

Public Law 99-574  
99th Congress

An Act

Oct. 28, 1986  
[H.R. 4354]

National Bureau  
of Standards  
Authorization  
Act for Fiscal  
Year 1987.

To authorize appropriations to the Secretary of Commerce for the programs of the National Bureau of Standards for fiscal year 1987, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That this Act may be cited as the "National Bureau of Standards Authorization Act for Fiscal Year 1987".

AUTHORIZATION FOR FOREIGN ACTIVITIES

SEC. 2. (a) There are authorized to be appropriated to the Secretary of Commerce (hereinafter referred to as the "Secretary") for fiscal year 1987, to carry out the activities performed by the National Bureau of Standards, the sums set forth in the following line items:

- (1) Measurement Research and Standards, \$36,582,000;
  - (2) Materials Science and Engineering, \$21,228,000;
  - (3) Engineering Measurements and Standards, \$35,875,000;
  - (4) Computer Science and Technology, \$7,500,000; and
  - (5) Research Support Activities, \$22,768,000.
- (b) Notwithstanding any other provision of this or any other Act—
- (1) of the amounts authorized under subsection (a), \$1,900,000 is authorized only for steel technology;
  - (2) of the amount authorized under paragraph (3) of subsection (a), \$3,470,000 is authorized only for the Center for Building Technology and \$5,402,000 is authorized only for the Center for Fire Research;
  - (3) of the amount authorized under paragraph (4) of subsection (a), \$1,000,000 is authorized only for Computer Security Activities;
  - (4) of the amount under paragraph (5) of subsection (a), \$6,763,000 is authorized only for the Technical Competence Fund; and
  - (5) of the amount authorized under paragraph (5) of subsection (a), \$6,500,000 is authorized only for the design, equipment, and construction of the Cold Neutron Research Facility.
- (c)(1) Funds may be transferred among the line items listed in subsection (a) so long as the net funds transferred to or from any line item do not exceed 10 percent of the amount authorized for that line item in each subsection.
- (2) In addition, the Secretary may propose transfers to or from any line item exceeding 10 percent of the amount authorized for that line item in subsection (a); but a full and complete explanation of any such proposed transfer and the reason therefor must be transmitted in writing to the Speaker of the House of Representatives, the President of the Senate, and the appropriate authorizing committees of the House of Representatives and the Senate, and the proposed transfer may be made only when thirty calendar days have passed after the transmission of such written explanation.

(d) The National Bureau of Standards shall seek reimbursements of not less than \$500,000 from other Federal agencies to expand its efforts in support of basic scientific research on the atmospheric, climatic, and environmental consequences of nuclear explosions and nuclear exchanges.

Research and  
development.

#### OFFICE OF PRODUCTIVITY, TECHNOLOGY, AND INNOVATION

SEC. 3. In addition to the sums authorized by section 2, there is authorized to be appropriated to the Secretary for fiscal year 1987 the sum of \$2,248,000 for the activities of the Office of Productivity, Technology, and Innovation.

#### NATIONAL TECHNICAL INFORMATION SERVICE

SEC. 4. In addition to the sums authorized by sections 2 and 3, there is authorized to be appropriated to the Secretary for fiscal year 1987 the sum of \$500,000 for the patent licensing activities of the National Technical Information Service.

#### AVAILABILITY OF APPROPRIATIONS

SEC. 5. Appropriations made under the authority provided in this Act shall remain available for obligation, for expenditure, or for obligation and expenditure for periods specified in the Acts making such appropriations.

#### FINANCIAL ASSISTANCE TO CURRENT AND PROSPECTIVE EMPLOYEES

SEC. 6. (a) In order to secure the services of the broadest possible range of talent in carrying out the programs of the National Bureau of Standards, the Act of March 3, 1901 (15 U.S.C. 271-278h) is amended by redesignating section 18 as section 19 and by inserting after section 17 the following new section:

15 USC 278h.

"SEC. 18. The Director is authorized to expend up to 1 per centum of the funds appropriated for activities of the National Bureau of Standards in any fiscal year, as the Director may deem desirable, for awards of research fellowships and other forms of financial assistance to students at institutions of higher learning within the United States who show promise as present or future contributors to the mission of the Bureau. The selection of persons to receive such fellowships and assistance shall be made on the basis of ability and of the relevance of the proposed work to the mission and programs of the Bureau."

Fellowships.  
Loans.  
Grants.  
Education.  
15 USC 278g-1.

(b) The amendments made by subsection (a) shall be effective October 1, 1986.

Effective date.  
15 USC 278g-1  
note.

#### ASSESSMENT OF EMERGING TECHNOLOGIES REQUIRING RESEARCH IN METROLOGY

SEC. 7. The Board of Assessment of the National Bureau of Standards programs shall include, as part of its annual review, an assessment of emerging technologies which are expected to require research in metrology to keep the Bureau abreast of its mission, including (but not limited to) Process and Quality Control, Technology Transfer, Engineering Databases, High-Performance Composites, Advanced Ceramics, Fiber Optics, Microwave Metrology, Bioprocess Engineering, and Advanced Computing Concepts. Such review shall include estimates of the cost of the required effort,

15 USC 282a.

the required staffing level, and the period over which the research will be required.

#### POST-DOCTORAL FELLOWSHIP PROGRAM

15 USC 278h.

SEC. 8. (a) The Act of March 3, 1901 (15 U.S.C. 271-271h), as amended by section 6 of this Act, is further amended by redesignating section 19 as section 20 and by inserting after section 18 the following new section:

15 USC 271h.

Fellowships.  
15 USC 278g-2.

“SEC. 19. The National Bureau of Standards, in conjunction with the National Academy of Sciences, shall establish and conduct a post-doctoral fellowship program which shall be organized and carried out in substantially the same manner as the National Academy of Sciences/National Research Council Post-Doctoral Research Associate Program that was in effect prior to 1986, and which shall include not less than twenty nor more than forty new fellows per fiscal year.”

Effective date.  
15 USC 278g-2  
note.

(b) The amendments made by subsection (a) shall be effective October 1, 1987.

#### PROCESS AND QUALITY CONTROL AND CALIBRATION PROGRAMS

Research and  
development.

SEC. 9. (a) The Director of the National Bureau of Standards shall hold discussions with representatives of Federal agencies, including the Department of Defense, the Department of Energy, the National Aeronautics and Space Administration, the Federal Aviation Administration, the National Institutes of Health, the Nuclear Regulatory Commission, and the Federal Communications Commission, which use (or the contractors of which depend on) the process and quality control and calibration programs of the Bureau, and with companies, organizations, and major engineering societies from the private sector, in order to determine the extent of the demand for research and services under such programs, the appropriate methods of paying for research and services under such programs, and the willingness of Federal agencies and the private sector to pay for such research and services.

Reports.

(b) Within six months after the date of the enactment of this Act, the Director shall submit to the Committee on Science and Technology of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate a report of the Director's findings based on the discussions held under subsection (a), together with recommendations for such legislative actions as may be needed to implement a comprehensive Federal process and quality control and calibration program.

#### DEMONSTRATION PROJECT RELATING TO PERSONNEL MANAGEMENT

15 USC 275 note.

SEC. 10. (a)(1) The Office of Personnel Management and the National Bureau of Standards shall jointly design a demonstration project which shall be conducted by the Director of the National Bureau of Standards.

(2) The demonstration project shall, except as otherwise provided in this section, be conducted in accordance with section 4703 of title 5, United States Code, and shall be counted as a single project for purposes of subsection (d)(2) of such section.

(3) Subject to subsections (f) and (g) of section 4703 of title 5, United States Code, the demonstration project shall cover any posi-

tion within the National Bureau of Standards which would otherwise be subject to—

(A) subchapter III of chapter 53 of title 5, United States Code, relating to the General Schedule; 5 USC 5331.

(B) subchapter VIII of chapter 53 of title 5, United States Code, relating to the Senior Executive Service; or 5 USC 5381.

(C) chapter 54 of title 5, United States Code, relating to the Performance Management and Recognition System. 5 USC 5401 *et seq.*

(b) Under the demonstration project, the Director of the National Bureau of Standards shall provide that—

(1) the rate of basic pay for a position may not be less than the minimum rate of basic pay, nor more than the maximum rate of basic pay, payable for the pay band (as referred to in paragraph (3)) within which such position has been placed;

(2) the minimum and maximum rates of basic pay for each pay band shall be adjusted at the times, and by the amounts, provided for under subsection (c);

(3) positions shall be classified under a system using pay bands which shall be established by combining or otherwise modifying the classes, grades, or other units which would otherwise be used in classifying the positions involved;

(4) employees shall be evaluated under a performance appraisal system which—

(A) uses peer comparison and ranking wherever appropriate; and

(B) affords appeal rights comparable to those afforded under chapter 43 of title 5, United States Code;

(5)(A) the rate of basic pay of each participating employee will be reviewed annually, and shall be adjusted on the basis of the appraised performance of the employee; and

(B) subject to subsection (c)(4)(A)(i), the adjustment under subparagraph (A) in any year in the case of any employee whose performance is rated at the fully successful level or higher shall be at least the percentage adjustment taking effect under subsection (c)(3) in such year;

(6) appropriate supervisory and managerial pay differentials (which shall be considered a part of basic pay) shall be provided;

(7) performance-recognition bonuses, and recruitment and retention allowances, shall be awarded in appropriate circumstances (but shall not be considered a part of basic pay);

(8) there shall be an employee development program which includes provisions under which employees may, in appropriate circumstances, be granted sabbaticals, the terms and conditions of which shall be consistent with those applicable for members of the Senior Executive Service under section 3396(c) of title 5, United States Code (excluding paragraph (2)(B) thereof);

(9) payment of travel expenses shall be provided for personnel to their first post of duty in the same manner as is authorized for members of the Senior Executive Service under section 5723 of title 5, United States Code, at the discretion of the Director; and

(10) the methods of establishing qualification requirements for, recruitment for, and appointment to positions shall, at the discretion of the Director, include methods involving direct examination and hiring.

5 USC 4301 *et seq.*

(c)(1) For the purpose of this subsection, the term "compensation" means the total value of the various forms of compensation provided, including—

- (A) basic pay;
- (B) bonuses;
- (C) allowances;
- (D) retirement benefits;
- (E) health insurance benefits;
- (F) life insurance benefits; and
- (G) leave benefits.

Contracts.  
Reports.

(2) The Director of the National Bureau of Standards shall, by contract or otherwise, provide for the preparation of reports which, based on appropriate surveys—

(A) shall include findings as to—

(i) the extent to which, as of the commencement of the demonstration project, the overall average level of compensation provided with respect to positions under the demonstration project is deficient in comparison to the overall average level of compensation generally provided with respect to positions involving the same types and levels of work in the private sector; and

(ii) with respect to each year thereafter, any net increase occurring during such year in the extent of the deficiency in the overall average level of compensation provided with respect to positions under the demonstration project, as compared to the overall average level of compensation generally provided with respect to positions involving the same types and levels of work in the private sector; and

(B) shall recommend a single percentage by which basic pay for all positions under the demonstration project must be increased so that, when considered in conjunction with the other forms of compensation generally provided, any net increase determined under subparagraph (A)(ii) will be eliminated.

(3) Whenever the Director of the National Bureau of Standards receives a recommendation under paragraph (2)(B), the Director—

(A) shall increase the minimum and maximum rates of basic pay for each such pay band by the lesser of—

(i) the percentage recommended; or

(ii) the overall average percentage of the adjustment in the rates of pay under the General Schedule under section 5305 of title 5, United States Code, for the period involved; and

(B) if and to the extent that funds are available for that purpose, may further increase those minimum and maximum rates—

(i) to make up for any part of the difference between the respective percentages under subparagraph (A), if the percentage under subparagraph (A)(ii) is the lesser; and

(ii) after making up for the entirety of any difference determined under clause (i) (including from any previous year), to eliminate any part of any remaining deficiency as originally determined under paragraph (2)(A)(i).

(4)(A) Notwithstanding any other provision of this section—

(i) the maximum rate of basic pay payable under any pay band may not exceed the rate of basic pay payable for level IV of the Executive Schedule; and

(ii) the amount of basic pay, bonuses, and allowances paid during any fiscal year to any employee participating in the demonstration project may not, in the aggregate, exceed the annual rate of basic pay payable for level I of the Executive Schedule.

(B)(i) Any amount which is not paid to an employee during a fiscal year because of the limitation under subparagraph (A)(ii) shall be paid in a lump sum at the beginning of the following fiscal year.

(ii) Any amount paid under this subparagraph during a fiscal year shall be taken into account for purposes of applying the limitation under subparagraph (A)(ii) with respect to such fiscal year.

(5) Notwithstanding any other provision of this section, the demonstration project shall be conducted in such a way so that, with respect to the 12-month period beginning on October 1, 1986, the total cost to the Government relating to providing compensation to participating employees shall not exceed the total cost which would have resulted if this section had not been enacted.

(6)(A) If the minimum rate of basic pay for a pay band, after an increase under paragraph (3)(A), exceeds the rate of basic pay payable to an employee whose position would otherwise be within such pay band, the employee's position may, notwithstanding subsection (b)(1), be placed in the next lower pay band.

(B) Placement of a position in a lower pay band under subparagraph (A) shall not be considered a reduction in grade or pay for purposes of subchapter II of chapter 75 of title 5, United States Code, or a comparable provision under the project.

5 USC 7511.

(d)(1) The rate of basic pay for an employee serving in a position at the time it is converted to a position covered by the demonstration project may not be reduced by reason of the establishment of such project.

(2)(A) Each employee referred to in paragraph (1) shall be paid—

(i) in the case of an employee serving in a position under the General Schedule on the date the position becomes covered by the demonstration project, a lump-sum pro rata share of the equivalent of any within-grade increase which would have been due the employee under section 5335 of title 5, United States Code, computed as provided in subparagraph (B), and

(ii) in the case of an employee serving in a position subject to chapter 54 of title 5, United States Code, on such date, a lump-sum pro rata share of the equivalent of the employee's merit increase which would have been due under such chapter, computed as provided in subparagraph (B), taking into account the performance requirements applicable to such increase.

5 USC 5401 *et seq.*

(B) For purposes of subparagraph (A), the pro rata share of an equivalent increase referred to in such subparagraph shall be computed through the day before the date referred to in such subparagraph.

(e)(1)(A) In carrying out section 4703(h) of title 5, United States Code, with respect to the demonstration project, the Office of Personnel Management shall provide that such project will be evaluated on an annual basis by a contractor. Such contractor shall be especially qualified to perform the evaluation based on its expertise in matters relating to personnel management and compensation.

(B) The contractor shall report its findings to the Office in writing. After considering the report, the Office shall transmit a copy of the

Reports.

report, together with any comments of the Office and any comments submitted by the National Bureau of Standards, to—

(i) the Committee on Post Office and Civil Service, and the Committee on Science and Technology, of the House of Representatives; and

(ii) the Committee on Governmental Affairs, and the Committee on Commerce, Science, and Transportation, of the Senate.

Reports.

(2) The Comptroller General shall, not later than 4 years after the date on which the demonstration project commences, submit to each of the committees referred to in paragraph (1)(B) a final report concerning such project. Such report shall include any recommendations for legislation or other action which the Comptroller General considers appropriate.

Contracts.

(f) The authority to enter into any contract under this section may be exercised only to such extent or in such amounts as are provided in advance in appropriation Acts.

(g) The demonstration project shall commence not later than January 1, 1988.

Approved October 28, 1986.

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**LEGISLATIVE HISTORY—H.R. 4354 (S. 2664):**

**HOUSE REPORTS:** No. 99-617 (Comm. on Science and Technology) and Pt. 2 (Comm. on Post Office and Civil Service).

**SENATE REPORTS:** No. 99-399 accompanying S. 2664 (Comm. on Commerce, Science, and Transportation).

**CONGRESSIONAL RECORD, Vol. 132 (1986):**

Aug. 12, considered and passed House.

Oct. 3, considered and passed Senate, amended.

Oct. 10, House concurred in Senate amendment.

**WEEKLY COMPILATION OF PRESIDENTIAL DOCUMENTS, Vol. 22 (1986):**

Oct. 28, Presidential statement.