

110TH CONGRESS  
1ST SESSION

# H. R. 1868

---

## AN ACT

To authorize appropriations for the National Institute of Standards and Technology for fiscal years 2008, 2009, and 2010, 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,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) SHORT TITLE.—This Act may be cited as the  
3 “Technology Innovation and Manufacturing Stimulation  
4 Act of 2007”.

5 (b) TABLE OF CONTENTS.—The table of contents for  
6 this Act is as follows:

Sec. 1. Short title; table of contents.

TITLE I—AUTHORIZATION OF APPROPRIATIONS

Sec. 101. Scientific and technical research and services.

Sec. 102. Industrial technology services.

TITLE II—INNOVATION AND TECHNOLOGY POLICY REFORMS

Sec. 201. Institute-wide planning report.

Sec. 202. Report by Visiting Committee.

Sec. 203. Manufacturing extension partnership.

Sec. 204. Technology Innovation Program.

Sec. 205. Research fellowships.

Sec. 206. Collaborative manufacturing research pilot grants.

Sec. 207. Manufacturing fellowship program.

Sec. 208. Meetings of Visiting Committee on Advanced Technology.

Sec. 209. Manufacturing research database.

TITLE III—MISCELLANEOUS

Sec. 301. Post-doctoral fellows.

Sec. 302. Financial agreements clarification.

Sec. 303. Working capital fund transfers.

Sec. 304. Retention of depreciation surcharge.

Sec. 305. Non-Energy Inventions Program.

Sec. 306. Redefinition of the metric system.

Sec. 307. Repeal of redundant and obsolete authority.

Sec. 308. Clarification of standard time and time zones.

Sec. 309. Procurement of temporary and intermittent services.

Sec. 310. Malcolm Baldrige awards.

7 **TITLE I—AUTHORIZATION OF**  
8 **APPROPRIATIONS**

9 **SEC. 101. SCIENTIFIC AND TECHNICAL RESEARCH AND**  
10 **SERVICES.**

11 (a) LABORATORY ACTIVITIES.—There are authorized  
12 to be appropriated to the Secretary of Commerce for the

1 scientific and technical research and services laboratory  
2 activities of the National Institute of Standards and Tech-  
3 nology—

4 (1) \$470,879,000 for fiscal year 2008;

5 (2) \$497,750,000 for fiscal year 2009; and

6 (3) \$537,569,000 for fiscal year 2010.

7 (b) MALCOLM BALDRIGE NATIONAL QUALITY  
8 AWARD PROGRAM.—There are authorized to be appro-  
9 priated to the Secretary of Commerce for the Malcolm  
10 Baldrige National Quality Award program under section  
11 17 of the Stevenson-Wydler Technology Innovation Act of  
12 1980 (15 U.S.C. 3711a)—

13 (1) \$7,860,000 for fiscal year 2008;

14 (2) \$8,096,000 for fiscal year 2009; and

15 (3) \$8,339,000 for fiscal year 2010.

16 (c) CONSTRUCTION AND MAINTENANCE.—There are  
17 authorized to be appropriated to the Secretary of Com-  
18 merce for construction and maintenance of facilities of the  
19 National Institute of Standards and Technology—

20 (1) \$93,865,000 for fiscal year 2008;

21 (2) \$86,371,000 for fiscal year 2009; and

22 (3) \$49,719,000 for fiscal year 2010.

23 **SEC. 102. INDUSTRIAL TECHNOLOGY SERVICES.**

24 There are authorized to be appropriated to the Sec-  
25 retary of Commerce for Industrial Technology Services ac-

1 tivities of the National Institute of Standards and Tech-  
2 nology—

3 (1) \$222,968,000 for fiscal year 2008, of  
4 which—

5 (A) \$110,000,000 shall be for the Tech-  
6 nology Innovation Program under section 28 of  
7 the National Institute of Standards and Tech-  
8 nology Act (15 U.S.C. 278n), of which at least  
9 \$45,000,000 shall be for new awards; and

10 (B) \$112,968,000 shall be for the Manu-  
11 facturing Extension Partnership program under  
12 sections 25 and 26 of the National Institute of  
13 Standards and Technology Act (15 U.S.C. 278k  
14 and 278l), of which not more than \$1,000,000  
15 shall be for the competitive grant program  
16 under section 25(f) of such Act;

17 (2) \$263,505,000 for fiscal year 2009, of  
18 which—

19 (A) \$141,500,000 shall be for the Tech-  
20 nology Innovation Program under section 28 of  
21 the National Institute of Standards and Tech-  
22 nology Act (15 U.S.C. 278n), of which at least  
23 \$45,000,000 shall be for new awards; and

24 (B) \$122,005,000 shall be for the Manu-  
25 facturing Extension Partnership Program

1 under sections 25 and 26 of the National Insti-  
2 tute of Standards and Technology Act (15  
3 U.S.C. 278k and 278l), of which not more than  
4 \$4,000,000 shall be for the competitive grant  
5 program under section 25(f) of such Act; and  
6 (3) \$282,266,000 for fiscal year 2010, of  
7 which—

8 (A) \$150,500,000 shall be for the Tech-  
9 nology Innovation Program under section 28 of  
10 the National Institute of Standards and Tech-  
11 nology Act (15 U.S.C. 278n), of which at least  
12 \$45,000,000 shall be for new awards; and

13 (B) \$131,766,000 shall be for the Manu-  
14 facturing Extension Partnership Program  
15 under sections 25 and 26 of the National Insti-  
16 tute of Standards and Technology Act (15  
17 U.S.C. 278k and 278l), of which not more than  
18 \$4,000,000 shall be for the competitive grant  
19 program under section 25(f) of such Act.

## 20 **TITLE II—INNOVATION AND** 21 **TECHNOLOGY POLICY REFORMS**

### 22 **SEC. 201. INSTITUTE-WIDE PLANNING REPORT.**

23 Section 23 of the National Institute of Standards and  
24 Technology Act (15 U.S.C. 278i) is amended by adding  
25 at the end the following new subsections:

1 “(c) Concurrent with the submission to Congress of  
2 the President’s annual budget request in the first year  
3 after the date of enactment of the Technology Innovation  
4 and Manufacturing Stimulation Act of 2007, the Director  
5 shall transmit to the Congress a 3-year programmatic  
6 planning document for the Institute, including programs  
7 under the Scientific and Technical Research and Services,  
8 Industrial Technology Services, and Construction of Re-  
9 search Facilities functions.

10 “(d) Concurrent with the submission to the Congress  
11 of the President’s annual budget request in each year after  
12 the date of enactment of the Technology Innovation and  
13 Manufacturing Stimulation Act of 2007, the Director shall  
14 transmit to the Congress an update to the 3-year pro-  
15 grammatic planning document transmitted under sub-  
16 section (c), revised to cover the first 3 fiscal years after  
17 the date of that update.”.

18 **SEC. 202. REPORT BY VISITING COMMITTEE.**

19 Section 10(h)(1) of the National Institute of Stand-  
20 ards and Technology Act (15 U.S.C. 278(h)(1)) is amend-  
21 ed—

22 (1) by striking “on or before January 31 in  
23 each year” and inserting “within 30 days after the  
24 submission to Congress of the President’s annual  
25 budget request in each year”; and

1           (2) by adding to the end the following: “Such  
2       report also shall comment on the programmatic  
3       planning document and updates thereto transmitted  
4       to the Congress by the Director under section 23(c)  
5       and (d).”.

6 **SEC. 203. MANUFACTURING EXTENSION PARTNERSHIP.**

7       (a) MEP ADVISORY BOARD.—Section 25 of the Na-  
8       tional Institute of Standards and Technology Act (15  
9       U.S.C. 278k) is amended by adding at the end the fol-  
10      lowing new subsection:

11       “(e) MEP ADVISORY BOARD.—(1) There is estab-  
12      lished within the Institute a Manufacturing Extension  
13      Partnership Advisory Board (in this Act referred to as the  
14      ‘MEP Advisory Board’). The MEP Advisory Board shall  
15      consist of 10 members broadly representative of stake-  
16      holders, to be appointed by the Director. At least 2 mem-  
17      bers shall be employed by or on an advisory board for the  
18      Centers, and at least 5 other members shall be from  
19      United States small businesses in the manufacturing sec-  
20      tor. No member shall be an employee of the Federal Gov-  
21      ernment.

22       “(2)(A) Except as provided in subparagraph (B) or  
23      (C), the term of office of each member of the MEP Advi-  
24      sory Board shall be 3 years.

1       “(B) The original members of the MEP Advisory  
2 Board shall be appointed to 3 classes. One class of 3 mem-  
3 bers shall have an initial term of 1 year, one class of 3  
4 members shall have an initial term of 2 years, and one  
5 class of 4 members shall have an initial term of 3 years.

6       “(C) Any member appointed to fill a vacancy occur-  
7 ring prior to the expiration of the term for which his pred-  
8 ecessor was appointed shall be appointed for the remain-  
9 der of such term.

10       “(D) Any person who has completed two consecutive  
11 full terms of service on the MEP Advisory Board shall  
12 thereafter be ineligible for appointment during the one-  
13 year period following the expiration of the second such  
14 term.

15       “(3) The MEP Advisory Board shall meet no less  
16 than 2 times annually, and provide to the Director—

17               “(A) advice on Manufacturing Extension Part-  
18 nership programs, plans, and policies;

19               “(B) assessments of the soundness of Manufac-  
20 turing Extension Partnership plans and strategies;  
21 and

22               “(C) assessments of current performance  
23 against Manufacturing Extension Partnership pro-  
24 gram plans.

1       “(4) In discharging its duties under this subsection,  
2 the MEP Advisory Board shall function solely in an advi-  
3 sory capacity, in accordance with the Federal Advisory  
4 Committee Act.

5       “(5) The MEP Advisory Board shall transmit an an-  
6 nual report to the Secretary for transmittal to the Con-  
7 gress within 30 days after the submission to the Congress  
8 of the President’s annual budget request in each year.  
9 Such report shall address the status of the Manufacturing  
10 Extension Partnership program and comment on the rel-  
11 evant sections of the programmatic planning document  
12 and updates thereto transmitted to the Congress by the  
13 Director under section 23(c) and (d).”.

14       (b) ACCEPTANCE OF FUNDS.—Section 25(d) of the  
15 National Institute of Standards and Technology Act (15  
16 U.S.C. 278k(d)) is amended to read as follows:

17       “(d) ACCEPTANCE OF FUNDS.—In addition to such  
18 sums as may be appropriated to the Secretary and Direc-  
19 tor to operate the Centers program, the Secretary and Di-  
20 rector also may accept funds from other Federal depart-  
21 ments and agencies and under section 2(c)(7) from the  
22 private sector for the purpose of strengthening United  
23 States manufacturing. Such funds, if allocated to a Center  
24 or Centers, shall not be considered in the calculation of

1 the Federal share of capital and annual operating and  
2 maintenance costs under subsection (c).”.

3 (c) MANUFACTURING EXTENSION CENTER COMPETITIVE  
4 GRANT PROGRAM.—Section 25 of the National Institute  
5 of Standards and Technology Act (15 U.S.C. 278k),  
6 as amended by subsection (a) of this section, is further  
7 amended by adding at the end the following new sub-  
8 section:

9 “(f) COMPETITIVE GRANT PROGRAM.—

10 “(1) ESTABLISHMENT.—The Director shall es-  
11 tablish, within the Manufacturing Extension Part-  
12 nership program under this section and section 26  
13 of this Act, a program of competitive awards among  
14 participants described in paragraph (2) for the pur-  
15 poses described in paragraph (3).

16 “(2) PARTICIPANTS.—Participants receiving  
17 awards under this subsection shall be the Centers, or  
18 a consortium of such Centers.

19 “(3) PURPOSE.—The purpose of the program  
20 under this subsection is to develop projects to solve  
21 new or emerging manufacturing problems as deter-  
22 mined by the Director, in consultation with the Di-  
23 rector of the Manufacturing Extension Partnership  
24 program, the Manufacturing Extension Partnership  
25 Advisory Board, and small and medium-sized manu-

1       facturers. One or more themes for the competition  
2       may be identified, which may vary from year to year,  
3       depending on the needs of manufacturers and the  
4       success of previous competitions. These themes shall  
5       be related to projects associated with manufacturing  
6       extension activities, including supply chain integra-  
7       tion and quality management, and including the  
8       transfer of technology based on the technological  
9       needs of manufacturers and available technologies  
10      from institutions of higher education, laboratories,  
11      and other technology producing entities, or extend  
12      beyond these traditional areas.

13           “(4) APPLICATIONS.—Applications for awards  
14      under this subsection shall be submitted in such  
15      manner, at such time, and containing such informa-  
16      tion as the Director shall require, in consultation  
17      with the Manufacturing Extension Partnership Advi-  
18      sory Board.

19           “(5) SELECTION.—Awards under this sub-  
20      section shall be peer reviewed and competitively  
21      awarded. The Director shall select proposals to re-  
22      ceive awards—

23                   “(A) that utilize innovative or collaborative  
24                   approaches to solving the problem described in  
25                   the competition;

1           “(B) that will improve the competitiveness  
2           of industries in the region in which the Center  
3           or Centers are located; and

4           “(C) that will contribute to the long-term  
5           economic stability of that region.

6           “(6) PROGRAM CONTRIBUTION.—Recipients of  
7           awards under this subsection shall not be required  
8           to provide a matching contribution.”.

9   **SEC. 204. TECHNOLOGY INNOVATION PROGRAM.**

10          Section 28 of the National Institute of Standards and  
11   Technology Act (15 U.S.C. 278n) is amended to read as  
12   follows:

13           “TECHNOLOGY INNOVATION PROGRAM

14          “SEC. 28. (a) ESTABLISHMENT.—There is estab-  
15   lished in the Institute a Technology Innovation Program  
16   for the purpose of assisting United States businesses and  
17   institutions of higher education or other organizations,  
18   such as national laboratories and nonprofit research insti-  
19   tutes, to accelerate the research and development and ap-  
20   plication of challenging, high-risk, high-reward tech-  
21   nologies in areas of critical national need that promise  
22   widespread economic benefits for the Nation.

23          “(b) GRANTS.—

24           “(1) IN GENERAL.—The Director shall make  
25   grants under this section for research and develop-  
26   ment on high-risk, high-reward emerging and ena-

1       bling technologies (including any technological appli-  
2       cation that uses biological systems, living organisms,  
3       or derivatives thereof, to make or modify products or  
4       processes for specific use) that address critical na-  
5       tional needs and have a wide breadth of potential  
6       application, and form an important technical basis  
7       for future innovations. Such grants shall be made  
8       to—

9               “(A) eligible companies that are small- or  
10              medium-sized businesses that are substantially  
11              involved in the research and development, in-  
12              cluding having a leadership role in program-  
13              matically steering the project and defining the  
14              research agenda; or

15             “(B) joint ventures.

16             “(2) SINGLE COMPANY GRANTS.—No grant  
17             made under paragraph (1)(A) shall exceed  
18             \$3,000,000 over 3 years. The Federal share of a  
19             project funded by such a grant shall not be more  
20             than 50 percent of total project costs. An award  
21             under paragraph (1)(A) may be extended beyond 3  
22             years only if the Director transmits to the Com-  
23             mittee on Science and Technology of the House of  
24             Representatives and the Committee on Commerce,  
25             Science, and Transportation of the Senate a full and

1 complete explanation of such award, including rea-  
2 sons for exceeding 3 years. Federal funds granted  
3 under paragraph (1)(A) may be used only for direct  
4 costs and not for indirect costs, profits, or manage-  
5 ment fees of a contractor.

6 “(3) JOINT VENTURE GRANTS.—No grant made  
7 under paragraph (1)(B) shall exceed \$9,000,000  
8 over 5 years. The Federal share of a project funded  
9 by such a grant shall not be more than 50 percent  
10 of total project costs.

11 “(c) AWARD CRITERIA.—The Director shall award  
12 grants under this section only to an eligible company—

13 “(1) whose proposal has scientific and techno-  
14 logical merit;

15 “(2) whose application establishes that the pro-  
16 posed technology has strong potential to generate  
17 substantial benefits to the Nation that extend sig-  
18 nificantly beyond the direct return to the applicant;

19 “(3) whose application establishes that the re-  
20 search has strong potential for advancing the state-  
21 of-the-art and contributing significantly to the  
22 United States scientific and technical knowledge  
23 base;

1           “(4) whose application establishes that the re-  
2           search is aimed at overcoming a scientific or techno-  
3           logical barrier;

4           “(5) who has provided a technical plan that  
5           clearly identifies the core innovation, the technical  
6           approach, major technical hurdles, and the attend-  
7           ant risks, and that clearly establishes the feasibility  
8           of the technology through adequately detailed plans  
9           linked to major technical barriers;

10          “(6) whose application establishes that the  
11          team proposed to carry out the work has a high level  
12          of scientific and technical expertise to conduct re-  
13          search and development, has a high level of commit-  
14          ment to the project, and has access to appropriate  
15          research facilities;

16          “(7) whose proposal explains why Technology  
17          Innovation Program support is necessary;

18          “(8) whose application includes a plan for ad-  
19          vancing the technology into commercial use; and

20          “(9) whose application assesses the project’s or-  
21          ganizational structure and management plan.

22          “(d) EXTERNAL REVIEW OF PROPOSALS.—In order  
23          to analyze the need for or the value of any proposal made  
24          by a joint venture or company requesting the Director’s  
25          assistance under this section, or to monitor the progress

1 of any project which receives funds under this section, the  
2 Director shall consult with industry or other expert  
3 sources that do not have a proprietary or financial interest  
4 in the proposal or project.

5 “(e) INTELLECTUAL PROPERTY RIGHTS OWNER-  
6 SHIP.—

7 “(1) IN GENERAL.—Title to any intellectual  
8 property developed by a joint venture from assist-  
9 ance provided under this section may vest in any  
10 participant in the joint venture, as agreed by the  
11 members of the joint venture, notwithstanding sec-  
12 tion 202(a) and (b) of title 35, United States Code.  
13 The United States may reserve a nonexclusive, non-  
14 transferable, irrevocable paid-up license, to have  
15 practiced for or on behalf of the United States in  
16 connection with any such intellectual property, but  
17 shall not in the exercise of such license publicly dis-  
18 close proprietary information related to the license.  
19 Title to any such intellectual property shall not be  
20 transferred or passed, except to a participant in the  
21 joint venture, until the expiration of the first patent  
22 obtained in connection with such intellectual prop-  
23 erty.

24 “(2) LICENSING.—Nothing in this subsection  
25 shall be construed to prohibit the licensing to any

1 company of intellectual property rights arising from  
2 assistance provided under this section.

3 “(3) DEFINITION.—For purposes of this sub-  
4 section, the term ‘intellectual property’ means an in-  
5 vention patentable under title 35, United States  
6 Code, or any patent on such an invention, or any  
7 work for which copyright protection is available  
8 under title 17, United States Code.

9 “(f) PROGRAM OPERATION.—Not later than 9  
10 months after the date of enactment of the Technology In-  
11 novation and Manufacturing Stimulation Act of 2007, the  
12 Director shall issue regulations—

13 “(1) establishing criteria for the selection of re-  
14 cipients of assistance under this section;

15 “(2) establishing procedures regarding financial  
16 reporting and auditing to ensure that contracts and  
17 awards are used for the purposes specified in this  
18 section, are in accordance with sound accounting  
19 practices, and are not funding existing or planned  
20 research programs that would be conducted in the  
21 same time period in the absence of financial assist-  
22 ance under this section; and

23 “(3) providing for appropriate dissemination of  
24 Technology Innovation Program research results.

1       “(g) CONTINUATION OF ATP GRANTS.—The Direc-  
2 tor shall, through the Technology Innovation Program,  
3 continue to provide support originally awarded under the  
4 Advanced Technology Program, in accordance with the  
5 terms of the original award.

6       “(h) COORDINATION WITH OTHER STATE AND FED-  
7 ERAL TECHNOLOGY PROGRAMS.—In carrying out this sec-  
8 tion, the Director shall, as appropriate, coordinate with  
9 other senior State and Federal officials to ensure coopera-  
10 tion and coordination in State and Federal technology pro-  
11 grams and to avoid unnecessary duplication of efforts.

12       “(i) ACCEPTANCE OF FUNDS FROM OTHER FED-  
13 ERAL AGENCIES.—In addition to amounts appropriated to  
14 carry out this section, the Secretary and the Director may  
15 accept funds from other Federal agencies to support  
16 awards under the Technology Innovation Program. Any  
17 award under this section which is supported with funds  
18 from other Federal agencies shall be selected and carried  
19 out according to the provisions of this section.

20       “(j) TIP ADVISORY BOARD.—

21               “(1) ESTABLISHMENT.—There is established  
22 within the Institute a Technology Innovation Pro-  
23 gram Advisory Board. The TIP Advisory Board  
24 shall consist of 10 members appointed by the Direc-  
25 tor, at least 7 of which shall be from United States

1 industry, chosen to reflect the wide diversity of tech-  
2 nical disciplines and industrial sectors represented in  
3 Technology Innovation Program projects. No mem-  
4 ber shall be an employee of the Federal Government.

5 “(2) TERMS OF OFFICE.—(A) Except as pro-  
6 vided in subparagraph (B) or (C), the term of office  
7 of each member of the TIP Advisory Board shall be  
8 3 years.

9 “(B) The original members of the TIP Advisory  
10 Board shall be appointed to 3 classes. One class of  
11 3 members shall have an initial term of 1 year, one  
12 class of 3 members shall have an initial term of 2  
13 years, and one class of 4 members shall have an ini-  
14 tial term of 3 years.

15 “(C) Any member appointed to fill a vacancy  
16 occurring prior to the expiration of the term for  
17 which his predecessor was appointed shall be ap-  
18 pointed for the remainder of such term.

19 “(D) Any person who has completed two con-  
20 secutive full terms of service on the TIP Advisory  
21 Board shall thereafter be ineligible for appointment  
22 during the one-year period following the expiration  
23 of the second such term.

1           “(3) PURPOSE.—The TIP Advisory Board shall  
2 meet no less than 2 times annually, and provide to  
3 the Director—

4           “(A) advice on programs, plans, and poli-  
5 cies of the Technology Innovation Program;

6           “(B) reviews of the Technology Innovation  
7 Program’s efforts to assess its economic impact;

8           “(C) reports on the general health of the  
9 program and its effectiveness in achieving its  
10 legislatively mandated mission;

11           “(D) guidance on areas of technology that  
12 are appropriate for Technology Innovation Pro-  
13 gram funding; and

14           “(E) recommendations as to whether, in  
15 order to better assess whether specific innova-  
16 tions to be pursued are being adequately sup-  
17 ported by the private sector, the Director could  
18 benefit from advice and information from addi-  
19 tional industry and other expert sources without  
20 a proprietary or financial interest in proposals  
21 being evaluated.

22           “(4) ADVISORY CAPACITY.—In discharging its  
23 duties under this subsection, the TIP Advisory  
24 Board shall function solely in an advisory capacity,

1 in accordance with the Federal Advisory Committee  
2 Act.

3 “(5) ANNUAL REPORT.—The TIP Advisory  
4 Board shall transmit an annual report to the Sec-  
5 retary for transmittal to the Congress within 30  
6 days after the submission to Congress of the Presi-  
7 dent’s annual budget request in each year. Such re-  
8 port shall address the status of the Technology In-  
9 novation Program and comment on the relevant sec-  
10 tions of the programmatic planning document and  
11 updates thereto transmitted to the Congress by the  
12 Director under section 23(c) and (d).

13 “(k) DEFINITIONS.—For purposes of this section—

14 “(1) the term ‘eligible company’ means a com-  
15 pany that is incorporated in the United States and  
16 does a majority of its business in the United States,  
17 and that either—

18 “(A) is majority owned by citizens of the  
19 United States; or

20 “(B) is owned by a parent company incor-  
21 porated in another country and the Director  
22 finds that—

23 “(i) the company’s participation in the  
24 Technology Innovation Program would be

1 in the economic interest of the United  
2 States, as evidenced by—

3 “(I) investments in the United  
4 States in research and manufacturing  
5 (including the manufacture of major  
6 components or subassemblies in the  
7 United States);

8 “(II) significant contributions to  
9 employment in the United States; and

10 “(III) agreement with respect to  
11 any technology arising from assistance  
12 provided under this section to promote  
13 the manufacture within the United  
14 States of products resulting from that  
15 technology (taking into account the  
16 goals of promoting the competitive-  
17 ness of United States industry); and

18 “(ii) the company is incorporated in a  
19 country which—

20 “(I) affords to United States-  
21 owned companies opportunities, com-  
22 parable to those afforded to any other  
23 company, to participate in any joint  
24 venture similar to those receiving  
25 funding under this section;

1                   “(II) affords to United States-  
2                   owned companies local investment op-  
3                   portunities comparable to those af-  
4                   forded any other company; and

5                   “(III) affords adequate and effec-  
6                   tive protection for the intellectual  
7                   property rights of United States-  
8                   owned companies;

9                   “(2) the term ‘high-risk, high-reward research’  
10                  means research that—

11                   “(A) has the potential for yielding results  
12                   with far-ranging or wide-ranging implications;

13                   “(B) addresses critical national needs re-  
14                   lated to technology and measurement stand-  
15                   ards; and

16                   “(C) is too novel or spans too diverse a  
17                   range of disciplines to fare well in the tradi-  
18                   tional peer review process.

19                   “(3) the term ‘institution of higher education’  
20                   has the meaning given that term in section 101 of  
21                   the Higher Education Act of 1965 (20 U.S.C.  
22                   1001);

23                   “(4) the term ‘joint venture’ means a joint ven-  
24                   ture that—

25                   “(A) includes either—

1           “(i) at least 2 separately owned for-  
2           profit companies that are both substan-  
3           tially involved in the project and both of  
4           which are contributing to the cost-sharing  
5           required under this section, with the lead  
6           entity of the joint venture being one of  
7           those companies that is a small or me-  
8           dium-sized business; or

9           “(ii) at least one small or medium-  
10          sized business and one institution of higher  
11          education or other organization, such as a  
12          national laboratory or nonprofit research  
13          institute, that are both substantially in-  
14          volved in the project and both of which are  
15          contributing to the cost-sharing required  
16          under this section, with the lead entity of  
17          the joint venture being either that small or  
18          medium-sized business or that institution  
19          of higher education; and

20          “(B) may include additional for-profit com-  
21          panies, institutions of higher education, and  
22          other organizations, such as national labora-  
23          tories and nonprofit research institutes, that  
24          may or may not contribute non-Federal funds  
25          to the project; and



1           “(2) PARTICIPANTS.—Such partnerships shall  
2 include at least—

3                   “(A) 1 manufacturing industry partner;  
4                   and

5                   “(B) 1 nonindustry partner.

6           “(3) PURPOSE.—The purpose of the program  
7 under this section is to foster cost-shared collabora-  
8 tions among firms, educational institutions, research  
9 institutions, State agencies, and nonprofit organiza-  
10 tions to encourage the development of innovative,  
11 multidisciplinary manufacturing technologies. Part-  
12 nerships receiving awards under this section shall  
13 conduct applied research to develop new manufac-  
14 turing processes, techniques, or materials that would  
15 contribute to improved performance, productivity,  
16 and competitiveness of United States manufacturing,  
17 and build lasting alliances among collaborators.

18           “(b) PROGRAM CONTRIBUTION.—Awards under this  
19 section shall provide for not more than one-third of the  
20 costs of a partnership. Not more than an additional one-  
21 third of such costs may be obtained directly or indirectly  
22 from other Federal sources.

23           “(c) APPLICATIONS.—Applications for awards under  
24 this section shall be submitted in such manner, at such  
25 time, and containing such information as the Director

1 shall require. Such applications shall describe at a min-  
2 imum—

3           “(1) how each partner will participate in devel-  
4           oping and carrying out the research agenda of the  
5           partnership;

6           “(2) the research that the grant would fund;  
7           and

8           “(3) how the research to be funded with the  
9           award would contribute to improved performance,  
10          productivity, and competitiveness of the United  
11          States manufacturing industry.

12          “(d) SELECTION CRITERIA.—In selecting applica-  
13          tions for awards under this section, the Director shall con-  
14          sider at a minimum—

15               “(1) the degree to which projects will have a  
16               broad impact on manufacturing;

17               “(2) the novelty and scientific and technical  
18               merit of the proposed projects; and

19               “(3) the demonstrated capabilities of the appli-  
20               cants to successfully carry out the proposed re-  
21               search.

22          “(e) DISTRIBUTION.—In selecting applications under  
23          this section the Director shall ensure, to the extent prac-  
24          ticable, a distribution of overall awards among a variety

1 of manufacturing industry sectors and a range of firm  
2 sizes.

3 “(f) DURATION.—In carrying out this section, the Di-  
4 rector shall run a single pilot competition to solicit and  
5 make awards. Each award shall be for a 3-year period.”.

6 **SEC. 207. MANUFACTURING FELLOWSHIP PROGRAM.**

7 Section 18 of the National Institute of Standards and  
8 Technology Act (15 U.S.C. 278g–1) is amended—

9 (1) by inserting “(a) IN GENERAL.—” before  
10 “The Director is authorized”; and

11 (2) by adding at the end the following new sub-  
12 section:

13 “(b) MANUFACTURING FELLOWSHIP PROGRAM.—

14 “(1) ESTABLISHMENT.—To promote the devel-  
15 opment of a robust research community working at  
16 the leading edge of manufacturing sciences, the Di-  
17 rector shall establish a program to award—

18 “(A) postdoctoral research fellowships at  
19 the Institute for research activities related to  
20 manufacturing sciences; and

21 “(B) senior research fellowships to estab-  
22 lished researchers in industry or at institutions  
23 of higher education who wish to pursue studies  
24 related to the manufacturing sciences at the In-  
25 stitute.

1           “(2) APPLICATIONS.—To be eligible for an  
2           award under this subsection, an individual shall sub-  
3           mit an application to the Director at such time, in  
4           such manner, and containing such information as  
5           the Director may require.

6           “(3) STIPEND LEVELS.—Under this subsection,  
7           the Director shall provide stipends for postdoctoral  
8           research fellowships at a level consistent with the  
9           National Institute of Standards and Technology  
10          Postdoctoral Research Fellowship Program, and sen-  
11          ior research fellowships at levels consistent with sup-  
12          port for a faculty member in a sabbatical position.”.

13 **SEC. 208. MEETINGS OF VISITING COMMITTEE ON AD-**  
14 **VANCED TECHNOLOGY.**

15          Section 10(d) of the National Institute of Standards  
16          and Technology Act (15 U.S.C. 278(d)) is amended by  
17          striking “quarterly” and inserting “twice each year”.

18 **SEC. 209. MANUFACTURING RESEARCH DATABASE.**

19          (a) ESTABLISHMENT.—The National Institute of  
20          Standards and Technology shall provide for the establish-  
21          ment of a manufacturing research database to enable pri-  
22          vate sector individuals and Federal officials to access a  
23          broad range of information on manufacturing research  
24          carried out with funding support from the Federal Gov-  
25          ernment.

1 (b) CONTENTS.—The database established under  
2 subsection (a) shall contain—

3 (1) all publicly available information maintained  
4 by a Federal agency relating to manufacturing re-  
5 search projects funded in whole or in part by the  
6 Federal Government; and

7 (2) information about all Federal programs that  
8 may be of interest to manufacturers.

9 (c) ACCESSIBILITY.—Information contained in the  
10 database shall be accessible in a manner to enable users  
11 of the database to easily retrieve information of specific  
12 interest to them.

13 (d) FEES.—The National Institute of Standards and  
14 Technology may authorize charging a nominal fee for  
15 using the database to access information described in sub-  
16 section (b)(1) as necessary to recover the costs of main-  
17 taining the database.

18 (e) AUTHORIZATION OF APPROPRIATIONS.—There  
19 are authorized to be appropriated to the National Institute  
20 of Standards and Technology \$2,000,000 for carrying out  
21 this section.

## 22 **TITLE III—MISCELLANEOUS**

### 23 **SEC. 301. POST-DOCTORAL FELLOWS.**

24 Section 19 of the National Institute of Standards and  
25 Technology Act (15 U.S.C. 278g–2) is amended by strik-

1 ing “nor more than 60 new fellows” and inserting “nor  
2 more than 120 new fellows”.

3 **SEC. 302. FINANCIAL AGREEMENTS CLARIFICATION.**

4 Section 2(b)(4) of the National Institute of Stand-  
5 ards and Technology Act (15 U.S.C. 272(b)(4)) is amend-  
6 ed by inserting “and grants and cooperative agreements,”  
7 after “arrangements,”.

8 **SEC. 303. WORKING CAPITAL FUND TRANSFERS.**

9 Section 12 of the National Institute of Standards and  
10 Technology Act (15 U.S.C. 278b) is amended by adding  
11 at the end the following:

12 “(g) AMOUNT AND SOURCE OF TRANSFERS.—Not  
13 more than one-quarter of one percent of the amounts ap-  
14 propriated to the Institute for any fiscal year may be  
15 transferred to the fund, in addition to any other transfer  
16 authority. In addition, funds provided to the Institute  
17 from other Federal agencies for the purpose of production  
18 of Standard Reference Materials may be transferred to the  
19 fund.”.

20 **SEC. 304. RETENTION OF DEPRECIATION SURCHARGE.**

21 Section 14 of the National Institute of Standards and  
22 Technology Act (15 U.S.C. 278d) is amended—

23 (1) by inserting “(a) IN GENERAL.—” before  
24 “Within”; and

25 (2) by adding at the end the following:

1       “(b) **RETENTION OF FEES.**—The Director is author-  
2 ized to retain all building use and depreciation surcharge  
3 fees collected pursuant to OMB Circular A–25. Such fees  
4 shall be collected and credited to the Construction of Re-  
5 search Facilities Appropriation Account for use in mainte-  
6 nance and repair of the Institute’s existing facilities.”.

7 **SEC. 305. NON-ENERGY INVENTIONS PROGRAM.**

8       Section 27 of the National Institute of Standards and  
9 Technology Act (15 U.S.C. 278m) is repealed.

10 **SEC. 306. REDEFINITION OF THE METRIC SYSTEM.**

11       Section 3570 of the Revised Statutes of the United  
12 States (derived from section 2 of the Act of July 28, 1866,  
13 entitled “An Act to authorize the Use of the Metric Sys-  
14 tem of Weights and Measures” (15 U.S.C. 205; 14 Stat.  
15 339)) is amended to read as follows:

16 **“SEC. 3570. METRIC SYSTEM DEFINED.**

17       “The metric system of measurement shall be defined  
18 as the International System of Units as established in  
19 1960, and subsequently maintained, by the General Con-  
20 ference of Weights and Measures, and as interpreted or  
21 modified for the United States by the Secretary of Com-  
22 merce.”.

1 **SEC. 307. REPEAL OF REDUNDANT AND OBSOLETE AU-**  
2 **THORITY.**

3 The Act of July 21, 1950, entitled “An Act To rede-  
4 fine the units and establish the standards of electrical and  
5 photometric measurements” (15 U.S.C. 223 and 224) is  
6 repealed.

7 **SEC. 308. CLARIFICATION OF STANDARD TIME AND TIME**  
8 **ZONES.**

9 (a) Section 1 of the Act of March 19, 1918, (com-  
10 monly known as the “Calder Act”) (15 U.S.C. 261) is  
11 amended—

12 (1) by striking the second sentence and the  
13 extra period after it and inserting “Except as pro-  
14 vided in section 3(a) of the Uniform Time Act of  
15 1966 (15 U.S.C. 260a), the standard time of the  
16 first zone shall be Coordinated Universal Time re-  
17 tardated by 4 hours; that of the second zone retardated  
18 by 5 hours; that of the third zone retardated by 6  
19 hours; that of the four zone retardated by 7 hours;  
20 that of the fifth zone retardated by 8 hours; that of  
21 the sixth zone retardated by 9 hours; that of the sev-  
22 enth zone retardated by 10 hours; that of the eighth  
23 zone retardated by 11 hours; and that of the ninth  
24 zone shall be Coordinated Universal Time advanced  
25 by 10 hours.”; and

1           (2) by adding at the end the following: “In this  
2 section, the term ‘Coordinated Universal Time’  
3 means the time scale maintained through the Gen-  
4 eral Conference of Weights and Measures and inter-  
5 preted or modified for the United States by the Sec-  
6 retary of Commerce in coordination with the Sec-  
7 retary of the Navy.”.

8           (b) Section 3 of the Act of March 19, 1918, (com-  
9 monly known as the “Calder Act”) (15 U.S.C. 264) is  
10 amended by striking “third zone” and inserting “fourth  
11 zone”.

12 **SEC. 309. PROCUREMENT OF TEMPORARY AND INTERMIT-**  
13 **TENT SERVICES.**

14           (a) **IN GENERAL.**—The Director of the National In-  
15 stitute of Standards and Technology may procure the tem-  
16 porary or intermittent services of experts or consultants  
17 (or organizations thereof) in accordance with section  
18 3109(b) of title 5, United States Code to assist on urgent  
19 or short-term research projects.

20           (b) **EXTENT OF AUTHORITY.**—A procurement under  
21 this section may not exceed 1 year in duration, and the  
22 Director shall procure no more than 200 experts and con-  
23 sultants per year.

24           (c) **SUNSET.**—This section shall cease to be effective  
25 after September 30, 2010.

1 (d) REPORT TO CONGRESS.—Not later than 2 years  
2 after the date of enactment of this Act, the Comptroller  
3 General shall report to the Committee on Science and  
4 Technology of the House of Representatives and the Com-  
5 mittee on Commerce, Science, and Transportation of the  
6 Senate on whether additional safeguards would be needed  
7 with respect to the use of authorities granted under this  
8 section if such authorities were to be made permanent.

9 **SEC. 310. MALCOLM BALDRIGE AWARDS.**

10 Section 17(c)(3) of the Stevenson-Wydler Technology  
11 Innovation Act of 1980 (15 U.S.C. 3711a(c)(3)) is amend-  
12 ed to read as follows:

13 “(3) In any year, not more than 18 awards may be  
14 made under this section to recipients who have not pre-  
15 viously received an award under this section, and no award  
16 shall be made within any category described in paragraph  
17 (1) if there are no qualifying enterprises in that cat-  
18 egory.”.

Passed the House of Representatives May 3, 2007.

Attest:

*Clerk.*

110<sup>TH</sup> CONGRESS  
1<sup>ST</sup> SESSION

**H. R. 1868**

---

**AN ACT**

To authorize appropriations for the National Institute of Standards and Technology for fiscal years 2008, 2009, and 2010, and for other purposes.