

110TH CONGRESS  
1ST SESSION

# H. R. 255

To establish an interagency committee to coordinate Federal manufacturing research and development efforts in manufacturing, strengthen existing programs to assist manufacturing innovation and education, and expand outreach programs for small and medium-sized manufacturers, and for other purposes.

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## IN THE HOUSE OF REPRESENTATIVES

JANUARY 5, 2007

Mr. EHLERS introduced the following bill; which was referred to the  
Committee on Science and Technology

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## A BILL

To establish an interagency committee to coordinate Federal manufacturing research and development efforts in manufacturing, strengthen existing programs to assist manufacturing innovation and education, and expand outreach programs for small and medium-sized manufacturers, 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 “Manufacturing Tech-  
5       nology Competitiveness Act of 2007”.

1 **SEC. 2. INTERAGENCY COMMITTEE AND ADVISORY COM-**  
2 **MITTEE.**

3 (a) INTERAGENCY COMMITTEE.—

4 (1) ESTABLISHMENT.—The President shall es-  
5 tablish or designate an interagency committee on  
6 manufacturing research and development, which  
7 shall include representatives from the Office of  
8 Science and Technology Policy, the National Insti-  
9 tute of Standards and Technology, the Science and  
10 Technology Directorate of the Department of Home-  
11 land Security, the National Science Foundation, the  
12 Department of Energy, and any other agency that  
13 the President may designate. The Chair of the Inter-  
14 agency Committee shall be designated by the Direc-  
15 tor of the Office of Science and Technology Policy.

16 (2) FUNCTIONS.—The Interagency Committee  
17 shall be responsible for the planning and coordina-  
18 tion of Federal efforts in manufacturing research  
19 and development through—

20 (A) establishing goals and priorities for  
21 manufacturing research and development, in-  
22 cluding the strengthening of United States  
23 manufacturing through the support and coordi-  
24 nation of Federal manufacturing research, de-  
25 velopment, technology transfer, standards, and  
26 technical training;

1 (B) developing, within 6 months after the  
2 date of enactment of this Act, and updating  
3 every 3 years for delivery with the President's  
4 annual budget request to Congress, a strategic  
5 plan, to be transmitted to the Committee on  
6 Science of the House of Representatives and  
7 the Committee on Commerce, Science, and  
8 Transportation of the Senate, for manufac-  
9 turing research and development that includes  
10 an analysis of the research, development, tech-  
11 nology transfer, standards, technical training,  
12 and integration needs of the manufacturing sec-  
13 tor important to ensuring and maintaining  
14 United States competitiveness;

15 (C) proposing an annual coordinated inter-  
16 agency budget for manufacturing research and  
17 development to the Office of Management and  
18 Budget; and

19 (D) developing and transmitting to Con-  
20 gress an annual report on the Federal programs  
21 involved in manufacturing research, develop-  
22 ment, technical training, standards, and inte-  
23 gration, their funding levels, and their impacts  
24 on United States manufacturing competitive-  
25 ness, including the identification and analysis of

1 the manufacturing research and development  
2 problems that require additional attention, and  
3 recommendations of how Federal programs  
4 should address those problems.

5 (3) RECOMMENDATIONS AND VIEWS.—In car-  
6 rying out its functions under paragraph (2), the  
7 Interagency Committee shall consider the rec-  
8 ommendations of the Advisory Committee and the  
9 views of academic, State, industry, and other entities  
10 involved in manufacturing research and develop-  
11 ment.

12 (b) ADVISORY COMMITTEE.—

13 (1) ESTABLISHMENT.—Not later than 6  
14 months after the date of enactment of this Act, the  
15 President shall establish or designate an advisory  
16 committee to provide advice and information to the  
17 Interagency Committee.

18 (2) RECOMMENDATIONS.—The Advisory Com-  
19 mittee shall assist the Interagency Committee by  
20 providing it with recommendations on—

21 (A) the goals and priorities for manufac-  
22 turing research and development;

23 (B) the strategic plan, including proposals  
24 on how to strengthen research and development  
25 to help manufacturing; and

1 (C) other issues it considers appropriate.

2 (3) REPORT.—The Advisory Committee shall  
3 provide an annual report to the Interagency Com-  
4 mittee and the Congress that shall assess—

5 (A) the progress made in implementing the  
6 strategic plan and challenges to this progress;

7 (B) the effectiveness of activities under the  
8 strategic plan in improving United States man-  
9 ufacturing competitiveness;

10 (C) the need to revise the goals and prior-  
11 ities established by the Interagency Committee;  
12 and

13 (D) new and emerging problems and op-  
14 portunities affecting the manufacturing re-  
15 search community, research infrastructure, and  
16 the measurement and statistical analysis of  
17 manufacturing that may need to be considered  
18 by the Interagency Committee.

19 (4) FEDERAL ADVISORY COMMITTEE ACT AP-  
20 PPLICATION.—Section 14 of the Federal Advisory  
21 Committee Act shall not apply to the Advisory Com-  
22 mittee.

1 **SEC. 3. COLLABORATIVE MANUFACTURING RESEARCH**  
 2 **PILOT GRANTS.**

3 The National Institute of Standards and Technology  
 4 Act is amended—

5 (1) by redesignating the first section 32 (15  
 6 U.S.C. 271 note) as section 34 and moving it to the  
 7 end of the Act; and

8 (2) by inserting before the section moved by  
 9 paragraph (1) the following new section:

10 **“SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH**  
 11 **PILOT GRANTS.**

12 “(a) **AUTHORITY.**—

13 “(1) **ESTABLISHMENT.**—The Director shall es-  
 14 tablish a pilot program of awards to partnerships  
 15 among participants described in paragraph (2) for  
 16 the purposes described in paragraph (3). Awards  
 17 shall be made on a peer-reviewed, competitive basis.

18 “(2) **PARTICIPANTS.**—Such partnerships shall  
 19 include at least—

20 “(A) 1 manufacturing industry partner;  
 21 and

22 “(B) 1 nonindustry partner.

23 “(3) **PURPOSE.**—The purpose of the program  
 24 under this section is to foster cost-shared collabora-  
 25 tions among firms, educational institutions, research  
 26 institutions, State agencies, and nonprofit organiza-

1        tions to encourage the development of innovative,  
2        multidisciplinary manufacturing technologies. Part-  
3        nerships receiving awards under this section shall  
4        conduct applied research to develop new manufac-  
5        turing processes, techniques, or materials that would  
6        contribute to improved performance, productivity,  
7        and competitiveness of United States manufacturing,  
8        and build lasting alliances among collaborators.

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

14       “(c) APPLICATIONS.—Applications for awards under  
15       this section shall be submitted in such manner, at such  
16       time, and containing such information as the Director  
17       shall require. Such applications shall describe at a min-  
18       imum—

19                “(1) how each partner will participate in devel-  
20       oping and carrying out the research agenda of the  
21       partnership;

22                “(2) the research that the grant would fund;  
23       and

24                “(3) how the research to be funded with the  
25       award would contribute to improved performance,

1 productivity, and competitiveness of the United  
2 States manufacturing industry.

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

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

8 “(2) the novelty and scientific and technical  
9 merit of the proposed projects; and

10 “(3) the demonstrated capabilities of the appli-  
11 cants to successfully carry out the proposed re-  
12 search.

13 “(e) DISTRIBUTION.—In selecting applications under  
14 this section the Director shall ensure, to the extent prac-  
15 ticable, a distribution of overall awards among a variety  
16 of manufacturing industry sectors and a range of firm  
17 sizes.

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

21 **SEC. 4. MANUFACTURING FELLOWSHIP PROGRAM.**

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

24 (1) by inserting “(a) IN GENERAL.—” before

25 “The Director is authorized”; and



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

3           “(b) MANUFACTURING FELLOWSHIP PROGRAM.—

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

8                         “(A) postdoctoral research fellowships at  
9 the Institute for research activities related to  
10 manufacturing sciences; and

11                        “(B) senior research fellowships to estab-  
12 lished researchers in industry or at institutions  
13 of higher education who wish to pursue studies  
14 related to the manufacturing sciences at the In-  
15 stitute.

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

21                 “(3) STIPEND LEVELS.—Under this section, the  
22 Director shall provide stipends for postdoctoral re-  
23 search fellowships at a level consistent with the Na-  
24 tional Institute of Standards and Technology  
25 Postdoctoral Research Fellowship Program, and sen-

1       ior research fellowships at levels consistent with sup-  
2       port for a faculty member in a sabbatical position.”.

3   **SEC. 5. MANUFACTURING EXTENSION.**

4       (a) MANUFACTURING CENTER EVALUATION.—Sec-  
5       tion 25(c)(5) of the National Institute of Standards and  
6       Technology Act (15 U.S.C. 278k(c)(5)) is amended by in-  
7       serting “A Center that has not received a positive evalua-  
8       tion by the evaluation panel shall be notified by the panel  
9       of the deficiencies in its performance and may be placed  
10      on probation for one year, after which time the panel may  
11      reevaluate the Center. If the Center has not addressed the  
12      deficiencies identified by the panel, or shown a significant  
13      improvement in its performance, the Director may conduct  
14      a new competition to select an operator for the Center or  
15      may close the Center.” after “sixth year at declining lev-  
16      els.”.

17      (b) FEDERAL SHARE.—Strike section 25(d) of the  
18      National Institute of Standards and Technology Act (15  
19      U.S.C. 278k(d)) and insert the following:

20      “(d) ACCEPTANCE OF FUNDS.—In addition to such  
21      sums as may be appropriated to the Secretary and Direc-  
22      tor to operate the Centers program, the Secretary and Di-  
23      rector also may accept funds from other Federal depart-  
24      ments and agencies and under section 2(c)(7) from the  
25      private sector for the purpose of strengthening United

1 States manufacturing. Such funds, if allocated to a Center  
 2 or Centers, shall not be considered in the calculation of  
 3 the Federal share of capital and annual operating and  
 4 maintenance costs under subsection (c).”.

5 (c) MANUFACTURING EXTENSION CENTER COMPETITIVE GRANT PROGRAM.—Section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k)  
 6  
 7  
 8 is amended by adding at the end the following new sub-  
 9 sections:

10 “(e) COMPETITIVE GRANT PROGRAM.—

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

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

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

1 National Advisory Board, and small and medium-  
2 sized manufacturers. One or more themes for the  
3 competition may be identified, which may vary from  
4 year to year, depending on the needs of manufactur-  
5 ers and the success of previous competitions. These  
6 themes shall be related to projects associated with  
7 manufacturing extension activities, including supply  
8 chain integration and quality management, or extend  
9 beyond these traditional areas.

10 “(4) APPLICATIONS.—Applications for awards  
11 under this subsection shall be submitted in such  
12 manner, at such time, and containing such informa-  
13 tion as the Director shall require, in consultation  
14 with the Manufacturing Extension Partnership Na-  
15 tional Advisory Board.

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

20 “(A) that utilize innovative or collaborative  
21 approaches to solving the problem described in  
22 the competition;

23 “(B) that will improve the competitiveness  
24 of industries in the region in which the Center  
25 or Centers are located; and

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

3           “(6) PROGRAM CONTRIBUTION.—Recipients of  
4           awards under this subsection shall not be required  
5           to provide a matching contribution.

6           “(f) AUDITS.—A center that receives assistance  
7           under this section shall submit annual audits to the Sec-  
8           retary in accordance with Office of Management and  
9           Budget Circular A–133 and shall make such audits avail-  
10          able to the public on request.”.

11          (d) PROGRAMMATIC AND OPERATIONAL PLAN.—Not  
12          later than 120 days after the date of enactment of this  
13          Act, the Director of the National Institute of Standards  
14          and Technology shall transmit to the Committee on  
15          Science of the House of Representatives and the Com-  
16          mittee on Commerce, Science, and Transportation of the  
17          Senate a 3-year programmatic and operational plan for  
18          the Manufacturing Extension Partnership program under  
19          sections 25 and 26 of the National Institute of Standards  
20          and Technology Act (15 U.S.C. 278k and 278l). The plan  
21          shall include comments on the plan from the Manufac-  
22          turing Extension Partnership State partners and the Man-  
23          ufacturing Extension Partnership National Advisory  
24          Board.

1 **SEC. 6. SCIENTIFIC AND TECHNICAL RESEARCH AND SERV-**  
2 **ICES.**

3 (a) LABORATORY ACTIVITIES.—There are authorized  
4 to be appropriated to the Secretary of Commerce for the  
5 scientific and technical research and services laboratory  
6 activities of the National Institute of Standards and Tech-  
7 nology—

8 (1) \$505,340,000 for fiscal year 2008;

9 (2) \$555,874,000 for fiscal year 2009; and

10 (3) \$611,461,000 for fiscal year 2010.

11 (b) MALCOLM BALDRIGE NATIONAL QUALITY  
12 AWARD PROGRAM.—There are authorized to be appro-  
13 priated to the Secretary of Commerce for the Malcolm  
14 Baldrige National Quality Award program under section  
15 17 of the Stevenson-Wydler Technology Innovation Act of  
16 1980 (15 U.S.C. 3711a)—

17 (1) \$7,828,000 for fiscal year 2008;

18 (2) \$8,063,000 for fiscal year 2009; and

19 (3) \$8,305,000 for fiscal year 2010.

20 (c) CONSTRUCTION AND MAINTENANCE.—There are  
21 authorized to be appropriated to the Secretary of Com-  
22 merce for construction and maintenance of facilities of the  
23 National Institute of Standards and Technology—

24 (1) \$94,000,000 for fiscal year 2008;

25 (2) \$94,000,000 for fiscal year 2009; and

26 (3) \$94,000,000 for fiscal year 2010.

1 (d) ADVANCED TECHNOLOGY PROGRAM ELIMI-  
2 NATION REPORT.—Not later than 3 months after the date  
3 of enactment of this Act, the Secretary shall provide to  
4 the Congress a report detailing the impacts of the possible  
5 elimination of the Advanced Technology Program on the  
6 laboratory programs at the National Institute of Stand-  
7 ards Technology.

8 (e) LOSS OF FUNDING.—At the time of the Presi-  
9 dent’s budget request for fiscal year 2009, the Secretary  
10 shall provide the Congress a report on how the Depart-  
11 ment of Commerce plans to absorb the loss of Advanced  
12 Technology Program funds to the laboratory programs at  
13 the National Institute of Standards and Technology, or  
14 otherwise mitigate the effects of this loss on its programs  
15 and personnel.

16 **SEC. 7. STANDARDS EDUCATION PROGRAM.**

17 (a) PROGRAM AUTHORIZED.—(1) As part of the  
18 Teacher Science and Technology Enhancement Institute  
19 Program, the Director of the National Institute of Stand-  
20 ards and Technology shall carry out a Standards Edu-  
21 cation program to award grants to institutions of higher  
22 education to support efforts by such institutions to develop  
23 curricula on the role of standards in the fields of engineer-  
24 ing, business, science, and economics. The curricula  
25 should address topics such as—

- 1 (A) development of technical standards;
- 2 (B) demonstrating conformity to standards;
- 3 (C) intellectual property and antitrust issues;
- 4 (D) standardization as a key element of busi-
- 5 ness strategy;
- 6 (E) survey of organizations that develop stand-
- 7 ards;
- 8 (F) the standards life cycle;
- 9 (G) case studies in effective standardization;
- 10 (H) managing standardization activities; and
- 11 (I) managing organizations that develop stand-
- 12 ards.

13 (2) Grants shall be awarded under this section on a  
14 competitive, merit-reviewed basis and shall require cost-  
15 sharing from non-Federal sources.

16 (b) SELECTION PROCESS.—(1) An institution of  
17 higher education seeking funding under this section shall  
18 submit an application to the Director at such time, in such  
19 manner, and containing such information as the Director  
20 may require. The application shall include at a min-  
21 imum—

- 22 (A) a description of the content and schedule
- 23 for adoption of the proposed curricula in the courses
- 24 of study offered by the applicant; and



1 (B) a description of the source and amount of  
2 cost-sharing to be provided.

3 (2) In evaluating the applications submitted under  
4 paragraph (1) the Director shall consider, at a min-  
5 imum—

6 (A) the level of commitment demonstrated by  
7 the applicant in carrying out and sustaining lasting  
8 curricula changes in accordance with subsection  
9 (a)(1); and

10 (B) the amount of cost-sharing provided.

11 (c) AUTHORIZATION OF APPROPRIATIONS.—There  
12 are authorized to be appropriated to the Secretary of Com-  
13 merce for the Teacher Science and Technology Enhance-  
14 ment Institute program of the National Institute of Stand-  
15 ards and Technology—

16 (1) \$773,000 for fiscal year 2008;

17 (2) \$796,000 for fiscal year 2009; and

18 (3) \$820,000 for fiscal year 2010.

19 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

20 (a) MANUFACTURING EXTENSION PARTNERSHIP  
21 PROGRAM.—There are authorized to be appropriated to  
22 the Secretary of Commerce, or other appropriate Federal  
23 agencies, for the Manufacturing Extension Partnership  
24 program under sections 25 and 26 of the National Insti-

1 tute of Standards and Technology Act (15 U.S.C. 278k  
2 and 278l)—

3 (1) \$120,000,000 for fiscal year 2008, of which  
4 not more than \$1,000,000 shall be for the competi-  
5 tive grant program under section 25(e) of such Act  
6 (15 U.S.C. 278k(e));

7 (2) \$125,000,000 for fiscal year 2009, of which  
8 not more than \$4,000,000 shall be for the competi-  
9 tive grant program under section 25(e) of such Act  
10 (15 U.S.C. 278k(e)); and

11 (3) \$130,000,000 for fiscal year 2010, of which  
12 not more than \$4,100,000 shall be for the competi-  
13 tive grant program under section 25(e) of such Act  
14 (15 U.S.C. 278k(e)).

15 (b) COLLABORATIVE MANUFACTURING RESEARCH  
16 PILOT GRANTS PROGRAM.—There are authorized to be  
17 appropriated to the Secretary of Commerce for the Col-  
18 laborative Manufacturing Research Pilot Grants program  
19 under section 33 of the National Institute of Standards  
20 and Technology Act—

21 (1) \$10,000,000 for fiscal year 2008;

22 (2) \$10,000,000 for fiscal year 2009; and

23 (3) \$10,000,000 for fiscal year 2010.

24 (c) FELLOWSHIPS.—There are authorized to be ap-  
25 propriated to the Secretary of Commerce for Manufac-

1 turing Fellowships at the National Institute of Standards  
2 and Technology under section 18(b) of the National Insti-  
3 tute of Standards and Technology Act, as added by section  
4 4 of this Act—

- 5 (1) \$1,500,000 for fiscal year 2008;  
6 (2) \$1,750,000 for fiscal year 2009; and  
7 (3) \$2,000,000 for fiscal year 2010.

○