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107TH CONGRESS
1ST SESSION

H. R. 1472

To authorize appropriations for fiscal years 2002, 2003, 2004, and 2005 for the National Science Foundation, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

APRIL 4, 2001

Ms. EDDIE BERNICE JOHNSON of Texas (for herself, Mr. HALL of Texas, Ms. RIVERS, Mr. ETHERIDGE, Mr. ISRAEL, Mr. COSTELLO, Ms. JACKSON-LEE of Texas, Mr. WU, Mr. UDALL of Colorado, Mr. LARSON of Connecticut, Ms. LOFGREN, Ms. WOOLSEY, Mr. GORDON, Mr. BACA, Mr. BARCIA, Mr. BAIRD, and Mr. MOORE) introduced the following bill; which was referred to the Committee on Science

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A BILL

To authorize appropriations for fiscal years 2002, 2003, 2004, and 2005 for the National Science Foundation, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''National Science Foundation Authorization Act of 2001''.

SEC. 2. FINDINGS.

The Congress finds the following:

(1) The National Science Foundation merits praise and public recognition for its major contributions during the past 50 years to the development of the Nation's academic research enterprise, which is the envy of the world.

(2) The economic strength and security of the United States and the quality of life of all Americans are grounded in the Nation's scientific and technological capabilities.

(3) The National Science Foundation plays a key role in the support of basic research in all science and engineering disciplines and in science, mathematics, engineering, and technology education at all levels.

(4) The research and education activities of the National Science Foundation promote the discovery, integration, dissemination, and application of new knowledge in service to society and prepare future generations of scientists, mathematicians, and engineers who will be necessary to ensure America's leadership in the global marketplace.

(5) The National Science Foundation must be provided with sufficient resources to enable it to carry out its responsibilities to develop intellectual capital, strengthen the scientific infrastructure, inte-

grate research and education, and enhance the delivery of mathematics and science education and improve the technological literacy of all citizens.

SEC. 3. AUTHORIZATION OF APPROPRIATIONS.

(a) FISCAL YEAR 2002.—

(1) IN GENERAL.—There are authorized to be appropriated to the National Science Foundation $5,078,400,000 for fiscal year 2002.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $3,859,700,000 shall be made available to carry out Research and Related Activities, of which—

(i) $561,000,000 shall be made available for Biological Sciences;

(ii) $556,300,000 shall be made available for Computer and Information Science and Engineering;

(iii) $489,400,000 shall be made available for Engineering;

(iv) $624,400,000 shall be made available for Geosciences;

(v) $1,028,700,000 shall be made available for Mathematical and Physical

Sciences, of which $210,000,000 shall be made available for Mathematical Sciences;

(vi) $189,000,000 shall be made available for Social, Behavioral, and Economic Sciences;

(vii) $236,000,000 shall be made available for United States Polar Research Programs;

(viii) $62,600,000 shall be made available for United States Antarctic Logistical Support Activities; and

(ix) $112,300,000 shall be made available for Integrative Activities, of which $75,000,000 shall be made available for Major Research Instrumentation;

(B) $903,400,000 shall be made available for Education and Human Resources, of which—

(i) such sums as may be necessary shall be made available to allow for a minimum of 900 new awards for Graduate Research Fellowships;

(ii) $18,000,000 shall be made available for evaluation activities carried out by

the Research, Evaluation and Communication division; and

(iii) $67,000,000 shall be made available for research activities carried out by the Research, Evaluation and Communication division, of which $25,000,000 shall be made available for the Interagency Research Initiative;

(C) $135,200,000 shall be made available for Major Research Equipment, of which—

(i) $17,400,000 shall be made available for the EarthScope;

(ii) $16,900,000 shall be made available for the Large Hadron Collider;

(iii) $9,000,000 shall be made available for Millimeter Array;

(iv) $12,500,000 shall be made available for HIAPER;

(v) $55,000,000 shall be made available for Terascale Computing Systems; and

(vi) $24,400,000 shall be made available for the Network for Earthquake Engineering Simulation;

(D) $173,300,000 shall be made available for Salaries and Expenses; and

(E) $6,800,000 shall be made available for the Office of Inspector General.

(b) FISCAL YEAR 2003.—

(1) IN GENERAL.—There are authorized to be appropriated to the National Science Foundation $5,840,200,000 for fiscal year 2003.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $4,471,700,000 shall be made available to carry out Research and Related Activities, of which—

(i) $634,000,000 shall be made available for Biological Sciences;

(ii) $645,200,000 shall be made available for Computer and Information Science and Engineering;

(iii) $553,000,000 shall be made available for Engineering;

(iv) $706,000,000 shall be made available for Geosciences;

(v) $1,216,900,000 shall be made available for Mathematical and Physical

Sciences, of which $300,000,000 shall be made available for Mathematical Sciences;

(vi) $259,000,000 shall be made available for Social, Behavioral, and Economic Sciences;

(vii) $267,000,000 shall be made available for United States Polar Research Programs;

(viii) $62,600,000 shall be made available for United States Antarctic Logistical Support Activities; and

(ix) $128,000,000 shall be made available for Integrative Activities, of which $85,000,000 shall be made available for Major Research Instrumentation;

(B) $1,038,900,000 shall be made available for Education and Human Resources, of which—

(i) such sums as may be necessary shall be made available to allow for a minimum of 900 new awards for Graduate Research Fellowships;

(ii) $20,000,000 shall be made available for evaluation activities carried out by

the Research, Evaluation and Communication division; and

(iii) $77,000,000 shall be made available for research activities carried out by the Research, Evaluation and Communication division, of which $28,000,000 shall be made available for the Interagency Research Initiative;

(C) $138,700,000 shall be made available for Major Research Equipment, of which—

(i) $28,500,000 shall be made available for the EarthScope;

(ii) $9,700,000 shall be made available for the Large Hadron Collider;

(iii) $15,000,000 shall be made available for Millimeter Array;

(iv) $12,000,000 shall be made available for the National Ecological Observatory Network;

(v) $39,500,000 shall be made available for HIAPER; and

(vi) $4,500,000 shall be made available for the Network for Earthquake Engineering Simulation;

(D) $183,700,000 shall be made available for Salaries and Expenses; and

(E) $7,200,000 shall be made available for the Office of Inspector General.

(c) FISCAL YEAR 2004.—

(1) IN GENERAL.—There are authorized to be appropriated to the National Science Foundation $6,716,200,000 for fiscal year 2004.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $5,176,300,000 shall be made available to carry out Research and Related Activities, of which—

(i) $329,000,000 shall be made available for Social, Behavioral, and Economic Sciences;

(ii) $390,000,000 shall be made available for Mathematical Sciences; and

(iii) $100,000,000 shall be made available for the Major Research Instrumentation;

(B) $1,194,700,000 shall be made available to carry out Education and Human Resources;

(C) $142,900,000 shall be made available for Major Research Equipment, of which—

(i) $15,700,000 shall be made available for the EarthScope;

(ii) $25,000,000 shall be made available for Millimeter Array;

(iii) $20,000,000 shall be made available for the National Ecological Observatory Network;

(iv) $7,500,000 shall be made available for HIAPER; and

(v) $17,000,000 shall be made available for the Network for Earthquake Engineering Simulation;

(D) $194,700,000 shall be made available for Salaries and Expenses; and

(E) $7,600,000 shall be made available for the Office of Inspector General.

(d) FISCAL YEAR 2005.—

(1) IN GENERAL.—There are authorized to be appropriated to the National Science Foundation $7,723,600,000 for fiscal year 2005.

(2) SPECIFIC ALLOCATIONS.—Of the amount authorized under paragraph (1)—

(A) $5,988,000,000 shall be made available to carry out Research and Related Activities, of which $480,000,000 shall be made available for Mathematical Sciences;

(B) $1,373,900,000 shall be made available to carry out Education and Human Resources;

(C) $147,200,000 shall be made available for Major Research Equipment, of which—

(i) $13,200,000 shall be made available for the EarthScope;

(ii) $35,000,000 shall be made available for Millimeter Array;

(iii) $27,000,000 shall be made available for the National Ecological Observatory Network; and

(iv) $7,500,000 shall be made available for HIAPER;

(D) $206,400,000 shall be made available for Salaries and Expenses; and

(E) $8,100,000 shall be made available for the Office of Inspector General.

SEC. 4. PRIORITY FOR RESOURCE ALLOCATION.

In allocating resources made available under section 3 for Research and Related Activities, the National

Science Foundation shall give priority to increasing average grant size and duration.

SEC. 5. PROPORTIONAL REDUCTION OF RESEARCH AND RELATED ACTIVITIES AMOUNTS.

If the amount appropriated pursuant to section 3(a)(2)(A), 3(b)(2)(A), or 3(c)(2)(A) is less than the amount authorized under that subparagraph, the amount available for each scientific directorate and major activity under that subparagraph shall be reduced by the same proportion.

SEC. 6. CONSULTATION AND REPRESENTATION EXPENSES.

From appropriations made under authorizations provided in this Act, the Director of the National Science Foundation may use not more than $10,000 in each fiscal year for official consultation, representation, or other extraordinary expenses.

SEC. 7. MAJOR RESEARCH INSTRUMENTATION.

The National Science Foundation shall conduct a review and assessment of the Major Research Instrumentation Program and provide a report to Congress on its findings and recommendations by September 1, 2002. The report shall include—

(1) estimates of the needs, by major field of science and engineering, of institutions of higher education for the types of research instrumentation

that are eligible for acquisition under the guidelines of the Major Research Instrumentation Program;

(2) the distribution of awards and funding levels by year and by major field of science and engineering for the Major Research Instrumentation Program, since the inception of the Program; and

(3) an analysis of the impact of the Major Research Instrumentation Program on the research instrumentation needs that were documented in the National Science Foundation's 1994 survey of academic research instrumentation needs.

SEC. 8. ASSESSMENT AND PLAN FOR PROGRAMS TO ENCOURAGE CAREERS IN SCIENCE AND ENGINEERING BY UNDERREPRESENTED GROUPS.

(a) ASSESSMENT.—The Director of the National Science Foundation shall conduct a review and assessment of the precollege and undergraduate programs of the National Science Foundation that are focused on increasing the numbers of individuals pursuing careers in science, mathematics, and engineering, who are from segments of the population underrepresented in these career fields. The study shall—

(1) determine the effectiveness of the Foundation's programs, with emphasis on quantitative evidence of the programs' impact on increasing the

numbers of individuals obtaining baccalaureate and graduate degrees in science, mathematics, and engineering and subsequently entering careers in those fields;

(2) identify the principal characteristics of effective programs and factors that would affect the replication of effective programs at other sites; and

(3) develop recommendations for surveys and for other data collection and analysis activities that would strengthen the Foundation's capability to assess the effectiveness of these programs and to replicate and enlarge successful programs.

(b) PLAN.—On the basis of the assessment under subsection (a), the Director shall develop a plan for—

(1) instituting a research grants program and allocating resources for the Foundation's internal assessment activities to address recommendations developed under subsection (a)(3); and

(2) scaling up and replicating programs and activities that have been determined to be effective in increasing the numbers of baccalaureate and graduate degrees in science, mathematics, and engineering from segments of the population underrepresented in these career fields.

(c) TRANSMITTAL TO CONGRESS.—The National Science Foundation shall transmit to Congress within 18 months after the date of enactment of this Act a report setting forth the findings, conclusions, and recommendations of the assessment conducted in accordance with subsection (a) and the plan developed in accordance with subsection (b), including recommended funding levels for proposed programs and activities.

SEC. 9. NATIONAL RESEARCH FACILITIES PLAN.

Section 201 of the National Science Foundation Authorization Act of 1998 is amended by adding at the end the following new subsection:

''(c) COST CATEGORIES.—All cost data on facilities construction, repair and upgrades, operations, and maintenance provided in the plan required under subsection (a) shall indicate the source of the funds by appropriations account. Data supplied on operations costs shall indicate current and planned funding for instrumentation development and upgrades required to maintain the scientific value of the facility.''.

SEC. 10. REPORTS ELIMINATION.

Section 3003(a)(1) of the Federal Reports Elimination and Sunset Act of 1995 (31 U.S.C. 1113 note) does not apply to any report required to be submitted under any of the following provisions of law:

(1) Section 4(j)(1) of the National Science Foundation Act of 1950 (42 U.S.C. 1863(j)(1)).

(2) Section 36(e) of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885c(e)).

(3) Section 37 of the Science and Engineering Equal Opportunities Act (42 U.S.C. 1885d).

(4) Section 108 of the National Science Foundation Authorization Act for Fiscal Year 1986 (42 U.S.C. 1886).

(5) Section 101(a)(3) of the High-Performance Computing Act of 1991 (15 U.S.C. 5511(a)(3)).

(6) Section 3(a)(7) and (f) of the National Science Foundation Act of 1950 (42 U.S.C. 1862(a)(7) and (f)).

(7) Section 7(a) of the National Science Foundation Authorization Act, 1977 (42 U.S.C. 1873 note).

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