectives;
23 and

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- 1 (B) a Strategic Plan for the National
2 Windstorm Impact Reduction Program that in-
3 cludes—
- 4 (i) prioritized goals for such Program
5 that will mitigate against the loss of life
6 and property from future windstorms;
 - 7 (ii) short-term, mid-term, and long-
8 term research objectives to achieve those
9 goals;
 - 10 (iii) a description of the role of each
11 Program agency in achieving the
12 prioritized goals;
 - 13 (iv) the methods by which progress to-
14 wards the goals will be assessed;
 - 15 (v) an explanation of how the Pro-
16 gram will foster the transfer of research
17 results onto outcomes, such as improved
18 building codes; and
 - 19 (vi) a description of the role of social
20 science in informing the development of
21 the prioritized goals and research objec-
22 tives.
- 23 (5) PROGRESS REPORTS.—Not later than one
24 year after the date of enactment of this Act, and at

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1 least once every two years thereafter, the Committee
2 shall submit to the Congress—

3 (A) a report on the progress of the Na-
4 tional Earthquake Hazards Reduction Program
5 that includes—

6 (i) a description of the activities fund-
7 ed for the previous two years of the Pro-
8 gram, a description of how these activities
9 align with the prioritized goals and re-
10 search objectives established in the Stra-
11 tegic Plan, and the budgets, per agency,
12 for these activities;

13 (ii) the outcomes achieved by the Pro-
14 gram for each of the goals identified in the
15 Strategic Plan;

16 (iii) a description of any recommenda-
17 tions made to change existing building
18 codes that were the result of Program ac-
19 tivities; and

20 (iv) a description of the extent to
21 which the Program has incorporated rec-
22 ommendations from the Advisory Com-
23 mittee on Earthquake Hazards Reduction;
24 and

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1 (B) a report on the progress of the Na-
2 tional Windstorm Impact Reduction Program
3 that includes—

4 (i) a description of the activities fund-
5 ed for the previous two years of the Pro-
6 gram, a description of how these activities
7 align with the prioritized goals and re-
8 search objectives established in the Stra-
9 tegic Plan, and the budgets, per agency,
10 for these activities;

11 (ii) the outcomes achieved by the Pro-
12 gram for each of the goals identified in the
13 Strategic Plan;

14 (iii) a description of any recommenda-
15 tions made to change existing building
16 codes that were the result of Program ac-
17 tivities; and

18 (iv) a description of the extent to
19 which the Program has incorporated rec-
20 ommendations from the Advisory Com-
21 mittee on Windstorm Impact Reduction.

22 (6) COORDINATED BUDGET.—The Committee
23 shall develop a coordinated budget for the National
24 Earthquake Hazards Reduction Program and a co-
25 ordinated budget for the National Windstorm Im-

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1 pact Reduction Program. These budgets shall be
2 submitted to the Congress at the time of the Presi-
3 dent's budget submission for each fiscal year.

4 (b) ADVISORY COMMITTEES ON NATURAL HAZARDS
5 REDUCTION.—

6 (1) IN GENERAL.—The Director of the National
7 Institute of Standards and Technology shall estab-
8 lish an Advisory Committee on Earthquake Hazards
9 Reduction, an Advisory Committee on Windstorm
10 Impact Reduction, and other such advisory commit-
11 tees as the Director considers necessary to advise
12 the Institute on research, development, and tech-
13 nology transfer activities to mitigate the impact of
14 natural disasters.

15 (2) ADVISORY COMMITTEE ON EARTHQUAKE
16 HAZARDS REDUCTION.—The Advisory Committee on
17 Earthquake Hazards Reduction shall be composed of
18 at least 11 members, none of whom may be employ-
19 ees of the Federal Government, including represent-
20 atives of research and academic institutions, indus-
21 try standards development organizations, emergency
22 management agencies, State and local government,
23 and business communities who are qualified to pro-
24 vide advice on earthquake hazards reduction and
25 represent all related scientific, architectural, and en-

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1 gineering disciplines. The recommendations of the
2 Advisory Committee shall be considered by Federal
3 agencies in implementing the National Earthquake
4 Hazards Reduction Program.

5 (3) ADVISORY COMMITTEE ON WINDSTORM IM-
6 PACT REDUCTION.—The Advisory Committee on
7 Windstorm Impact Reduction shall be composed of
8 at least 7 members, none of whom may be employees
9 of the Federal Government, including representa-
10 tives of research and academic institutions, industry
11 standards development organizations, emergency
12 management agencies, State and local government,
13 and business communities who are qualified to pro-
14 vide advice on windstorm impact reduction and rep-
15 resent all related scientific, architectural, and engi-
16 neering disciplines. The recommendations of the Ad-
17 visory Committee shall be considered by Federal
18 agencies in implementing the National Windstorm
19 Impact Reduction Program.

20 (4) ASSESSMENTS.—The Advisory Committee
21 on Earthquake Hazards Reduction and the Advisory
22 Committee on Windstorm Impact Reduction shall
23 offer assessments on—

24 (A) trends and developments in the nat-
25 ural, social, and engineering sciences and prac-

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1 tices of earthquake hazards or windstorm im-
2 pact mitigation;

3 (B) the priorities of the Programs' Stra-
4 tegic Plans;

5 (C) the coordination of the Programs; and

6 (D) and any revisions to the Programs
7 which may be necessary.

8 (5) REPORTS.—At least every two years, the
9 Advisory Committees shall report to the Director of
10 the National Institute of Standards and Technology
11 on the assessments carried out under paragraph (4)
12 and their recommendations for ways to improve the
13 Programs. In developing recommendations for the
14 National Earthquake Hazards Reduction Program,
15 the Advisory Committee on Earthquake Hazards Re-
16 duction shall consider the recommendations of the
17 United States Geological Survey Scientific Earth-
18 quake Studies Advisory Committee.

19 (c) COORDINATION OF FEDERAL DISASTER RE-
20 SEARCH, DEVELOPMENT, AND TECHNOLOGY TRANS-
21 FER.—Not later than 2 years after the date of enactment
22 of this Act, the Subcommittee on Disaster Reduction of
23 the Committee on Environment and Natural Resources of
24 the National Science and Technology Council shall submit
25 a report to the Congress identifying—

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1 (1) current Federal research, development, and
 2 technology transfer activities that address hazard
 3 mitigation for natural disasters, including earth-
 4 quakes, hurricanes, tornados, wildfires, floods, and
 5 the current budgets for these activities;

6 (2) areas of research that are common to two
 7 or more of the hazards identified in paragraph (1);
 8 and

9 (3) opportunities to create synergies between
 10 the research activities for the hazards identified in
 11 paragraph (1).

12 **TITLE IV—NATIONAL CON-**
 13 **STRUCTION SAFETY TEAM**
 14 **ACT AMENDMENTS**

15 **SEC. 401. NATIONAL CONSTRUCTION SAFETY TEAM ACT**
 16 **AMENDMENTS.**

17 The National Construction Safety Team Act (15
 18 U.S.C. 7301 et seq.) is amended—

19 (1) in section 2(a)—

20 (A) by striking “a building or buildings”
 21 and inserting “a building, buildings, or infra-
 22 structure”; and

23 (B) by striking “To the maximum extent
 24 practicable, the Director shall establish and de-
 25 ploy a Team within 48 hours after such an

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- 1 event.” and inserting “The Director shall make
2 a decision whether to deploy a Team within 72
3 hours after such an event.”;
- 4 (2) in section 2(b)(1), by striking “buildings”
5 and inserting “buildings or infrastructure”;
- 6 (3) in section 2(b)(2)(A), by striking “building”
7 and inserting “building or infrastructure”;
- 8 (4) in section 2(b)(2)(D), by striking “build-
9 ings” and inserting “buildings or infrastructure”;
- 10 (5) in section 2(c)(1), by striking “the United
11 States Fire Administration and”;
- 12 (6) in section 2(c)(1)(G), by striking “building”
13 and inserting “building or infrastructure”;
- 14 (7) in section 2(c)(1)(J)—
15 (A) by striking “building” and inserting
16 “building or infrastructure”; and
17 (B) by inserting “and the National Wind-
18 storm Impact Reduction Act of 2004” after
19 “Act of 1977”;
- 20 (8) in section 4(a), by striking “investigating a
21 building” and inserting “investigating building and
22 infrastructure”;
- 23 (9) in section 4(a)(1)—
24 (A) by striking “a building” and inserting
25 “a building or infrastructure”; and

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1 (B) by striking “building” both of the
2 other places it appears and inserting “building
3 or infrastructure”;

4 (10) in section 4(a)(3), by striking “building”
5 both places it appears and inserting “building or in-
6 frastructure”;

7 (11) in section 4(b), by striking “building” both
8 places it appears and inserting “building or infra-
9 structure”;

10 (12) in section 4(c)(1) and (2), by striking
11 “building” both places it appears and inserting
12 “building or infrastructure”;

13 (13) by amending section 4(d)(1) to read as fol-
14 lows:

15 “(1) IN GENERAL.—Except as otherwise pro-
16 vided in this subsection, a Team investigation shall
17 have priority over any other investigation which is
18 related to the purpose and duties set forth in section
19 2(b) and undertaken by any other Federal agency.”;

20 (14) in section 4(d)(3) and (4), by striking
21 “building” both places it appears and inserting
22 “building or infrastructure”;

23 (15) in section 4, by adding at the end the fol-
24 lowing new paragraph:

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1 “(5) INFRASTRUCTURE INVESTIGATIONS.—With
2 respect to an investigation relating to an infrastruc-
3 ture failure, a Federal agency with primary jurisdic-
4 tion over the failed infrastructure which is con-
5 ducting an investigation and asserts priority over the
6 Team investigation shall have such priority. Such
7 priority shall not otherwise affect the authority of
8 the Team to continue its investigation under this
9 Act.”;

10 (16) in section 7(a), by striking “on request
11 and at reasonable cost”;

12 (17) in section 7(c), by striking “building” and
13 inserting “building or infrastructure”;

14 (18) in section 8(1) and (4), by striking “build-
15 ing” both places it appears and inserting “building
16 or infrastructure”;

17 (19) in section 9, by striking “the United
18 States Fire Administration and”;

19 (20) in section 9(2)(C), by striking “building”
20 and inserting “building or infrastructure”;

21 (21) in section 10(3), by striking “building”
22 and inserting “building and infrastructure”;

23 (22) in section 11(a), by striking “the United
24 States Fire Administration and”; and

25 (23) by striking section 12.

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1 **TITLE V—FIRE RESEARCH**
2 **PROGRAM**

3 **SEC. 501. FIRE RESEARCH PROGRAM.**

4 Section 16(a)(1) of the National Institute of Stand-
5 ards and Technology Act (15 U.S.C. 278f(a)(1)) is
6 amended—

7 (1) in subparagraph (D), by inserting “fires at
8 the wildland-urban interface,” after “but not limited
9 to,”; and

10 (2) in subparagraph (E), by inserting “fires at
11 the wildland-urban interface,” after “types of fires,
12 including”.



**AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MRS. BIGGERT OF ILLINOIS**

Page 3, lines 8 through 14, amend subparagraph
(B) to read as follows:

- 1 (B) in paragraph (2)—
- 2 (i) by amending subparagraph (A) to
- 3 read as follows:
- 4 “(A) research and develop effective meth-
- 5 ods, tools, and technologies to reduce the risk
- 6 posed by earthquakes to the built environment,
- 7 especially to lessen the risk to existing struc-
- 8 tures and lifelines.”;
- 9 (ii) in subparagraph (B), by inserting
- 10 “and retrofitting” after “planning and
- 11 constructing”;
- 12 (iii) by striking “and” at the end of
- 13 subparagraph (C);
- 14 (iv) in subparagraph (D), by striking
- 15 the period at the end and inserting “, as
- 16 appropriate; and”; and
- 17 (v) by adding at the end the following
- 18 new subparagraph:

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2

1 “(E) support public education and out-
 2 reach to assist in preparing for and responding
 3 to earthquake-related disasters.”; and

Page 6, strike “and” at the end of line 11.

Page 6, line 12, redesignate subparagraph (C) as
 subparagraph (D).

Page 6, after line 11, insert the following new sub-
 paragraph:

4 (C) in paragraph (4)(D), by striking “of
 5 the George” and all that follows through “Re-
 6 duction Program” and inserting “of institutions
 7 engaged in research and the implementation of
 8 the National Earthquake Hazards Reduction
 9 Program, which may include the George E.
 10 Brown Jr. Network for Earthquake Engineer-
 11 ing Simulation”; and

Page 7, lines 23 and 24, strike “natural and engi-
 neering sciences” and insert “natural, social, and engi-
 neering sciences”.

Page 8, lines 15 through 21, strike paragraph (5).

Page 8, line 22, redesignate paragraph (6) as para-
 graph (5).

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Page 8, lines 23 and 24, strike “on September 30, 2014” and insert “not later than 5 years after the date of enactment of the Natural Hazards Risk Reduction Act of 2011”.

Page 14, line 1, insert “and data collection” after “atmospheric sciences research”.

Page 15, lines 12 and 13, strike “natural and engineering sciences” and insert “natural, social, and engineering sciences”.

Page 16, lines 3 through 8, strike subsection (c).

Page 16, line 9, redesignate subsection (f) as subsection (e).

Page 16, line 10, strike “on September 30, 2014” and insert “not later than 5 years after the date of enactment of the Natural Hazards Risk Reduction Act of 2011”.

Page 18, line 17, strike “2 times” and insert “1 time”.

Page 19, line 18, strike “and”.

Page 19, after line 24, insert the following new subparagraph:

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4

1 (G) an explanation of how the Program
2 will coordinate its activities with other Federal
3 agencies performing activities relevant to the
4 Program; and

Page 20, line 11, strike “and”.

Page 20, line 15, strike the period and insert “;
and”.

Page 20, after line 15, insert the following new sub-
paragraph:

5 (F) an explanation of how the Program
6 will coordinate its activities with other Federal
7 agencies performing activities relevant to the
8 Program.

Page 23, lines 8 through 17, amend paragraph (4)
to read as follows:

9 (4) the status of coordination of Federal dis-
10 aster research, development, and technology transfer
11 activities including those of the National Earthquake
12 Hazards Reduction Program and the National
13 Windstorm Impact Reduction Program.

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**AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MR. HALL OF TEXAS**

Page 5, line 4, insert "and" after the semicolon.

Page 5, lines 5 and 6, strike subparagraph (E).

Page 5, line 7, redesignate subparagraph (F) as subparagraph (E).

Page 9, lines 7 through 15, amend section 104 to read as follows:

1 SEC. 104. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.

2 Section 11 of the Earthquake Hazards Reduction Act
3 of 1977 (42 U.S.C. 7705e) is amended by inserting "and
4 utilizing the coordination expertise of the lead Program
5 agency" after "consultation with each Program agency".

Page 10, lines 6, 7, and 8, strike "\$54,200,000"
and insert "\$57,700,000".

Page 10, lines 19, 20, and 21, strike "\$7,500,000"
and insert "\$4,100,000".



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**AMENDMENT TO THE COMMITTEE PRINT
OFFERED BY MR. LIPINSKI OF ILLINOIS**

Page 14, line 13, strike “and”.

Page 14, line 14, redesignate paragraph (3) as paragraph (4).

Page 14, after line 13, insert the following new paragraph:

1 (3) in subsection (c), as so redesignated by
2 paragraph (2) of this section, amend paragraph
3 (4)(A) to read as follows:
4 “(A) development of improved outreach
5 and implementation mechanisms to translate—
6 “(i) existing information and research
7 findings into cost-effective and affordable
8 practices for design and construction pro-
9 fessionals, and State and local officials;
10 and
11 “(ii) research, including social science
12 research, into windstorm risk mitigation
13 and preparedness strategies for individuals,
14 households, and businesses;” and

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AMENDMENT TO THE COMMITTEE PRINT**OFFERED BY** Mr. Lujan

Add at the end the following new title:

1 TITLE IV—FIRE RESEARCH
2 PROGRAM**3 SEC. 401. FIRE RESEARCH PROGRAM.**

4 Section 16(a)(1) of the National Institute of Stand-
5 ards and Technology Act (15 U.S.C. 278f(a)(1)) is
6 amended—

7 (1) in subparagraph (D), by inserting “fires at
8 the wildland-urban interface,” after “but not limited
9 to,”; and

10 (2) in subparagraph (E), by inserting “fires at
11 the wildland-urban interface,” after “types of fires,
12 including”.



AMENDMENT ROSTER

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
 Subcommittee on Technology and Innovation Markup
 November 15, 2011

AMENDMENT ROSTER

Committee Print, the "Natural Hazards Risk Reduction Act of 2011"

No.	Amendment	Summary	Results
1	Ms. Edwards Amendment in the Nature of A Substitute (001)	Complete substitute of the Committee Print. Amends two statutes not currently amended by the Committee Print; Includes numerous new findings; Amends current law to expand earthquake and wind activities of the agencies; Authorizes the programs until FY 2015 (5 year authorization) at higher authorization levels and increases the funding each fiscal year for a total increase of \$618 million when compared with the Committee Print.	Not Agreed To by a Vote of 3 Ayes and 10 Noes
2	Ms. Biggert (045)	Adds supporting "public outreach and education" to the activities of the NEHRP program; eliminates mandatory use of the George E Brown Jr. Network for Earthquake Engineering Simulation; requires NEHRP and NWIRP advisory board termination after five years; requires both advisory boards to assess trends in development in "social sciences" as well as "natural and engineering sciences"; adds language to ensure coordination of activities within the Federal government; makes various technical changes	Agreed To By Voice Vote
3	Mr. Hall (011)	Removes the change of leadership and funding for post-earthquake investigations proposed in the Committee Print (returns the current leadership responsibility and funding to USGS) while also requiring USGS to utilize the coordination expertise of NEHRP's overall lead agency (NIST) when conducting such investigations	Agreed To By Voice Vote
4	Mr. Lipinski (036)	Amends the overall program activities to reduce windstorm impacts to include the development of improved outreach and implementation mechanisms through "research, including social science research" into windstorm risk mitigation and preparedness	Agreed To By Voice Vote
5	Mr. Lujan (003)	Amends the National Institute of Standards and Technology Act to allow research into fires "at the wildland-urban interface"	Withdrawn

XXIII. PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 3479, NATURAL HAZARDS RISK REDUCTION ACT OF 2011

THURSDAY, DECEMBER 1, 2011

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY,
WASHINGTON, DC.

The Committee met, pursuant to call, at 10:05 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Ralph Hall [Chairman of the Committee] presiding.

Chairman HALL. Good morning. The Committee on Science, Space, and Technology will come to order.

Pursuant to notice, the Committee on Science, Space, and Technology meets today to consider the following measure: H.R. 3479, the Natural Hazards Risk Reduction Act of 2011, and that is an important announcement.

I have a more important announcement to make, and that is that the Ranking Member of this Committee has a birthday today, and I have known her a long, long time and I know now that she is old enough to vote. I have an 18-year-old granddaughter that warned me last week, Papa, you better be better to me, I am old enough to vote now, so I will have to be better to you if you are up to voting age, Eddie. Happy birthday to you. You are a wonderful person and we wish you a good birthday and many, many more.

Pursuant to Committee Rule 6d and House Rule 11(2)(h)(4), House announces that he may postpone further proceedings today on any question approving any measure or matter adopting an amendment on which a recorded vote of the yeas or nays are ordered. It is the Chair's intention to provide reasonable notice prior to the commencement of rolled votes. Any rolled votes will start around noon, and that is about the time we ought to be winding up here. Let us proceed with the markup beginning with opening statements. I will begin.

All right. I am pleased to call the markup this morning for consideration of H.R. 3479, the Natural Hazards Risk Reduction Act of 2011. The bill we are considering today will reauthorize the activities of the National Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program. Both programs are targeted federal research and development efforts to mitigate the loss of life and property due to earthquake and wind-related hazards.

Over the years, the National Earthquake Hazards Reduction Program has been instrumental in developing and advancing earthquake knowledge and raising awareness of earthquake hazards. The National Windstorm Impact Reduction Program has supported activities to improve the understanding of windstorms and their impacts, while developing and encouraging the implementation of cost-effective mitigation measures.

I want to thank Representatives Biggert and Neugebauer for collaborating on this effort, as well as my fellow cosponsors Representatives Smith and Palazzo. We want to truly aid our agencies and instruct them to do that which we expect them to do, and what their needs are this year probably is different than what their needs were last year or ten years ago or two years ago. We are in a different day and time, and the test last year or in the 1980s or 1990s or most of this session is that we be careful as we add on to these bills, the cost of the bills. We expect the people that are going to have to carry this out to be pleased and work hard with what we are able to give them.

[The prepared statement of Mr. Hall follows:]

PREPARED STATEMENT OF CHAIRMAN RALPH HALL

I am pleased to call the markup this morning for consideration of H.R. 3479, the *Natural Hazards Risk Reduction Act of 2011*.

The bill we are considering today will reauthorize the activities of the National Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program. Both programs are targeted federal research and development efforts to mitigate the loss of life and property due to earthquake and wind related hazards.

Over the years, the National Earthquake Hazards Reduction Program has been instrumental in developing and advancing earthquake knowledge and raising awareness of earthquake hazards. The National Windstorm Impact Reduction Program has supported activities to improve the understanding of windstorms and their impacts, while developing and encouraging the implementation of cost-effective mitigation measures.

I want to thank Representatives Biggert and Neugebauer for collaborating on this effort, as well as my fellow co-sponsors Representatives Smith and Palazzo. I strongly support this measure and look forward to discussion of the proposed amendments. I yield the balance of my time.

Chairman HALL. I yield the balance of my time back, and at this time I recognize Mrs. Johnson for her five minutes.

Ms. JOHNSON. Thank you very much, Mr. Hall, and thank you for the recognition of this birthday that will get me closer to 80 than to 70.

Today, we are marking up H.R. 3479, the Natural Hazards Risk Reduction Act of 2011, and this bill reauthorizes two important programs: the National Earthquake Hazards Reduction Program, or the NEHRP, and the National Windstorm Impact Reduction Program, or the NWIRP.

It has been a devastating year of natural disasters in this country, and we have experienced one of the deadliest and most destructive tornado seasons in U.S. history. We have had earthquakes in areas that don't usually experience earthquakes, including Virginia and Oklahoma. And Hurricane Irene caused widespread destruction and death along the Eastern seaboard.

This Committee has an important role to play in helping Americans prepare for and recover from tornadoes and other natural disasters by facilitating the disaster resiliency of communities. By reauthorizing the earthquake and windstorm reduction programs, we can minimize the number of Americans who are harmed or killed by natural disasters or who have to face the challenge of putting their homes, businesses, and communities back together.

These programs both have proven track records in reducing the vulnerability of our communities to natural disasters. They support research and development to better understand earthquakes and

windstorms and their impacts. The results of this work have led to advancements in monitoring, the design and construction of infrastructure and critical lifelines, and public awareness and preparation for tornadoes, hurricanes, and earthquakes.

Today's bill includes good provisions that I believe are important and will make the programs more efficient and effective. For example, establishing NIST as the lead agency for both programs, improving the coordination of these programs with other federal agencies, and increasing transparency are all positive additions.

That being said, there is definitely room for improvement. As an authorizing committee, we require agencies to carry out specific activities and have an obligation to authorize the funding that we believe is needed by the agencies to effectively carry out all of what we have required of them. As authorizers, we must ask ourselves how much money an agency truly needs to do every single thing we have asked of it exceedingly well.

It is then the responsibility of the Appropriations Committee to weigh various priorities in the context of the current budgetary climate and determine what ultimately should be funded and at what level.

Unfortunately, the funding levels in this bill do not seem to align with our responsibilities as an authorizing committee. The bill reduces the authorization level for NEHRP by 36 percent and NWIRP by 14 percent when compared to the last year the programs were authorized. Further, it constrains both programs by providing flat authorizations that are six percent below current funding.

While some may claim that our budgetary situation has changed, the truth is that the need to improve the disaster resiliency of our communities has not. We don't have any reason to believe that these agencies need any less money to carry out these responsibilities than we determined was necessary last year, or the last time we authorized these programs. Yet the bill fails to take a single step to reduce or minimize the obligations of these agencies to justify a reduction in authorized funding. Without a corresponding reduction in responsibilities, we are doing nothing less than setting these agencies up to fail.

For these reasons, I believe that the authorization levels in this bill have missed the mark. This is especially true this year, when disasters have caused over \$45 billion in economic damage and cost hundreds of lives across this country, and we simply can't afford to have these agencies miss further opportunities to implement low-cost mitigation measures prior to the disasters. Studies have shown that for every dollar we invest in mitigation activities through FEMA's pre-disaster mitigation programs, we save \$3 to \$4 in recovery costs. In the end, strong and effective hazard reduction programs will not only save lives and property, but also provide us with meaningful cost savings.

Thank you, Mr. Chairman, and I yield back.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF RANKING MEMBER EDDIE BERNICE JOHNSON

Thank you, Chairman Hall. Today, we are marking up H.R. 3479, the Natural Hazards Risk Reduction Act of 2011. This bill reauthorizes two important pro-

grams—the National Earthquake Hazards Reduction Program-or NEHRP [knee-herp] and the National Windstorm Impact Reduction Program-or NWIRP [N-werp].

It has been a devastating year for natural disasters in this country. We've experienced the deadliest and most destructive tornado season in U.S. history. We've had earthquakes in areas that don't usually experience earthquakes, including Virginia and Oklahoma. And Hurricane Irene caused widespread destruction and death along the Eastern seaboard.

This Committee has an important role to play in helping Americans prepare for and recover from tornadoes and other natural disasters by facilitating the disaster resiliency of communities. By reauthorizing the earthquake and windstorm reduction programs, we can minimize the number of Americans who are harmed or killed by natural disasters or who have to face the challenge of putting their homes, businesses, and communities back together.

These programs both have proven track records in reducing the vulnerability of our communities to natural disasters. They support research and development to better understand earthquakes and windstorms and their impacts. The results of this work have led to advancements in monitoring, the design and construction of infrastructure and critical lifelines, and public awareness and preparation for tornadoes, hurricanes, and earthquakes.

Today's bill includes many good provisions that I believe are important and will make the programs more efficient and effective. For example, establishing NIST as the lead agency for both programs, improving the coordination of these programs with other federal agencies, and increasing transparency are all positive additions.

That being said, there is definitely room for improvement. As an authorizing committee, we require agencies to carry out specific activities and have an obligation to authorize the funding that we believe is needed by the agencies to effectively carry out all of what we have required of them. As authorizers, we must ask ourselves how much money an agency truly needs to do every single thing we have asked of it exceedingly well.

It is then the responsibility of the Appropriations Committee to weigh various priorities in the context of the current budgetary climate and determine what ultimately should be funded and at what level.

Unfortunately, the funding levels in this bill do not seem to align with our responsibilities as an authorizing committee. The bill reduces the authorization level for NEHRP by 36 percent and NWIRP by 14 percent when compared to the last year the programs were authorized. Furthermore, it constrains both programs by providing flat authorizations that are six percent below current spending.

While some may claim that our budgetary situation has changed, the truth is that the need to improve the disaster resiliency of our communities has not. We don't have any reason to believe that these agencies need any less money to carry out these responsibilities than we determined was necessary the last time we reauthorized these programs. Yet the bill fails to take a single step to reduce or minimize the obligations of these agencies to justify a reduction in authorized funding. Without a corresponding reduction in responsibilities, we are doing nothing less than setting these agencies up to fail.

For these reasons, I believe that the authorization levels in this bill have missed the mark. This is especially true this year, when disasters have caused over \$45 billion in economic damage and cost hundreds of lives across this country.

And we simply can't afford to have these agencies miss further opportunities to implement low-cost mitigation measures. Studies have shown that for every dollar we invest in mitigation activities through FEMA's pre-disaster mitigation program, we save \$3 to \$4 in recovery costs. In the end, strong and effective hazard reduction programs will not only save lives and property, but also provide us with meaningful cost savings.

Thank you, Chairman Hall. I yield back the balance of my time.

Chairman HALL. The gentlelady yields back.

Without objection, all Member statements can be placed in the record at this point.

We will now consider the bill, H.R. 3479, the Natural Hazards Risk Reduction Act of 2011, and I recognize the gentlelady from Illinois, Mrs. Biggert, to describe her bill. I recognize you, Mrs. Biggert.

Mrs. BIGGERT. Thank you, Mr. Chairman. I will start with the bill and then the amendment.

I want to thank you for scheduling today's markup. H.R. 3479, the Natural Hazards Risk Reduction Act of 2011, reauthorizes two important multi-agency programs that address natural hazards faced by millions of Americans. The bill will reauthorize two important programs that support research and development to better understand and prepare for earthquakes and windstorms.

The National Earthquake Hazard Reduction Program has been instrumental in developing and advancing earthquake knowledge, raising the awareness of both officials and the public to earthquake hazards and updating seismic building codes. As co-chair of the High Performance Building Caucus, I know how important NEHRP's data and monitoring information is to updating building codes and standards. The NEHRP program recently published the 2010 NEHRP recommended seismic provisions for new buildings and other structures and provided estimates on the fatality and economic losses anticipated from earthquakes across the Nation.

The bill includes bipartisan changes to the NEHRP program that improves its mission and reduces duplication. Changes include reauthorizing the program for three years, further detailing the role of NIST as the lead program agency of NEHRP and updating the existing advisory committee for NEHRP to offer recommendations and assessments on program developments, priorities and coordination.

The Natural Hazards Risk Reduction Act of 2011 also reauthorizes the National Windstorm Impact Reduction Program, a program that my colleague, Mr. Neugebauer, first championed in 2004. H.R. 3479 includes improvements to NWIRP—all these names are really hard acronyms, they don't make too much sense to me—but anyway, to strengthen the program including naming NIST as the lead program agency which will ensure improved coordination and planning of the agency activities and budget. A strong windstorm program can enable faster development and implementation of codes, standards and practices to mitigate windstorm damage, protect life and contain the ever-increasing costs of hurricanes, tornadoes and other severe windstorms. This research is particularly important due to the exceptionally destructive year that we had had for windstorms.

As demonstrated by these two programs, hazard mitigation is a responsibility shared by multiple federal agencies, and to better coordinate a multiple-hazard approach to national disasters across the government, H.R. 3479 creates a single interagency coordinating committee chaired by NIST charged with overseeing the planning and coordination of both earthquake and wind hazard programs. The single interagency coordinating committee replaces two separate interagency committees.

The American Geophysical Union, the American Society of Civil Engineers, the National Earthquake Hazards Risk Reduction Coalition and the National Council of Structural Engineers Associations have endorsed H.R. 3479, and I would urge Members to support this legislation.

Let me just say while we are talking, the Ranking Member talked about the authorization, we did change this to make it three years rather than the five years, and I think that the request was for \$900 million for five years, and this is a six percent reduction

for \$366 million for three years, 2012 through 2014. I wish that we could make it more, but in these economic times, I think we are very fortunate to be able to provide the authorization that we have now where many committees are not able to do this with programs. By making it three years, I would hope that we have the economic turnaround that perhaps there will be more in the future, but if we don't keep this where we don't have the money, we can't spend the money that we don't have. To be able to reauthorize this for the three years and proceed I think is better than having no authorization at all, which could happen if we don't pass this bill.

So with that, I would urge my colleagues to support this bill, and I yield back.

Chairman HALL. The gentlelady yields back.

Does anyone else care to comment on the bill for five minutes?

Okay. Without objection I ask unanimous consent that the bill is considered as read and open to amendment at any point and that Members proceed with amendments in the order listed on the roster. So ordered.

Chairman HALL. Are there any amendments to the bill? The first amendment on the roster is a Manager's Amendment offered by Mrs. Biggert. The clerk shall report the amendment.

The CLERK. Amendment number 048, amendment to H.R. 3479, offered by Mrs. Biggert of Illinois.

[The amendment appears in the Appendix:]

Chairman HALL. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

I recognize the gentlelady for five minutes to explain her amendment.

Mrs. BIGGERT. Thank you, Mr. Chairman.

The amendment before us makes a number of minor changes that strengthen the Natural Hazards Risk Reduction Act. Briefly, the Manager's Amendment includes the following provisions.

One, it updates NEHRP's progress report to include a description of the post-earthquake investigation activities carried out under the program in order to gather a better understanding of the current system of investigations organized by the United States Geological Survey. Second, it directs the National Science and Technology Council to report on the disaster research, development, and technology transfer activities of the national laboratories, which are complementary to the activities the bill authorizes under NEHRP and NWIRP programs. And third, it modifies the NEHRP strategy plan requirements regarding a description of how the George E. Brown, Jr. Network for Earthquake Engineering Simulation and Advanced National Seismic Research and Monitoring System, and I quote, "may be used" increasing flexibility and achieving the programmatic goals and research objectives.

I believe that the Manager's Amendment makes sound improvements to the bill, and I urge the adoption of the measure.

Chairman HALL. All right. I thank the gentlelady for the amendment. I support the amendment.

Is there further discussion on the amendment? All right. Hearing no further discussion, a vote occurs on the amendment offered by Mrs. Biggert. All in favor, say aye. Those opposed, say no. The ayes have it. The amendment is agreed to.

Other amendments? For what purpose does the gentleman seek recognition?

Mr. CLARKE. Thank you, Mr. Chair. I offer an amendment that would provide that the programs here up for reauthorization would include public education and outreach to different populations including and especially those individuals in households with special needs and that also any research for natural hazard preparedness would also include strategies to reach those and help those with special needs. This is similar to an approach that FEMA has taken to help certain populations, those that may be physically disabled, may have barriers, cultural barriers that prevent them from clearly understanding direction, whose proficiency in English may not be at a level to allow them to be prepared and to receive direction in case of an emergency.

So I would urge your support.

Chairman HALL. All right. This amendment is offered by the gentleman from Michigan, Mr. Clarke. The clerk will report the amendment.

The CLERK. Amendment number 050, amendment to H.R. 3479, offered by Mr. Clarke of Michigan.

[The amendment appears in the Appendix:]

Chairman HALL. All right. I want to thank the Member for this amendment. Is there further discussion on the amendment?

Mr. ROHRABACHER. Mr. Chairman.

Chairman HALL. The Chair recognizes the gentleman from California.

Mr. ROHRABACHER. I would like to ask Mr. Clarke a question for the record.

Chairman HALL. Without objection.

Mr. ROHRABACHER. You had suggested that this might help people who do not speak English enough, and this does not require, am I correct, your amendment does not require a bilingual and multilingual presentation by the agencies involved?

Mr. CLARKE. It does not expressly require this, correct.

Mr. ROHRABACHER. It says they may, and they could consider that a factor but they are not mandated to do this?

Mr. CLARKE. No. The language in this amendment does not mandate that. That is correct.

Mr. ROHRABACHER. Thank you very much.

Chairman HALL. The gentleman yields back.

Is there further discussion? Mrs. Johnson. I recognize Mrs. Johnson for five minutes.

Ms. JOHNSON. Thank you very much.

I support this amendment because it is clear from the evidence that a one-size-fits-all approach to hazard mitigation education and outreach is not sufficient to protect the most vulnerable members of our population. Most of us have elderly, disabled, chronically ill or otherwise vulnerable friends, relatives and constituents who live in areas that experience severe windstorms and earthquakes, and I am sure we want to be sure that our loved ones in our communities are saved during disasters.

As a former nurse, I understand too well how much more difficult it is for many people with special needs to duck and cover or to get to basements or do whatever it is they need to do to be

saved during this natural hazard. But they often have to rely on others who know best how to help them. But it is also about what everyone can do to prepare themselves in advance, for example, by having enough water, food, medication in their homes to get them through a week or more when supply lines are cut off. We do have now some warning through our systems that we put together through both NASA and EPA as well as the Weather Service to give us some warning but we need to alert people as to what they need to be doing during the time that we were anticipating.

So this amendment would simply ensure that all of the participating agencies take into account the unique needs of different vulnerable populations and ensure that research about how best to protect these populations in the event of an earthquake or wind-storm is incorporated into education and outreach efforts.

I thank you very much. I yield back.

Chairman HALL. The gentlelady yields back.

Are there further—Ms. Biggert, do you wish to be recognized?

Mrs. BIGGERT. Mr. Chairman.

Chairman HALL. The gentlelady from Illinois is recognized for five minutes.

Mrs. BIGGERT. Thank you, Mr. Chairman.

I understand the purpose of this amendment and I think it is very important that we make sure that all individuals have the education that is needed. My only concern is do we need to be that specific? Do we need to be that specific in the legislation itself? I know that we had asked whether report language would be enough with the legislative intent, because it just seems like when you say you are including one group and there might be—then people are saying well, I am left out and we are going to have a whole laundry list of various things. For example, what Mr. Rohrabacher said, are we going to have to put in languages, and the list would continue. Is this language that is used by FEMA and other bills? Do you know, or can you tell me why it is not enough just to have what is in the legislation as such now? And I yield to the gentleman.

Chairman HALL. Go ahead. She is yielding part of her time to you, Mr. Clarke. Your mic won't come on? Just talk a little louder.

Mr. CLARKE. So FEMA actually uses the term "special needs", and the reason why we use it is because it is broad enough to avoid that type of laundry listing that the gentlewoman would have a concern about.

Chairman HALL. Is there something that can be worked out if you withdraw this and work on report language? Are you willing to do that, Ms. Biggert?

Mrs. BIGGERT. I would be willing to do that but it is up to the—

Chairman HALL. It is not a bad amendment. It is a needed amendment. Can you all work out something here and now? You are at two disadvantages, though. One, you are a man and Ms. Biggert is a woman, and two, it is her bill.

Mr. CLARKE. Mr. Chair, I think it is so important that, you know, people who are disadvantaged right now do get the type of outreach that is necessary. I would rather proceed with the bill on a recorded vote.

Chairman HALL. All right. Does anyone else care to be heard on the bill?

Mr. ROHRABACHER. Mr. Chairman.

Chairman HALL. Mr. Rohrabacher, the gentleman from California.

Mr. ROHRABACHER. Respectfully disagreeing with my colleague, I think that this is an appropriate amendment, and quite frankly, we have seen this in many other bills and many other pieces of legislation over the years where we just want to remind the bureaucracy that, for example, there are sick and infirmed people out there who need some special consideration as well as others, mentally ill people and things like that, that may have to be taken care of during a time of disaster, and just mentioning that to make sure that they know, that the bureaucracy knows that we expect them to take care of everybody in these situations. I think that is very appropriate.

Mrs. BIGGERT. Will the gentleman yield?

Mr. ROHRABACHER. I certainly will.

Mrs. BIGGERT. Now, I have not made a recommendation here against it. My concern is that whether it is needed or not or it is limiting. I am more concerned whether it is limiting the concept, and if it is not, then I am fine with having it in the legislation. I just didn't want to be, you know, where we are including—

Chairman HALL. The gentleman's time has expired.

Ms. EDWARDS. Mr. Chairman.

Chairman HALL. Mr. Cravaack, I recognize you—who seeks recognition? Ms. Edwards, you, I recognize you for five minutes or more.

Ms. EDWARDS. No, Mr. Chairman, don't be too surprised. I wondered if it would help, though, to clarify. I do support the amendment, but to clarify for Ms. Biggert that in 2006 there was a Department of Homeland Security and Department of Transportation report that actually came to a conclusion based on inadequate response to Hurricane Katrina that substantial improvement is necessary to integrate people with disabilities in emergency planning and readiness, and then in 2007 FEMA issued a more strident guidance in its planning, and I think that that actually begs the question of whether as a Congress we need to actually be more directive of the agencies in terms of their response to these unique special-needs communities, and I think the language is actually consistent with that and consistent with the direction that the Departments of Homeland Security and Transportation and these agencies are going in any case.

Mrs. BIGGERT. Will the gentlelady yield?

Ms. EDWARDS. Yes.

Mrs. BIGGERT. With that, then I would support the amendment.

Ms. EDWARDS. Thank you.

Mrs. BIGGERT. Yield back.

Chairman HALL. The gentlelady yields back.

The gentleman from Minnesota, Mr. Cravaack, is recognized for five minutes.

Mr. CRAVAACK. Thank you, Mr. Chair, and if I could—I support the amendment, and I just have a question if my colleague, Mr. Clarke, could answer this question. Are the needs of special-needs

people right now, are they not being addressed under the current legislation or current intent of other programs? And I will yield.

Mr. CLARKE. My concern is in the event of a disaster, we want to make sure that the outreach and research is being conducted to reach out to people that need help.

Mr. CRAVAACK. And I share that concern as well, but is it not being addressed now? That was—I am trying to educate myself.

Ms. EDWARDS. Would the gentleman yield?

Mr. CRAVAACK. I will yield to Ms. Edwards.

Ms. EDWARDS. Thank you.

As I was just pointing out, the difficulty is that the needs in these communities actually haven't been met, and what I was suggesting before is that in fact that was recognized both by the Department of Homeland Security, Transportation and FEMA as an agency that they were not adequately meeting those needs, and it isn't spelled out in legislation. That is why they have had to come up over some time with some guidance but they don't really have any direction, and so the point of the amendment, as I understand from Mr. Clarke, is that it would give that directive, and then FEMA and DHS would have, you know, sort of much greater responsibility in terms of them and their accountability to us as to whether they are providing—meeting the special needs of these communities in the event of a disaster.

Mr. CRAVAACK. Thank you.

With that then, sir, I speak in favor of this amendment.

Chairman HALL. The gentleman yields back. It seems to me that the gentleman is in pretty good shape with his amendment.

Hearing no further discussion—is there further discussion? The vote occurs on the amendment. All in favor, say aye. Those opposed, say no. The ayes have it. The gentleman's amendment is agreed to.

Are there other amendments? And for what purpose does the gentleman seek recognition—the gentlelady?

Ms. LOFGREN. Mr. Chairman, I have an amendment that is on the docket.

Chairman HALL. The next amendment is offered by the gentlelady from California, Ms. Lofgren. Are you ready to proceed?

Ms. LOFGREN. I am ready to proceed.

Chairman HALL. Do you have an amendment at the desk?

Ms. LOFGREN. I do.

Chairman HALL. The clerk will report the amendment.

The CLERK. Amendment number 010, amendment to H.R. 3479 offered by Ms. Lofgren of California.

[The amendment appears in the Appendix:]

Ms. LOFGREN. I would ask unanimous consent that the amendment be considered as read.

Chairman HALL. Without objection, so ordered.

Ms. LOFGREN. Mr. Chairman, this amendment implements the 2008 Natural Earthquake Hazard Reduction Program Advisory Committee recommendation that NIST be the agency responsible for coordinating post-earthquake investigations. The amendment also provides NIST with the authorization that they would need to carry out this responsibility.

In 2004, NIST was given the task of serving as the lead agency, and it follows that NIST should be responsible for coordinating all of the program's activities including post-earthquake investigations. The experts who testified before this Committee praised NIST, and I think we all know NIST as a very efficient agency, and I think everybody agreed that they should take the responsibility of coordinating post-earthquake investigations, and in the last Congress, the House passed in a bipartisan manner—I think the vote was on suspension 335 to 50—the reauthorization that included this change.

The hazards bill that is moving through the Senate also includes this change, and I think the original bill that was considered by the Subcommittee implemented the advisory committee's recommendation. However, the current matter before us does not include that transfer.

Now, California has had its share of earthquakes, and I do understand the importance of NEHRP and the work it does to minimize risks and hazards. I think the experts have told us that NIST is the proper agency to serve as lead in the post-earthquake investigations. I remember quite well in my prior role as a member of the board of supervisors in Santa Clara County after the Loma Prieta earthquake how chaotic the situation is when you have a major event and agencies from everywhere coming in. It is important that this be handled in an efficient and orderly way, and I think the experts have recommended NIST. I think we should listen to their advice, and that is what the amendment does, and I would yield back, Mr. Chairman.

Chairman HALL. The gentlelady yields back.

Does anyone else care to be heard? The Chair recognizes Ms. Biggert for five minutes.

Mrs. BIGGERT. Thank you, Mr. Chairman.

And I appreciate the amendment offered by my colleague from California. Unfortunately, because the amendment transfers the responsibility currently conducted by the USGS to NIST without transferring funding—

Ms. LOFGREN. Would the gentlelady yield? It does actually.

Mrs. BIGGERT. Well, it does, but the problem that we have is that it adds funding to NIST, leaving the USGS at the same funding level as its fiscal year 2012 request, and I support giving NIST more funding if we are giving it new responsibilities, but I think that the problem that we have is that funding should come from the agency which currently holds this responsibility. That is a problem and it is a problem with the Natural Resources Committee, who also has jurisdiction over the earthquake program. From our conversations with our colleagues there, the transfer of the responsibility from USGS to NIST is problematic to them, and consequently I am concerned that the addition of this amendment could potentially slow down the bill's progress and whether we would be able to do it.

I would also like to note that the Manager's Amendment that I offered today includes a provision seeking more information on the current state of earthquake investigations conducted by USGS. I believe that this provision would be helpful to all stakeholders in order for us to understand how best to proceed on the earthquake

investigation coordination and to make sure that the—I think that the USGS would improve what they have been doing.

But again, this is a problem with the authorization of money and I don't see a way around it. We can't add any more funding to this, and that is my problem, so I would unfortunately oppose the amendment.

Chairman HALL. The gentlelady yields back.

Are there other—who seeks recognition?

Ms. JOHNSON. Mr. Chairman.

Chairman HALL. Ms. Johnson, I recognize you for five minutes.

Ms. JOHNSON. Thank you very much, Mr. Chairman.

I clearly understand what is being said here about the funding, but the earthquake program's advisory committee recommended transfer of the post-earthquake investigations from USGS to NIST in 2008 consistent with NIST's role as the program's lead agency, and in hearing after hearing we have heard expert witnesses praise the job NIST has done as lead agency. Further, the experts are in agreement that it is appropriate for NIST to also coordinate post-earthquake investigations under the program, so when we talked to the agencies about making this change in the bipartisan bill passed by the House last Congress, they were supportive of the change, and the bipartisan bill making its way through the Senate right now, which is based on the bipartisan House bill from last Congress, authorizes this transfer.

And so this amendment makes the right policy choice by transferring coordination of post-earthquake investigations to NIST and providing NIST with the resources necessary to carry out the responsibility.

Unfortunately, even though I believe that my colleagues also believe it is the right policy to transfer the post-earthquake investigations coordination to NIST, they could not accomplish it without taking resources from other agencies who are already struggling to meet their responsibilities under the earthquake program. And so in order to comply with their misguided legislative protocols, I suppose the Republicans have decided to sacrifice the best policy. This is not the way that we ought to be legislating as an authorizing committee. We do not spend money in this Committee. We authorize what the Appropriations Committee has the right to spend or recommend be spent.

And so our top concerns in this Committee ought to be policy, and so I support this amendment. Thank you.

Chairman HALL. The gentlelady yields back.

Mrs. BIGGERT. Will the gentlelady yield?

Chairman HALL. Excuse me.

Ms. JOHNSON. I yield.

Mrs. BIGGERT. And I understand exactly what you are saying, and maybe the Senate can find more money. But when this program was authorized, it was when we weren't in such dire straits in the economy and it was much easier then to say well, this will be the money. We just don't have it now, and I yield back.

Ms. JOHNSON. We are not spending in this Committee. We are trying to make good policy.

Chairman HALL. All right. The gentlelady's time has expired.

Ms. WOOLSEY. Mr. Chairman?

Chairman HALL. Who seeks recognition?

Ms. WOOLSEY. Lynn Woolsey down here.

Chairman HALL. Ms. Woolsey.

Ms. WOOLSEY. Mr. Chairman, I—

Chairman HALL. For five minutes.

Ms. WOOLSEY. Thank you very much, and I certainly support Ms. Lofgren's proposal and amendment, and I would yield my time to her for whatever time she may consume.

Ms. LOFGREN. I appreciate my colleague for yielding to me.

As has been pointed out, there is limited information on the activities being performed under the program's post-earthquake investigation authority, which is being addressed in the Manager's Amendment, but I think that lack of data and information actually is part of the reason why we should support transferring the coordination of the responsibility to NIST because NIST has been repeatedly praised by the stakeholder community, experts, NEHRP agencies for being an effective coordinator and manager of the program, and the policy of promoting that is really what we are about.

And I think the underlying issue that my colleague from Illinois has addressed really is that in the original mark, Committee print, the majority transferred the responsibility and cut funding 13 percent below fiscal year 2011 funding for U.S. Geological Survey, which promoted a tremendous outcry, and to avoid doing that, the transfer to NIST, which is the right policy, was voided basically to avoid the reduction in U.S. Geological Survey. You know, that is not a good reason, I think, to not do the right policy. I think we should authorize, as my amendment provides, and let the appropriators struggle with this.

But this is—it is real money that we are authorizing but it is real losses that occur in earthquake events, and I speak as a Californian having been through many earthquakes. The amount being authorized is a very small proportion of the losses that are experienced in a major event, and it is very important that this be done well.

And I understand Ms. Biggert's constraints. It is not of her making. But I think that we should adopt this amendment. And I thank the gentlelady for yielding to make that point.

Ms. WOOLSEY. And I yield back the remainder of my time.

Chairman HALL. The gentlelady yields back.

I thank Ms. Lofgren also for her amendment but I do oppose the amendment. I appreciate that it seeks to implement a policy recommendation from the advisory committee for the earthquake program. It is one that we also are interested in keeping and seeing come to fruition. As a matter of fact, this transfer was proposed in the Committee print that we marked up at Subcommittee, and after receiving feedback from various stakeholders, it became apparent that before transferring post-investigation responsibilities to NIST, it would be necessary to gain a better understanding of the current system of investigation. For this reason, I offered an amendment at the Subcommittee level that switched the investigations back to USGS.

Additionally, this amendment increases the authorization levels by nearly \$11 million over three years for NIST, and the funding exceeds even what the Administration's fiscal year 2012 budget re-

quests. I believe this would be an imprudent increase in federal funding in such fiscally challenging times. This isn't the 1980s or 1990s nor the last few sessions. With the country at crossroads now, I think we ought to go along with the President's recommendation. I yield back my time.

Does anybody else care to be heard?

Mr. MCNERNEY. Mr. Chairman.

Chairman HALL. Mr. McNerney, I recognize you for five minutes, sir.

Mr. MCNERNEY. Thank you, Mr. Chairman.

I am going to be supporting the amendment. I live in earthquake country, and basically what you want for your district is the best possible agency to take care of the problem, and that is what this amendment asks. Anyone that would experience this sort of event would want that, and I ask all the Members of the Committee to consider if you have a major event in your district, do you want the most qualified agency to be taking care of business or do you want someone else? And the answer in my mind is pretty clear.

So I ask the Committee to support Ms. Lofgren's amendment, and I yield back.

Chairman HALL. The gentleman yields back.

Mr. ROHRABACHER. Mr. Chairman.

Chairman HALL. The Chair recognizes the gentleman from California for five minutes.

Mr. ROHRABACHER. Whereas I come from earthquake country as well, I can suggest that yes, we always know in the back of our mind that there may be an earthquake, but one thing we know for sure, unless we start acting responsibly in our financial affairs, there is going to be a financial earthquake that is going to cause a lot more damage to this country than we could ever imagine. So I agree to oppose this amendment.

Chairman HALL. If the gentleman would yield, you base your statement probably on the fact that the funding exceeds the Administration's fiscal year 2012 budget also.

The gentleman yields back.

Anyone else care to be heard? If not, hearing no further discussion, the vote occurs on the amendment. All in favor, say aye. Those opposed, say no. The amendment is not agreed to.

Ms. LOFGREN. Mr. Chairman, could we have a roll call?

Chairman HALL. A roll call has been requested. Under the Chair's prior announcement, proceedings on this motion will be postponed.

Are there any other amendments?

Ms. WOOLSEY. Mr. Chairman.

Chairman HALL. Who seeks recognition?

Ms. WOOLSEY. I have an amendment at the desk.

Chairman HALL. Oh, Ms. Woolsey. An amendment is offered by the gentlelady from California. Are you ready to proceed with your amendment?

Ms. WOOLSEY. Mr. Chairman, I am. I ask unanimous consent to dispense with the reading. Without objection—whoops.

Chairman HALL. Let the clerk report the amendment first and then we will do that.

The CLERK. Amendment number 006, amendment to H.R. 3479 offered by Ms. Woolsey of California.

[The amendment appears in the Appendix:]

Chairman HALL. I ask unanimous consent to dispense with the reading. Without objection, it is so ordered.

Ms. WOOLSEY. Thank you, Mr. Chairman.

Chairman HALL. The gentlelady is recognized for five minutes.

Ms. WOOLSEY. My amendment brings funding levels for earthquake and windstorm hazards to the exact levels set by the Republican majority in the 2004 reauthorization.

I fully support reauthorization of these valuable hazard programs. Of particular importance to me and the community that I represent is the National Earthquake Hazard Reduction Program. Earthquakes are a common occurrence, as we all know, in the San Francisco Bay area. And Marin and Sonoma counties, my two counties, are right across the Golden Gate Bridge from San Francisco. Individuals, households and businesses in our area must be prepared for any earthquake, and we know there will be earthquakes in our lifetime. Unfortunately, Californians know that it is not a question of if but when the next scale earthquake will happen.

The earthquake program has and will continue to improve our understanding of California's risks and vulnerabilities. It is helping us develop mitigation preparedness and response plans. The program makes it more likely that communities will withstand and quickly recover from a massive earthquake.

The two programs covered by this bill were last authorized in 2004 under Republican leadership. Now, not one of us can claim with a straight face that the risk from natural hazards or the potential impact of such disasters on our communities has diminished since then. My colleague, Mr. Neugebauer, was the sponsor of the windstorm program in 2004, and he is the sponsor of the reauthorization again today. I hope that he agrees with me that the risk of windstorms has not declined since 2004, especially given that this year has been the second deadliest year on record for tornadoes.

My colleagues, we should all agree that on the heels of the tragedy in Japan earlier this year, ensuring that our communities can respond to and recover from a large-scale earthquake is as pressing as ever. If that is the case, it is simply inappropriate and irresponsible for us to cut the funding authorizations for these programs, and yet the bill before us this morning does just that.

Some may argue that the fiscal climate in 2011 is markedly different than it was when these programs were last authorized and that we must take drastic measures and make significant sacrifices to reduce our national debt. However, I want to point out that in the year 2004, we experienced the largest deficit since World War II. The budget surpluses from the final years of the Clinton presidency had vanished altogether and the stage had been set for the fiscal situation we find ourselves in today. Yet in the midst of that unprecedented and serious fiscal crisis, the Republican majority correctly recognized the value of these programs and saw fit to authorize nearly \$192 million for the earthquake program and \$25 million for the windstorm program. Now, however, the majority is claiming that its very own numbers are too high and is proposing

to cut the authorization for earthquakes by 36 percent and windstorms by 14 percent.

I must admit that I am particularly troubled by the proposed 73 percent cut to FEMA under the earthquake program. FEMA has indicated that under these authorization levels, it will likely end support for its critical infrastructure activities and provide less support for the earthquake state assistance program.

In fact, states with high seismic risk like California would receive 30 percent less in funding and states with medium seismic risks like those in the New Madrid region of Tennessee, Illinois, Missouri, Kentucky, Arkansas could have their funding eliminated completely.

My amendment proposes to put in place the authorization numbers from the last year each of the programs were authorized. I want to make clear that these are the exact same numbers included by the Republican majority in the 2004 authorization. I believe that by reverting back to 2009 funding levels for the earthquake program and 2008 funding levels for the windstorm program and freezing funding at those levels over the life of this bill, we can help keep spending under control but also ensure that these agencies have the funding that they need to effectively carry out the responsibilities we have given them.

I urge my colleagues to support my amendment. Thank you, Mr. Chairman. I yield back the balance of my time.

Chairman HALL. The gentlelady yields back.

Are there others who want to be heard?

Mr. NEUGEBAUER. Mr. Chairman.

Chairman HALL. Mr. Neugebauer, the gentleman from Texas, five minutes.

Mr. NEUGEBAUER. And I won't take that long, and I appreciate the gentlewoman's comments. You know, all I would just say is that, you know, we are in a different environment than we were in the previous years, and today every 40—every dollar we spend, we are borrowing 42 cents, and basically what we are doing is, we are living a lifestyle today and we are charging it to our children and grandchildren. Now, as a brand-new grandfather of a little girl, the first girl in the Neugebauer family in over 80 years, I am not interested in increasing the gift of the American government any more than what they have already given her. They have given her a note of \$50,000, and she hasn't even had a chance to enjoy any of the privileges of being an American yet.

But I understand that this research is important. I still think that good research can be done but it is going to have to be done at lower levels.

And with that, I yield back my time.

Ms. WOOLSEY. Would you yield?

Mr. NEUGEBAUER. I would yield to the gentlewoman.

Ms. WOOLSEY. Thank you, sir, first of all, for your good legislation in 2004, and hopefully for understanding that this is an authorization. It is suggesting to the spending committees what it will cost to carry out these programs effectively. And for your sweet little granddaughter, we have to prevent these serious accidents, and that is going to be, you pay up front of you pay later, and it is going to cost more in the long run.

I will yield back.

Mr. NEUGEBAUER. If I could reclaim my time and yield back my time. Thank you.

Chairman HALL. The gentleman yields back.

The Chair recognizes Mr. Miller, the gentleman from North Carolina, for five minutes.

Mr. MILLER. Thank you, Mr. Chairman.

I support this amendment, not because I don't want to try to do things more frugally. I am one of the more frugal people on the planet. Just this morning I ran the shower into the last little bit of my shampoo bottle so I could get it all. And believe me, there are many things I could tell you like that.

But these numbers are simply snatched out of thin air. Yes, it would be nice if we could do all this on two-thirds of the money or less, but there is absolutely no evidence, no record, nothing, to support the idea, and so Republicans are going to go home and say look, we protected, we are going to be doing all the same stuff, we told the Federal Government agencies they have got to be prepared for earthquakes, they got to be prepared for tornadoes and hurricanes, and we save two-thirds doing it, and they just snatched the number out of thin air.

I chaired the Oversight Subcommittee of this Committee for four years, and yes, there is waste in Federal Government. Some of it is because of corruption. More of it is because of just garden-variety stupidity. It should be part of the function of Congress to identify that and to do something about it. We have many management tools that are available to us. One is oversight hearings. And once Federal Government employees understand that there is an Oversight Subcommittee that really is about the business of trying to make government run more efficiently, they will provide you information. Things will come over the transom that will lead you to identify programs that are not being run well. There is the Government Accountability Office, the GAO, that will help, that will point to how-what government agencies are being run poorly and how they can be run more effectively. There are inspector generals all throughout government. They can examine how agencies are being run and they report both to the agency head and to Congress. And none of that has happened with respect to this program. Instead, we see a number snatched out of thin air and say do everything you are doing, do everything you are doing so we can go home and tell people we protected these programs but do it for two-thirds of what you are doing without any evidence. Without any record, without anything to support the idea that the numbers that we have got now are not the right numbers, it simply—there simply is not a basis for this change in the law to reduce the authorization by the amounts they are being reduced.

So I do support Ms. Woolsey's amendment.

Chairman HALL. The gentleman yields back.

Ms. Biggert, the gentlelady from Illinois, is recognized for five minutes.

Mrs. BIGGERT. Thank you, Mr. Chairman.

The gentleman is talking about the figures that seem to come from the air. Actually, the authorizing figures are the President's request, and we have tried not to go over the President's request

and we haven't gone under it. And so I think that this is something that the agencies have looked at, and so I can't support Ms. Woolsey's amendment when we really have done the reauthorization according to what the President requested.

With that, I would yield back.

Chairman HALL. The gentlelady yields back.

The Chair recognizes Mrs. Sewell, the gentlelady from Alabama.

Ms. SEWELL. Thank you, Mr. Chairman.

Today, I address the Committee in support of Representative Woolsey's commonsense and lifesaving amendment. This amendment strikes a balance I believe between fiscal responsibility and strategic investing by restoring the authorization levels for the National Earthquake Hazard Reduction Program and the National Windstorm Impact Reduction Program back to the levels approved by their last authorization.

H.R. 3479 as proposed dramatically undercuts critical disaster prevention activities. This is particularly concerning given the devastating natural disasters observed earlier this year in the United States and worldwide. Both of these programs are important partnerships between government, academia and the private sector aimed at improving the understanding of windstorms and earthquakes and their impacts. Their main purpose is to provide and encourage and develop implementation of cost-effective mitigation measures to reduce devastating loss of life and property.

As you all may know, the 7th Congressional District and other parts of the State of Alabama suffered from tornadoes and heavy storms during the month of April of this year. Homes, churches, schools, businesses, entire communities were destroyed and damaged. Many people in my district lost their lives as well as the lives of their friends and loved ones. It is this type of natural disaster that highlights our need to continue to provide adequate funding for disaster preparedness efforts and to ensure that our first responders are equipped to meet the needs of our communities in these times of great tragedy.

The reality is, that the need for these types of programs has not changed. In fact, there is now an even greater realization of the importance of these types of programs and initiatives. The best way to minimize the lives of—the loss of lives and property and the economic impact due to disaster is to invest in pre-disaster mitigation activities. Put simply, the activities and responsibilities we are asking this network of agencies to fulfill has become even more critical and necessary. I believe it is irresponsible and would be costly in the long run to underfund programs that have the potential to minimize property damage and save lives.

I understand that in these difficult budgetary times, we must find ways to reduce cost and identify savings wherever possible. However, we must also continue to make strategic investments that will yield tangible results and benefits in the future. I urge my colleagues to support Representative Woolsey's amendment and restore funding levels for these critical, important programs back to the reauthorization level.

Thank you, and I yield back my time.

Ms. LOFGREN. Would the gentlelady yield?

Ms. SEWELL. I will.

Ms. LOFGREN. I would just like to add my voice in support of the amendment, and just reflect back on the—my experience in local government after the Loma Prieta earthquake. I remember it so well. It was, you know, around 5 o'clock on a Tuesday, and there were a number of collapses of structures but nothing collapsed in San Jose, and my college classmate was then the Chief Science Officer for the USGS up in Menlo Park, and I remember asking him why nothing had collapsed in downtown San Jose when buildings collapsed in Oakland and in San Francisco and in Santa Cruz, and he said, really, it wasn't anything about the waves of the earthquake, it was good engineering. It was the information that the city had received to require that buildings be engineered and not fall down.

And I look at these authorizations, and it is one building that we would prevent from collapsing. So I think we need a little perspective here on what we are authorizing and what the potential losses are, and it is really a situation of an ounce of prevention is worth many, many pounds of cure, and I thank the gentlelady for yielding and my colleague from California for offering the amendment.

Chairman HALL. The gentlelady yields back.

I recognize myself for just a couple of minutes. We are in different days and times. One of the speakers—and all of you made good arguments, but one speaker compared it to 2004. The whole world wasn't trying to go broke in 2004, and that is the direction we are going now, and I recognize that my colleagues on both sides are unhappy with the authorization amount in this bill. I am not real happy with it. But we didn't cut, we matched the Administration's fiscal year 2012 request for the earthquake program which each agency prepared and each agency defended.

The bill makes only modest changes to the current program, carefully ensuring that we are not significantly expanding programs in tight fiscal times and asking agencies to do more with less. We are not doing that. Nevertheless, we believe both are critically important programs in need of reauthorization.

The gentlelady's amendment would increase funding for the earthquake program by more than 50 percent in fiscal 2012 compared to what was spent in 2011, wind program increased by 20 percent when compared to the last authorization. Her total increase is \$224.3 million. In this day and time, I just don't think that is practical. It would be good to do that. But to continue to fight for higher funding, especially above the fiscal year 2012 agency request, seems to ignore the financial crisis we are in. We just can't do that. Who across the Nation is getting a 50 percent raise? The amount of the funding is unrealistic in this fiscal environment, and I believe these increases would hamper the chances of these programs even being reauthorized, which I am sure my Democratic friends would not want.

I think we just absolutely have to be cognizant of our current budget environment. Therefore, I oppose the gentlelady's amendment.

Who seeks recognition?

Ms. EDWARDS. Mr. Chairman.

Chairman HALL. I yield back my time. Who seeks recognition?

Ms. EDWARDS. Mr. Chairman.

Chairman HALL. Ms. Edwards, the Chair recognizes you.

Ms. EDWARDS. Thank you, Mr. Chairman, and I rise in support of the amendment here offered by Ms. Woolsey, and I think it really is important for us to focus as an authorizing committee on our responsibility to outline what the requirements are to do the work, and we have other colleagues who sit on the Appropriations Committee in another venue whose challenge it will be to match that with what our fiscal responsibilities are in terms of our spending, and you know, we can't divvy there because otherwise we get away from making good policy.

And with that, I would like to yield the balance of my time to Ms. Woolsey.

Ms. WOOLSEY. Thank you very much for yielding.

It is really nice to hear the other side of the aisle supporting the President's budget. We should wallow in that. But this budget doesn't truly, I believe, represent what he would do or what he should do, and—well, he is not always right. You know what? And in 2004, President Bush was right on this, and—

Chairman HALL. Even if we don't agree with her, we—

Ms. WOOLSEY. And I am surprised that when this is exactly the same numbers that came out of the Republican majority in 2004, which was seven years ago, so that is not a raise over what is going on right now, when the economy was not in good shape as it isn't now, that an ounce of prevention worth a pound of cure is not what we would be using as our guidelines here when we are talking about disasters. We are not talking about frills. We are talking about really important programs.

So Mr. Chairman, thank you for hearing me. Remember, this is a number that is not an increase over 2004, so I think we should go from there. Thank you very much.

Chairman HALL. I thank the gentlelady. Do you yield back?

Ms. EDWARDS. I yield back.

Chairman HALL. All right. The Chair recognizes Mr. Bucshon from Indiana for five minutes.

Mr. BUCSHON. Thank you, Mr. Chairman.

Being new to Congress, I know full well we are an authorizing, not an appropriating committee, but I would like to point out the appropriate amount of spending for the earthquake program, NEHRP, in 2009 was \$129.4 million, in 2010, \$131.2 million, and in fiscal year 2011, \$129.5 million. This bill would authorize \$122 million, which is a very, very modest decrease, and has been pointed out, requested by the President's budget.

So even though we have a lot of drama about dramatic cuts and other things, I think it is very important for people to understand, for the American people to understand that the actual amount of money spent in those years is only slightly more than the current bill is authorizing, and therefore I do not think will result in any significant decrease in the ability of these agencies to function and to protect the American people, and with that, I yield back. Thank you.

Chairman HALL. The gentleman yields back.

Are there others who want to be heard? Hearing no further discussion, a vote occurs on the amendment. All in favor, say aye.

Those opposed, say no. The nos have it and the amendment is not agreed to.

Ms. WOOLSEY. Mr. Chairman, I would like to ask for a recorded vote.

Chairman HALL. The gentlelady asks for a recorded vote. The clerk will call the roll.

Ms. WOOLSEY. I thought it was rolled.

Chairman HALL. Didn't you ask for a recorded vote?

Ms. WOOLSEY. Well, I want it rolled. I would like us to have a vote. I thought you were rolling it all until the end of the—

Chairman HALL. I have the discretion to roll or not roll, and it looks like you have a lot of people here.

Ms. WOOLSEY. Yeah, I see what happened.

Chairman HALL. Which do you want to do?

Ms. WOOLSEY. I would like to vote at the end of the bill like the others are.

Chairman HALL. Do you want to roll it?

Ms. WOOLSEY. Yes, please roll it.

Chairman HALL. All right. We will roll it.

Ms. WOOLSEY. Thank you.

Chairman HALL. Are there other amendments?

Ms. EDWARDS. Mr. Chairman, I have an amendment at the desk.

Chairman HALL. All right. The next amendment is offered by the gentlelady from Maryland, Ms. Edwards, and I know you are ready to proceed with your amendment. The clerk will report the amendment.

The CLERK. Amendment number 007, amendment to H.R. 3474—79, offered by Ms. Edwards of Maryland.

[The amendment appears in the Appendix:]

Chairman HALL. Okay. I ask unanimous consent to dispense with the reading. Without objection, it is so ordered.

The gentlelady is recognized for five minutes to explain her amendment.

Ms. EDWARDS. Thank you, Mr. Chairman.

I suppose this amendment in the spirit of Ms. Woolsey's is, and I can't quote poetry the way the chairman can, but if at first you don't succeed, try, try again.

Mr. Chairman and Ms. Biggert, at the Subcommittee markup of the bill, I offered an amendment to replace the Committee print with the text of the bipartisan bill from last Congress. That bipartisan legislation passed the House by a wide margin, a vote of 335 to 50, and it is the legislation that is currently moving through the Senate. At the Subcommittee markup, I argued that the text from last Congress was the better starting point for our Committee's consideration because it was bipartisan and because it stands a better chance of actually being enacted into law in the near future, and I think that is a goal that we all share.

We are at a time also when the American public is looking at us wondering whether it is that we can agree on something. We did agree on something last year. That something is in the Senate this year, and we have an opportunity to come together as a Committee in the spirit in which I think this Committee has operated in the past to move this legislation forward more expeditiously.

But the truth is, much of the policy contained in the bill from last Congress has in fact—thank you, Ms. Biggert—been incorporated into the bill before us today, either as part of the underlying text or through the bipartisan Manager's Amendment that Ms. Biggert and I first offered at the Subcommittee markup. I am very pleased that in this case, and I want to thank Mrs. Biggert and Chairman Quayle for working with us on many of those issues. Unfortunately, the difference that remains between this bill and the bill from last Congress is arguably the most important difference, and that is the funding levels authorized for these important activities.

The amendment I am offering this morning strikes the authorization numbers in the current bill and replaces them with the bipartisan authorization numbers. For NEHRP, the amendment proposes the exact same authorization numbers as those included in the bipartisan bill from last Congress and the bill currently making its way through the Senate. For NWIRP, the amendment proposes the bipartisan numbers for the National Science Foundation, NOAA and FEMA but maintains the authorization numbers for NIST that are in Ms. Biggert's bill. I agree with my Republican colleagues that NIST requires a higher authorization to accommodate its new responsibility as the program's lead agency. The bill before us today includes authorization levels for NEHRP and NWIRP that are not only flat but below current spending. I am very concerned about lowering the authorization levels for those agencies, especially at the close of a year in which this country has experienced a historic number of disasters, and I think we are all aware of the terrible tragedy that occurred in Japan, an earthquake and ensuing tsunami that devastated parts of Japan and triggered the worst nuclear accident since Chernobyl. This one disaster has so far resulted in over 15,000 lives lost, and moreover, it is quite likely to end up being the costliest natural disaster ever with estimates exceeding \$300 billion.

A large earthquake like this one will indeed happen in the United States, and it could happen on the San Andreas Fault in California, in the New Madrid Fault in the Mississippi valley, or off the coast of the Pacific Northwest, and the devastation that was witnessed in this country this year from tornadoes and other windstorms including in the district of our colleague, Ms. Sewell, is staggering. Tornadoes have caused deaths in 15 states from Louisiana to Massachusetts this year, and in fact, 2011 is the deadliest year for tornadoes in the United States in over 80 years and the second deadliest ever. I think we are all just shocked to know that 552 people have died in tornadoes so far this year in 2011.

For these reasons, I can't in good conscience support a cut to the authorization levels for these programs. As we said before, it will be the job of the appropriators to find the actual funding that is required or the offsets required for that funding because that is their duty as appropriators. Our duty and responsibility as authorizers is to set the level that we know to be appropriate for the agencies to do the job that we expect of them and that the American people expect, and as the authorizing Committee with jurisdiction over the programs, we should be setting the mark and includ-

ing the level of funding that we honestly believe these agencies need to fulfill their responsibilities.

I doubt anyone on this Committee believes that the risk to people and property has gone down, and if that is the case, it is wrong for us to cut the authorization levels for these important natural hazards programs.

Mr. Chairman, when we invest in mitigation activities that save lives and money in the future, and when we do more to ensure that our communities are resilient to disasters, we know that that can only be accomplished by providing the programs with authorization levels that allow them to fulfill their responsibilities and objectives that have been outlined in the bill we are considering today.

I want to thank you, and I urge my colleagues to support the amendment, and I yield my time.

Chairman HALL. The gentlelady yields back, and I want to thank her for her amendment. However, I have to point out again that this amendment increases authorization levels for the earthquake and windstorm programs to levels well above the authorizations currently included in H.R. 3479, well above the fiscal year 2012 agency request and the amount spent in 2011 by the program agencies.

We made an attempt at a responsible reauthorization of the earthquake and windstorm programs. This amendment increases the President's fiscal year 2012 request, implying that the President's proposed level of funds were grossly inadequate, and I try to protect that President every chance I get, and here is an opportunity where I respect his recommendations. And actually, Ms. Edwards, you know how fond I am of you and how much I admire your background and your presentations here, but when you tell me it is a bipartisan bill, there is not a Republican sponsor in the Senate so far as I know. But that doesn't make any difference but I want the record to reflect what the hard, cold facts are.

And this increases—once again increases \$198.6 million. I just think that for these reasons, I have to oppose the gentlelady's amendment.

Now I recognize Ms. Edwards.

Ms. EDWARDS. Thank you. Mr. Chairman, I just want to note that the bill in the Senate actually passed the Committee unanimously and was reported out by Ms. Hutchinson.

Chairman HALL. Anyone else care to be heard?

Mr. ROHRABACHER. Mr. Chairman.

Chairman HALL. The Chair recognizes Mr. Rohrabacher.

Mr. ROHRABACHER. So what we are asked to do here is to increase the spending level about what the President has requested by about \$200 million. If we are not going to be in a disastrous financial situation, we need to at least when we are going to increase the level somewhere tell us where you might want to cut down, what science programs do you want to reduce by \$200 million in order to make sure that our country doesn't go off the financial cliff.

Ms. EDWARDS. If the gentleman would yield?

Mr. ROHRABACHER. I certainly would.

Ms. EDWARDS. The point here is that we are supposed to be looking at these agencies and their responsibilities, and figuring out

what it takes for them to meet their responsibilities. Now, we can play a lot of politics, and I am as good a Democrat as the next one, but whether we have a Democrat in the White House or a Republican in the White House, that doesn't change our responsibility on this Committee. And so the fact that even among Democrats that we might disagree with what the President has proposed in his budget, it is our job as legislators.

Mr. ROHRABACHER. Well—

Ms. EDWARDS. And so I think that looking at these agencies and their responsibilities. In fact, I think my amendment actually strikes a balance between where Ms. Woolsey is and where we are in the Committee print, and I would urge us to do that because what I would like to see more than anything else is for us to report a bill that gets all of us on board. I think one of these two amendments on this bill in fact would do that, and I think the American people would like to see it and I think it would be good and healthy for us on this Committee.

Mr. ROHRABACHER. Well, reclaiming my time, yes, you are right what our responsibility is, but that is within the context of the overall responsibility we have to the American people and to the next generation of Americans that we are not doing something that will cause an overall negative impact on our country to the point that all of these other debates will become meaningless. If we have a collapse of our currency, which is possible when you are going \$1.5 trillion into debt every year, all of this will disappear. We will be in a crisis like Greece and everywhere else, and we know it. So that when we actually ask for \$200 million more in spending than even the President wants to offer, I think that when you use the word "responsibility", it would require us to say well, here are some examples of \$200 million that I would like to cut out of the science program that aren't as high a priority as this. You know, the ultimate responsibility is setting priorities. That is what we are hired for. That is what we have been elected to do: set the priorities within the context of what our economy can actually function at, and I don't see either one of these amendments as doing that.

Thank you very much, Mr. Chairman, and I yield back my time.

Chairman HALL. The gentleman yields back.

Are there others? Hearing no further discussion—excuse me. Mr. Tonko is recognized for five minutes.

Mr. TONKO. Yes, just briefly, Mr. Chairman.

I want to add my voice of support to the amendment offered by Representative Edwards. You know, seeing the record number of tornadoes and earthquakes in some very atypical areas across the country this year draws upon me to be very supportive of the effort made by Representative Edwards. Having witnessed in the 21st Congressional District of New York some tremendous destruction and devastation via Mother Nature this past summer, we are very concerned about having the appropriate authorization so that the agencies can respond in very sensitive and reasonable terms to the American public.

I know that there are those who are suggesting that we may be facing a record number of natural disasters that amassed at least a billion dollars worth of damage. If we break that record, that tells us that we have to be very, very laser sharp in our focus, which

I believe that the Representative has done here. She has outlined her increases in a very targeted way, and I just want to encourage Members of this Committee to support Representative Edwards' amendment.

And with that, Mr. Chair, I yield back.

Chairman HALL. Thank you, Mr. Tonko. You yield back.

The Chair recognizes Mr. Cravaack, the gentleman from Minnesota, for five minutes.

Mr. CRAVAACK. Thank you, Mr. Chair, and if I could yield to Ms. Biggert, just a couple questions so I understand this process correctly.

Do I understand it correctly that these agencies have put forth a number of what it would take to fund their specific agencies? Would that be correct?

Mrs. BIGGERT. Yes, the agencies do, and then that is how the President comes up with his request.

Mr. CRAVAACK. So it is incumbent upon the responsibility of these agencies to put forth a budget that would be able to reflect upon what it would take to do their jobs. And then it goes up through the process to the President where the President will then verify their numbers. Is that correct, ma'am?

Mrs. BIGGERT. That is right, and then the Congress has the oversight to reauthorize that and look at their numbers and make a decision.

Mr. CRAVAACK. Okay. Thank you, ma'am. So understanding this correctly, it is incumbent upon the individual—

Mrs. BIGGERT. Now, I must say. You know, just for clarification, the President came forward with the request for the earthquake program. At that time we did not have the wind in this bill, so that was not determined by the President.

Mr. CRAVAACK. But it is incumbent upon the agencies to have the responsibilities to ensure that they have the budget necessary to complete their mission?

Mrs. BIGGERT. I am sorry. Would you repeat that?

Mr. CRAVAACK. It is incumbent upon the agencies to make sure that they put forth a budget to complete their mission?

Mrs. BIGGERT. That is correct.

Mr. CRAVAACK. That would be correct. Okay. That is what I needed to know, and I will yield back. And I would have to speak against this amendment as much as I admire and respect Representative Edwards. Unfortunately, if these numbers actually come forth from the agencies themselves saying that this is what it would take to complete their mission, then I think we should go forward with what the agency is requesting, and I will yield back.

Chairman HALL. And you further want to support the President's request, right?

Mr. CRAVAACK. We should always support the President, sir.

Chairman HALL. I agree with you. Thank you.

All right. Ms. Edwards has made a good case and had an opportunity. Does anyone else want to be heard? If not, hearing no further discussion, the vote occurs on the amendment. All in favor, say aye. Those opposed, say no. The nos have it and the amendment is not agreed to.

Are there any other amendments?

Mr. LUJAN. Mr. Chairman, I have an amendment at the desk.

Chairman HALL. The next amendment is offered by the gentleman from New Mexico, Mr. Lujan. Are you ready to proceed with your amendment?

Mr. LUJAN. Yes, sir, Mr. Chairman.

Chairman HALL. Okay. The clerk will report the amendment.

The CLERK. Amendment number 003, amendment to H.R. 3479, offered by Mr. Lujan of New Mexico.

[The amendment appears in the Appendix:]

Chairman HALL. I might say to Mr. Lujan now before he gets underway that we think it is a good amendment, and we want to let you know we are going to accept your amendment and appreciate your desire to ensure that NIST conducts research into fires at the wildland-urban interface.

Mr. LUJAN. Mr. Chairman, I appreciate that very much.

Chairman HALL. Would you like to go ahead and present your—say a few words?

Mr. LUJAN. Quickly, Mr. Chairman. I have a lot of thank yous to share with our friends on the other side of the aisle.

Chairman HALL. Well, we will yield you a full five minutes for that.

Mr. LUJAN. I appreciate that, Mr. Chairman.

In the Fire Prevention and Control Act of 1974, we charged NIST with supporting fire research to help prevent and control fires. My amendment updates the statute to ensure that NIST continues to conduct research on fires occurring specifically in the wild-urban land area. NIST fire research will help us minimize the spread of wildland fires into communities through tools that predict and reduce fire risk, post-fire investigations, improved fire codes and standards and the safe, effective use of emerging fire technologies. Addressing these research needs is essential if we are going to reduce losses from fire and increase the resiliency of buildings and infrastructure.

This is an urgent and growing hazard. From January through September of this year, we saw more than 7.7 million acres burn across the United States. This is the fifth worst year on record for wildfires with the Southwest being hit particularly hard. We will remember fires that burned through Arizona and New Mexico and Texas and devastated families, families that lost entire businesses and their homes.

When I offered a similar amendment at the Subcommittee, the majority had some concerns and we agreed to work out a compromise before coming to the full Committee. This amendment today is a result of that effort, and I want to thank Ms. Biggert, my friend, Chairman Mr. Quayle for their support and for all of the majority staff for their efforts in making sure that we had a chance to work together. I sincerely appreciate that. And I am happy that we found a way to authorize this important research.

So with that, Mr. Chairman, not only thank you to you for allowing me to present this amendment today and for the work that we were able to do together, and with that, I urge adoption of this amendment. I yield back the balance of my time, Mr. Chair.

Chairman HALL. The gentleman yields back.

Hearing no further discussion, a vote occurs on the amendment. All in favor, say aye. Those opposed, say no. The ayes have it and the amendment is agreed to.

Pursuant to the Chair's earlier announcement, further proceedings on the postponed questions will resume at noon. The Committee stands in recess.

Mrs. BIGGERT. Mr. Chairman, before you do that, may I enter some documents into the record?

Chairman HALL. Without objection.

Mrs. BIGGERT. Mr. Chairman, I would like to ask unanimous consent to include in the hearing record letters of support for the reauthorization of the Natural Earthquake Hazards Reduction Program and the National Windstorm Impact Reduction Program from the American Geophysical Union, the American Society of Civil Engineers and the National Council of Structural Engineers Associations. And with that, I yield back.

[They appear below:]



December 1, 2011

The Honorable Ralph Hall
Chairman
Committee on Science, Space, and Technology
U.S. House of Representatives
Washington, DC 20515

101 Constitution Avenue, NW, Suite 375 East
Washington, DC 20001-2179
(800) 548-ASCE(2723) Toll Free (202) 789-7850
(202) 789-7859 fax to www.asce.org

The Honorable Eddie Bernice Johnson
Ranking Member
Committee on Science, Space, and Technology
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Hall and Ranking Member Johnson:

On behalf of the more than 140,000 members of the American Society of Civil Engineers (ASCE), I am writing to thank you for your leadership and support for moving forward H.R. 3479 "The National Hazards Risk Reduction Act of 2011." ASCE fully supports the bill which would reauthorize the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Program. As the representative of the profession most responsible for design of the nation's public works infrastructure, we are pleased to see the Committee on Science, Space and Technology moving forward on this important issue.

ASCE was founded in 1852 and is the country's oldest national civil engineering organization. It represents civil engineers in private practice, government, industry and academia who are dedicated to the advancement of the science and profession of civil engineering.

Created by Congress in 1977, NEHRP has provided the resources and leadership that have led to significant advances in understanding the precise risk earthquakes pose and the best ways to counter those risks. ASCE feels it is in the nation's best interest to move forward as quickly as possible to ensure the continued effectiveness of this vital program. We are also pleased to see the reauthorization of the National Windstorm Impact Reduction Program as part of the bill; the wind program has the potential to match NEHRP in its ability to save lives and property.

Thank you for the opportunity to express our views. If ASCE can be of more assistance, please do not hesitate to contact Martin Hight, ASCE's Senior Manager of Government Relations at 202-789-7843 or mhight@asce.org.

Sincerely,

Andrew W. Herrmann, P.E., SECB, F.ASCE
President



30 November 2011

The Honorable Ralph M. Hall
 Chairman
 2405 Rayburn House Office Bldg.
 Washington, DC 20515

The Honorable Eddie Bernice Johnson
 Ranking Member
 2468 Rayburn House Office Bldg.
 Washington, DC 20515

Dear Chairman Hall and Ranking Member Johnson:

The American Geophysical Union (AGU), on behalf of its 60,000 Earth and space scientists, writes to you in support of the Natural Hazards Risk Reduction Act of 2011. The economic, public health, and safety consequences of natural hazards, such as earthquakes, hurricanes, and tornadoes, can be devastating and no state or region in the U.S. is immune.

In 39 states, 75 million people live in areas at significant risk of an earthquake. From January 2000 through September 2011, there were more than 43,500 earthquakes in the U.S.; half of those were magnitude 3.0 or greater. USGS is the only agency responsible for monitoring these hazards and is renowned worldwide for its work. Cuts to these programs would endanger millions of Americans.

More than 18,000 people died and more than one-third of a trillion dollars in damage was done (in 2006 dollars) as a result of the 30 costliest hurricanes and tropical storms in U.S. mainland history. Funding for programs such as the National Hurricane Center and the Hurricane Hunter Jet is crucial to provide lifesaving data and helps determine a hurricane's path.

National Oceanic and Atmospheric Administration forecasts, warnings and the associated responses produce approximately \$3 billion in savings during a typical hurricane season. From 2001-2005 alone, there were more than 6,600 tornadoes in the U.S.; the only state not affected was Rhode Island. Combined, the ten costliest tornadoes since 1950 caused more than \$9 billion in damage (in 2007 dollars).

Each dollar spent on mitigation related to wind, flooding, and earthquakes saves society an average of four dollars. Federal agencies provide critical research, education, and tools that increase our understanding of and inform the public about the threat of natural hazards. We ask you to support these life-saving programs.

Sincerely,

A handwritten signature in cursive script that reads "Christine McEntee".

Christine McEntee
 Executive Director/CEO
 American Geophysical Union



 NATIONAL COUNCIL OF STRUCTURAL ENGINEERS ASSOCIATIONS

December 1, 2011

The Honorable Ben Quayle
 Chairman
 Technology and Innovation Subcommittee
 Committee on Science, Space, and Technology
 U.S. House of Representatives
 Washington, DC 20515

The Honorable Donna Edwards
 Ranking Member
 Technology and Innovation Subcommittee
 Committee on Science, Space, and Technology
 U.S. House of Representatives
 Washington, DC 20515

Dear Chairman Quayle and Ranking Member Edwards:

Representing practicing engineers throughout the United States, the National Council of Structural Engineers Associations (NCSEA) expresses its strong support of the bill which would reauthorize the National Earthquake Hazards Reduction Program (NEHRP) and the National Windstorm Impact Reduction Act (NWIRA), H.R. 3479.

As the national voice for practicing structural engineers, NCSEA advances the practice of structural engineering and protects the public's right to safe, sustainable and cost effective buildings, bridges and other structures. NCSEA's volunteer code committees advocate for safe and effective building codes that will assure a safe and resilient built environment that can adequately protect the public welfare. NEHRP and NWIRA have been key to this goal. Fundamental research undertaken and supported by USGS, NOAA, and NSF under NEHRP and NWIRA, as well as the development of implementation tools and support of the building code development process undertaken jointly by NIST and FEMA under these programs and act, are critical to the nation's earthquake and windstorm safety and resilience. Together, the efforts of the NEHRP and NWIRA agencies enable improvement of our building codes, as well as the development and implementation of practical and effective means to improve our infrastructure against future earthquake and windstorm disasters.

We believe that Congress needs to move as quickly as possible on reauthorization. We do not want to see, nor do we believe that you want to see, the nation's risk of losses due to earthquakes, windstorms, tsunamis and other cascading events become much greater than previous policy goals have deemed acceptable for our Nation. We believe and request that your subcommittee will send a strong message to the Administration and Appropriations committees, that addressing the Nation's earthquake and windstorm risks is a priority.

Sincerely,

Thomas A. DiBiasi, President, National Council of Structural Engineers Associations

C: Martin Hight, American Society of Civil Engineers
 Jeanne M. Vogelzang, Executive Director, NCSEA

645 N. Michigan Avenue Suite 540 Chicago, Illinois 60611
 Telephone (312) 649-4600 Fax (312) 649-5840 Website www.ncsea.com

Chairman HALL. The gentlelady yields back.

We are in recess until noon. In the Texas legislature, we used to have a guy that set the clock there. When something had to be done by midnight and couldn't be done past that, we had one that moved it back for about two hours a lot of times. So we don't have that luxury up here, and we thought we would be through, completely through by noon. We perhaps could go ahead with unanimous consent. We need to come back at 10 of noon, I am told by this lawyer here.

[Recess.]

Chairman HALL. All right. The Committee will please—the very patient Committee will please come to order.

Okay. The unfinished business of the Committee is a postponed roll call on the amendment offered by Mrs. Lofgren, amendment number 10. The clerk will call the roll.

The CLERK. Chairman Hall?

Chairman HALL. No.

The CLERK. Chairman Hall votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Smith?

[No response.]

The CLERK. Mr. Rohrabacher?

Mr. ROHRABACHER. No.

The CLERK. Mr. Rohrabacher votes no.

Mr. Bartlett?

Mr. BARTLETT. No.

The CLERK. Mr. Bartlett votes no.

Mr. Lucas?

Mr. LUCAS. No.

The CLERK. Mr. Lucas votes no.

Mrs. Biggert?

Mrs. BIGGERT. No.

The CLERK. Mrs. Biggert votes no.

Mr. Akin?

[No response.]

The CLERK. Mr. Neugebauer?

Mr. NEUGEBAUER. No.

The CLERK. Mr. Neugebauer votes no.

Mr. McCaul?

Mr. MCCAUL. No.

The CLERK. Mr. McCaul votes no.

Mr. Broun?

Dr. BROUN. No.

The CLERK. Mr. Broun votes no.

Mrs. Adams?

Mrs. ADAMS. No.

The CLERK. Mrs. Adams votes no.

Mr. Quayle?

Mr. QUAYLE. No.

The CLERK. Mr. Quayle votes no.

Mr. Fleischmann?

Mr. FLEISCHMANN. No.

The CLERK. Mr. Fleischmann votes no.
Mr. Rigell?
Mr. RIGELL. No.
The CLERK. Mr. Rigell votes no.
Mr. Palazzo?
Mr. PALAZZO. No.
The CLERK. Mr. Palazzo votes no.
Mr. Brooks?
Mr. BROOKS. No.
The CLERK. Mr. Brooks votes no.
Mr. Harris?
Mr. HARRIS. No.
The CLERK. Mr. Harris votes no.
Mr. Hultgren?
Mr. HULTGREN. No.
The CLERK. Mr. Hultgren votes no.
Mr. Cravaack?
Mr. CRAVAACK. No.
The CLERK. Mr. Cravaack votes no.
Mr. Bucshon?
Mr. BUCSHON. No.
The CLERK. Mr. Bucshon votes no.
Mr. Benishek?
Mr. BENISHEK. No.
The CLERK. Mr. Benishek votes no.
Ms. Johnson?
Ms. JOHNSON. Aye.
The CLERK. Ms. Johnson votes aye.
Mr. Costello?
[No response.]
The CLERK. Ms. Woolsey?
Ms. WOOLSEY. Aye.
The CLERK. Ms. Woolsey votes aye.
Ms. Lofgren?
Ms. LOFGREN. Aye.
The CLERK. Ms. Lofgren votes aye.
Mr. Miller?
Mr. MILLER. Aye.
The CLERK. Mr. Miller votes aye.
Mr. Lipinski?
[No response.]
The CLERK. Ms. Giffords?
[No response.]
The CLERK. Ms. Edwards?
Ms. EDWARDS. Aye.
The CLERK. Ms. Edwards votes aye.
Ms. Fudge?
Ms. FUDGE. Aye.
The CLERK. Ms. Fudge votes aye.
Mr. Lujan?
[No response.]
The CLERK. Mr. Tonko?
Mr. TONKO. Aye.
The CLERK. Mr. Tonko votes aye.

Mr. McNerney?

Mr. MCNERNEY. Yes.

The CLERK. Mr. McNerney votes aye.

Mr. Sarbanes?

Mr. SARBANES. Aye.

The CLERK. Mr. Sarbanes votes aye.

Ms. Sewell?

Ms. SEWELL. Aye.

The CLERK. Ms. Sewell votes aye.

Ms. Wilson?

[No response.]

The CLERK. Mr. Clarke?

Mr. CLARKE. Aye.

The CLERK. Mr. Clarke votes aye.

Chairman HALL. Are there other Members who wish to vote? Have all the Members voted? Any Members wish to change their vote? Then the clerk will report the vote.

The CLERK. Mr. Chairman, 11 Members vote aye and 20 Members vote no.

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th

Full Committee Roll Call

U. S. House OF Representatives

Number of Members (23/17) Quorum: 14 to vote Working Quorum: 21 to report

DATE: December 1, 2011

Bill: H. R. 3479

AMENDMENT NO. 010

ROLL CALL NO. 1

Amendment Sponsor: [Ms. Lofgren](#)

Not agreed to by a vote of

[11 aye and 20 no](#)

	MEMBER	AYE	NO	PRESENT	NOT VOTING
1	Mr. HALL, <i>Chair</i> - TX		X		
2	Mr. SENSENBRENNER - WI **		X		
3	Mr. SMITH - TX				
4	Mr. ROHRBACHER - CA		X		
5	Mr. BARTLETT - MD		X		
6	Mr. LUCAS - OK		X		
7	Mrs. BIGGERT - IL		X		
8	Mr. AKIN - MD				
9	Mr. NEUGEBAUER - TX		X		
10	Mr. McCAUL - TX		X		
11	Mr. BROUN - GA		X		
12	Mrs. ADAMS - FL		X		
13	Mr. QUAYLE - AZ		X		
14	Mr. FLEISCHMANN - TN		X		
15	Mr. RIGELL - VA		X		
16	Mr. PALAZZO - MS		X		
17	Mr. BROOKS - AL		X		
18	Mr. HARRIS - MD		X		
19	Mr. HULTGREN - IL		X		
20	Mr. CRAVAACK - MN		X		
21	Mr. BUCSHON - IN		X		
22	Mr. BENISHEK - MI		X		
23	Vacancy				
1	Ms. JOHNSON, <i>Ranking</i> - TX	X			
2	Mr. COSTELLO - IL				
3	Ms. WOOLSEY - CA	X			
4	Ms. LOFGREN - CA	X			
5	Mr. MILLER - NC	X			
6	Mr. LIPINSKI - IL				
7	Ms. GIFFORDS - AZ				
8	Ms. EDWARDS - MD	X			
9	Ms. FUDGE - OH	X			
10	Mr. LUJÁN - NM				
11	Mr. TONKO - NY	X			
12	Mr. McNERNEY - CA	X			
13	Mr. SARBANES - MD	X			
14	Ms. SEWELL - AL	X			
15	Ms. WILSON - FL				
16	Mr. CLARKE - MI	X			
17	Vacancy				
	TOTALS	11	20		

** Vice Chair

Chairman HALL. The amendment is not agreed to.

The next unfinished business of the Committee is on the postponed roll call on the amendment offered by Mrs. Woolsey, amendment number 006. The clerk will call the roll.

The CLERK. Chairman Hall?

Chairman HALL. No.

The CLERK. Chairman Hall votes no.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. No.

The CLERK. Mr. Sensenbrenner votes no.

Mr. Smith?

Mr. SMITH. No.

The CLERK. Mr. Smith votes no.

Mr. Rohrabacher?

Mr. ROHRABACHER. No.

The CLERK. Mr. Rohrabacher votes no.

Mr. Bartlett?

Mr. BARTLETT. No.

The CLERK. Mr. Bartlett votes no.

Mr. Lucas?

Mr. LUCAS. No.

The CLERK. Mr. Lucas votes no.

Mrs. Biggert?

Mrs. BIGGERT. No.

The CLERK. Mrs. Biggert votes no.

Mr. Akin?

[No response.]

The CLERK. Mr. Neugebauer?

Mr. NEUGEBAUER. No.

The CLERK. Mr. Neugebauer votes no.

Mr. McCaul?

Mr. MCCAUL. No.

The CLERK. Mr. McCaul votes no.

Mr. Broun?

Dr. BROUN. No.

The CLERK. Mr. Broun votes no.

Mrs. Adams?

Mrs. ADAMS. No.

The CLERK. Mrs. Adams votes no.

Mr. Quayle?

Mr. QUAYLE. No.

The CLERK. Mr. Quayle votes no.

Mr. Fleischmann?

Mr. FLEISCHMANN. No.

The CLERK. Mr. Fleischmann votes no.

Mr. Rigell?

Mr. RIGELL. No.

The CLERK. Mr. Rigell votes no.

Mr. Palazzo?

Mr. PALAZZO. No.

The CLERK. Mr. Palazzo votes no.

Mr. Brooks?

Mr. BROOKS. No.

The CLERK. Mr. Brooks votes no.

Mr. Harris?
Mr. HARRIS. No.
The CLERK. Mr. Harris votes no.
Mr. Hultgren?
Mr. HULTGREN. No.
The CLERK. Mr. Hultgren votes no.
Mr. Cravaack?
Mr. CRAVAACK. No.
The CLERK. Mr. Cravaack votes no.
Mr. Bucshon?
Mr. BUCSHON. No.
The CLERK. Mr. Bucshon votes no.
Mr. Benishek?
Mr. BENISHEK. No.
The CLERK. Mr. Benishek votes no.
Ms. Johnson?
Ms. JOHNSON. Aye.
The CLERK. Ms. Johnson votes aye.
Mr. Costello?
Mr. COSTELLO. Aye.
The CLERK. Mr. Costello votes aye.
Ms. Woolsey?
Ms. WOOLSEY. Aye.
The CLERK. Ms. Woolsey votes aye.
Ms. Lofgren?
Ms. LOFGREN. Aye.
The CLERK. Ms. Lofgren votes aye.
Mr. Miller?
Mr. MILLER. Aye.
The CLERK. Mr. Miller votes aye.
Mr. Lipinski?
[No response.]
The CLERK. Ms. Giffords?
[No response.]
The CLERK. Ms. Edwards?
Ms. EDWARDS. Aye.
The CLERK. Ms. Edwards votes aye.
Ms. Fudge?
Ms. FUDGE. Aye.
The CLERK. Ms. Fudge votes aye.
Mr. Lujan?
[No response.]
The CLERK. Mr. Tonko?
Mr. TONKO. Aye.
The CLERK. Mr. Tonko votes aye.
Mr. McNerney?
Mr. MCNERNEY. Yes.
The CLERK. Mr. McNerney votes aye.
Mr. Sarbanes?
Mr. SARBANES. Aye.
The CLERK. Mr. Sarbanes votes aye.
Ms. Sewell?
Ms. SEWELL. Aye.
The CLERK. Ms. Sewell votes aye.

Ms. Wilson?

[No response.]

The CLERK. Mr. Clarke?

Mr. CLARKE. Aye.

The CLERK. Mr. Clarke votes aye.

Chairman HALL. Are there other Members who wish to vote? Have all the Members voted? Do any Members wish to change their vote? The clerk will report the vote.

The CLERK. Mr. Chairman, 12 Members vote aye and 21 Members vote no.

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th

Full Committee Roll Call

U. S. House Of Representatives

Number of Members (23/17) Quorum: 14 to vote Working Quorum: 21 to report

DATE: December 1, 2011

Bill: H. R. 3479

AMENDMENT NO. 006

ROLL CALL NO. 2

Amendment Sponsor: [Ms. Woolsey](#)

Not agreed to by a vote of

12 aye and 21 no

MEMBER	AYE	NO	PRESENT	NOT VOTING
1 Mr. HALL, <i>Chair</i> - TX		X		
2 Mr. SENSENBRENNER - WI **		X		
3 Mr. SMITH - TX		X		
4 Mr. ROHRBACHER - CA		X		
5 Mr. BARTLETT - MD		X		
6 Mr. LUCAS - OK		X		
7 Mrs. BIGGERT - IL		X		
8 Mr. AKIN - MO				
9 Mr. NEUGEBAUER - TX		X		
10 Mr. McCAUL - TX		X		
11 Mr. BROUN - GA		X		
12 Mrs. ADAMS - FL		X		
13 Mr. QUAYLE - AZ		X		
14 Mr. FLEISCHMANN - TN		X		
15 Mr. RIGELL - VA		X		
16 Mr. PALAZZO - MS		X		
17 Mr. BROOKS - AL		X		
18 Mr. HARRIS - MD		X		
19 Mr. HULTGREN - IL		X		
20 Mr. CRAVAACK - MN		X		
21 Mr. BUCSHON - IN		X		
22 Mr. BENISHEK - MI		X		
23 Vacancy				
1 Ms. JOHNSON, <i>Ranking</i> - TX	X			
2 Mr. COSTELLO - IL	X			
3 Ms. WOOLSEY - CA	X			
4 Ms. LOFGREN - CA	X			
5 Mr. MILLER - NC	X			
6 Mr. LIPINSKI - IL				
7 Ms. GIFFORDS - AZ				
8 Ms. EDWARDS - MD	X			
9 Ms. FUDGE - OH	X			
10 Mr. LUJÁN - NM				
11 Mr. TONKO - NY	X			
12 Mr. McNERNEY - CA	X			
13 Mr. SARBANES - MD	X			
14 Ms. SEWELL - AL	X			
15 Ms. WILSON - FL				
16 Mr. CLARKE - MI	X			
17 Vacancy				
TOTALS	12	21		

** Vice Chair

Chairman HALL. The amendment is not agreed to.

The question is on the House bill, House Resolution 3479, the Natural Hazards Risk Reduction Act of 2011 as amended. All those in favor will say aye. Those opposed, say no.

Ms. JOHNSON. I would like to ask for a record vote, Mr. Chairman.

Chairman HALL. In the opinion of the Chair, the ayes have it. A Member requests a roll call vote. The clerk will call the roll.

The CLERK. Chairman Hall?

Chairman HALL. Aye.

The CLERK. Chairman Hall votes aye.

Mr. Sensenbrenner?

Mr. SENSENBRENNER. Aye.

The CLERK. Mr. Sensenbrenner votes aye.

Mr. Smith?

Mr. SMITH. Aye.

The CLERK. Mr. Smith votes aye.

Mr. Rohrabacher?

Mr. ROHRABACHER. Yes.

The CLERK. Mr. Rohrabacher votes aye.

Mr. Bartlett?

Mr. BARTLETT. Aye.

The CLERK. Mr. Bartlett votes aye.

Mr. Lucas?

Mr. LUCAS. Aye.

The CLERK. Mr. Lucas votes aye.

Mrs. Biggert?

Mrs. BIGGERT. Aye.

The CLERK. Mrs. Biggert votes aye.

Mr. Akin?

[No response.]

The CLERK. Mr. Neugebauer?

Mr. NEUGEBAUER. Aye.

The CLERK. Mr. Neugebauer votes aye.

Mr. McCaul?

Mr. MCCAUL. Aye.

The CLERK. Mr. McCaul votes aye.

Mr. Broun?

Dr. BROUN. Aye.

The CLERK. Mr. Broun votes aye.

Mrs. Adams?

Mrs. ADAMS. Aye.

The CLERK. Mrs. Adams votes aye.

Mr. Quayle?

Mr. QUAYLE. Aye.

The CLERK. Mr. Quayle votes aye.

Mr. Fleischmann?

Mr. FLEISCHMANN. Aye.

The CLERK. Mr. Fleischmann votes aye.

Mr. Rigell?

Mr. RIGELL. Aye.

The CLERK. Mr. Rigell votes aye.

Mr. Palazzo?

Mr. PALAZZO. Aye.

The CLERK. Mr. Palazzo votes aye.
Mr. Brooks?
Mr. BROOKS. Aye.
The CLERK. Mr. Brooks votes aye.
Mr. Harris?
Mr. HARRIS. Aye.
The CLERK. Mr. Harris votes aye.
Mr. Hultgren?
Mr. HULTGREN. Aye.
The CLERK. Mr. Hultgren votes aye.
Mr. Cravaack?
Mr. CRAVAACK. Aye.
The CLERK. Mr. Cravaack votes aye.
Mr. Bucshon?
Mr. BUCSHON. Aye.
The CLERK. Mr. Bucshon votes aye.
Mr. Benishek?
Mr. BENISHEK. Aye.
The CLERK. Mr. Benishek votes aye.
Ms. Johnson?
Ms. JOHNSON. No.
The CLERK. Ms. Johnson votes no.
Mr. Costello?
Mr. COSTELLO. No.
The CLERK. Mr. Costello votes no.
Ms. Woolsey?
Ms. WOOLSEY. No.
The CLERK. Ms. Woolsey votes no.
Ms. Lofgren?
Ms. LOFGREN. No.
The CLERK. Ms. Lofgren votes no.
Mr. Miller?
Mr. MILLER. No.
The CLERK. Mr. Miller votes no.
Mr. Lipinski?
[No response.]
The CLERK. Ms. Giffords?
[No response.]
The CLERK. Ms. Edwards?
Ms. EDWARDS. No.
The CLERK. Ms. Edwards votes no.
Ms. Fudge?
Ms. FUDGE. No.
The CLERK. Ms. Fudge votes no.
Mr. Lujan?
[No response.]
The CLERK. Mr. Tonko?
Mr. TONKO. No.
The CLERK. Mr. Tonko votes no.
Mr. McNerney?
Mr. MCNERNEY. No.
The CLERK. Mr. McNerney votes no.
Mr. Sarbanes?
Mr. SARBANES. No.

The CLERK. Mr. Sarbanes votes no.

Ms. Sewell?

Ms. SEWELL. No.

The CLERK. Ms. Sewell votes no.

Ms. Wilson?

[No response.]

The CLERK. Mr. Clarke?

Mr. CLARKE. No.

The CLERK. Mr. Clarke votes no.

Chairman HALL. The clerk will report the—are there other—
first, are there other Members who wish to vote or any Members
who wish to change their vote? The clerk shall report the vote.

The CLERK. Mr. Chairman, 21 Members vote aye and 12 Mem-
bers vote no.

COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY - 112th
Full Committee Roll Call

U. S. House OF Representatives

Number of Members (23/17) Quorum: 14 to vote Working Quorum: 21 to report

DATE: December 1, 2011

Bill: H. R. 3479

AMENDMENT NO.

ROLL CALL NO. _____

Amendment Sponsor: **FINAL VOTE**

Bill is agreed to by a vote of

21 aye and 12 no

MEMBER	AYE	NO	PRESENT	NOT VOTING
1 Mr. HALL, <i>Chair</i> - TX	X			
2 Mr. SENSENBRENNER – <i>WV</i> **	X			
3 Mr. SMITH - TX	X			
4 Mr. ROHRBACHER - CA	X			
5 Mr. BARTLETT - MD	X			
6 Mr. LUCAS - OK	X			
7 Mrs. BIGGERT - IL	X			
8 Mr. AKIN - MO				
9 Mr. NEUGEBAUER - TX	X			
10 Mr. McCAUL - TX	X			
11 Mr. BROUN - GA	X			
12 Mrs. ADAMS - FL	X			
13 Mr. QUAYLE - AZ	X			
14 Mr. FLEISCHMANN - TN	X			
15 Mr. RIGELL - VA	X			
16 Mr. PALAZZO - MS	X			
17 Mr. BROOKS - AL	X			
18 Mr. HARRIS - MD	X			
19 Mr. HULTGREN - IL	X			
20 Mr. CRAVAACK - MN	X			
21 Mr. BUCSHON - IN	X			
22 Mr. BENISHEK - MI	X			
23 Vacancy				
1 Ms. JOHNSON, <i>Ranking</i> - TX		X		
2 Mr. COSTELLO - IL		X		
3 Ms. WOOLSEY - CA		X		
4 Ms. LOFGREN - CA		X		
5 Mr. MILLER - NC		X		
6 Mr. LIPINSKI - IL				
7 Ms. GIFFORDS - AZ				
8 Ms. EDWARDS - MD		X		
9 Ms. FUDGE - OH		X		
10 Mr. LUJÁN - NM				
11 Mr. TONKO - NY		X		
12 Mr. McNERNEY - CA		X		
13 Mr. SARBANES - MD		X		
14 Ms. SEWELL - AL		X		
15 Ms. WILSON - FL				
16 Mr. CLARKE - MI		X		
17 Vacancy				
	21	12		
TOTALS				

** Vice Chair

Chairman HALL. The bill is agreed to.

I will make a motion. I move that the Committee report H.R. 3479 as amended to the House with the recommendation that the bill do pass. Furthermore, I move that staff be instructed to prepare the legislative report and make necessary technical and conforming changes and that the chairman take all necessary steps to bring the bill before the House for consideration.

The question is on the motion to report the bill. Those in favor will say aye. Opposed, no. The ayes have it and the resolution is favorably reported.

Without objection, the motion to reconsider is laid upon the table. Okay. Members will have 2 subsequent calendar days in which to submit supplemental minority or additional views on the measure. I move pursuant to clause 1 of rule 22 of the Rules of the House of Representatives that the Committee authorizes the chairman to offer such motions as may be necessary in the House to adopt and pass H.R. 3479, the Natural Hazards Risk Reduction Act of 2011 as amended. Without objection, it is so ordered.

This concludes our Committee markup. The Committee is adjourned. Thank you for your patience.

[Whereupon, at 12:07 p.m., the Committee was adjourned.]

Appendix:

H.R. 3479: THE NATURAL HAZARDS RISK REDUCTION ACT
OF 2011, SECTION-BY-SECTION ANALYSIS, AMENDMENTS, AMEND-
MENT ROSTER



112TH CONGRESS
1ST SESSION

H. R. 3479

To reauthorize Federal natural hazards reduction programs, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

NOVEMBER 18, 2011

Mrs. BIGGERT (for herself, Mr. NEUGEBAUER, Mr. SMITH of Texas, Mr. HALL, and Mr. PALAZZO) introduced the following bill; which was referred to the Committee on Science, Space, and Technology, and in addition to the Committees on Transportation and Infrastructure and Natural Resources, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

A BILL

To reauthorize Federal natural hazards reduction programs,
and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Natural Hazards Risk
5 Reduction Act of 2011”.

6 **SEC. 2. TABLE OF CONTENTS.**

7 The table of contents for this Act is as follows:

Sec. 1. Short title.

Sec. 2. Table of contents.

TITLE I—EARTHQUAKES

- Sec. 101. Short title.
- Sec. 102. Definitions.
- Sec. 103. National Earthquake Hazards Reduction Program.
- Sec. 104. Post-Earthquake Investigations Program.
- Sec. 105. Authorization of appropriations.

TITLE II—WIND

- Sec. 201. Short title.
- Sec. 202. Definitions.
- Sec. 203. National Windstorm Impact Reduction Program.
- Sec. 204. National Advisory Committee on Windstorm Impact Reduction.
- Sec. 205. Authorization of appropriations.

TITLE III—INTERAGENCY COORDINATION

- Sec. 301. Interagency Coordinating Committee on Natural Hazards Risk Reduction.
- Sec. 302. Coordination of Federal disaster research, development, and technology transfer.
- Sec. 303. Authorizations.

1 **TITLE I—EARTHQUAKES**

2 **SEC. 101. SHORT TITLE.**

3 This title may be cited as the “National Earthquake
4 Hazards Reduction Program Reauthorization Act of
5 2011”.

6 **SEC. 102. DEFINITIONS.**

7 Section 4 of the Earthquake Hazards Reduction Act
8 of 1977 (42 U.S.C. 7703) is amended by striking para-
9 graphs (8) and (9).

10 **SEC. 103. NATIONAL EARTHQUAKE HAZARDS REDUCTION**
11 **PROGRAM.**

12 Section 5 of the Earthquake Hazards Reduction Act
13 of 1977 (42 U.S.C. 7704) is amended—

14 (1) in subsection (a)—

1 (Δ) in paragraph (1), by inserting “to be
2 administered, as provided under this section, by
3 the National Institute of Standards and Tech-
4 nology, the Federal Emergency Management
5 Agency, the United States Geological Survey,
6 and the National Science Foundation” after
7 “Reduction Program”;

8 (B) in paragraph (2)—

9 (i) by amending subparagraph (Δ) to
10 read as follows:

11 “(Δ) research and develop effective meth-
12 ods, tools, and technologies to reduce the risk
13 posed by earthquakes to the built environment,
14 especially to lessen the risk to existing struc-
15 tures and lifelines;”;

16 (ii) in subparagraph (B), by inserting
17 “and retrofitting” after “planning and
18 constructing”;

19 (iii) by striking “and” at the end of
20 subparagraph (C);

21 (iv) in subparagraph (D), by striking
22 the period at the end and inserting “, as
23 appropriate; and”; and

24 (v) by adding at the end the following
25 new subparagraph:

1 “(E) support public education and out-
2 reach to assist in preparing for and responding
3 to earthquake-related disasters.”; and

4 (C) by striking paragraphs (3) through
5 (5);
6 (2) in subsection (b)—

7 (A) by amending paragraph (1) to read as
8 follows:

9 “(1) LEAD AGENCY.—The National Institute of
10 Standards and Technology shall have the primary
11 responsibility for planning and coordinating the Pro-
12 gram. In carrying out this paragraph, the Director
13 of the Institute shall—

14 “(A) ensure that the Program includes the
15 necessary components to promote the imple-
16 mentation of earthquake hazards risk reduction
17 measures by Federal, State, and local govern-
18 ments, national standards and model building
19 code organizations, architects and engineers,
20 and others with a role in planning, con-
21 structing, and retrofitting structures and life-
22 lines;

23 “(B) support the development of perform-
24 ance-based seismic engineering tools, and work
25 with appropriate groups to promote the com-

1 commercial application of such tools, through earth-
2 quake-related model building codes, voluntary
3 standards, and construction best practices;

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

7 “(D) work with the Federal Emergency
8 Management Agency, the National Science
9 Foundation, and the United States Geological
10 Survey, to develop a comprehensive plan for
11 earthquake engineering research to effectively
12 use existing testing facilities and laboratories
13 (existing at the time of the development of the
14 plan), upgrade facilities and equipment as need-
15 ed, and integrate new, innovative testing ap-
16 proaches to the research infrastructure in a sys-
17 tematic manner; and

18 “(E) when warranted by research or inves-
19 tigative findings, issue recommendations to as-
20 sist in informing the development of model
21 codes, and provide information to Congress on
22 the use of such recommendations.”;

23 (B) in paragraph (3)—

1 (i) in subparagraph (A), by striking
2 “seismic microzonation” and inserting “de-
3 tailed seismic hazard and risk”;

4 (ii) by amending subparagraphs (F)
5 and (G) to read as follows:

6 “(F) operate, in cooperation with the Na-
7 tional Science Foundation, a Global Seis-
8 mographic Network for detection of earth-
9 quakes around the world and research into fun-
10 damental earth processes;

11 “(G) support the operation of regional seis-
12 mic networks in areas of higher seismic risk;”;

13 (iii) by striking the period at the end
14 of subparagraph (H) and inserting a semi-
15 colon; and

16 (iv) by amending subparagraph (I) to
17 read as follows:

18 “(I) work with other Program agencies to
19 maintain awareness of, and where appropriate
20 coordinate with, earthquake risk reduction ef-
21 forts in other countries to ensure that the Pro-
22 gram benefits from relevant information and
23 advances in those countries; and”;

24 (C) in paragraph (4)(D), by striking “of
25 the George” and all that follows through “Re-

1 duction Program” and inserting “of institutions
2 engaged in research and the implementation of
3 the National Earthquake Hazards Reduction
4 Program, which may include the George E.
5 Brown Jr. Network for Earthquake Engineer-
6 ing Simulation”; and

7 (D) in paragraph (5)—

8 (i) in subparagraph (C)—

9 (I) by inserting “and other stake-
10 holders with relevant expertise” after
11 “standards organizations”; and

12 (II) by inserting “and” after the
13 semicolon at the end;

14 (ii) by striking “; and” at the end of
15 subparagraph (D) and inserting a period;
16 and

17 (iii) by striking subparagraph (E);

18 (3) by redesignating subsection (e) as sub-
19 section (d);

20 (4) by inserting after subsection (b) the fol-
21 lowing new subsection:

22 “(e) ADVISORY COMMITTEE ON EARTHQUAKE HAZ-
23 ARDS REDUCTION.—

24 “(1) IN GENERAL.—The Director of the Na-
25 tional Institute of Standards and Technology shall

1 establish an Advisory Committee on Earthquake
2 Hazards Reduction, which shall be composed of at
3 least 11 members, none of whom may be employees
4 of the Federal Government, including representa-
5 tives of research and academic institutions, industry
6 standards development organizations, emergency
7 management agencies, State and local government,
8 and business communities who are qualified to pro-
9 vide advice on earthquake hazards reduction and
10 represent all related scientific, architectural, and en-
11 gineering disciplines. The recommendations of the
12 Advisory Committee shall be considered by Federal
13 agencies in implementing the Program.

14 “(2) ASSESSMENTS.—The Advisory Committee
15 on Earthquake Hazards Reduction shall offer as-
16 sessments on—

17 “(A) trends and developments in the nat-
18 ural, social, and engineering sciences and prac-
19 tices of earthquake hazards impact mitigation;

20 “(B) the priorities of the Program’s Stra-
21 tegic Plan;

22 “(C) the coordination of the Program; and

23 “(D) any revisions to the Program which
24 may be necessary.

1 “(3) COMPENSATION.—The members of the Ad-
2 visory Committee established under this subsection
3 shall serve without compensation.

4 “(4) REPORTS.—At least every 2 years, the Ad-
5 visory Committee shall report to the Director of the
6 National Institute of Standards and Technology on
7 the assessments carried out under paragraph (2)
8 and its recommendations for ways to improve the
9 Program.

10 “(5) TERMINATION.—The Advisory Committee
11 established under this subsection shall terminate not
12 later than 5 years after the date of enactment of the
13 Natural Hazards Risk Reduction Act of 2011.”; and

14 (5) in subsection (d)(1), as so redesignated by
15 paragraph (3) of this section, by inserting “on Nat-
16 ural Hazards Risk Reduction established under sec-
17 tion 301 of the Natural Hazards Risk Reduction Act
18 of 2011” after “Interagency Coordinating Com-
19 mittee”.

20 **SEC. 104. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.**

21 Section 11 of the Earthquake Hazards Reduction Act
22 of 1977 (42 U.S.C. 7705e) is amended by inserting “and
23 utilizing the coordination expertise of the lead Program
24 agency” after “consultation with each Program agency”.

1 **SEC. 105. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) IN GENERAL.—Section 12 of the Earthquake
3 Hazards Reduction Act of 1977 (42 U.S.C. 7706) is
4 amended to read as follows:

5 **“SEC. 12. AUTHORIZATION OF APPROPRIATIONS.**

6 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
7 CY.—There are authorized to be appropriated to the Fed-
8 eral Emergency Management Agency for carrying out this
9 Act—

10 “(1) \$6,400,000 for fiscal year 2012;

11 “(2) \$6,400,000 for fiscal year 2013; and

12 “(3) \$6,400,000 for fiscal year 2014.

13 “(b) UNITED STATES GEOLOGICAL SURVEY.—There
14 are authorized to be appropriated to the United States Ge-
15 ological Survey for carrying out this Act—

16 “(1) \$57,700,000 for fiscal year 2012;

17 “(2) \$57,700,000 for fiscal year 2013; and

18 “(3) \$57,700,000 for fiscal year 2014.

19 “(c) NATIONAL SCIENCE FOUNDATION.—There are
20 authorized to be appropriated to the National Science
21 Foundation for carrying out this Act—

22 “(1) \$53,800,000 for fiscal year 2012;

23 “(2) \$53,800,000 for fiscal year 2013; and

24 “(3) \$53,800,000 for fiscal year 2014.

25 “(d) NATIONAL INSTITUTE OF STANDARDS AND
26 TECHNOLOGY.—There are authorized to be appropriated

1 to the National Institute of Standards and Technology for
2 carrying out this Act—

3 “(1) \$4,100,000 for fiscal year 2012;

4 “(2) \$4,100,000 for fiscal year 2013; and

5 “(3) \$4,100,000 for fiscal year 2014.”.

6 (b) CONFORMING AMENDMENT.—Section 14 of the
7 National Earthquake Hazards Reduction Act of 1977 (42
8 U.S.C. 7708) is amended—

9 (1) by striking “(a) ESTABLISHMENT.—”; and

10 (2) by striking subsection (b).

11 **TITLE II—WIND**

12 **SEC. 201. SHORT TITLE.**

13 This title may be cited as the “National Windstorm
14 Impact Reduction Act Reauthorization of 2011”.

15 **SEC. 202. DEFINITIONS.**

16 Section 203(1) of the National Windstorm Impact
17 Reduction Act of 2004 (42 U.S.C. 15702(1)) is amended
18 by striking “Director of the Office of Science and Tech-
19 nology Policy” and inserting “Director of the National In-
20 stitute of Standards and Technology”.

21 **SEC. 203. NATIONAL WINDSTORM IMPACT REDUCTION PRO-** 22 **GRAM.**

23 Section 204 of the National Windstorm Impact Re-
24 duction Act of 2004 (42 U.S.C. 15703) is amended—

1 (1) by striking subsections (a), (b), and (c) and
2 inserting the following:

3 “(a) ESTABLISHMENT.—There is established the Na-
4 tional Windstorm Impact Reduction Program, the purpose
5 of which is to achieve major measurable reductions in the
6 losses of life and property from windstorms through a co-
7 ordinated Federal effort, in cooperation with other levels
8 of government, academia, and the private sector, aimed
9 at improving the understanding of windstorms and their
10 impacts and developing and encouraging the implementa-
11 tion of cost-effective mitigation measures to reduce those
12 impacts.

13 “(b) RESPONSIBILITIES OF PROGRAM AGENCIES.—
14 “(1) LEAD AGENCY.—The National Institute of
15 Standards and Technology shall have the primary
16 responsibility for planning and coordinating the Pro-
17 gram. In carrying out this paragraph, the Director
18 shall—

19 “(A) ensure that the Program includes the
20 necessary components to promote the imple-
21 mentation of windstorm risk reduction meas-
22 ures by Federal, State, and local governments,
23 national standards and model building code or-
24 ganizations, architects and engineers, and oth-

1 ers with a role in planning and constructing
2 buildings and lifelines;

3 “(B) support the development of perform-
4 ance-based engineering tools, and work with ap-
5 propriate groups to promote the commercial ap-
6 plication of such tools, including through wind-
7 related model building codes, voluntary stand-
8 ards, and construction best practices;

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

12 “(D) coordinate all Federal post-windstorm
13 investigations; and

14 “(E) when warranted by research or inves-
15 tigative findings, issue recommendations to as-
16 sist in informing the development of model
17 codes, and provide information to Congress on
18 the use of such recommendations.

19 “(2) NATIONAL INSTITUTE OF STANDARDS AND
20 TECINOLOGY.—In addition to the lead agency re-
21 sponsibilities described under paragraph (1), the Na-
22 tional Institute of Standards and Technology shall
23 be responsible for carrying out research and develop-
24 ment to improve model building codes, voluntary
25 standards, and best practices for the design, con-

1 construction, and retrofit of buildings, structures, and
2 lifelines.

3 “(3) NATIONAL SCIENCE FOUNDATION.—The
4 National Science Foundation shall support research
5 in engineering and the atmospheric sciences to im-
6 prove the understanding of the behavior of wind-
7 storms and their impact on buildings, structures,
8 and lifelines.

9 “(4) NATIONAL OCEANIC AND ATMOSPHERIC
10 ADMINISTRATION.—The National Oceanic and At-
11 mospheric Administration shall support atmospheric
12 sciences research and data collection to improve the
13 understanding of the behavior of windstorms and
14 their impact on buildings, structures, and lifelines.

15 “(5) FEDERAL EMERGENCY MANAGEMENT
16 AGENCY.—The Federal Emergency Management
17 Agency shall support the development of risk assess-
18 ment tools and effective mitigation techniques, wind-
19 storm-related data collection and analysis, public
20 outreach, information dissemination, and implemen-
21 tation of mitigation measures consistent with the
22 Agency’s all-hazards approach.”;

23 (2) by redesignating subsection (d) as sub-
24 section (e);

1 (3) in subsection (e), as so redesignated by
2 paragraph (2) of this section, amend paragraph
3 (4)(A) to read as follows:

4 “(A) development of improved outreach
5 and implementation mechanisms to translate—
6 “(i) existing information and research
7 findings into cost-effective and affordable
8 practices for design and construction pro-
9 fessionals, and State and local officials;
10 and

11 “(ii) research, including social science
12 research, into windstorm risk mitigation
13 and preparedness strategies for individuals,
14 households, and businesses;” and

15 (4) by striking subsections (e) and (f).

16 **SEC. 204. NATIONAL ADVISORY COMMITTEE ON WIND-**
17 **STORM IMPACT REDUCTION.**

18 Section 205 of the National Windstorm Impact Re-
19 duction Act of 2004 (42 U.S.C. 15704) is amended to
20 read as follows:

21 **“SEC. 205. NATIONAL ADVISORY COMMITTEE ON WIND-**
22 **STORM IMPACT REDUCTION.**

23 “(a) IN GENERAL.—The Director of the National In-
24 stitute of Standards and Technology shall establish an Ad-
25 visory Committee on Windstorm Impact Reduction, which

1 shall be composed of at least 7 members, none of whom
2 may be employees of the Federal Government, including
3 representatives of research and academic institutions, in-
4 dustry standards development organizations, emergency
5 management agencies, State and local government, and
6 business communities who are qualified to provide advice
7 on windstorm impact reduction and represent all related
8 scientific, architectural, and engineering disciplines. The
9 recommendations of the Advisory Committee shall be con-
10 sidered by Federal agencies in implementing the Program.

11 “(b) ASSESSMENTS.—The Advisory Committee on
12 Windstorm Impact Reduction shall offer assessments on—

13 “(1) trends and developments in the natural,
14 social, and engineering sciences and practices of
15 windstorm impact mitigation;

16 “(2) the priorities of the Program’s Strategic
17 Plan;

18 “(3) the coordination of the Program; and

19 “(4) any revisions to the Program which may
20 be necessary.

21 “(c) COMPENSATION.—The members of the Advisory
22 Committee established under this section shall serve with-
23 out compensation.

24 “(d) REPORTS.—At least every 2 years, the Advisory
25 Committee shall report to the Director on the assessments

1 carried out under subsection (b) and its recommendations
2 for ways to improve the Program.

3 “(e) TERMINATION.—The Advisory Committee shall
4 terminate not later than 5 years after the date of enact-
5 ment of the Natural Hazards Risk Reduction Act of
6 2011.”.

7 **SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

8 Section 207 of the National Windstorm Impact Re-
9 duction Act of 2004 (42 U.S.C. 15706) is amended to
10 read as follows:

11 **“SEC. 207. AUTHORIZATION OF APPROPRIATIONS.**

12 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
13 CY.—There are authorized to be appropriated to the Fed-
14 eral Emergency Management Agency for carrying out this
15 title—

16 “(1) \$4,000,000 for fiscal year 2012;

17 “(2) \$4,000,000 for fiscal year 2013; and

18 “(3) \$4,000,000 for fiscal year 2014.

19 “(b) NATIONAL SCIENCE FOUNDATION.—There are
20 authorized to be appropriated to the National Science
21 Foundation for carrying out this title—

22 “(1) \$9,400,000 for fiscal year 2012;

23 “(2) \$9,400,000 for fiscal year 2013; and

24 “(3) \$9,400,000 for fiscal year 2014.

1 “(c) NATIONAL INSTITUTE OF STANDARDS AND
2 TECHNOLOGY.—There are authorized to be appropriated
3 to the National Institute of Standards and Technology for
4 carrying out this title—

5 “(1) \$5,300,000 for fiscal year 2012;

6 “(2) \$5,300,000 for fiscal year 2013; and

7 “(3) \$5,300,000 for fiscal year 2014.

8 “(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
9 STRATION.—There are authorized to be appropriated to
10 the National Oceanic and Atmospheric Administration for
11 carrying out this title—

12 “(1) \$2,700,000 for fiscal year 2012;

13 “(2) \$2,700,000 for fiscal year 2013; and

14 “(3) \$2,700,000 for fiscal year 2014.”.

15 **TITLE III—INTERAGENCY**
16 **COORDINATION**

17 **SEC. 301. INTERAGENCY COORDINATING COMMITTEE ON**
18 **NATURAL HAZARDS RISK REDUCTION.**

19 (a) ESTABLISHMENT.—There is established an Inter-
20 agency Coordinating Committee on Natural Hazards Risk
21 Reduction, chaired by the Director of the National Insti-
22 tute of Standards and Technology.

23 (b) MEMBERSHIP.—In addition to the chair, the
24 Committee shall be composed of—

25 (1) the heads of—

- 1 (A) the Federal Emergency Management
2 Agency;
- 3 (B) the United States Geological Survey;
- 4 (C) the National Oceanic and Atmospheric
5 Administration;
- 6 (D) the National Science Foundation;
- 7 (E) the Office of Science and Technology
8 Policy; and
- 9 (F) the Office of Management and Budget;
- 10 and
- 11 (2) the head of any other Federal agency the
12 chair considers appropriate.
- 13 (e) MEETINGS.—The Committee shall meet not less
14 than 1 time a year at the call of the Director of the Na-
15 tional Institute of Standards and Technology.
- 16 (d) GENERAL PURPOSE AND DUTIES.—The Com-
17 mittee shall oversee the planning and coordination of the
18 National Earthquake Hazards Reduction Program and
19 the National Windstorm Impact Reduction Program, and
20 shall make proposals for planning and coordination of any
21 other Federal research for natural hazard mitigation that
22 the Committee considers appropriate.
- 23 (e) STRATEGIC PLANS.—The Committee shall de-
24 velop and submit to Congress, not later than one year
25 after the date of enactment of this Act—

- 1 (1) a Strategic Plan for the National Earth-
2 quake Hazards Reduction Program that includes—
- 3 (A) prioritized goals for such Program that
4 will mitigate against the loss of life and prop-
5 erty from future earthquakes;
- 6 (B) short-term, mid-term, and long-term
7 research objectives to achieve those goals;
- 8 (C) a description of the role of each Pro-
9 gram agency in achieving the prioritized goals;
- 10 (D) the methods by which progress to-
11 wards the goals will be assessed;
- 12 (E) an explanation of how the Program
13 will foster the transfer of research results into
14 outcomes, such as improved model building
15 codes;
- 16 (F) a description of how the George E.
17 Brown, Jr. Network for Earthquake Engineer-
18 ing Simulation and the Advanced National Seis-
19 mic Research and Monitoring System will be
20 used in achieving the prioritized goals and re-
21 search objectives; and
- 22 (G) an explanation of how the Program
23 will coordinate its activities with other Federal
24 agencies performing activities relevant to the
25 Program; and

- 1 (2) a Strategic Plan for the National Wind-
2 storm Impact Reduction Program that includes—
- 3 (A) prioritized goals for such Program that
4 will mitigate against the loss of life and prop-
5 erty from future windstorms;
- 6 (B) short-term, mid-term, and long-term
7 research objectives to achieve those goals;
- 8 (C) a description of the role of each Pro-
9 gram agency in achieving the prioritized goals;
- 10 (D) the methods by which progress to-
11 wards the goals will be assessed;
- 12 (E) an explanation of how the Program
13 will foster the transfer of research results into
14 outcomes, such as improved model building
15 codes; and
- 16 (F) an explanation of how the Program
17 will coordinate its activities with other Federal
18 agencies performing activities relevant to the
19 Program.
- 20 (f) PROGRESS REPORTS.—Not later than 18 months
21 after the date of enactment of this Act, the Committee
22 shall submit to the Congress—
- 23 (1) a report on the progress of the National
24 Earthquake Hazards Reduction Program that in-
25 cludes—

1 (A) a description of the activities funded
2 under the Program, a description of how these
3 activities align with the prioritized goals and re-
4 search objectives established in the Strategic
5 Plan, and the budgets, per agency, for these ac-
6 tivities;

7 (B) the outcomes achieved by the Program
8 for each of the goals identified in the Strategic
9 Plan;

10 (C) a description of any recommendations
11 made to change existing building codes that
12 were the result of Program activities; and

13 (D) a description of the extent to which
14 the Program has incorporated recommendations
15 from the Advisory Committee on Earthquake
16 Hazards Reduction; and

17 (2) a report on the progress of the National
18 Windstorm Impact Reduction Program that in-
19 cludes—

20 (A) a description of the activities funded
21 under the Program, a description of how these
22 activities align with the prioritized goals and re-
23 search objectives established in the Strategic
24 Plan, and the budgets, per agency, for these ac-
25 tivities;

1 (B) the outcomes achieved by the Program
2 for each of the goals identified in the Strategic
3 Plan;

4 (C) a description of any recommendations
5 made to change existing building codes that
6 were the result of Program activities; and

7 (D) a description of the extent to which
8 the Program has incorporated recommendations
9 from the Advisory Committee on Windstorm
10 Impact Reduction.

11 (g) COORDINATED BUDGET.—The Committee shall
12 develop a coordinated budget for the National Earthquake
13 Hazards Reduction Program and a coordinated budget for
14 the National Windstorm Impact Reduction Program.
15 These budgets shall be submitted to the Congress at the
16 time of the President’s budget submission for each fiscal
17 year.

18 **SEC. 302. COORDINATION OF FEDERAL DISASTER RE-**
19 **SEARCH, DEVELOPMENT, AND TECHNOLOGY**
20 **TRANSFER.**

21 Not later than 2 years after the date of enactment
22 of this Act, the Subcommittee on Disaster Reduction of
23 the Committee on Environment and Natural Resources of
24 the National Science and Technology Council shall submit
25 a report to the Congress detailing—

1 (1) current Federal research, development, and
2 technology transfer activities that address hazard
3 mitigation for natural disasters, including earth-
4 quakes, windstorms, wildfires, floods, and the cur-
5 rent budgets for these activities;

6 (2) areas of research that are common to two
7 or more of the hazards identified in paragraph (1);

8 (3) opportunities to create synergies between
9 the research activities for the hazards identified in
10 paragraph (1); and

11 (4) the status of coordination of Federal dis-
12 aster research, development, and technology transfer
13 activities including those of the National Earthquake
14 Hazards Reduction Program and the National
15 Windstorm Impact Reduction Program.

16 **SEC. 303. AUTHORIZATIONS.**

17 No additional funds are authorized to carry out this
18 title. This title shall be carried out using amounts other-
19 wise authorized or appropriated.

○

SECTION-BY-SECTION DESCRIPTION OF H.R. 3479, "THE NATURAL HAZARDS RISK REDUCTION ACT OF 2011"

Section 1. Short Title

This section sets forth the short title as the "Natural Hazards Risk Reduction Act of 2011."

Section 2. Table of Contents

This section provides a table of contents.

Title I. EARTHQUAKES**Section 101. Short Title**

This section sets forth the short title for Title I as the "National Earthquake Hazards Reduction Program Reauthorization Act of 2011."

Section 102. Definitions

This section removes the definitions of the "Interagency Coordination Committee" and the "Advisory Committee" from Section 4 of the Earthquake Hazards Reduction Act of 1977.

Section 103. National Earthquake Hazards Reduction Program

This section identifies the four agencies that make up National Earthquake Hazards Reduction Program (NEHRP): the National Institute of Standards and Technology (NIST), the Federal Emergency Management Agency (FEMA), the United States Geological Survey (USGS), and the National Science Foundation (NSF). This section also amends the Earthquake Hazards Reduction Act of 1977 to detail NEHRP activities, which include researching and developing effective methods, tools, and technologies to reduce the risk posed by earthquakes to the built environment, especially to lessen the risk to existing structures and lifelines.

Section 103 defines the responsibilities of NIST as the lead Program agency, which include: planning and coordinating the Program; supporting the development of performance-based seismic engineering tools; requesting the assistance of Federal agencies other than Program agencies as necessary; working with Program agencies to develop a comprehensive plan for earthquake engineering research to use existing facilities and laboratories; and issuing recommendations to assist in informing model codes when warranted by research or investigative findings. This section also updates the responsibilities of the Program agencies, further detailing current activities.

Finally, this section amends the Earthquake Hazards Reduction Act of 1977 to reauthorize and update an existing Advisory Committee for NEHRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

Section 104. Post-Earthquake Investigation Program

This section amends the Earthquake Hazards Reduction Act of 1977 to direct USGS to utilize the coordination expertise of the lead program agency in organizing post-earthquake investigations.

Section 105. Authorization of Appropriations

This section provides authorizations of appropriations as follows:

For FEMA: \$6,400,000 for each fiscal year 2012 through 2014.

For USGS: \$57,700,000 for each fiscal year 2012 through 2014.

For NSF: \$53,800,000 for each fiscal year 2012 through 2014.

For NIST: \$4,100,000 for each fiscal year 2012 through 2014.

Title II. WIND**Section 201. Short Title**

This section establishes the short title for this Title of the bill as the "National Windstorm Impact Reduction Act Reauthorization of 2011."

Section 202. Definitions

This section amends the National Windstorm Impact Reduction Act of 2004 to define the “Director” of the Program as the Director of the National Institute of Standards and Technology rather than the Director of the White House Office of Science and Technology Policy (OSTP).

Section 203. National Windstorm Impact Reduction Program

This section identifies the four agencies that make up the National Windstorm Impact Reduction Program (NWIRP): NIST, NSF, the National Oceanic and Atmospheric Administration (NOAA), and FEMA; defines NIST as the lead program agency; and assigns responsibilities to the four program agencies.

As the new lead agency, NIST’s activities include planning and coordinating the Program; supporting the development of performance-based engineering tools; requesting the assistance of Federal agencies other than Program agencies as necessary; coordinating all Federal post-windstorm investigations; and issuing recommendations to assist in informing model building codes when warranted by research or investigative findings. In addition to the lead agency responsibilities, NIST shall also conduct research and development to improve model building codes, voluntary standards, and best practices for the design, construction, and retrofit of buildings, structures, and lifelines.

NSF activities include research in engineering and the atmospheric sciences to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

NOAA activities include the support of atmospheric science research and data collection to improve the understanding of the behavior of windstorms and their impact on buildings, structures, and lifelines.

FEMA activities include the development of risk assessment tools and effective mitigation techniques; data collection and analysis; and public outreach, information dissemination and implementation of mitigation measures.

Section 204. National Advisory Committee on Windstorm Impact Reduction

This section amends the National Windstorm Impact Reduction Act of 2004 to reauthorize and update an existing Advisory Committee for NWIRP of relevant non-Federal employee experts to offer recommendations and assessments on program developments, priorities, coordination, and revisions as necessary. This section requires the Advisory Committee to report to the Director of NIST on the assessment and its recommendations at least every two years.

Section 205. Authorization of Appropriations

This section provides authorizations of appropriations as follows:

For FEMA: \$4,000,000 for each fiscal year 2012 through 2014.

For NSF: \$9,400,000 for each fiscal year 2012 through 2014.

For NIST: \$5,300,000 for each fiscal year 2012 through 2014.

For NOAA: \$2,700,000 for each fiscal year 2012 through 2014.

Title III. INTERAGENCY COORDINATION**Sec. 301. Interagency Coordinating Committee on Natural Hazards Risk Reduction**

This section combines the Interagency Coordinating Committee on Earthquake Hazards Reduction and the National Windstorm Impact Reduction Program Interagency Working Group into one Interagency Coordinating Committee on Natural Hazards Risk Reduction, chaired by the Director of NIST and comprised of the heads of FEMA, USGS, NOAA, NSF, the Office of Science and Technology Policy (OSTP), the Office of Management and Budget (OMB), and the head of any other Federal agency the chair of the Committee considers appropriate. The section instructs the Committee to plan and coordinate NEHRP and NWIRP, including the development of a strategic plan for each program, a progress report on each program, and a coordinated budget for both NEHRP and NWIRP.

Sec. 302. Coordination of Federal Disaster Research, Development, and Technology Transfer

This section requires the existing Subcommittee on Disaster Reduction, of the Committee on Environment and Natural Resources of the National Science and

Technology Council, to submit a report to Congress identifying the current Federal research, development, and technology transfer activities that address mitigation for all types of natural hazards, and how such activities are being coordinated to reduce duplication among the various research programs.

Sec. 303. Authorizations

This section clarifies that no additional funding is authorized to carry out the title.

AMENDMENT TO H.R. 3479**OFFERED BY MRS. BIGGERT OF ILLINOIS**

Page 20, line 19, strike “will” and insert “may”.

Page 22, line 12, strike “and”.

Page 22, line 13, redesignate subparagraph (D) as subparagraph (E).

Page 22, after line 12, insert the following new subparagraph:

1 (D) a description of activities carried out
2 under section 11 of the Earthquake Hazards
3 Reduction Act of 1977 (42 U.S.C. 7705e), in-
4 cluding a description of agency activities and
5 the amount of funding provided for each inves-
6 tigation; and

Page 24, line 2, insert “, including those of the National Laboratories,” after “technology transfer activities”.



AMENDMENT TO H.R. 3479
OFFERED BY MR. CLARKE OF MICHIGAN

Page 4, line 2, insert “different populations, including individuals and households with special needs,” after “outreach to assist”.

Page 15, lines 11 through 14, amend clause (ii) to read as follows:

1 “(ii) research, including social science
2 research, into windstorm risk mitigation
3 and preparedness strategies for individuals
4 and households, including individuals and
5 households with special needs, and busi-
6 nesses;” and



AMENDMENT TO H.R. 3479
OFFERED BY Ms. Lofgren

Page 5, line 17, strike “and”.

Page 5, line 18, strike “(E)” and insert “(F)”.

Page 5, after line 17, insert the following new subparagraph:

1 “(E) coordinate all Federal post-earth-
 2 quake investigations; and

Page 9, strike lines 20 through 24 and insert the following:

3 **SEC. 104. POST-EARTHQUAKE INVESTIGATIONS PROGRAM.**

4 Section 11 of the Earthquake Hazards Reduction Act
 5 of 1977 (42 U.S.C. 7705e) is amended—

6 (1) by striking “United States Geological Sur-
 7 vey” in each of the first 2 sentences and inserting
 8 “lead Program agency”; and

9 (2) by striking “The Director of the Survey”
 10 and all that follows through “such earthquake inves-
 11 tigations.”.

Page 10, strike line 25 and all that follows through
 line 5 on page 11, and insert the following:

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2

1 “(d) NATIONAL INSTITUTE OF STANDARDS AND
2 TECHNOLOGY.—There are authorized to be appropriated
3 to the National Institute of Standards and Technology for
4 carrying out this Act—

5 “(1) \$7,500,000 for fiscal year 2012;

6 “(2) \$7,725,000 for fiscal year 2013; and

7 “(3) \$7,957,000 for fiscal year 2014.”.



AMENDMENT TO H.R. 3479**OFFERED BY** *Ms. Woolsey*

Page 10, strike line 5 and all that follows through line 5 on page 11, and insert the following:

1 **“SEC. 12. AUTHORIZATION OF APPROPRIATIONS.**

2 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
3 CY.—There are authorized to be appropriated to the Fed-
4 eral Emergency Management Agency for carrying out this
5 Act—

6 “(1) \$23,640,000 for fiscal year 2012;

7 “(2) \$23,640,000 for fiscal year 2013; and

8 “(3) \$23,640,000 for fiscal year 2014.

9 “(b) UNITED STATES GEOLOGICAL SURVEY.—There
10 are authorized to be appropriated to the United States Ge-
11 ological Survey for carrying out this Act—

12 “(1) \$88,900,000 for fiscal year 2012;

13 “(2) \$88,900,000 for fiscal year 2013; and

14 “(3) \$88,900,000 for fiscal year 2014.

15 “(c) NATIONAL SCIENCE FOUNDATION.—There are
16 authorized to be appropriated to the National Science
17 Foundation for carrying out this Act—

18 “(1) \$64,700,000 for fiscal year 2012;

19 “(2) \$64,700,000 for fiscal year 2013; and

1 “(3) \$64,700,000 for fiscal year 2014.

2 “(d) NATIONAL INSTITUTE OF STANDARDS AND
3 TECHNOLOGY.—There are authorized to be appropriated
4 to the National Institute of Standards and Technology for
5 carrying out this Act—

6 “(1) \$14,640,000 for fiscal year 2012;

7 “(2) \$14,640,000 for fiscal year 2013; and

8 “(3) \$14,640,000 for fiscal year 2014.”.

Page 17, strike line 11 and all that follows through
line 14 on page 18 and insert the following:

9 **“SEC. 207. AUTHORIZATION OF APPROPRIATIONS.**

10 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
11 CY.—There are authorized to be appropriated to the Fed-
12 eral Emergency Management Agency for carrying out this
13 title—

14 “(1) \$9,400,000 for fiscal year 2012;

15 “(2) \$9,400,000 for fiscal year 2013; and

16 “(3) \$9,400,000 for fiscal year 2014.

17 “(b) NATIONAL SCIENCE FOUNDATION.—There are
18 authorized to be appropriated to the National Science
19 Foundation for carrying out this title—

20 “(1) \$9,400,000 for fiscal year 2012;

21 “(2) \$9,400,000 for fiscal year 2013; and

22 “(3) \$9,400,000 for fiscal year 2014.

1 “(c) NATIONAL INSTITUTE OF STANDARDS AND
2 TECHNOLOGY.—There are authorized to be appropriated
3 to the National Institute of Standards and Technology for
4 carrying out this title—

5 “(1) \$5,300,000 for fiscal year 2012;

6 “(2) \$5,300,000 for fiscal year 2013; and

7 “(3) \$5,300,000 for fiscal year 2014.

8 “(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
9 STRATION.—There are authorized to be appropriated to
10 the National Oceanic and Atmospheric Administration for
11 carrying out this title—

12 “(1) \$2,200,000 for fiscal year 2012;

13 “(2) \$2,200,000 for fiscal year 2013; and

14 “(3) \$2,200,000 for fiscal year 2014.”.



AMENDMENT TO H.R. 3479
OFFERED BY Ms. Edwards

Strike page 10, line 6, through page 11, line 5, and
insert the following:

1 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
2 CY.—There are authorized to be appropriated to the Fed-
3 eral Emergency Management Agency for carrying out this
4 Act—

5 “(1) \$10,545,000 for fiscal year 2012;

6 “(2) \$10,861,000 for fiscal year 2013; and

7 “(3) \$11,187,000 for fiscal year 2014.

8 “(b) UNITED STATES GEOLOGICAL SURVEY.—There
9 are authorized to be appropriated to the United States Ge-
10 ological Survey for carrying out this Act—

11 “(1) \$92,100,000 for fiscal year 2012;

12 “(2) \$94,263,000 for fiscal year 2013; and

13 “(3) \$96,491,000 for fiscal year 2014.

14 “(c) NATIONAL SCIENCE FOUNDATION.—There are
15 authorized to be appropriated to the National Science
16 Foundation for carrying out this Act—

17 “(1) \$66,049,000 for fiscal year 2012;

18 “(2) \$68,030,000 for fiscal year 2013; and

19 “(3) \$70,071,000 for fiscal year 2014.

1 “(d) NATIONAL INSTITUTE OF STANDARDS AND
2 TECHNOLOGY.—There are authorized to be appropriated
3 to the National Institute of Standards and Technology for
4 carrying out this Act—

5 “(1) \$7,700,000 for fiscal year 2012;

6 “(2) \$7,931,000 for fiscal year 2013; and

7 “(3) \$8,169,000 for fiscal year 2014.”.

Page 17, strike line 11 and all that follows through
line 14 on page 18 and insert the following:

8 **“SEC. 207. AUTHORIZATION OF APPROPRIATIONS.**

9 “(a) FEDERAL EMERGENCY MANAGEMENT AGEN-
10 CY.—There are authorized to be appropriated to the Fed-
11 eral Emergency Management Agency for carrying out this
12 title—

13 “(1) \$9,972,500 for fiscal year 2012;

14 “(2) \$10,271,600 for fiscal year 2013; and

15 “(3) \$10,579,800 for fiscal year 2014.

16 “(b) NATIONAL SCIENCE FOUNDATION.—There are
17 authorized to be appropriated to the National Science
18 Foundation for carrying out this title—

19 “(1) \$9,972,500 for fiscal year 2012;

20 “(2) \$10,271,700 for fiscal year 2013; and

21 “(3) \$10,579,800 for fiscal year 2014.

22 “(c) NATIONAL INSTITUTE OF STANDARDS AND
23 TECHNOLOGY.—There are authorized to be appropriated

1 to the National Institute of Standards and Technology for
2 carrying out this title—

3 “(1) \$5,300,000 for fiscal year 2012;

4 “(2) \$5,459,000 for fiscal year 2013; and

5 “(3) \$5,622,800 for fiscal year 2014.

6 “(d) NATIONAL OCEANIC AND ATMOSPHERIC ADMIN-
7 ISTRATION.—There are authorized to be appropriated to
8 the National Oceanic and Atmospheric Administration for
9 carrying out this title—

10 “(1) \$2,334,000 for fiscal year 2012;

11 “(2) \$2,404,000 for fiscal year 2013; and

12 “(3) \$2,476,100 for fiscal year 2014.”.



AMENDMENT TO H.R. 3479
OFFERED BY MR. LUJÁN OF NEW MEXICO

Add at the end the following new title:

1 **TITLE IV—FIRE RESEARCH**
2 **PROGRAM**

3 **SEC. 401. FIRE RESEARCH PROGRAM.**

4 Section 16(a)(1) of the National Institute of Stand-
5 ards and Technology Act (15 U.S.C. 278f(a)(1)) is
6 amended—

7 (1) in subparagraph (D), by inserting “fires at
8 the wildland-urban interface that are the result of
9 natural causes,” after “but not limited to,”; and

10 (2) in subparagraph (E), by inserting “fires at
11 the wildland-urban interface that are the result of
12 natural causes,” after “types of fires, including”.



COMMITTEE ON SCIENCE, SPACE, AND TECHNOLOGY
Full Committee Markup
December 1, 2011

AMENDMENT ROSTER

H. R. 3479, the "Natural Hazards Risk Reduction Act of 2011"

No.	Amendment	Summary	Results
1	Mrs. Biggert (048)	Provides flexibility in the specific use of NSF's NEES center in the NEHRP strategic plan; requires the report on the NEHRP to include a description of post-earthquake investigation activities carried out under the program; expands the coordination report in Section 302 to include information on research, development and technology transfer activities of the National Labs.	Agreed to by Voice Vote
2	Mr. Clarke (050)	Specifies that the NEHRP public education and outreach should assist "different populations, including individuals with special needs"; specifies that the NWIRP outreach and implementation mechanisms to translate research, including social science research, into windstorm risk mitigation and preparedness strategies for individuals and households include "individuals and households with special needs".	Agreed to by Voice Vote
3	Ms. Lofgren (010)	Specifies that the lead agency of the NEHRP program shall "coordinate all Federal post-earthquake investigations"; transfers the authority for post-earthquake investigations to NIST from USGS; increases the funding for NIST each fiscal year (3 year authorization) for a total increase of \$10.9 million.	Not Agreed to by a roll call vote of 11 Yeas and 20 Noes
4	Ms. Woolsey (006)	Increases funding for NEHRP by a total increase of \$209.6 million over the 3 year authorization ; increases funding for NWIRP by a total increase of \$14.7 million over the 3 year authorization; total increase of \$224.3 million	Not Agreed to by a roll call vote of 12 Yeas and 21 Noes
5	Ms. Edwards (007)	Increases funding for NEHRP each fiscal year for a total increase of \$177.4 million over the 3 year authorization; increases funding for NWIRP each fiscal year for a total increase of \$21.2 million over the 3 year authorization; total increase of \$198.6 million	Not Agreed to by voice vote

6	Mr. Lujan (003)	Amends the National Institute of Standards and Technology Act to allow research into fires "at the wildland-urban interface that are the result of natural causes"	Agreed to by Voice Vote
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