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REPORT
109–92

MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT OF 2005

MAY 23, 2005.—Committed to the Committee of the Whole House on the State of the Union and ordered to be printed

Mr. BOEHLERT, from the Committee on Science, submitted the following

R E P O R T

together with

MINORITY VIEWS

[To accompany H.R. 250]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, to whom was referred the bill (H.R. 250) 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, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

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I. AMENDMENT

The amendment is as follows:

Strike all after the enacting clause and insert the following:

SECTION 1. SHORT TITLE.

This Act may be cited as the "Manufacturing Technology Competitiveness Act of 2005".

SEC. 2. INTERAGENCY COMMITTEE AND ADVISORY COMMITTEE.

(a) INTERAGENCY COMMITTEE.—

(1) ESTABLISHMENT.—The President shall establish or designate an interagency committee on manufacturing research and development, which shall include representatives from the Office of Science and Technology Policy, the National Institute of Standards and Technology, the Science and Technology Directorate of the Department of Homeland Security, the National Science Foundation, the Department of Energy, and any other agency that the President may designate. The Chair of the Interagency Committee shall be designated by the Director of the Office of Science and Technology Policy.

(2) FUNCTIONS.—The Interagency Committee shall be responsible for the planning and coordination of Federal efforts in manufacturing research and development through—

(A) establishing goals and priorities for manufacturing research and development, including the strengthening of United States manufacturing through the support and coordination of Federal manufacturing research, development, technology transfer, standards, and technical training;

(B) developing, within 6 months after the date of enactment of this Act, and updating every 3 years for delivery with the President's annual budget request to Congress, a strategic plan, to be transmitted to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, for manufacturing research and development that includes an analysis of the research, development, technology transfer, standards, technical training, and integration needs of the manufacturing sector important to ensuring and maintaining United States competitiveness;

(C) proposing an annual coordinated interagency budget for manufacturing research and development to the Office of Management and Budget; and

(D) developing and transmitting to Congress an annual report on the Federal programs involved in manufacturing research, development, technical training, standards, and integration, their funding levels, and their impacts on United States manufacturing competitiveness, including the identification and analysis of the manufacturing research and development problems that require additional attention, and recommendations of how Federal programs should address those problems.

(3) RECOMMENDATIONS AND VIEWS.—In carrying out its functions under paragraph (2), the Interagency Committee shall consider the recommendations of the Advisory Committee and the views of academic, State, industry, and other entities involved in manufacturing research and development.

(b) ADVISORY COMMITTEE.—

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

(2) RECOMMENDATIONS.—The Advisory Committee shall assist the Interagency Committee by providing it with recommendations on—

(A) the goals and priorities for manufacturing research and development;

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

(C) other issues it considers appropriate.

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

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

(B) the effectiveness of activities under the strategic plan in improving United States manufacturing competitiveness;

(C) the need to revise the goals and priorities established by the Interagency Committee; and

(D) new and emerging problems and opportunities affecting the manufacturing research community, research infrastructure, and the measurement and statistical analysis of manufacturing that may need to be considered by the Interagency Committee.

(4) FEDERAL ADVISORY COMMITTEE ACT APPLICATION.—Section 14 of the Federal Advisory Committee Act shall not apply to the Advisory Committee.

SEC. 3. COLLABORATIVE MANUFACTURING RESEARCH PILOT GRANTS.

The National Institute of Standards and Technology Act is amended—

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

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

"SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH PILOT GRANTS.

"(a) AUTHORITY.—

"(1) ESTABLISHMENT.—The Director shall establish a pilot program of awards to partnerships among participants described in paragraph (2) for the purposes described in paragraph (3). Awards shall be made on a peer-reviewed, competitive basis.

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

"(A) 1 manufacturing industry partner; and

"(B) 1 nonindustry partner.

"(3) PURPOSE.—The purpose of the program under this section is to foster cost-shared collaborations among firms, educational institutions, research institutions, State agencies, and nonprofit organizations to encourage the development of innovative, multidisciplinary manufacturing technologies. Partnerships receiving awards under this section shall conduct applied research to develop new manufacturing processes, techniques, or materials that would contribute to improved performance, productivity, and competitiveness of United States manufacturing, and build lasting alliances among collaborators.

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

"(c) APPLICATIONS.—Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require. Such applications shall describe at a minimum—

"(1) how each partner will participate in developing and carrying out the research agenda of the partnership;

"(2) the research that the grant would fund; and

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

"(d) SELECTION CRITERIA.—In selecting applications for awards under this section, the Director shall consider at a minimum—

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

"(2) the novelty and scientific and technical merit of the proposed projects; and

"(3) the demonstrated capabilities of the applicants to successfully carry out the proposed research.

"(e) DISTRIBUTION.—In selecting applications under this section the Director shall ensure, to the extent practicable, a distribution of overall awards among a variety of manufacturing industry sectors and a range of firm sizes.

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

SEC. 4. MANUFACTURING FELLOWSHIP PROGRAM.

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

(1) by inserting "(a) IN GENERAL.—" before "The Director is authorized"; and

(2) by adding at the end the following new subsection:

"(b) MANUFACTURING FELLOWSHIP PROGRAM.—

"(1) ESTABLISHMENT.—To promote the development of a robust research community working at the leading edge of manufacturing sciences, the Director shall establish a program to award—

"(A) postdoctoral research fellowships at the Institute for research activities related to manufacturing sciences; and

"(B) senior research fellowships to established researchers in industry or at institutions of higher education who wish to pursue studies related to the manufacturing sciences at the Institute.

"(2) APPLICATIONS.—To be eligible for an award under this subsection, an individual shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require.

"(3) STIPEND LEVELS.—Under this section, the Director shall provide stipends for postdoctoral research fellowships at a level consistent with the National Institute of Standards and Technology Postdoctoral Research Fellowship Program, and senior research fellowships at levels consistent with support for a faculty member in a sabbatical position.".

SEC. 5. MANUFACTURING EXTENSION.

(a) MANUFACTURING CENTER EVALUATION.—Section 25(c)(5) of the National Institute of Standards and Technology Act (15 U.S.C. 278k(c)(5)) is amended by inserting "A Center that has not received a positive evaluation by the evaluation panel shall be notified by the panel of the deficiencies in its performance and may be placed on probation for one year, after which time the panel may reevaluate the Center. If the Center has not addressed the deficiencies identified by the panel, or shown a significant improvement in its performance, the Director may conduct a new competition to select an operator for the Center or may close the Center." after "sixth year at declining levels.".

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

"(d) ACCEPTANCE OF FUNDS.—In addition to such sums as may be appropriated to the Secretary and Director to operate the Centers program, the Secretary and Director also may accept funds from other Federal departments and agencies and under section 2(c)(7) from the private sector for the purpose of strengthening United States manufacturing. Such funds, if allocated to a Center or Centers, shall not be considered in the calculation of the Federal share of capital and annual operating and maintenance costs under subsection (c).".

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

"(e) COMPETITIVE GRANT PROGRAM.—

"(1) ESTABLISHMENT.—The Director shall establish, within the Manufacturing Extension Partnership program under this section and section 26 of this Act, a program of competitive awards among participants described in paragraph (2) for the purposes described in paragraph (3).

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

"(3) PURPOSE.—The purpose of the program under this subsection is to develop projects to solve new or emerging manufacturing problems as determined by the Director, in consultation with the Director of the Manufacturing Extension Partnership program, the Manufacturing Extension Partnership National Advisory Board, and small and medium-sized manufacturers. One or more themes for the competition may be identified, which may vary from year to year, depending on the needs of manufacturers and the success of previous competitions. These themes shall be related to projects associated with manufacturing extension activities, including supply chain integration and quality management, or extend beyond these traditional areas.

"(4) APPLICATIONS.—Applications for awards under this subsection shall be submitted in such manner, at such time, and containing such information as the Director shall require, in consultation with the Manufacturing Extension Partnership National Advisory Board.

"(5) SELECTION.—Awards under this subsection shall be peer reviewed and competitively awarded. The Director shall select proposals to receive awards—

"(A) that utilize innovative or collaborative approaches to solving the problem described in the competition;

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

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

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

"(f) AUDITS.—A center that receives assistance under this section shall submit annual audits to the Secretary in accordance with Office of Management and Budget Circular A–133 and shall make such audits available to the public on request.".

SEC. 6. SCIENTIFIC AND TECHNICAL RESEARCH AND SERVICES.

(a) LABORATORY ACTIVITIES.—There are authorized to be appropriated to the Secretary of Commerce for the scientific and technical research and services laboratory activities of the National Institute of Standards and Technology—

(1) $426,267,000 for fiscal year 2006, of which—

(A) $50,833,000 shall be for Electronics and Electrical Engineering;

(B) $28,023,000 shall be for Manufacturing Engineering;

(C) $52,433,000 shall be for Chemical Science and Technology;

(D) $46,706,000 shall be for Physics;

(E) $33,500,000 shall be for Material Science and Engineering;

(F) $24,321,000 shall be for Building and Fire Research;

(G) $68,423,000 shall be for Computer Science and Applied Mathematics;

(H) $20,134,000 shall be for Technical Assistance;

(I) $48,326,000 shall be for Research Support Activities;

(J) $29,369,000 shall be for the National Institute of Standards and Technology Center for Neutron Research; and

(K) $18,543,000 shall be for the National Nanomanufacturing and Nanometrology Facility;

(2) $447,580,000 for fiscal year 2007; and

(3) $456,979,000 for fiscal year 2008.

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

(1) $5,654,000 for fiscal year 2006;

(2) $5,795,000 for fiscal year 2007; and

(3) $5,939,000 for fiscal year 2008.

(c) CONSTRUCTION AND MAINTENANCE.—There are authorized to be appropriated to the Secretary of Commerce for construction and maintenance of facilities of the National Institute of Standards and Technology—

(1) $58,898,000 for fiscal year 2006;

(2) $61,843,000 for fiscal year 2007; and

(3) $63,389,000 for fiscal year 2008.

(d) ADVANCED TECHNOLOGY PROGRAM ELIMINATION REPORT.—Not later than 3 months after the date of enactment of this Act, the Secretary shall provide to the Congress a report detailing the impacts of the possible elimination of the Advanced Technology Program on the laboratory programs at the National Institute of Standards Technology.

(e) LOSS OF FUNDING.—At the time of the President's budget request for fiscal year 2007, the Secretary shall provide the Congress a report on how the Department of Commerce plans to absorb the loss of Advanced Technology Program funds to the laboratory programs at the National Institute of Standards and Technology, or otherwise mitigate the effects of this loss on its programs and personnel.

SEC. 7. STANDARDS EDUCATION PROGRAM.

(a) PROGRAM AUTHORIZED.—(1) As part of the Teacher Science and Technology Enhancement Institute Program, the Director of the National Institute of Standards and Technology shall carry out a Standards Education program to award grants to institutions of higher education to support efforts by such institutions to develop curricula on the role of standards in the fields of engineering, business, science, and economics. The curricula should address topics such as—

(A) development of technical standards;

(B) demonstrating conformity to standards;

(C) intellectual property and antitrust issues;

(D) standardization as a key element of business strategy;

(E) survey of organizations that develop standards;

(F) the standards life cycle;

(G) case studies in effective standardization;

(H) managing standardization activities; and

(I) managing organizations that develop standards.

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

(b) SELECTION PROCESS.—(1) An institution of higher education seeking funding under this section shall submit an application to the Director at such time, in such

manner, and containing such information as the Director may require. The application shall include at a minimum—

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

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

(2) In evaluating the applications submitted under paragraph (1) the Director shall consider, at a minimum—

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

(B) the amount of cost-sharing provided.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce for the Teacher Science and Technology Enhancement Institute program of the National Institute of Standards and Technology—

(1) $773,000 for fiscal year 2006;

(2) $796,000 for fiscal year 2007; and

(3) $820,000 for fiscal year 2008.

SEC. 8. AUTHORIZATION OF APPROPRIATIONS.

(a) MANUFACTURING EXTENSION PARTNERSHIP PROGRAM.—There are authorized to be appropriated to the Secretary of Commerce, or other appropriate Federal agencies, for the Manufacturing Extension Partnership program under sections 25 and 26 of the National Institute of Standards and Technology Act (15 U.S.C. 278k and 278l)—

(1) $110,000,000 for fiscal year 2006, of which not more than $1,000,000 shall be for the competitive grant program under section 25(e) of such Act (15 U.S.C. 278k(e));

(2) $115,000,000 for fiscal year 2007, of which not more than $4,000,000 shall be for the competitive grant program under section 25(e) of such Act (15 U.S.C. 278k(e)); and

(3) $120,000,000 for fiscal year 2008, of which not more than $4,100,000 shall be for the competitive grant program under section 25(e) of such Act (15 U.S.C. 278k(e)).

(b) COLLABORATIVE MANUFACTURING RESEARCH PILOT GRANTS PROGRAM.—There are authorized to be appropriated to the Secretary of Commerce for the Collaborative Manufacturing Research Pilot Grants program under section 33 of the National Institute of Standards and Technology Act—

(1) $10,000,000 for fiscal year 2006;

(2) $10,000,000 for fiscal year 2007; and

(3) $10,000,000 for fiscal year 2008.

(c) FELLOWSHIPS.—There are authorized to be appropriated to the Secretary of Commerce for Manufacturing Fellowships at the National Institute of Standards and Technology under section 18(b) of the National Institute of Standards and Technology Act, as added by section 4 of this Act—

(1) $1,500,000 for fiscal year 2006;

(2) $1,750,000 for fiscal year 2007; and

(3) $2,000,000 for fiscal year 2008.

SEC. 9. TECHNICAL WORKFORCE EDUCATION AND DEVELOPMENT.

(a) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Director of the National Science Foundation, from sums otherwise authorized to be appropriated, for the Advanced Technological Education Program established under section 3 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i)—

(1) $55,000,000 for fiscal year 2006, $5,000,000 of which may be used to support the education and preparation of manufacturing technicians for certification;

(2) $57,750,000 for fiscal year 2007, $5,000,000 of which may be used to support the education and preparation of manufacturing technicians for certification; and

(3) $60,600,000 for fiscal year 2008, $5,000,000 of which may be used to support the education and preparation of manufacturing technicians for certification.

(b) AMENDMENT.—Section 3 of the Scientific and Advanced-Technology Act of 1992 (42 U.S.C. 1862i) is amended—

(1) by inserting ", including manufacturing" after "advanced-technology fields" each place it appears other than in subsection (c)(2); and

(2) by inserting ", including manufacturing," after "advanced-technology fields" in subsection (c)(2).

II. Purpose of the Bill

The purpose of H.R. 250, the Manufacturing Technology Competitiveness Act of 2005, is to foster innovation in the manufacturing sciences by creating a mechanism to coordinate Federal manufacturing research and development and by creating new, and strengthening existing programs at the National Institute of Standards and Technology (NIST) that support manufacturing research and development, including an authorization for the NIST laboratory and construction accounts.

III. Background and Need for the Legislation

Manufacturing remains a key sector of the U.S. economy. According to the Bureau of the Census, between 1988 and 2000, the U.S. manufacturing trade balance for advanced technology products remained positive (though shrinking), whereas all other products went from an annual deficit of $100 billion to one of more than $300 billion.

NIST plays a critical role in helping maintain and advance the U.S. manufacturing industry. NIST's two laboratories, in Gaithersburg, MD and Boulder, CO, and its extramural Manufacturing Extension Partnership (MEP) program support research and development (R&D) and technology transfer that are directly relevant to the manufacturing sector's needs. NIST also hosts the Baldrige National Quality Program, which supports programs and activities that improve the quality and competitiveness of U.S. manufacturers.

MEP centers help increase the competitiveness of small and medium-sized manufacturers in areas involving technological change, lean manufacturing ("lean" principles include perfect first-time quality, waste minimization by removing all activities that do not add value, continuous improvement, flexibility, and long-term relationships), and acquisition of equipment, as well as business organization. MEP center costs are divided approximately equally among the Federal government, the State the center serves, and the center's clientele, who pay fees for services. The Federal share of MEP was funded at approximately $105 million from Fiscal Year (FY) 1998 to FY 2003 before the funding was cut to $39 million in FY 2004. The Administration's FY 2005 request was also $39 million, although it was eventually funded at $109 million. The Administration request for FY 2006 is $47 million. The $47 million is insufficient to maintain the existing network of MEP services and Centers that is available to small and medium-sized manufacturers. The Administration expects funds from other agencies to supplement funds for MEP in FY 2005 and 2006.

In June 2004, the National Academy of Public Administration (NAPA) published a report on the MEP program that concluded that the MEP program was the only Federal program that helped smaller firms modernize and compete successfully. The NAPA report also said that there were emerging challenges facing smaller firms, such as how to economically introduce the use of information technology into small manufacturing enterprises, and that MEP should introduce some changes in its current business model to help firms overcome these challenges.

IV. Summary of Hearings

The House Science Subcommittee on Environment, Technology, and Standards held a hearing June 5, 2003, on "Manufacturing Research and Development: How Can the Federal Government Help?" The hearing focused on the challenges faced by smaller firms and how R&D can help firms meet these challenges.

The Committee heard from: (1) Thomas Eagar, Thomas Lord Professor of Materials Engineering and Engineering Sciences, Massachusetts Institute of Technology, Cambridge, MA; (2) Larry Rhoades, President, Extrude Hone Corporation, Irwin, PA; (3) Herman Reininga, Senior Vice President, Special Projects, Rockwell Collins, Cedar Rapids, IA; (4) Jay Dunwell, President, Wolverine Coil Spring, Grand Rapids, MI; and (5) Jason Farmer, Director of Research and Development, nLight Photonics Corp., Vancouver, WA.

Professor Eagar testified that the most serious challenge to U.S manufacturing is a lack of new innovation. He said that the Federal government needs to focus more of its R&D funds on applied R&D to spur innovation.

Mr. Rhoades said the competitive advantage of the U.S. in manufacturing is its high-end production technologies that are not dependent on low-cost labor. He said that MEP and manufacturing consortia are necessary to bridge the gap between investments in basic research and the development of innovative products.

Mr. Reininga said that companies such as Rockwell Collins must constantly develop new, "disruptive" technologies to stay ahead of competitors. Linking manufacturing to innovation, he said, is the key step to future productivity improvements and a competitive advantage. In addition, he discussed the recommendations from a recent meeting of the National Coalition for Advanced Manufacturing, which included recommendations for a Federal manufacturing technology policy.

Mr. Dunwell described how hard it is for small manufacturers to remain in business when companies from all over the world are competing in the same supply chain. He said that the continued success of Wolverine Coil Spring depends on the success and continued location of his clients in the U.S. He said MEP is indispensable to the success of American small and medium-sized firms. He submitted for the record the executive summary of a report written by the Michigan Manufacturing Technology Center on the need for a national strategy for manufacturing.

Mr. Farmer discussed his company's experiences with the Small Business Innovation and Research program. He described how nLight Photonics has used assistance from the program to develop semiconductor lasers for market, and to position the company to acquire a significant amount of venture capital. He said the U.S. semiconductor laser industry is dwindling to just a few small firms. He said that greater investment in Federal technology transfer programs would help industry to survive.

V. Committee Actions

On June 5, 2003, the Environment, Technology, and Standards Subcommittee heard testimony from manufacturers and manufacturing researchers to learn about the R&D needs of the U.S. manu-

facturing sector. On November 21, 2003, Congressman Vernon J. Ehlers introduced H.R. 3598, the Manufacturing Technology Competitiveness Act, which was referred to the Committee on Science.

On March 25, 2004, the Subcommittee on Environment, Technology, and Standards met to consider the bill. Subcommittee Chairman Ehlers offered an amendment in the nature of a substitute, which made technical corrections and removed language establishing an Undersecretary of Commerce for Manufacturing and Technology. The amendment was adopted by a voice vote. The Subcommittee favorably reported the bill H.R. 3598, as amended, by a voice vote.

On June 16, 2004, the Committee on Science met to consider H.R. 3598, and considered the following amendments to the bill:

1. Mr. Ehlers offered an amendment in the nature of a substitute which made technical corrections; allowed the President to designate existing bodies as the Interagency Committee and Advisory Committee established by the bill; modified the collaborative grants program to become a three-year pilot program; limited the fellowship program to funding positions at NIST; and funded the new MEP grant program out of the base authorization for MEP program. By unanimous consent, the amendment was considered as base text for the purpose of further amendment. The amendment, as amended (see below), was adopted by a voice vote.

2. Mr. Udall offered an amendment to the substitute amendment to add authorizations for NIST's laboratories (the Scientific, Technical, and Research Services account), the Baldrige Quality Award, and the construction account for FY 2005 through FY 2008. Mr. Boehlert offered an amendment to the amendment offered by Mr. Udall striking the funding levels for the NIST construction account and inserting "such sums as may be necessary." The Boehlert amendment to the amendment was adopted by a roll call vote (Y–19; N–14), and Mr. Udall's amendment as amended by Mr. Boehlert was adopted by a voice vote.

3. Mr. Udall offered an amendment to the substitute amendment to establish a Presidential Council on Manufacturing. The amendment was defeated by a roll call vote (Y–15; N–15).

4. Mr. Udall offered an amendment to the substitute amendment setting aside funds for manufacturing activities within the National Science Foundation's Advanced Technological Education program. The amendment was defeated by a roll call vote (Y–15; N–18).

5. Mr. Gordon offered an amendment to the substitute amendment prohibiting the MEP competitive grants program created by the bill from being funded by cutting the base funding for the MEP centers. The amendment was adopted by a voice vote.

6. Mr. Smith offered an amendment to the substitute amendment to change the authorization levels for the MEP program for FY 2006 through FY 2008 by stating that the program's funding should increase by the rate of inflation. The amendment was defeated by a voice vote.

7. Mr. Honda offered an amendment to the substitute amendment to authorize $169 million a year for FY 2005

through 2008 for the Advanced Technology Program and to have 25 percent of the funds for new awards used for a "focused competition in the manufacturing sciences." The amendment was defeated by a roll call vote (Y–14; N–18).

8. Mr. Costello offered an amendment to the substitute amendment to require a study by RAND or another independent entity on a variety of workforce issues related to manufacturing, including outsourcing, foreign investment, and reemployment. The amendment was defeated by a roll call vote (Y–13; N–16).

9. Ms. Jackson Lee offered an amendment to the substitute amendment to prevent a general recompetition of the MEP Centers. Mr. Boehlert offered an amendment to the amendment to prevent a recompetition in those years when the MEP program receives an appropriation of at least $106 million. Mr. Boehlert's amendment to the Jackson Lee amendment was adopted by a roll call vote (Y–14; N–12), and the amendment as amended by Mr. Boehlert was passed by a voice vote.

10. Ms. Johnson offered an amendment to the substitute amendment reauthorizing funding for the Enterprise Integration Act, which expires in 2005. The amendment was defeated by a roll call vote (Y–10; N–12).

11. Mr. Larson offered an amendment to the substitute amendment to create an Under Secretary of Commerce for Manufacturing and Technology. The amendment was defeated by a roll call vote (Y–11; N–15).

12. Mr. Baird offered an amendment directing the Under Secretary of Commerce for Technology to transmit a report to Congress detailing a plan to maximize the utilization of the Small Business Innovation and Research Program and the Small Business Technology Transfer Program to support manufacturing sciences. The amendment was withdrawn.

13. Mr. Wu offered an amendment to allow the Federal cost-share for the MEP program to be changed from one-third to one-half on a case-by-case basis in FY 2005. The amendment was defeated by a roll call vote (Y–14; N–16).

14. Mr. Larson offered an amendment to authorize funding for the Industries of the Future program within the Office of Industrial Technology at the Department of Energy. The amendment was defeated by a roll call vote (Y–14; N–16).

The motion to adopt the bill as amended passed by a roll call vote (Y–19; N–13). Mr. Ehlers moved that the Committee favorably report the bill H.R. 3598, as amended, to the House with the recommendation that the bill as amended do pass; that the staff be instructed to prepare the legislative report and make necessary technical and conforming changes; and that the Chairman take all necessary steps to bring the bill before the House for consideration. With a quorum present, the motion was agreed to by a voice vote.

H.R. 3598 was brought to the House Floor on July 9, 2004 and passed by a voice vote. The bill was referred to the Senate, where no subsequent action was taken.

Congressman Vernon J. Ehlers re-introduced the Manufacturing Technology Competitiveness Act in the 109th Congress on January 6, 2005 as H.R. 250, which was referred to the Committee on Science.

On March 15, 2005, the Subcommittee on Environment, Technology, and Standards met to consider the bill. Mr. Ehlers offered an amendment in the nature of a substitute to make technical changes to the bill, revise the authorization numbers to coincide with the Fiscal Year 2006 President's request, and change the overall authorization from a 4-year to a 3-year authorization. The amendment was adopted by a voice vote. Mr. Wu offered an amendment to the amendment that would allow the MEP program to distribute outside agency funds to the MEP Centers without a matching funds requirement. The amendment to the manager's amendment was adopted by a voice vote. The substitute amendment, as amended, was passed by a voice vote. The Subcommittee favorably reported the bill H.R. 250, as amended, by a voice vote.

On May 4, 2005, the Committee on Science met to consider H.R. 250, and considered the following amendments to the bill:

1. Mr. Ehlers offered an amendment to have the Director of the Office of Science and Technology Policy, rather than the Secretary of Commerce, designate the chair of the interagency committee on R&D. The amendment was adopted by a voice vote.
2. Mr. Gordon offered an amendment to ensure full funding for the network of MEP centers. The Amendment was adopted by a voice vote.
3. Mr. Udall offered an amendment to authorize funding for the Advanced Technological Education program to enhance technical workforce education and development. Mr. Boehlert offered a second-degree amendment to reduce the funding which was adopted by a voice vote. The amendment, as amended, was adopted by voice vote
4. Mr. Carnahan offered an amendment to establish a President's Manufacturing Council to develop a National Manufacturing Strategy. The amendment was withdrawn.
5. Mr. Honda offered an amendment to authorize funding for the Advanced Technology Program for Fiscal Year 2006 through Fiscal Year 2008. The amendment was defeated by a voice vote.
6. Mr. Costello offered an amendment to require a study on the manufacturing and professional workforce to assess various trends relating to outsourcing for investment and re-employment. The amendment was withdrawn.
7. Mr. Udall offered an amendment to specify funding levels for the Advanced Technology Program to complete existing awards and for the close-out costs of the program. The amendment was defeated by a roll call vote (Y–15; N–19).

The motion to adopt the bill as amended passed by a roll call vote (Y–19; N–14). Mr. Ehlers moved that the Committee favorably report the bill H.R. 250, as amended, to the House with the recommendation that the bill as amended do pass; that the staff be instructed to prepare the legislative report and make necessary technical and conforming changes; and that the Chairman take all necessary steps to bring the bill before the House for consideration. With a quorum present, the motion was agreed to by a voice vote.

VI. Summary of Major Provisions of the Bill

H.R. 250 would:

Establish an Interagency Committee on Manufacturing Research and Development to coordinate Federal manufacturing R&D efforts, and an Advisory Committee to guide those efforts. The Interagency Committee would prepare a strategic plan for manufacturing R&D, produce a coordinated interagency budget, and write an annual report on the Federal programs involved in manufacturing R&D. The President may designate existing bodies to serve as the committees.

Establish a three-year cost-shared, collaborative manufacturing R&D pilot grant program at NIST.

Establish a post-doctoral and senior research fellowship program in manufacturing sciences at NIST.

Reauthorize the MEP program with a mechanism for review and re-competition of MEP Centers. H.R. 250 would also create an additional competitive grant program from which MEP centers can obtain supplemental funding for manufacturing-related projects, and allow the MEP program to distribute funds to MEP Centers without a matching funds requirement.

Authorize funding for NIST's Scientific, Technical, and Research Services account, the Baldrige Quality Award program, and the Construction and Maintenance account. H.R. 250 would also establish a standards education grant program at NIST.

Authorize funding for the National Science Foundation's Advanced Technical Education including funds that may be used to support the education and preparation of manufacturing technicians for certification.

VII. Section-by-Section Analysis (By Title and Section)

Section 1: Short title

"Manufacturing Technology Competitiveness Act of 2005"

Section 2: Interagency committee, advisory committee

Directs the President to establish or designate an Interagency Committee on Manufacturing Research and Development. The Interagency Committee would be assisted by an Advisory Committee representing non-governmental interests to provide the Interagency Committee with input to and reviews of Federal manufacturing R&D activities.

Section 3: Collaborative manufacturing research pilot grants

Amends the NIST Act by creating a new Section 33 that establishes a pilot grant program within NIST that would fund research partnerships between firms, community colleges, universities, research institutions, State agencies, and non-profits to develop innovative manufacturing technologies. The Federal share of a partnership's costs could not exceed one-third.

Section 4: Manufacturing fellowship program

Amends Section 18 of the NIST Act to establish a postdoctoral and senior research fellowship program in the manufacturing sciences at NIST.

Section 5: Manufacturing extension

Amends Section 25(c)(5) of the NIST Act by adding language to codify the existing MEP center review process, and by establishing a probationary period and re-competition schedule for centers that cannot perform. Also amends the Act to allow the MEP program to accept funds from other federal agencies and private sources without requiring matching funds or fees from the Centers. Amends Section 25 of the NIST Act by adding language at the end of that section creating a new competitive grant program under MEP to provide funding for innovative MEP-related projects.

Section 6: Scientific, technical, and research services

Authorizes appropriations for the laboratory accounts at NIST at $426.2 million in FY 2006, $447.5 million in FY 2007, and $457.0 million in FY 2008. The authorization for FY 2006 is divided as follows: $50.8 million for Electronics and Electrical Engineering; $28.0 million for Manufacturing Engineering; $52.4 million for Chemical Science and Technology; $46.7 million for Physics; $33.5 million for Material Science and Engineering; $24.3 million for Building and Fire Research; $68.4 million for Computer Science and Applied Mathematics, $20.1 million for Technical Assistance, $48.3 million for Research Support Activities, $29.3 million for the NIST Center for Neutron Research, and $18.5 for the National Nanotechnology and Nanometrology Facility.

Authorizes appropriations for the Malcolm Baldrige National Quality Award at $5.6 million in FY 2006, $5.7 million in FY 2007, and $5.9 million in FY 2008.

Authorizes $58.9 million for the NIST Construction Account in 2006, increasing to $61.8 million in FY 2007, and $63.4 million in FY 2008.

Directs the Secretary of Commerce to submit reports to Congress on the impact of the proposed elimination of the Advanced Technology Program on NIST's laboratory programs, and how these impacts could be mitigated.

Section 7: Standards education program

Establishes a Standards Education Program as part of the Teacher Science and Technology Enhancement Institute Program at NIST. The program shall award grants on a cost-shared basis to institutions of higher education to develop curricula on the role of standards in engineering, business, science, and economics. Authorizes appropriations for this purpose of $773,000 for FY 2006, $796,000 for FY 2007, and $820,000 for FY 2008.

Section 8: Authorization of appropriations

Authorizes for the MEP program $110 million for FY 2006, $115 million for FY 2007, and $120 million in FY 2008. Of these amounts, the following will be available for the competitive grant program: $1 million in FY 2006, $4 million in FY 2007, and $4.1 million in FY 2008.

Authorizes for the collaborative manufacturing pilot grant program under section 3, $10 million per year for FY 2006, FY 2007, and FY 2008.

Authorizes for the fellowship program under section 4, $1.5 million for FY 2006, $1.75 million for FY 2007, and $2 million for FY 2008.

Section 9: Technical workforce education and development

Authorizes for the National Science Foundation's Advanced Technical Education program $55 million for FY 2006, $57.8 million for FY 2007, and $60.6 million for FY 2008, $5 million of which per year may be used to support the education and preparation of manufacturing technicians for certification.

VIII. Committee Views

Section 2: Interagency committee, advisory committee

The Committee believes agencies need to better coordinate their programs and need to receive advice from outside the government to increase the impact of Federal programs on the manufacturing sector. The Committee believes it is particularly essential for agencies to put together a coordinated budget for manufacturing R&D that reflects an overall plan to help manufacturers. The Committee expects agencies to work together proactively to prepare such a plan and such a budget. This will require far more focus than does merely cobbling together an after-the-fact document listing how much each agency intends to spend independently on manufacturing.

The Act allows the President to designate an existing body to serve as the Interagency Committee and the Advisory Committee. The Committee assumes that the President will designate the Working Group on Manufacturing Research and Development within the National Science and Technology Council as the Interagency Committee. The Committee expects that any designated entity will carry out all the tasks this Act assigns to the Interagency Committee. The Committee expects the Interagency Committee to meet at least twice a year.

The Committee also expects the Interagency Committee to submit to Congress within six months of the enactment of this Act a report on how the Small Business Innovation Research program and the Small Business Technology Transfer program can do more to support R&D in the manufacturing sciences. The report should describe and assess steps that have been taken to implement the February 24, 2004 Executive Order Encouraging Innovation in Manufacturing.

The Committee assumes the President will designate the Manufacturing Council as the Advisory Committee. The Committee expects that any designated entity will carry out all the tasks this Act assigns to the Advisory Committee. Since the Manufacturing Council does not include representatives from labor or academia, the Administration should take other steps to seek out the views of those groups on manufacturing R&D programs.

Section 3: Collaborative manufacturing research grants

The Committee believes the pilot grant program will provide an opportunity to study how innovation could be stimulated by supporting relationships among Federal agencies, State agencies, com-

munity colleges, universities, non-profits, and small, medium, and large companies.

Section 4: Manufacturing fellowship program

The Committee is concerned that U.S. expertise in manufacturing R&D is waning. The Committee believes that NIST, with its excellent track record in the manufacturing sciences, relationships with U.S. industries, and unique research environment can provide an outstanding educational opportunity to candidates seeking to gain greater expertise in manufacturing innovation. Thus the legislation establishes a fellowship program in the manufacturing sciences at NIST.

Section 5: Manufacturing extension

The Committee believes the new competitive grant program will help MEP Centers develop new programs to help a range of manufacturers with new types of problems. The Committee has not required a State match for these grants.

Section 7: Standards education program

The Committee is concerned that education in industrial standards issues at U.S. engineering, business, law, and other professional schools is deficient. The importance of standards to technological and economic development, the process by which standards are developed, and the content of standards are poorly understood even by those who are most closely connected with this field. This, in turn, puts U.S. firms at a disadvantage in international standards negotiations. The Committee has therefore established a Standards Education Program at NIST to support curriculum development at institutions of higher education to educate future manufacturing engineers, CEOs, and other leaders on the relevance and nature of this critical field.

Section 8: Authorization of appropriations

The Committee understands that the current budget situation is putting unprecedented constraints on the Federal government's fiscal resources. However, the Committee believes that the funding levels authorized in H.R. 250 are prudent and will create jobs, support innovation, increase the competitiveness of U.S. manufacturing, and enhance the dynamism of the U.S. economy.

Outsourcing

The off-shoring of jobs continues to be of concern both of Members of Congress and the public. It is difficult to determine how many jobs we have actually lost because we do not have sufficient or accurate data on the problem. The Committee believes that a report on this issue is warranted and should include the following tasks:

—Measuring the number of jobs lost here and moved offshore;

—Measuring the expansion of companies' foreign workforce compared with the U.S. workforce;

—Examining the re-employment rate of displace workers and their wages and new occupations;

—Measuring the us of H–1 and L1 visas;

—Measuring the number of jobs created by foreign investment in the US;

—Assessing how off-shoring of jobs influences student career choices; and

—Determining the number of off-shore jobs created by contractors and subcontractors used by the Federal government.

The Consolidated Appropriations bill for fiscal years 2005 (P.L. 108–477) provided a $2 million dollar grant to the National Academy of Public Administration (NAPA) to "study impact of off-shoring on the economy and workforce in the United States." Since this study is in its initial stages, the Committee intends to work with the Appropriations Committee sponsor of this report, Rep. Frank Wolf, requesting that the scope of the report be expanded to include the points made above.

We will only be able to develop solutions and sound policies to the problem of off-shoring if we have comprehensive data on this phenomenon

IX. Cost Estimate

A cost estimate and comparison prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974 has been timely submitted to the Committee on Science prior to the filing of this report and is included in Section X of this report pursuant to House Rule XIII, clause 3(c)(3).

H.R. 250 contains no new budget authority, credit authority, or changes in revenues or tax expenditures. Assuming that the sums authorized under the bill are appropriated, H.R. 250 does authorize additional discretionary spending, as described in the Congressional Budget Office report on the bill, which is contained in Section X of this report.

X. Congressional Budget Office Cost Estimate

U.S. Congress,
Congressional Budget Office,
Washington, DC, May 11, 2005.

Hon. Sherwood L. Boehlert,
Chairman, Committee on Science, House of Representatives, Washington, DC.

Dear Mr. Chairman: The Congressional Budget Office has prepared the enclosed cost estimate for H.R. 250, the Manufacturing Technology Competitiveness Act of 2005.

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

Sincerely,

Douglas Holtz-Eakin, *Director.*

Enclosure.

H.R. 250—Manufacturing Technology Competitiveness Act of 2005

Summary: CBO estimates that H.R. 250 would authorize the appropriation of about $2.1 billion for fiscal years 2006 through 2008 for programs administered by the National Institute of Standards and Technology (NIST) and the National Science Foundation (NSF). Assuming appropriation of the authorized amounts, CBO estimates that implementing H.R. 250 would cost $366 million in

2006 and about $2 billion over the 2006–2010 period. Enacting this bill would not affect direct spending or revenues.

H.R. 250 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA); any costs to state, local, or tribal governments would result from complying with conditions of federal assistance.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 250 is shown in the following table. The costs of this legislation fall within budget functions 370 (commerce and housing credit) and 250 (science, space, and technology).

	By fiscal year, in millions of dollars—					
	2005	2006	2007	2008	2009	2010
SPENDING SUBJECT TO APPROPRIATION						
NSF and NIST Spending Under Current Law:						
Budget Authority [a]	738	0	0	0	0	0
Estimated Outlays	646	347	164	64	23	7
Proposed Changes:						
Estimated Authorization Level	0	668	701	720	0	0
Estimated Outlays	0	366	563	641	295	120
NSF and NIST Spending Under H.R. 250:						
Authorization Level [a]	738	668	701	720	0	0
Estimated Outlays	646	713	727	705	318	127

[a] The 2005 level is the amount appropriated for that year for NIST and for the Advanced Technological Education Program at NSF.

Basis of estimate: CBO estimates that implementing H.R. 250 would cost $366 million in 2006 and $2.0 billion over the 2006–2010 period, assuming appropriation of the necessary amounts. For this estimate, CBO assumes that amounts authorized would be appropriated near the beginning of each fiscal year and that outlays would follow historical spending patterns of NIST and NSF programs.

H.R. 250 would specifically authorize the appropriation of about $2.1 billion for fiscal years 2006 through 2008 for programs related to manufacturing technology. The bill authorizes $1.9 billion for various programs administered by NIST, including four new grant programs that would be established under the bill. The bill also would authorize $173 million for a grant program administered by NSF. Estimated outlays from these amounts would total about $2 billion over the 2006–2010 period.

Finally, H.R. 250 would provide for an interagency committee on research and development in the field of manufacturing and an advisory committee to provide recommendations to the interagency committee. According to the Department of Commerce, two committees that operate under current law would carry out these new responsibilities at no additional cost.

Intergovernmental and private-sector impact: H.R. 250 contains no intergovernmental or private-sector mandates as defined in UMRA, but several sections of the bill would affect grant programs that benefit state and local governments. The bill would allow for a Regional Center for the Transfer of Manufacturing Technology that does not receive a positive evaluation to be placed on a one-year probation period with a reevaluation occurring after the probationary period. Under current law, such a center would not receive a probationary period and would not receive funding for the fourth through the sixth year of the grant period.

H.R. 250 also would authorize two new grant programs for state and local government and for institutions of higher education. One grant would be a pilot grant to encourage partnerships that could include state and local governments. These grants, which would be for one-third of the cost of the partnership, would be available for a three-year period. Grants to institutions of higher education would also be authorized to support the development of curricula on the role of standards in the fields of engineering, business, science, and economics.

Any costs to state, local, or tribal governments arising from H.R. 250 would result from complying with conditions of the grant programs.

Estimate prepared by: Federal Costs: Melissa E. Zimmerman; Impact on State, Local, and Tribal Governments: Lisa Ramirez-Branum; Impact on the Private Sector: Craig Cammarata.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

XI. Compliance With Public Law 104–4

H.R. 250 contains no unfunded mandates.

XII. Committee Oversight Findings and Recommendations

The Committee on Science's oversight findings and recommendations are reflected in the body of this report.

XIII. Statement on General Performance Goals and Objectives

The goal of this Act is to improve the competitiveness of small and medium-sized U.S. manufacturers by increasing the amount of R&D and technology transfer related to manufacturing.

XIV. Constitutional Authority Statement

Article I, section 8 of the Constitution of the United States grants Congress the authority to enact H.R. 250.

XV. Federal Advisory Committee Statement

The functions of the advisory committee authorized by H.R. 250 may be able to be performed by enlarging the mandate of another existing advisory committee.

XVI. Congressional Accountability Act

The Committee finds that H.R. 250 does not relate to the terms and conditions of employment or access to public services or accommodations within the meaning of section 102(b)(3) of the Congressional Accountability Act (Public Law 104–1).

XVII. Statement on Preemption of State, Local, or Tribal Law

This bill is not intended to preempt any State, local, or tribal law.

XVIII. CHANGES IN EXISTING LAW MADE BY THE BILL, AS REPORTED

In compliance with clause 3(e) of rule XIII of the Rules of the House of Representatives, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italics, existing law in which no change is proposed is shown in roman):

NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY ACT

* * * * * * *

SEC. 18. *(a) IN GENERAL.*—The Director is authorized to expend up to 1 per centum of the funds appropriated for activities of the Institute 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 Institute, and to United States citizens for research and technical activities on Institute programs. 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 Institute.

(b) MANUFACTURING FELLOWSHIP PROGRAM.—

(1) ESTABLISHMENT.—To promote the development of a robust research community working at the leading edge of manufacturing sciences, the Director shall establish a program to award—

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

(B) senior research fellowships to established researchers in industry or at institutions of higher education who wish to pursue studies related to the manufacturing sciences at the Institute.

(2) APPLICATIONS.—To be eligible for an award under this subsection, an individual shall submit an application to the Director at such time, in such manner, and containing such information as the Director may require.

(3) STIPEND LEVELS.—Under this section, the Director shall provide stipends for postdoctoral research fellowships at a level consistent with the National Institute of Standards and Technology Postdoctoral Research Fellowship Program, and senior research fellowships at levels consistent with support for a faculty member in a sabbatical position.

* * * * * * *

REGIONAL CENTERS FOR THE TRANSFER OF MANUFACTURING TECHNOLOGY

SEC. 25. (a) * * *

* * * * * * *

(c)(1) * * *

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(5) Each Center which receives financial assistance under this section shall be evaluated during its third year of operation by an

evaluation panel appointed by the Secretary. Each such evaluation panel shall be composed of private experts, none of whom shall be connected with the involved Center, and Federal officials. An official of the Institute shall chair the panel. Each evaluation panel shall measure the involved Center's performance against the objectives specified in this section. The Secretary shall not provide funding for the fourth through the sixth years of such Center's operation unless the evaluation is positive. If the evaluation is positive, the Secretary may provide continued funding through the sixth year at declining levels. *A Center that has not received a positive evaluation by the evaluation panel shall be notified by the panel of the deficiencies in its performance and may be placed on probation for one year, after which time the panel may reevaluate the Center. If the Center has not addressed the deficiencies identified by the panel, or shown a significant improvement in its performance, the Director may conduct a new competition to select an operator for the Center or may close the Center.* After the sixth year, a Center may receive additional financial support under this section if it has received a positive evaluation through an independent review, under procedures established by the Institute. Such an independent review shall be required at least every two years after the sixth year of operation. Funding received for a fiscal year under this section after the sixth year of operation shall not exceed one third of the capital and annual operating and maintenance costs of the Center under the program.

* * * * * * *

[(d) In addition to such sums as may be authorized and appropriated to the Secretary and Director to operate the Centers program, the Secretary and Director also may accept funds from other Federal departments and agencies for the purpose of providing Federal funds to support Centers. Any Center which is supported with funds which originally came from other Federal departments and agencies shall be selected and operated according to the provisions of this section.**]**

(d) ACCEPTANCE OF FUNDS.—In addition to such sums as may be appropriated to the Secretary and Director to operate the Centers program, the Secretary and Director also may accept funds from other Federal departments and agencies and under section 2(c)(7) from the private sector for the purpose of strengthening United States manufacturing. Such funds, if allocated to a Center or Centers, shall not be considered in the calculation of the Federal share of capital and annual operating and maintenance costs under subsection (c).

(e) COMPETITIVE GRANT PROGRAM.—

(1) ESTABLISHMENT.—The Director shall establish, within the Manufacturing Extension Partnership program under this section and section 26 of this Act, a program of competitive awards among participants described in paragraph (2) for the purposes described in paragraph (3).

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

(3) PURPOSE.—The purpose of the program under this subsection is to develop projects to solve new or emerging manufacturing problems as determined by the Director, in consultation

with the Director of the Manufacturing Extension Partnership program, the Manufacturing Extension Partnership National Advisory Board, and small and medium-sized manufacturers. One or more themes for the competition may be identified, which may vary from year to year, depending on the needs of manufacturers and the success of previous competitions. These themes shall be related to projects associated with manufacturing extension activities, including supply chain integration and quality management, or extend beyond these traditional areas.

(4) APPLICATIONS.—Applications for awards under this subsection shall be submitted in such manner, at such time, and containing such information as the Director shall require, in consultation with the Manufacturing Extension Partnership National Advisory Board.

(5) SELECTION.—Awards under this subsection shall be peer reviewed and competitively awarded. The Director shall select proposals to receive awards—

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

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

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

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

(f) AUDITS.—A center that receives assistance under this section shall submit annual audits to the Secretary in accordance with Office of Management and Budget Circular A–133 and shall make such audits available to the public on request.

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SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH PILOT GRANTS.

(a) AUTHORITY.—

(1) ESTABLISHMENT.—The Director shall establish a pilot program of awards to partnerships among participants described in paragraph (2) for the purposes described in paragraph (3). Awards shall be made on a peer-reviewed, competitive basis.

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

(A) 1 manufacturing industry partner; and

(B) 1 nonindustry partner.

(3) PURPOSE.—The purpose of the program under this section is to foster cost-shared collaborations among firms, educational institutions, research institutions, State agencies, and nonprofit organizations to encourage the development of innovative, multidisciplinary manufacturing technologies. Partnerships receiving awards under this section shall conduct applied research to develop new manufacturing processes, techniques, or materials that would contribute to improved performance, productivity, and competitiveness of United States manufacturing, and build lasting alliances among collaborators.

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

(c) APPLICATIONS.—Applications for awards under this section shall be submitted in such manner, at such time, and containing such information as the Director shall require. Such applications shall describe at a minimum—

(1) how each partner will participate in developing and carrying out the research agenda of the partnership;

(2) the research that the grant would fund; and

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

(d) SELECTION CRITERIA.—In selecting applications for awards under this section, the Director shall consider at a minimum—

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

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

(3) the demonstrated capabilities of the applicants to successfully carry out the proposed research.

(e) DISTRIBUTION.—In selecting applications under this section the Director shall ensure, to the extent practicable, a distribution of overall awards among a variety of manufacturing industry sectors and a range of firm sizes.

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

SEC. [32] *34.* This Act may be cited as the National Institute of Standards and Technology Act.

SECTION 3 OF THE SCIENTIFIC AND ADVANCED-TECHNOLOGY ACT OF 1992

SEC. 3. SCIENTIFIC AND TECHNICAL EDUCATION.

(a) NATIONAL ADVANCED SCIENTIFIC AND TECHNICAL EDUCATION PROGRAM.—The Director of the National Science Foundation (hereafter in this Act referred to as the "Director") shall award grants to associate-degree-granting colleges, and consortia thereof, to assist them in providing education in advanced-technology fields*, including manufacturing*, and to improve the quality of their core education courses in science and mathematics. The grant program shall place emphasis on the needs of students who have been in the workforce (including work in the home), and shall be designed to strengthen and expand the scientific and technical education and training capabilities of associate-degree-granting colleges through such methods as—

(1) the development of model instructional programs in advanced-technology fields*, including manufacturing* and in core science and mathematics courses;

(2) the professional development of faculty and instructors, both full- and part-time, who provide instruction in science,

mathematics, and advanced-technology fields*, including manufacturing*;

* * * * * * *

(4) the acquisition of state-of-the-art instrumentation essential to programs designed to prepare and upgrade students in scientific and advanced-technology fields*, including manufacturing*; and

* * * * * * *

(b) NATIONAL CENTERS OF SCIENTIFIC AND TECHNICAL EDUCATION.—The Director shall award grants for the establishment of centers of excellence, not to exceed 10 in number, among associate-degree-granting colleges. Centers shall meet one or both of the following criteria:

(1) Exceptional instructional programs in advanced-technology fields*, including manufacturing*.

* * * * * * *

(c) ARTICULATION PARTNERSHIPS.—

(1) * * *

(2) OUTREACH GRANTS.—The Director shall make grants to associate-degree-granting colleges with outstanding mathematics and science programs to strengthen relationships with secondary schools in the community served by the college by improving mathematics and science education and encouraging the interest and aptitude of secondary school students for careers in science and advanced-technology fields*, including manufacturing,* through such means as developing agreements with local educational agencies to enable students to satisfy entrance and course requirements at the associate-degree-granting college.

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XIX. COMMITTEE RECOMMENDATIONS

On May 4, 2005, a quorum being present, the Committee on Science favorably reported the Manufacturing Technology Competitiveness Act of 2005, by a voice vote and recommended its enactment.

XX. MINORITY VIEWS

I. BACKGROUND

After 8 years we are pleased that the Science Committee has decided to move an almost complete authorization for the National Institute of Standards and Technology (NIST). H.R. 250, the Manufacturing Technology Competitiveness Act of 2005, authorizes all of NIST's programs except for the Advanced Technology Program (ATP). We have always strongly supported NIST and fully recognize the importance of all of its programs to the U.S. industrial sector. However, H.R. 250 purports to be a bill to help the American manufacturing base. We feel that H.R. 250 falls far short of this goal.

This is virtually the same bill that passed the Committee and House a year ago and that the Senate never took up. The U.S.

manufacturing sector is facing a crisis—since 2001 we have lost 2.7 million manufacturing jobs. In the first three months of this year, we have lost another 24,000 manufacturing jobs. A year ago, the Administration announced its Manufacturing Initiative, the creation of an Assistant Secretary for Manufacturing and Services supported by a $40 million-plus bureaucracy, and established a Manufacturing Council. Since these announcements, very little has been heard from these organizations. Aside from a single hearing in June 2003, the Science Committee has done little in the way of oversight or policy hearings on the manufacturing crisis. (Indeed, H.R. 250 little reflects the recommendations made at our only hearing.) While there is bipartisan agreement that the federal government needs to retain high-skill, highpay, manufacturing jobs in the U.S., we are disappointed that this crisis has received so little attention from the Administration, the House, and the Senate.

II. AMENDMENTS TO THE BILL

At the mark-up we offered some very modest amendments to strengthen the H.R. 250. Democratic amendments focused on: (1) ensuring full funding for the Manufacturing Extension Partnership program (MEP), (2) improving workforce training, (3) supporting technology innovation, and (4) strengthening the Administration's manufacturing efforts.

Full funding for MEP

Mr. Gordon offered an amendment, which was accepted, to ensure that the MEP received $109 million in FY06 for MEP Center operations. The amendment then provides $111 million to the MEP Centers in FY07 and $115.9 million in FY08. The amendment makes clear that priority should be given to maintaining and expanding the current network of MEP Centers. We strongly support the MEP program and believe one of our highest priorities is to fully fund the existing network of MEP Centers and operations. Our small- and medium-sized manufacturers are facing a survival crisis. The MEP is one of the few Federal programs that documents a quantitative return on investment. A small federal investment of $109 million results in billion of dollars in terms of jobs created/retained, new sales, and investment. We remain baffled why the Administration continues to target the MEP for either elimination or deep cuts, especially since the Administration has yet to provide the Committee with any rationale for its opposition to the program.

Supporting technology innovation

Mr. Honda offered an amendment that would have provided the ATP with sufficient funds to make $60 million of new awards in FY06, FY07 and FY08. While our majority colleagues continue to state their support for the ATP, they refuse to authorize funding for the program. The reason—the Administration does not like this program and would more strongly oppose the bill. We would point out that the Administration also does not support the MEP program and continues to target it for either elimination or severe funding cuts. Regardless of the Administration's position on both the ATP and MEP, Congress has always restored funding to both programs. We fail to understand the deference given to this Administration in this case. There have been votes on the Floor of the

House of Representatives on the ATP and supporters of the ATP have prevailed. If the majority supports the program, then it is time to stand up and be counted. The majority has also argued that we should allow this debate to play-out in the appropriations process. As members of an authorizing committee we are disturbed at the trend to rely on the Appropriations Committee to make decisions that rightfully should be made by an Authorizing Committee. The main goal of H.R. 250 is to stimulate and support new manufacturing technologies—the goal of the ATP. Currently almost one-third of all active ATP projects focus on some aspect of manufacturing, with a total of $318 million of public/private investment. We also note that the Federal government is devoting hundreds of millions of dollars to nanotechnology research. The Science Committee has heard over and over again about the need to support federal programs to bridge the gap between basic research and demonstrable concept, the so-called valley-of-death. Ten percent of active ATP projects are related to aspects of nanotechnology. These nanotechnology-related projects represent a public/private investment of over $170 million. ATP-supported nanotechnology projects have proven successful. An early ATP project in this field has resulted in one of the few commercial successes of the application of nanotechnology in the use of nanoparticles in cosmetics. It makes no sense in a bill whose goal is to bolster manufacturing competitiveness to not include funding for the ATP.

Mr. Udall offered an amendment to provide for funding current ATP projects through completion and for close-out costs. The Administration's FY06 budget request eliminates funding for the ATP, but does not provide funding for close-out costs even though the Administration acknowledges "that an orderly shutdown of the ATP is not without expense." According to the Committee's Views and Estimates:

> In addition, the Committee is concerned that the proposed budget does not even fund the costs associated with closing the program. The closing of the program would require funds from the NIST laboratory budget because ATP currently spends about $13 million on NIST's own labs. Funding would also be required to cover the costs of laying off more than 200 ATP employees, about $20 million. These costs would have to be absorbed by the NIST labs, eating into the proposed increases for the laboratory programs.

The Chairman argued that adoption of this amendment would indicate that the Science Committee has "given up on the ATP." H.R. 250 already implies that the Science Committee has "given up" on the ATP. Included in the provision regarding the ATP is a requirement that the FY07 budget submission include "how the Department of Commerce plans to absorb the loss of the Advanced Technology Program funds to the laboratory programs at NIST, or otherwise mitigate the effects of this loss on it programs and personnel." The inclusion of this provision seems to indicate that the majority will acquiesce to the bleeding away of the ATP funding and does not expect the ATP to be around in the next budget cycle. Once again the majority has decided to let the Appropriations Committee make our tough decisions for us. The defeat of the Udall

amendment will likely result in the early termination of 142 ATP projects representing a total private/public investment of $427 million over the life of the projects. Almost half of these projects are located in California, Illinois, Michigan, New York, Pennsylvania, and Texas.

Improving workforce training

Mr. Udall offered an amendment to increase funding for the National Science Foundation's (NSF) Advanced Technological Education (ATE) Program. Currently the ATE program receives $45 million per year. The amendment would have increased funding to $70 million in FY06 and provided for inflationary increases in the out-years. Mr. Boehlert, while supporting the amendment, offered a secondary amendment to limit funding to $55 million. Given the needs of our community colleges to train a skilled workforce we felt this funding level was not sufficient. Mr. Udall worked closely with the American Association of Community Colleges in developing this amendment and they did not support this lower funding level. Mr. Udall proposed a compromise funding level of $60 million; however, this too was opposed by the Chairman. We also note that NSF funds about one-quarter of all the proposals it receives. If the ATE program were to fund one-quarter of its proposals, it would require approximately $68 million in funding. We are disappointed that the majority did not support bringing this program to parity with the rest of the NSF grant programs.

Strengthening the administration's manufacturing efforts

Mr. Costello offered an amendment to expand upon a current study by the National Academy of Public Administration (NAPA) on the issue of off-shoring. We remain very concerned about the issue of off-shoring of our professional and manufacturing jobs. Particularly troubling is the lack of factual data upon which to base sound policy. Mr. Costello subsequently withdrew his amendment after Chairman Boehlert and Chairman Ehlers agreed to send a joint letter to the Appropriations Committee requesting that the scope of the current NAPA study, launched by Chairman Wolf, be broadened in-line with Mr. Costello's amendment. We would urge the Committee to hold hearings on this topic that is at the very nexus of the internationalization of the STEM workforce debate.

Mr. Carnahan offered an amendment to strengthen the current Manufacturing Council. The amendment would have broadened the membership of the Council to include not only representatives of the manufacturing industry, but labor unions and professional organizations as well as representatives of research and academic institutions. The amendment would have mandated the Council to not only review and assess current federal programs related to manufacturing, but to also develop a National Manufacturing Strategy. The main points of this amendment are in-line with the report language in the bill from a year ago. Although the Administration established a Manufacturing Council a year ago, the current Council lacks a concrete mandate and agenda. Given the crisis facing our manufacturing sector, we believe that the Federal government needs a route to receive outside advice. The Carnahan amendment would ensure that this advice would be relevant and

acted upon. Mr. Carnahan withdrew his amendment at the request of Mr. Ehlers who felt that its adoption would cause the Administration to oppose the bill. Mr. Ehlers pledged that the Environment, Standards and Technology Subcommittee would hold oversight hearings on the current Manufacturing Council.

III. CONCLUSION

In the end we decided not to support H.R. 250 in its current form, not because we have concerns about the provisions funding the MEP and the NIST labs, but because this bill does so little to achieve its stated goal of addressing the long-term problems facing our Nation's manufacturers. The majority believes that innovation is a key factor to ensuring that our manufacturing sector remains competitive in the face of global competition, yet H.R. 250 does almost nothing in this respect. They have been constrained by their deference to the Administration which is even ambivalent about the modest provision in H.R. 250. Given the Science Committee's historic record of developing innovative programs to assist our manufacturing base, such as the Manufacturing Extension Partnership program, the Advanced Technological Education Program and the Advanced Technology Program to name a few, we are especially disappointed that the majority's solution is to simply re-cycle a weak bill from a year ago. We believe the Committee can and should do a better job in assisting our manufacturing base. We will continue to work to improve this bill as it moves through the legislative process.

BART GORDON.
EDDIE BERNICE JOHNSON.
DARLENE HOOLEY.
DAVID WU.
BRAD MILLER.
RUSS CARNAHAN.
JERRY COSTELLO.
LYNN WOOLSEY.
MARK UDALL.
MICHAEL M. HONDA.
LINCOLN DAVIS.
DANIEL LIPINSKI.
JIM MATHESON.
AL GREEN.
JIM COSTA.
CHARLIE MELANCON.
BRIAN BAIRD.
BRAD SHERMAN.
SHEILA JACKSON-LEE.

XXI. Proceedings of the Markup by the Subcommittee on Environment, Technology, and Standards on H.R. 250, Manufacturing Technology Competitiveness Act of 2005

TUESDAY, MARCH 15, 2005

House of Representatives,
Subcommittee on Environment, Technology,
and Standards,
Committee on Science,
Washington, DC.

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

Chairman Ehlers. Good afternoon. I am pleased to welcome you to the first—Subcommittee's first markup of the year. Pursuant to notice, we will consider three important measures today that together underlie the breadth of jurisdiction of the subcommittee. Given the number of bills we need to get through today, my opening statement will be brief, and then I will explain each bill in more detail as it is brought up.

First we will consider H.R. 50, the *National Oceanic and Atmospheric Administration Act.* This bill, a reintroduction of legislation I authored last Congress, would created an organic act for NOAA. This is a term that puzzled me when I first got here because, to me, organic had something to do with organic chemistry or organic gardening or organic food stores; but an organic act in the Congress is an act which is an original act establishing an agency and outlining its functions and purposes. This organic act for NOAA would provide the underlying statute of missions and functions to be carried out by NOAA, something that has not existed since the agency was formed by executive order in 1970—established by executive order. It has been modified by executive order and by law since, but we have never had an organic act, so today we are trying to remedy that.

Next, we will consider H.R. 250, the *Manufacturing Technology Competitiveness Act.* This bill is nearly identical to legislation I introduced last Congress and which passed the House last July. Unfortunately, the bill did not receive action in the Senate, and so we are proposing it once again.

The main focus of the bill is an authorization for the Department of Commerce Manufacturing Extension Partnership Program.

And finally, we will consider H.R. 798, the *Methamphetamine Remediation Research Act.* This bill, introduced by Ranking Member Gordon, Representative Calvert, and Chairman Boehlert, would create a research program at the Environmental Protection Agency to study the harmful effects of methamphetamine and to provide important voluntary guidelines for states to use as they try to clean up former meth laboratories. I suspect many people are not aware of the extent of this problem and the dangers involved, but meth labs are springing up, primarily in rural areas, particularly wooded areas—and I know Oregon is having considerable problems with

them; we have in Michigan as well because both states have substantial wooded areas where you can conceal a shack and try to manufacture methamphetamine.

There are several aspects of danger there. One is that very frequently, because of the danger of the components—and in fact, the explosive nature of the components—frequently an explosion occurs, which obliterates the shack and the people within it, so we lose a number of young people every year who are engaged in this dangerous pursuit. Even more frequently, they use a particular structure for this; it becomes very—it collects a lot of toxic materials because there is a great deal of toxic material going into the production of methamphetamine. They actually become not quite superfund sites, but pretty close to it, and local governments are having a great deal of trouble cleaning them up to a reasonable standard, and the expense is substantial for small units of government.

Now, I am pleased that Mr. Wu has introduced this bill, which will deal with this problem, not only in Oregon and Michigan, but throughout the country. With that, I am proud to introduce Mr. Wu from Oregon, the Subcommittee's new Ranking Member. I have worked before with Mr. Wu on a number of issues. I know he has a strong interest and considerable experience in the issues before the Subcommittee. I am very happy that he has joined us in this position.

I want to thank Mr. Udall. He is on the way but not here yet. I want to thank Mr. Udall from Colorado, who was a Ranking Member for the past four years. We had a very productive relationship, and now he is Ranking Member of the Space Subcommittee, where spacey Members end up. And I am sorry to lose him for that purpose, but delighted that Mr. Wu is his replacement. I am pleased that Mr. Udall will continue to be a Member of the Subcommittee.

I am now pleased to yield to Mr. Wu for an opening statement.

[The prepared statement of Chairman Ehlers follows:]

PREPARED STATEMENT OF CHAIRMAN VERNON J. EHLERS

Good afternoon! Welcome to the Subcommittee's first markup of the year. Pursuant to notice, we will consider three important measures today that together underlie the breadth of jurisdiction of the Subcommittee. Given the number of bills we need to get through today, my opening statement will be brief and then I will explain each bill in more detail as it is brought up.

First, we will consider H.R. 50, the *National Oceanic and Atmospheric Administration (NOAA) Act.* This bill, a reintroduction of legislation I authored last Congress, would create an "organic act" for NOAA. This organic act would provide the underlying statute of missions and functions to be carried out by the NOAA, something that has not existed since the agency was formed by executive order in 1970.

Next, we will consider H.R. 250, the *Manufacturing Technology Competitiveness Act.* This bill is nearly identical to legislation I introduced last Congress, and which passed the House last July. The main focus of the bill is an authorization for the Department of Commerce's Manufacturing Extension Partnership (MEP) program.

And finally, we will consider H.R. 798, the *Methamphetamine Remediation Research Act.* This bill, introduced by Ranking Member Gordon, Representative Calvert and Chairman Boehlert, would create a research program at the Environmental Protection Agency (EPA) to study the harmful effects of methamphetamine and provide important voluntary guidelines for states to use as they try to clean up former "meth" laboratories.

I am proud to introduce Mr. Wu from Oregon, the Subcommittee's new Ranking Member. I know that Mr. Wu has a strong interest and considerable experience in the issues before the Subcommittee, and I am very happy that he has joined us.

I want to thank Mr. Udall, from Colorado, who was our Ranking Member for the past four years. We had a very productive relationship and now he is the Ranking Member of our Space Subcommittee. I am pleased he will still be a Member of our subcommittee.

I now yield to Mr. Wu for an opening statement.

Mr. WU. Thank you very much, Mr. Chairman. And I look forward to working with you in a very productive relationship concerning the broad range of this subcommittee's jurisdiction in technology transfer, competitiveness, and other crucial issues for our research, our tech transfer, and our economy. And in your spirit, Mr. Chairman, I will be brief, even laconic. I am very pleased to be here with you to participate in our subcommittee's first markup, markup of the *NOAA Organic Act,* the *Manufacturing Technology Competitiveness Act,* and the *Methamphetamine Remediation Research Act.* And with that, Mr. Chairman, I yield back the balance of my time.

Chairman EHLERS. I thank the gentleman and would just correct myself. I mentioned this was your bill; it is actually Mr. Gordon's bill, joined with the methamphetamine. But it is certainly a bill which is worthy of your attention.

Mister—without object, all Members—all other Members may place statements in the records, and I ask unanimous consent to recess the Subcommittee at any point, and without objection it is so ordered; I hear no objection.

Chairman EHLERS. We will now consider the bill H.R. 250, the *Manufacturing Technology Competitiveness Act of 2005.* As I said earlier, this bill is almost identical to last year's bill, which passed the House in July. It will provide a structure for better coordination between federal manufacturing R&D member programs; strengthen the Manufacturing Extension Partnership Program, better known as MEP; establish a collaborative grants program at the National Institute of Standards and Technology, know as NIST, which will support innovation; create a fellowship program at NIST to cultivate greater U.S. expertise in the manufacturing sciences; and reauthorize the scientific programs of NIST, itself.

Together, these initiatives will have a positive impact on the competitiveness of U.S. manufacturing by spurring the growth of new industries, and thus creating jobs.

This bill has bipartisan support, and I want to thank our minority Members for their continued input to help make the bill even better. We intend to consider this bill at Full Committee shortly after we return from the Easter recess.

I am now pleased to recognize Mr. Wu to present any remarks he should add.

Mr. WU. Thank you, Mr. Chairman. I am pleased that the Subcommittee is beginning this Congress with an authorization for the National Institute of Standards and Technology. There is no other federal agency which more directly supports American industrial innovation and competitiveness than NIST. NIST standards and technology activities support the chemical, telecommunications, and energy sectors, just to name a few. The Manufacturing Extension Partnership successfully assists our small manufacturing community remain competitive in the face of increasing global competition. The result? High-wage, high-skilled jobs remain in the U.S. rather than moving off-shore. Finally, the Advanced Technology

Program spurs the development of broad-based technologies which will create the industries of tomorrow.

For all of the hype given to nanotechnology, few recall that it was the early ATP Award that fostered the development of the use of nanoparticles in the cosmetic industry. This is one of the few examples of commercially viable nanotechnology.

I support the Committee's Views and Estimates regarding the activities of the National Institute of Standards and Technology. I am, however, disappointed that H.R. 250 does not completely reflect these Views and Estimates. Though the Committee expressed strong support for ATP, H.R. 250 does not include ATP funding, and I know that the Chairman supports the ATP program, as do I. I am especially concerned because the Chairman's substitute amendment implicitly endorses the President's decision to eliminate ATP. I believe that this bill should reflect and support the Committee's Views and Estimates instead. When this bill moves to the Full Committee, I expect amendments will be offered to address this particular issue.

One final observation: if the Committee wishes to strengthen U.S.—the U.S. manufacturing base, we need to bring the Committee's full resources to bear on this issue, including technical education. I also believe this committee needs to perform vigorous oversight of the President's manufacturing initiative and its implementation during the next year, and I look forward to working with the Chairman and all of the Members of the Subcommittee on this issue. And I yield back.

[The prepared statement of Mr. Wu follows:]

PREPARED STATEMENT OF REPRESENTATIVE DAVID WU

I am pleased that the Subcommittee is beginning this Congress with an authorization bill for the National Institute of Standards and Technology. There is no other federal agency which more directly supports American industrial innovation and competitiveness than NIST.

NIST's standards and metrology activities support the chemical, telecommunications, and energy sectors, to name a few. The Manufacturing Extension Partnership successfully assists our small manufacturing community remain competitive in the face of increasing global competition. The result: high-wage, high-skill jobs remain in the U.S. rather than moving off-shore.

Finally, the Advanced Technology Program spurs the development of broad-based technologies which will create the industries of tomorrow. For all the hype given to the Nanotechnology Initiative, few recall that it was an early ATP award that fostered the development of the use of nanoparticles in the cosmetic industry. This is one of the few examples of commercially viable nanotechnology.

I support the Committee's Views and Estimates regarding the activities of the National Institute of Standards and Technology. I am disappointed that H.R. 250 does not completely reflect these Views and Estimates. Though the Committee expressed strong support for ATP, H.R. 250 does not include ATP funding—and I know that Chairman Ehlers supports the program.

I am especially concerned because the Chairman's substitute amendment implicitly endorses the President's decision to eliminate the program. I believe that this bill should reflect and support the Committee's Views and Estimates. When this bill moves to the Full Committee, I expect amendments will be offered to address this shortcoming.

One final observation, if the Committee wishes to strengthen the U.S. manufacturing base, we need to bring the Committee's full resources to bear on this issue—including technical education. I also believe this committee needs to perform vigorous oversight of the President's Manufacturing Initiative and its implementation during the next year.

I look forward to working with the Chairman and all the Members of the Subcommittee on these issues.

Chairman EHLERS. I ask unanimous consent that the bill is considered as read and open to amendment at any point and that the Members proceed with the amendments in the order of the Roster. Without objection, so ordered.

The first amendment on the Roster is an amendment in the nature of a substitute, offered by the Chair. I have an amendment at the desk. The Clerk shall report the amendment.

The CLERK. Amendment in the nature of a substitute to H.R. 250, offered by Mr. Ehlers of Michigan.

Chairman EHLERS. I ask unanimous consent to dispense with the reading. Without objection, so ordered. I recognize myself for such time as I might consume.

My amendment in the nature of a substitute makes some technical changes and reduces the overall authorization from four years to three years. More specifically, the amendment revises funding levels in the bill to coincide with the Administration's fiscal year '06 request for the NIST laboratory account and inserts specific dollar amounts for NIST's construction account, where the regional bill had "such sums." These inserted levels will, again, coincide with the Administration's request in fiscal year '06.

Finally, the bill adds a section requiring the Department of Commerce to report on the impacts of the proposed elimination of the Advanced Technology Program on other NIST activities. I understand there may be some concern about this provision from the minority side, and you have already heard that expressed by Mr. Wu. I want to work with you on it as we move the bill to Full Committee next month.

And let me just remind you that last year, in fact, the minority attempted to amend this bill to add ATP to it. I objected to that because I felt we had to keep the issues separate and adding ATP might jeopardize the passage of the bill and the authorization of MEP. I was proved right on that because when the bill went to the Senate, the Committee there added ATP, and when I asked the Senate Chairman to take it up, he refused to do it because ATP had been included, and he was opposed to that and simply would not take the bill up because he felt there wouldn't be enough votes in order to pass it, and he refused to do it; so the bill died in the Senate. For the same reason, I am not including ATP at this point, even though I do support it.

A concern about the issue—the language included in asking for a report is simply to try to focus the Administration on the fact that if, in fact, they wish to proceed with closing out ATP, there are substantial costs which the Administration did not include in its presentation of the budget, and we want to clarify what those costs are and make it clear that this is not a zero-sum game that—by simply saying we are going to close it out, automatically save the entire amount of money, but that, in fact, there are going to be considerable expenses during next year—and perhaps two—as the program is discontinued, if it is. And I hope that seeing these costs will make everyone, including the Administration, aware of the costs involved, and we hope that this will have a positive impact at some point on the ATP program, once we have concluded our work on the MEP program.

Is there any further discussion on the amendment?

Mr. UDALL. Chairman?

Chairman EHLERS. Mr. Udall, you are recognized for five minutes.

Mr. UDALL. Thank you. I move to strike the last word.

I was listening intently to your explanation of the call for a further study in the—in your amendment. If I would—I ask unanimous consent to include my entire record——

Chairman EHLERS. Without objection, so ordered.

Mr. UDALL. And I want to, without reading through them, just cut to my concerns. We had visited on the Floor last night. I am concerned that—the appropriators have indicated they will act on the fiscal year '06 appropriations measure, and I worry that because the majority of the costs that are attached to ATP will occur in that budget year that we will then—we will run the risk of receiving this report after we have any change to remedy the—this discrepancy. And it seems like if we are serious about the concerns, we could either hold an oversight hearing and invite somebody from the Administration to provide answers or send a letter to the Administration asking for answers now, not a few months after we have the ability to act.

And I sensed in your comments of willingness to work to try and address this issue before we move ahead, but I just wanted to make it clear that if we can't, I will certainly plan to offer an amendment to authorize covering these costs because you and I both know that it would have the potential to—if not hollow out, to really take a significant chunk out of their other activities, and I don't think either of us want that to happen. And I would be happy to yield to the Chairman if you have further thoughts on this, but I think we both have the same goal. But I worry that if we get the report after all of this has occurred, it is a—it become a moot report, if you will.

[The prepared statement of Mr. Udall follows:]

PREPARED STATEMENT OF REPRESENTATIVE MARK UDALL

I move to strike the last word.

Mr. Chairman, while I am encouraged by portions of this amendment, such as the authorization of specific funding numbers for construction and maintenance, I am concerned that this amendment does not adequately address the hole in NIST funding for the ATP termination costs.

The Views and Estimates of the FY06 budget signed by Democratic and Republican Members of the House Science Committee, expressed concerns that these close out costs are not included in the President's proposed budget. The Views specifically note at least $33 million in close-out costs which will be absorbed by NIST labs, resulting in cuts to research programs.

Since the Committee has already identified the costs to terminate ATP, I do not see the benefit of including two reports from the Secretary of Commerce about the financial impact of these close-out costs.

Under this amendment, the Secretary of Commerce is directed to submit a report three months after the enactment of this bill and another report with the President's proposed FY07 budget. With an idealistic time line, Congress would not receive the first report until July 2005. This is after appropriators have indicated they will act on the FY06 appropriations, the year the majority of these costs will impact the NIST budget. The second report will be provided to Congress well after we have any ability to remedy this discrepancy.

If the Subcommittee is serious about these concerns, we need to either hold an oversight hearing on this matter and invite a representative from the Administration to provide some answers, or send a letter to the Administration asking for answers now, not several months after we have the ability to act. The language of this

amendment represents the abdication of our responsibilities as an authorizing committee and does little to support the research performed at NIST.

I look forward to working with the Chairman in better addressing this issue before going to Full Committee.

With that, Mr. Chairman, I yield back the remainder of my time.

Chairman EHLERS. I thank the gentleman for yielding. I have two comments on that. First of all, I would be happy to continue working on this as the bill goes through the process and see if we can accommodate your concerns in some fashion. But secondly, I would observe that the Appropriations Subcommittee and the full Appropriations Committee tend to have their own course of actions in these situations. They have never hesitated to appropriate money for something that is not authorized, and they simply include an authorization in with that portion of the appropriation. I am sure that they will recognize the need for closeout costs, if there are any, and will proceed to appropriate those funds as necessary. But I would be pleased to work with you as this bill goes through the process and try to deal with your concerns.

Mr. WU. Will the gentleman yield?

Mr. UDALL. I would be happy to yield.

Mr. WU. It is my distinct impression that the appropriators may—as so often happens, make an appropriation that is not authorized. And I understand the Chairman's concern and my own concern about potential resistance to fully authorizing ATP, but it does seem to me that ATP is a worthy program, which should follow the regular process and be authorized and then appropriated and not closed down. And I just think that there are individuals in our caucus and individuals in your conference who just have not been properly educated yet as to the necessity for ATP and that those of use who are advanced thinkers on this committee can, over time, successfully advocate for the Advanced Technology Program. And with that, I yield back to the gentleman from Colorado.

Mr. UDALL. Reclaiming my time, I thank the gentleman for expressing, I think, what is widespread for ATP in the Committee, and we have to fight on that front as well as keep an eye on our flanks, which is what we are discussing here in the situation where ATP were to be terminated—which I think none of us want to see happen—we have a double whammy in that ATP would no longer be in place, but we would also have—I think, Mr. Chairman, was it $33 million in closeout costs that we have identified? So this is a significant challenge to us, and I know we—many of us had signed the Views and Estimates, both sides of the aisle, that—expressing concerns that these closeout costs aren't included. So Mr. Chairman, I stand ready and willing and charged up to work on every front in this matter.

I would be happy to yield to anybody else or——

[The information follows:]

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Additional Views
Rep. Bart Gordon of Tennessee
Rep. Mark Udall of Colorado
Rep. David Wu of Oregon
Views and Estimates
Committee on Science
Fiscal Year 2006

While we may agree with the general tone and recommendations in the Committee's Views and Estimates, we do not agree that the overall funding level proposed for the National Oceanic and Atmospheric Administration is sufficient. An example of the short-sightedness of such budget cuts: A recent article in the Washington Post reported that chronic under-funding of the National Weather Service budget in recent years – including a cut in the FY05 budget of $45 million below the FY04 budget – will potentially impact the delivery of weather services.

A proposed cut from FY05 funding for the agency overall of over $300 million dollars is not justifiable by simply restating the Administration's explanation that these funds were Congressional earmarks. Congress is constitutionally granted the power of the purse. The fact that Congress may disagree with the Administration about the appropriate level of funding or the desirability of a particular program does not by itself justify a cut to that program or its elimination. The tsunami warning system, which the Administration is now proposing to expand, is a recent example of a Congressional program that would not exist without Congress's interest and willingness to fund it.

In addition to funding shortfalls at the National Weather Service, other areas of NOAA's budget do not fare well when compared to the FY05 enacted budget and to the need for NOAA services. The Administration's budget cuts funding for the Oceanic and Atmospheric research (OAR) office by 10 percent from the FY05 enacted levels. Midterm to long-term research is essential if we are to achieve improvements in weather forecasting and resource management, NOAA's core operational missions. Our need for more refined information on climate and weather to support economic and resource management decisions across the nation has increased over time. Transportation, agriculture, forestry, ranching and hydropower generation are a few of the industries that rely on both short-term forecasting and long-term climate trend information for planning. We cannot generate this information if we do not continue to support the work of NOAA's laboratories and their academic partners.

We also need more information to address the resource management, conservation and pollution control issues impacting our oceans. Many of our fisheries are in trouble. Harmful algal blooms and hypoxic zones have increased in their frequency and intensity in a number of our coastal areas, creating human

health risks and resulting in significant economic costs to the communities that rely upon recreation and fishing for their livelihoods. The cuts to the OAR budget are proposed as the Ocean Commission has completed its report recommending the doubling of funding for ocean and coastal science.

We need to be realistic about the budget needed to support NOAA's activities. The Administration's budget is not realistic. If Congress enacts an overall budget level for NOAA consistent with the Administration's request, research and development and operational programs will suffer. NOAA's missions in weather forecasting, conservation and resource management and the employees who carry them out must be given adequate resources to deliver the services the public requires.

With respect to NASA, we echo the Committee's concern that many of NASA's plans remain ill-defined. However, we are equally troubled by a number of the decisions that NASA has *already* made as part of its FY 2006 budget request. For example, NASA has decided to eliminate funding for servicing the highly productive Hubble Space Telescope despite a unanimous recommendation by a distinguished National Academies committee that NASA should reinstate a Shuttle servicing mission to Hubble.

NASA has decided to impose a disproportionate share of the White House-mandated reduction in NASA's outyear funding plan on the Earth and space science programs, as well as on NASA's aeronautics research program. One particularly ill-advised consequence of that decision will be the necessity to terminate a number of scientifically productive missions – such as Voyager, Ulysses, and TRACE – late this year, with additional missions having to be terminated in late 2006.

NASA is eliminating essentially all research on the International Space Station that does not directly support the President's exploration initiative—thus walking away from investments in basic and applied research that NASA has long touted as providing important benefits to society—and in the process breaking faith with a research community that made career decisions on the basis of NASA's long-standing commitment to that research.

Finally, we are deeply troubled that in its haste to redirect its activities to support the President's exploration mission under questionable budgetary assumptions, NASA is seeking to make changes in its workforce that risk irretrievably losing highly skilled scientists and engineers from NASA's research Centers.

Bart Gordon
Ranking Member
Committee on Science

Mark Udall
Ranking Member
Subcommittee on Space
And Aeronautics
Committee on Science

David Wu
Ranking Member
Subcommittee on Environment
Technology and Standards
Committee on Science

Chairman EHLERS. I think your time is expired.

Mr. UDALL. My time is done and gone. Thank you, Mr. Chairman.

Chairman EHLERS. Actually, you have two seconds left, but right now it has expired.

I am pleased to recognize Mr. Gutknecht for five minutes.

Mr. GUTKNECHT. Mr. Chairman and Members, I don't disagree with anything that has been said, but I think we all have to be aware that this is the first installment of what is going to become an incredibly difficult process over the next several years. And when I say installment, what I am talking about is that the entitlements in our federal budget, and principally Medicare, are going to begin to consume a larger and larger portion of our budget.

I just got numbers yesterday—well, actually, I formally got them today—that assuming we—and I believe this now assumes that we adopt what some describe as a very tough budget this year. We will still be looking at, in only 10 years, a $2½ trillion deficit—deficit; not debt, deficit in the year—fiscal year 2015. And as we begin to

talk about the budget on the Floor and where we go from here, I think we who have interest—who are very concerned about what is going to happen to NIST and what is going to happen to ATP and what is going to happen to an awful lot of things that that Chairman has referred to as our seed corn. I think we have to be aware that the entitlements of particularly Medicare are going to start to consume virtually everything that is left in the discretionary budget. And so, as I say, as frustrating as this is this year over these issues, my—I think we need to begin to think a little bit—if we are the bigger thinkers of the Congress, we need to be sharing with our colleagues that—the desperate need to get our arms around some of these entitlements before they literally consume everything that is left in the budget. I yield back.

Chairman EHLERS. Just one closing comment—I appreciate the comments of the gentleman from Minnesota.

I have done exactly the same thing, looking down the road. And we spend almost all of our time authorizing and appropriating an amount which is less than 30 percent of our budget, and getting smaller every year as the entitlements or mandates—mandatory spending increases year by year. And as we have deficits, our interest also increases year by year. It is not a good direction for a country and for the Congress, and we have to get some control over the process.

I appreciate the Budget Committee's approach, even though it is going to be extremely painful for everyone, both parties, to go through this process as outlined in each committee to try to reduce the mandatory spending. But at some point the Congress has to do that, or we are going to be in very tough shape. There is——

Mr. WU. Will the Chairman yield just for a moment?

Chairman EHLERS. Just for a moment, yes.

Mr. WU. I refer to programs like ATP and MEP and SBIR, precisely as the gentleman from Minnesota and as the Chairman does. This is our seed corn, and——

Chairman EHLERS. Yes.

Mr. WU.—this is our way to grow the economy for the future. And if we are going to stand a chance to bear the burdens that both the private sector and the public sector have to carry in the future, it is dependent upon a growing economy, and we can't grow the economy without, I believe, effective technology transfer, technology generation, and programs like SBIR, ATP, and MEP. These are the last things we should be cutting. And with that, I yield back to the Chairman.

Chairman EHLERS. I just want to comment—reiterate what the Chairman from—pardon me—the gentleman from Minnesota said, and that is that people in this committee tend to be far seeing people who look real far down the road, and we have to spread that technique to our colleagues.

If there is no further discussion on the amendment, the next amendment on the roster is Amendment Number 2, an amendment offered by Mr. Wu.

Mr. Wu, you are recognized for five minutes.

Mr. WU. Thank you very——

Chairman EHLERS. Are you ready to proceed with your amendment?

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

Chairman EHLERS. The Clerk will report the amendment.

The CLERK. Amendment offered by Mr. Wu of Oregon to the amendment in the nature of a substitute.

Chairman EHLERS. I ask unanimous consent to dispense with the reading. Without objection, so ordered. The gentleman is recognized for five minutes to explain his amendment.

Mr. WU. Thank you, Mr. Chairman.

This is a very straightforward amendment. It makes it easier for the Manufacturer Extension Partnership to accept funds from other federal agencies and the private sector without being subject to MEP operation cost share provisions. This issue was brought to my attention from discussions with the American Small Manufacturers Coalition, the umbrella organization of MEP centers and MEP personnel.

While the Administration has been seeking funding for the MEP from other agencies, cost-share provisions have made this difficult. MEP needs to be able to leverage other agency initiatives and funding without treating the other agency funding as requiring a two to one match. Other federal agencies do not see this as an incentive to work with the MEP, while at the same time, they do not want to enter into separate contracts with 50-plus centers. Last year, this prevented the MEP from coordinating other agencies' contributions. For example, the Economic Development Agency made direct contributions to MEP centers based upon EDA criteria. This resulted in confusion among many centers about their financing, and my amendment addresses this matching issue.

I yield, Mr. Chairman.

Chairman EHLERS. I thank Mr. Wu for offering this amendment, and I agree with your goal of ensuring the MEP program counting sub-funds from other federal agencies. I support the gentleman's amendment. Is there any further discussion on this amendment? Hearing none, the vote occurs on the amendment. All in favor say aye. Those opposed say no. The amendment is agreed to.

Are there any further amendments to the substitute? Hearing none, the question now is on the amendment in the nature of a substitute as amended by the Wu amendment. All in favor of the amendment in the nature of a substitute, say aye. Those opposed say no. They ayes have it, and the amendment in the nature of a substitute as amended is agreed to.

The question is now on the bill, *Manufacturing Technology Competitiveness Act of 2005,* as amended, H.R. 250. All those in favor will say aye. All those opposed will say no. In the opinion of the Chair, the ayes have it.

I will now recognize Mr. Wu to offer a motion.

Mr. WU. Mr. Chairman, I move that the Subcommittee favorably report the bill H.R. 250, as amended, to the Full Committee. Further, I ask unanimous consent that the staff be instructed to make all necessary and conforming changes to the bill as amended, in accordance with the recommendations of the Subcommittee.

Chairman EHLERS. The question is on the motion to report the bill, as amended, favorably. Those in favor of the motion will signify by saying aye. Those opposed, no. The motion is agreed to, and the amendment—pardon me—the resolution is favorably reported.

Without objection, the motion to reconsider is laid upon the table.

Without objection, the motion to reconsider is laid upon the table.

I wish to express my appreciation to all of the Members of the Committee for the rapid action on this group of bills and the good spirit in which we have all approached these bills and trying to improve them. So I appreciate your consideration. I thank the Committee Members for their attendance. This concludes our Subcommittee markup.

[Whereupon, at 1:46 p.m., the Subcommittee was adjourned.]

Appendix:

H.R. 250, Section-by-Section Analysis, Amendments

109TH CONGRESS
1ST SESSION

H. R. 250

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.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 6, 2005

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

---

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.

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 "Manufacturing Technology Competitiveness Act of 2005".

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 Interagency Com-
14 mittee shall be chaired by the Under Secretary of
15 Commerce for Technology.
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 PLICATION.—Section 14 of the Federal Advisory
21 Committee Act shall not apply to the Advisory Com-
22 mittee.

SEC. 3. COLLABORATIVE MANUFACTURING RESEARCH PILOT GRANTS.

The National Institute of Standards and Technology Act is amended—

(1) by redesignating the first section 32 as section 34 and moving it to the end of the Act; and

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

"SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH PILOT GRANTS.

"(a) AUTHORITY.—

"(1) ESTABLISHMENT.—The Director shall establish a pilot program of awards to partnerships among participants described in paragraph (2) for the purposes described in paragraph (3). Awards shall be made on a peer-reviewed, competitive basis.

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

"(A) 1 manufacturing industry partner; and

"(B) 1 nonindustry partner.

"(3) PURPOSE.—The purpose of the program under this section is to foster cost-shared collaborations among firms, educational institutions, research institutions, State agencies, and nonprofit organizations to encourage the development of innovative,

1 multidisciplinary manufacturing technologies. Part-
2 nerships receiving awards under this section shall
3 conduct applied research to develop new manufac-
4 turing processes, techniques, or materials that would
5 contribute to improved performance, productivity,
6 and competitiveness of United States manufacturing,
7 and build lasting alliances among collaborators.
8 "(b) PROGRAM CONTRIBUTION.—Awards under this
9 section shall provide for not more than one-third of the
10 costs of a partnership. Not more than an additional one-
11 third of such costs may be obtained directly or indirectly
12 from other Federal sources.
13 "(c) APPLICATIONS.—Applications for awards under
14 this section shall be submitted in such manner, at such
15 time, and containing such information as the Director
16 shall require. Such applications shall describe at a min-
17 imum—
18 "(1) how each partner will participate in devel-
19 oping and carrying out the research agenda of the
20 partnership;
21 "(2) the research that the grant would fund;
22 and
23 "(3) how the research to be funded with the
24 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) MANUFACTURING EXTENSION CENTER COMPETI-
18 TIVE GRANT PROGRAM.—Section 25 of the National Insti-
19 tute of Standards and Technology Act (15 U.S.C. 278k)
20 is amended by adding at the end the following new sub-
21 sections:

22 "(e) COMPETITIVE GRANT PROGRAM.—

23 "(1) ESTABLISHMENT.—The Director shall es-
24 tablish, within the Manufacturing Extension Part-
25 nership program under this section and section 26

1 of this Act, a program of competitive awards among
2 participants described in paragraph (2) for the pur-
3 poses described in paragraph (3).
4 "(2) PARTICIPANTS.—Participants receiving
5 awards under this subsection shall be the Centers, or
6 a consortium of such Centers.
7 "(3) PURPOSE.—The purpose of the program
8 under this subsection is to develop projects to solve
9 new or emerging manufacturing problems as deter-
10 mined by the Director, in consultation with the Di-
11 rector of the Manufacturing Extension Partnership
12 program, the Manufacturing Extension Partnership
13 National Advisory Board, and small and medium-
14 sized manufacturers. One or more themes for the
15 competition may be identified, which may vary from
16 year to year, depending on the needs of manufactur-
17 ers and the success of previous competitions. These
18 themes shall be related to projects associated with
19 manufacturing extension activities, including supply
20 chain integration and quality management, or extend
21 beyond these traditional areas.
22 "(4) APPLICATIONS.—Applications for awards
23 under this subsection shall be submitted in such
24 manner, at such time, and containing such informa-
25 tion as the Director shall require, in consultation

1 with the Manufacturing Extension Partnership Na-
2 tional Advisory Board.
3 "(5) SELECTION.—Awards under this sub-
4 section shall be peer reviewed and competitively
5 awarded. The Director shall select proposals to re-
6 ceive awards—
7 "(A) that utilize innovative or collaborative
8 approaches to solving the problem described in
9 the competition;
10 "(B) that will improve the competitiveness
11 of industries in the region in which the Center
12 or Centers are located; and
13 "(C) that will contribute to the long-term
14 economic stability of that region.
15 "(6) PROGRAM CONTRIBUTION.—Recipients of
16 awards under this subsection shall not be required
17 to provide a matching contribution.
18 "(f) AUDITS.—A center that receives assistance
19 under this section shall submit annual audits to the Sec-
20 retary in accordance with Office of Management and
21 Budget Circular A–133 and shall make such audits avail-
22 able to the public on request.".

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) $425,688,000 for fiscal year 2006, of
9 which—

10 (A) $55,777,000 shall be for Electronics
11 and Electrical Engineering;

12 (B) $29,584,000 shall be for Manufac-
13 turing Engineering;

14 (C) $50,142,000 shall be for Chemical
15 Science and Technology;

16 (D) $42,240,000 shall be for Physics;

17 (E) $62,724,000 shall be for Material
18 Science and Engineering;

19 (F) $23,594,000 shall be for Building and
20 Fire Research;

21 (G) $60,660,000 shall be for Computer
22 Science and Applied Mathematics, of which
23 $2,800,000 shall be for activities in support of
24 the Help America Vote Act of 2002;

25 (H) $17,445,000 shall be for Technical As-
26 sistance; and

1 (I) $78,102,000 shall be for Research Sup-
2 port Activities;
3 (2) $446,951,000 for fiscal year 2007;
4 (3) $469,299,000 for fiscal year 2008; and
5 (4) $492,764,000 for fiscal year 2009.
6 (b) MALCOLM BALDRIGE NATIONAL QUALITY
7 AWARD PROGRAM.—There are authorized to be appro-
8 priated to the Secretary of Commerce for the Malcolm
9 Baldrige National Quality Award program under section
10 17 of the Stevenson-Wydler Technology Innovation Act of
11 1980 (15 U.S.C. 3711a)—
12 (1) $5,400,000 for fiscal year 2006;
13 (2) $5,535,000 for fiscal year 2007;
14 (3) $5,674,000 for fiscal year 2008; and
15 (4) $5,815,000 for fiscal year 2009.
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 such
20 sums as may be necessary for each of fiscal years 2006
21 through 2009.
22 **SEC. 7. STANDARDS EDUCATION PROGRAM.**
23 (a) PROGRAM AUTHORIZED.—(1) As part of the
24 Teacher Science and Technology Enhancement Institute
25 Program, the Director of the National Institute of Stand-

1 ards and Technology shall carry out a Standards Edu-
2 cation program to award grants to institutions of higher
3 education to support efforts by such institutions to develop
4 curricula on the role of standards in the fields of engineer-
5 ing, business, science, and economics. The curricula
6 should address topics such as—
7 (A) development of technical standards;
8 (B) demonstrating conformity to standards;
9 (C) intellectual property and antitrust issues;
10 (D) standardization as a key element of busi-
11 ness strategy;
12 (E) survey of organizations that develop stand-
13 ards;
14 (F) the standards life cycle;
15 (G) case studies in effective standardization;
16 (H) managing standardization activities; and
17 (I) managing organizations that develop stand-
18 ards.
19 (2) Grants shall be awarded under this section on a
20 competitive, merit-reviewed basis and shall require cost-
21 sharing from non-Federal sources.
22 (b) SELECTION PROCESS.—(1) An institution of
23 higher education seeking funding under this section shall
24 submit an application to the Director at such time, in such
25 manner, and containing such information as the Director

1 may require. The application shall include at a min-
2 imum—
3 (A) a description of the content and schedule
4 for adoption of the proposed curricula in the courses
5 of study offered by the applicant; and
6 (B) a description of the source and amount of
7 cost-sharing to be provided.
8 (2) In evaluating the applications submitted under
9 paragraph (1) the Director shall consider, at a min-
10 imum—
11 (A) the level of commitment demonstrated by
12 the applicant in carrying out and sustaining lasting
13 curricula changes in accordance with subsection
14 (a)(1); and
15 (B) the amount of cost-sharing provided.
16 (c) AUTHORIZATION OF APPROPRIATIONS.—There
17 are authorized to be appropriated to the Secretary of Com-
18 merce for the Teacher Science and Technology Enhance-
19 ment Institute program of the National Institute of Stand-
20 ards and Technology—
21 (1) $773,000 for fiscal year 2006;
22 (2) $796,000 for fiscal year 2007;
23 (3) $820,000 for fiscal year 2008; and
24 (4) $844,000 for fiscal year 2009.

1 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

2 (a) MANUFACTURING EXTENSION PARTNERSHIP
3 PROGRAM.—There are authorized to be appropriated to
4 the Secretary of Commerce, or other appropriate Federal
5 agencies, for the Manufacturing Extension Partnership
6 program under sections 25 and 26 of the National Insti-
7 tute of Standards and Technology Act (15 U.S.C. 278k
8 and 278l)—

9 (1) $110,000,000 for fiscal year 2006, of which
10 not more than $4,000,000 shall be for the competi-
11 tive grant program under section 25(e) of such Act
12 (15 U.S.C. 278k(e));

13 (2) $115,000,000 for fiscal year 2007, of which
14 not more than $4,100,000 shall be for the competi-
15 tive grant program under section 25(e) of such Act
16 (15 U.S.C. 278k(e));

17 (3) $120,000,000 for fiscal year 2008, of which
18 not more than $4,200,000 shall be for the competi-
19 tive grant program under section 25(e) of such Act
20 (15 U.S.C. 278k(e)); and

21 (4) $125,000,000 for fiscal year 2009, of which
22 not more than $4,300,000 shall be for the competi-
23 tive grant program under section 25(e) of such Act
24 (15 U.S.C. 278k(e)).

25 In any fiscal year for which appropriations are
26 $106,000,000 or greater, none of the funds appropriated

1 pursuant to this subsection shall be used for a general re-
2 competition of Centers established under section 25 of the
3 National Institute of Standards and Technology Act (15
4 U.S.C. 278k).

5 (b) COLLABORATIVE MANUFACTURING RESEARCH
6 PILOT GRANTS PROGRAM.—There are authorized to be
7 appropriated to the Secretary of Commerce for the Col-
8 laborative Manufacturing Research Pilot Grants program
9 under section 33 of the National Institute of Standards
10 and Technology Act—

11 (1) $10,000,000 for fiscal year 2006;
12 (2) $10,000,000 for fiscal year 2007; and
13 (3) $10,000,000 for fiscal year 2008.

14 (c) FELLOWSHIPS.—There are authorized to be ap-
15 propriated to the Secretary of Commerce for Manufac-
16 turing Fellowships at the National Institute of Standards
17 and Technology under section 18(b) of the National Insti-
18 tute of Standards and Technology Act, as added by section
19 4 of this Act—

20 (1) $1,500,000 for fiscal year 2006;
21 (2) $1,750,000 for fiscal year 2007;
22 (3) $2,000,000 for fiscal year 2008; and
23 (4) $2,250,000 for fiscal year 2009.

○

SECTION-BY-SECTION ANALYSIS OF H.R. 250, MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT

Section 1: Short title

"Manufacturing Technology Competitiveness Act of 2005"

Section 2: Interagency Committee, Advisory Committee

Directs the President to establish or designate an Interagency Committee on Manufacturing Research and Development. The Interagency Committee would be assisted by an Advisory Committee representing non-governmental interests to provide the Interagency Committee with input to and reviews of federal manufacturing R&D activities.

Section 3: Collaborative Manufacturing Research Pilot Grants

Amends the NIST Act by creating a new Section 33 that establishes a pilot grant program within NIST that would fund research partnerships between firms, community colleges, universities, research institutions, State agencies, and non-profits to develop innovative manufacturing technologies. The federal share of a partnership's costs could not exceed one-third.

Section 4: Manufacturing Fellowship Program

Amends Section 18 of the NIST Act to establish a postdoctoral and senior research fellowship program in the manufacturing sciences at NIST.

Section 5: Manufacturing Extension

Amends Section 25(c)(5) of the NIST Act by adding language to codify the existing MEP center review process, and by establishing a probationary period and re-competition schedule for centers that cannot perform. Amends Section 25 of the NIST Act by adding at the end of that section language creating a new competitive grant program under MEP to provide funding for innovative MEP-related projects.

Section 6: Scientific, Technical, and Research Services

Authorizes appropriations for the laboratory accounts at NIST at $425.7 million in FY 2006, increasing by five percent per year through fiscal year 2009. The authorization for FY 2006 is divided as follows: $55.7 million for Electronics and Electrical Engineering; $29.5 million for Manufacturing Engineering; $50.1 million for Chemical Science and Technology; $42.2 million for Physics; $62.7 million for Material Science and Engineering; $23.5 million for Building and Fire Research; $60.6 million for Computer Science and Applied Mathematics, of which $2.8 million shall be for activities in support of the Help America Vote Act; and $78.1 million for Research Support Activities.

Authorizes appropriations for the Malcolm Baldrige National Quality Award at $5.4 million in FY 2006, $5.5 million in FY 2007, $5.6 million in FY 2008, and $5.8 million in FY 2009. Authorizes "such sums as may be necessary" for FY 2006 through FY 2009 for the NIST Construction and Maintenance account.

Section 7: Standards Education Program

Establishes a Standards Education Program as part of the Teacher Science and Technology Enhancement Institute Program at NIST. The program shall award grants on a cost-shared basis to institutions of higher education to develop curricula on the role of standards in engineering, business, science, and economics. Authorizes appropriations for this purpose of $773,000 for FY 2006, $795,000 for FY 2007, $820,000 for FY 2008, and $844,000 for FY 2009.

Section 8: Authorization of Appropriations

Authorizes for the MEP program $110 million for FY 2006, of which not more than $4 million shall be for the competitive grant program established by section 5 of H.R. 3598; $115 million for FY 2007, of which not more than $4.1 million shall be for the competitive grant program; $120 million for FY 2008, of which not more than $4.2 million shall be for the competitive grant program; and $125 million for FY 2009, of which not more than $4.3 million shall be for the competitive grant program.

Authorizes for the collaborative manufacturing pilot grant program under section 3, $10 million per year for FY 2006, FY 2007, and FY 2008.

Authorizes for the fellowship program under section 4, $1.5 million for FY 2006, $1.75 million for FY 2007, $2 million for FY 2008, and $2.25 million for FY 2009.

AMENDMENT IN THE NATURE OF A SUBSTITUTE TO H.R. 250 OFFERED BY MR. EHLERS OF MICHIGAN

Strike all after the enacting clause and insert the following:

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the "Manufacturing Tech-
3 nology Competitiveness Act of 2005".

4 **SEC. 2. INTERAGENCY COMMITTEE AND ADVISORY COM-**
5 **MITTEE.**

6 (a) INTERAGENCY COMMITTEE.—

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

1 (2) FUNCTIONS.—The Interagency Committee
2 shall be responsible for the planning and coordina-
3 tion of Federal efforts in manufacturing research
4 and development through—
5 (A) establishing goals and priorities for
6 manufacturing research and development, in-
7 cluding the strengthening of United States
8 manufacturing through the support and coordi-
9 nation of Federal manufacturing research, de-
10 velopment, technology transfer, standards, and
11 technical training;
12 (B) developing, within 6 months after the
13 date of enactment of this Act, and updating
14 every 3 years for delivery with the President's
15 annual budget request to Congress, a strategic
16 plan, to be transmitted to the Committee on
17 Science of the House of Representatives and
18 the Committee on Commerce, Science, and
19 Transportation of the Senate, for manufac-
20 turing research and development that includes
21 an analysis of the research, development, tech-
22 nology transfer, standards, technical training,
23 and integration needs of the manufacturing sec-
24 tor important to ensuring and maintaining
25 United States competitiveness;

1 (C) proposing an annual coordinated inter-
2 agency budget for manufacturing research and
3 development to the Office of Management and
4 Budget; and
5 (D) developing and transmitting to Con-
6 gress an annual report on the Federal programs
7 involved in manufacturing research, develop-
8 ment, technical training, standards, and inte-
9 gration, their funding levels, and their impacts
10 on United States manufacturing competitive-
11 ness, including the identification and analysis of
12 the manufacturing research and development
13 problems that require additional attention, and
14 recommendations of how Federal programs
15 should address those problems.
16 (3) RECOMMENDATIONS AND VIEWS.—In car-
17 rying out its functions under paragraph (2), the
18 Interagency Committee shall consider the rec-
19 ommendations of the Advisory Committee and the
20 views of academic, State, industry, and other entities
21 involved in manufacturing research and develop-
22 ment.
23 (b) ADVISORY COMMITTEE.—
24 (1) ESTABLISHMENT.—Not later than 6
25 months after the date of enactment of this Act, the

President shall establish or designate an advisory committee to provide advice and information to the Interagency Committee.

(2) RECOMMENDATIONS.—The Advisory Committee shall assist the Interagency Committee by providing it with recommendations on—

(A) the goals and priorities for manufacturing research and development;

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

(C) other issues it considers appropriate.

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

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

(B) the effectiveness of activities under the strategic plan in improving United States manufacturing competitiveness;

(C) the need to revise the goals and priorities established by the Interagency Committee; and

(D) new and emerging problems and opportunities affecting the manufacturing re-

1 search community, research infrastructure, and
2 the measurement and statistical analysis of
3 manufacturing that may need to be considered
4 by the Interagency Committee.
5 (4) FEDERAL ADVISORY COMMITTEE ACT AP-
6 PLICATION.—Section 14 of the Federal Advisory
7 Committee Act shall not apply to the Advisory Com-
8 mittee.
9 **SEC. 3. COLLABORATIVE MANUFACTURING RESEARCH**
10 **PILOT GRANTS.**
11 The National Institute of Standards and Technology
12 Act is amended—
13 (1) by redesignating the first section 32 as sec-
14 tion 34 and moving it to the end of the Act; and
15 (2) by inserting before the section moved by
16 paragraph (1) the following new section:
17 **"SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH**
18 **PILOT GRANTS.**
19 "(a) AUTHORITY.—
20 "(1) ESTABLISHMENT.—The Director shall es-
21 tablish a pilot program of awards to partnerships
22 among participants described in paragraph (2) for
23 the purposes described in paragraph (3). Awards
24 shall be made on a peer-reviewed, competitive basis.

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
2 minimum—
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. 4. 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 section, the
7 Director shall provide stipends for postdoctoral re-
8 search fellowships at a level consistent with the Na-
9 tional 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. 5. MANUFACTURING EXTENSION.**
14 (a) MANUFACTURING CENTER EVALUATION.—Sec-
15 tion 25(c)(5) of the National Institute of Standards and
16 Technology Act (15 U.S.C. 278k(c)(5)) is amended by in-
17 serting "A Center that has not received a positive evalua-
18 tion by the evaluation panel shall be notified by the panel
19 of the deficiencies in its performance and may be placed
20 on probation for one year, after which time the panel may
21 reevaluate the Center. If the Center has not addressed the
22 deficiencies identified by the panel, or shown a significant
23 improvement in its performance, the Director may conduct
24 a new competition to select an operator for the Center or

1 may close the Center." after "sixth year at declining lev-
2 els.".
3 (b) MANUFACTURING EXTENSION CENTER COMPETI-
4 TIVE GRANT PROGRAM.—Section 25 of the National Insti-
5 tute of Standards and Technology Act (15 U.S.C. 278k)
6 is amended by adding at the end the following new sub-
7 sections:
8 "(e) COMPETITIVE GRANT PROGRAM.—
9 "(1) ESTABLISHMENT.—The Director shall es-
10 tablish, within the Manufacturing Extension Part-
11 nership program under this section and section 26
12 of this Act, a program of competitive awards among
13 participants described in paragraph (2) for the pur-
14 poses described in paragraph (3).
15 "(2) PARTICIPANTS.—Participants receiving
16 awards under this subsection shall be the Centers, or
17 a consortium of such Centers.
18 "(3) PURPOSE.—The purpose of the program
19 under this subsection is to develop projects to solve
20 new or emerging manufacturing problems as deter-
21 mined by the Director, in consultation with the Di-
22 rector of the Manufacturing Extension Partnership
23 program, the Manufacturing Extension Partnership
24 National Advisory Board, and small and medium-
25 sized manufacturers. One or more themes for the

1 competition may be identified, which may vary from
2 year to year, depending on the needs of manufactur-
3 ers and the success of previous competitions. These
4 themes shall be related to projects associated with
5 manufacturing extension activities, including supply
6 chain integration and quality management, or extend
7 beyond these traditional areas.
8 "(4) APPLICATIONS.—Applications for awards
9 under this subsection shall be submitted in such
10 manner, at such time, and containing such informa-
11 tion as the Director shall require, in consultation
12 with the Manufacturing Extension Partnership Na-
13 tional Advisory Board.
14 "(5) SELECTION.—Awards under this sub-
15 section shall be peer reviewed and competitively
16 awarded. The Director shall select proposals to re-
17 ceive awards—
18 "(A) that utilize innovative or collaborative
19 approaches to solving the problem described in
20 the competition;
21 "(B) that will improve the competitiveness
22 of industries in the region in which the Center
23 or Centers are located; and
24 "(C) that will contribute to the long-term
25 economic stability of that region.

1 "(6) PROGRAM CONTRIBUTION.—Recipients of
2 awards under this subsection shall not be required
3 to provide a matching contribution.
4 "(f) AUDITS.—A center that receives assistance
5 under this section shall submit annual audits to the Sec-
6 retary in accordance with Office of Management and
7 Budget Circular A–133 and shall make such audits avail-
8 able to the public on request.".

9 **SEC. 6. SCIENTIFIC AND TECHNICAL RESEARCH AND SERV-**
10 **ICES.**

11 (a) LABORATORY ACTIVITIES.—There are authorized
12 to be appropriated to the Secretary of Commerce for the
13 scientific and technical research and services laboratory
14 activities of the National Institute of Standards and
15 Technology—
16 (1) $426,267,000 for fiscal year 2006, of
17 which—
18 (A) $50,833,000 shall be for Electronics
19 and Electrical Engineering;
20 (B) $28,023,000 shall be for Manufac-
21 turing Engineering;
22 (C) $52,433,000 shall be for Chemical
23 Science and Technology;
24 (D) $46,706,000 shall be for Physics;

1 (E) $33,500,000 shall be for Material
2 Science and Engineering;
3 (F) $24,321,000 shall be for Building and
4 Fire Research;
5 (G) $68,423,000 shall be for Computer
6 Science and Applied Mathematics;
7 (H) $20,134,000 shall be for Technical As-
8 sistance;
9 (I) $48,326,000 shall be for Research Sup-
10 port Activities;
11 (J) $29,369,000 shall be for the National
12 Institute of Standards and Technology Center
13 for Neutron Research; and
14 (K) $18,543,000 shall be for the National
15 Nanomanufacturing and Nanometrology Facil-
16 ity;
17 (2) $447,580,000 for fiscal year 2007; and
18 (3) $456,979,000 for fiscal year 2008.
19 (b) MALCOLM BALDRIGE NATIONAL QUALITY
20 AWARD PROGRAM.—There are authorized to be appro-
21 priated to the Secretary of Commerce for the Malcolm
22 Baldrige National Quality Award program under section
23 17 of the Stevenson-Wydler Technology Innovation Act of
24 1980 (15 U.S.C. 3711a)—
25 (1) $5,654,000 for fiscal year 2006;

1 (2) $5,795,000 for fiscal year 2007; and
2 (3) $5,939,000 for fiscal year 2008.
3 (c) CONSTRUCTION AND MAINTENANCE.—There are
4 authorized to be appropriated to the Secretary of Com-
5 merce for construction and maintenance of facilities of the
6 National Institute of Standards and Technology—
7 (1) $58,898,000 for fiscal year 2006;
8 (2) $61,843,000 for fiscal year 2007; and
9 (3) $63,389,000 for fiscal year 2008.
10 (d) ADVANCED TECHNOLOGY PROGRAM ELIMI-
11 NATION REPORT.—Not later than 3 months after the date
12 of enactment of this Act, the Secretary shall provide to
13 the Congress a report detailing the impacts of the possible
14 elimination of the Advanced Technology Program on the
15 laboratory programs at the National Institute of Stand-
16 ards Technology.
17 (e) LOSS OF FUNDING.—At the time of the Presi-
18 dent's budget request for fiscal year 2007, the Secretary
19 shall provide the Congress a report on how the Depart-
20 ment of Commerce plans to absorb the loss of Advanced
21 Technology Program funds to the laboratory programs at
22 the National Institute of Standards and Technology, or
23 otherwise mitigate the effects of this loss on its programs
24 and personnel.

1 **SEC. 7. STANDARDS EDUCATION PROGRAM.**

2 (a) PROGRAM AUTHORIZED.—(1) As part of the
3 Teacher Science and Technology Enhancement Institute
4 Program, the Director of the National Institute of Stand-
5 ards and Technology shall carry out a Standards Edu-
6 cation program to award grants to institutions of higher
7 education to support efforts by such institutions to develop
8 curricula on the role of standards in the fields of engineer-
9 ing, business, science, and economics. The curricula
10 should address topics such as—

11 (A) development of technical standards;

12 (B) demonstrating conformity to standards;

13 (C) intellectual property and antitrust issues;

14 (D) standardization as a key element of busi-
15 ness strategy;

16 (E) survey of organizations that develop stand-
17 ards;

18 (F) the standards life cycle;

19 (G) case studies in effective standardization;

20 (H) managing standardization activities; and

21 (I) managing organizations that develop stand-
22 ards.

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

1 (b) SELECTION PROCESS.—(1) An institution of
2 higher education seeking funding under this section shall
3 submit an application to the Director at such time, in such
4 manner, and containing such information as the Director
5 may require. The application shall include at a
6 minimum—
7 (A) a description of the content and schedule
8 for adoption of the proposed curricula in the courses
9 of study offered by the applicant; and
10 (B) a description of the source and amount of
11 cost-sharing to be provided.
12 (2) In evaluating the applications submitted under
13 paragraph (1) the Director shall consider, at a
14 minimum—
15 (A) the level of commitment demonstrated by
16 the applicant in carrying out and sustaining lasting
17 curricula changes in accordance with subsection
18 (a)(1); and
19 (B) the amount of cost-sharing provided.
20 (c) AUTHORIZATION OF APPROPRIATIONS.—There
21 are authorized to be appropriated to the Secretary of Com-
22 merce for the Teacher Science and Technology Enhance-
23 ment Institute program of the National Institute of Stand-
24 ards and Technology—
25 (1) $773,000 for fiscal year 2006;

1 (2) $796,000 for fiscal year 2007; and

2 (3) $820,000 for fiscal year 2008.

3 **SEC. 8. AUTHORIZATION OF APPROPRIATIONS.**

4 (a) MANUFACTURING EXTENSION PARTNERSHIP
5 PROGRAM.—There are authorized to be appropriated to
6 the Secretary of Commerce, or other appropriate Federal
7 agencies, for the Manufacturing Extension Partnership
8 program under sections 25 and 26 of the National Insti-
9 tute of Standards and Technology Act (15 U.S.C. 278k
10 and 278l)—

11 (1) $110,000,000 for fiscal year 2006, of which
12 not more than $4,000,000 shall be for the competi-
13 tive grant program under section 25(e) of such Act
14 (15 U.S.C. 278k(e));

15 (2) $115,000,000 for fiscal year 2007, of which
16 not more than $4,100,000 shall be for the competi-
17 tive grant program under section 25(e) of such Act
18 (15 U.S.C. 278k(e)); and

19 (3) $120,000,000 for fiscal year 2008, of which
20 not more than $4,200,000 shall be for the competi-
21 tive grant program under section 25(e) of such Act
22 (15 U.S.C. 278k(e)).

23 (b) COLLABORATIVE MANUFACTURING RESEARCH
24 PILOT GRANTS PROGRAM.—There are authorized to be
25 appropriated to the Secretary of Commerce for the Col-

1 laborative Manufacturing Research Pilot Grants program
2 under section 33 of the National Institute of Standards
3 and Technology Act—
4 (1) $10,000,000 for fiscal year 2006;
5 (2) $10,000,000 for fiscal year 2007; and
6 (3) $10,000,000 for fiscal year 2008.
7 (c) FELLOWSHIPS.—There are authorized to be ap-
8 propriated to the Secretary of Commerce for Manufac-
9 turing Fellowships at the National Institute of Standards
10 and Technology under section 18(b) of the National Insti-
11 tute of Standards and Technology Act, as added by section
12 4 of this Act—
13 (1) $1,500,000 for fiscal year 2006;
14 (2) $1,750,000 for fiscal year 2007; and
15 (3) $2,000,000 for fiscal year 2008.

AMENDMENT OFFERED BY MR. WU OF OREGON TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

In section 5, redesignate subsection (b) as subsection (c), and after subsection (a) insert the following new subsection:

1 (b) FEDERAL SHARE.—Strike Section 25(d) of the
2 National Institute of Standards Act (15 U.S.C. 278k(d))
3 and insert the following:
4 "(d) ACCEPTANCE OF FUNDS.—In addition to such
5 sums as may be appropriated to the Secretary and Direc-
6 tor to operate the Centers program, the Secretary and Di-
7 rector also may accept funds from other Federal depart-
8 ments and agencies and under section 2(c)(7) from the
9 private sector for the purpose of strengthening United
10 States manufacturing. Such funds, if allocated to a Center
11 or Centers, shall not be considered in the calculation of
12 the Federal share of capital and annual operating and
13 maintenance costs under subsection (c).".

SECTION-BY-SECTION ANALYSIS OF AMENDMENT IN THE NATURE OF A SUBSTITUTE TO H.R. 250, MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT

Section 1: Short title

"Manufacturing Technology Competitiveness Act of 2005"

Section 2: Interagency Committee, Advisory Committee

Directs the President to establish or designate an Interagency Committee on Manufacturing Research and Development. The Interagency Committee would be assisted by an Advisory Committee representing non-governmental interests to provide the Interagency Committee with input to and reviews of federal manufacturing R&D activities.

Section 3: Collaborative Manufacturing Research Pilot Grants

Amends the NIST Act by creating a new Section 33 that establishes a pilot grant program within NIST that would fund research partnerships between firms, community colleges, universities, research institutions, State agencies, and non-profits to develop innovative manufacturing technologies. The federal share of a partnership's costs could not exceed one-third.

Section 4: Manufacturing Fellowship Program

Amends Section 18 of the NIST Act to establish a postdoctoral and senior research fellowship program in the manufacturing sciences at NIST.

Section 5: Manufacturing Extension

Amends Section 25(c)(5) of the NIST Act by adding language to codify the existing MEP center review process, and by establishing a probationary period and re-competition schedule for centers that cannot perform. Amends Section 25 of the NIST Act by adding language at the end of that section creating a new competitive grant program under MEP to provide funding for innovative MEP-related projects.

Section 6: Scientific, Technical, and Research Services

Authorizes appropriations for the laboratory accounts at NIST at $426.2 million in FY 2006, $447.5 million in FY 2007, and $457.0 million in FY 2008. The authorization for FY 2006 is divided as follows: $50.8 million for Electronics and Electrical Engineering; $28.0 million for Manufacturing Engineering; $52.4 million for Chemical Science and Technology; $46.7 million for Physics; $33.5 million for Material Science and Engineering; $24.3 million for Building and Fire Research; $68.4 million for Computer Science and Applied Mathematics, $20.1 million for Technical Assistance, $48.3 million for Research Support Activities, $29.3 million for the NIST Center for Neutron Research, and $18.5 for the National Nanotechnology and Nanometrology Facility.

Authorizes appropriations for the Malcolm Baldrige National Quality Award at $5.6 million in FY 2006, $5.7 million in FY 2007, and $5.9 million in FY 2008.

Authorizes $58.9 million for the NIST Construction Account in 2006, increasing to $61.8 million in FY 2007 and $63.4 million In FY 2008.

Directs the Secretary of Commerce to submit reports to Congress on the impact of the proposed elimination of the Advanced Technology Program on NIST's laboratory programs, and how these impacts could be mitigated.

Section 7: Standards Education Program

Establishes a Standards Education Program as part of the Teacher Science and Technology Enhancement Institute Program at NIST. The program shall award grants on a cost-shared basis to institutions of higher education to develop curricula on the role of standards in engineering, business, science, and economics. Authorizes appropriations for this purpose of $773,000 for FY 2006, $795,000 for FY 2007, and $820,000 for FY 2008.

Section 8: Authorization of Appropriations

Authorizes for the MEP program $110 million for FY 2006, of which not more than $4 million shall be for the competitive grant program established by section 5 of H.R. 3598; $115 million for FY 2007, of which not more than $4.1 million shall be for the competitive grant program; and $120 million for FY 2008.

Authorizes for the collaborative manufacturing pilot grant program under section 3, $10 million per year for FY 2006, FY 2007, and FY 2008.

Authorizes for the fellowship program under section 4, $1.5 million for FY 2006, $1.75 million for FY 2007, and $2 million for FY 2008.

XXII. PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 250, MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT OF 2005

WEDNESDAY, MAY 4, 2005

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SCIENCE,
Washington, DC.

The Committee met, pursuant to call, at 10:17 a.m., in Room 2318 of the Rayburn House Office Building, Hon. Sherwood L. Boehlert [Chairman of the Committee] presiding.

Chairman BOEHLERT. Good morning. The Committee on Science will come to order.

Pursuant to notice, the Committee on Science meets to consider the following measures: H.R. 921, *Minority Serving Institution Digital and Wireless Technology Opportunity Act of 2005;* H.R. 1674, *U.S. Tsunami Warning and Education Act;* and H.R. 250, *Manufacturing Technology Competitiveness Act of 2005.* I ask unanimous consent for the authority to recess the Committee at any point during consideration of these matters. And without objection, that is so ordered.

We will now proceed with the markup, beginning with opening statements, and I will launch it.

I want to welcome everyone to this important markup. As usual, we have before us bills that represent bipartisan efforts to come up with practical solutions to real problems. These bills will advance education, protect our Nation and others from natural disasters, enhance research and environmental protection, and strengthen our economy. Not bad for one morning's work.

And I would add that while we are marking up these bills, we are also working behind the scenes on our portions of the Homeland Security reauthorization bill that was reported out of the Homeland Committee last week.

Let me talk briefly now about each of the bills before us to save time later.

First up is Mr. Forbes' bill to help minority serving institutions get the information technology equipment they need. This bill is identical to the version this committee approved last year, and the bill must also go through the Education and Workforce Committee. To move the bill forward swiftly, both sides of the aisle here have agreed to simply move the bill this morning by unanimous consent.

I think the bill will provide needed assistance to educational institutions that are essential to our efforts to develop more scientists and engineers from under-represented groups. And I think our version of the bill, which places the program in the Department of Commerce rather than the National Science Foundation, matches the program with the appropriate agency for carrying it out.

Our second bill will be the one I have introduced with Representative Inslee to ensure that the Nation and the world are better prepared to detect and respond to tsunamis. We all watched with horror last December as the Indian Ocean tsunami wreaked its devastation. Much of the death that occurred could have been avoided.

We have an obligation to learn more about tsunamis through research, to improve our ability to detect tsunamis and issue warnings about them, and to improve tsunami preparation and education so that we can limit damage and know what to do when the warnings come. This bill will improve research, detection, and education, and significantly, sets aside a proportion of appropriated funds for each of these essential activities.

The basis of this bill was the Administration's plan. The Administration is to be congratulated for its swift, thoughtful, and comprehensive response to last December's events. We then built on the Administration's proposal, following the guidance we received during our January hearing. As a result, the bill stresses and ensures funding for tsunami preparation and education. And we also press for tsunami detection to be integrated as much as possible with other Earth- and ocean-observing systems.

Finally, we will take up Dr. Ehlers' manufacturing bill, which the House passed last year. I know that, as was the case last year, we will have some debate over adding to the bill ideas that may be worthy in themselves, the proposals, but that would guarantee the demise of the bill. That is something we don't want to do. I will oppose most of these amendments, which include authorizing—I don't say all of them, because I haven't seen all of them. I will oppose most of the amendments, which include authorizing the Advanced Technology Program, a program that I have always supported and continue to support. But I want to make—actually, I want to make progress on the bill in connection with manufacturing. That is especially important as we enter the budget season with appropriations likely to be more constrained than ever.

And let me say at the outset that I don't want the amendment debate to obscure the broad, bipartisan support for the base bill, which the House passed last year by voice vote, no mean achievement given the political debate surrounding manufacturing last year.

We were going to also do a markup—during the markup this morning of the NOAA authorization bill, but both we and the Democrats have brought up significant additional changes to the bill. We need some more time to talk those through. We will reschedule the markup of the NOAA bill swiftly, and I would hope we could do it as early as next week.

So let me close by thanking my colleagues on both sides of the aisle for their contributions to these bills. As usual, we have beaten the odds and have worked out sensible, targeted, bipartisan measures.

Mr. Gordon.

[The prepared statement of Chairman Boehlert follows:]

PREPARED STATEMENT OF CHAIRMAN SHERWOOD L. BOEHLERT

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Our second bill will be the bill I've introduced with Representative Inslee to ensure that the Nation and the world are better prepared to detect and respond to tsunamis. We all watched with horror last December as the Indian Ocean tsunami wreaked its devastation. Much of the death could have been avoided.

We have an obligation to learn more about tsunamis through research, to improve our ability to detect tsunamis and issue warnings about them, and to improve tsunami preparation and education so that we can limit damage and know what to do when the warnings come. This bill will improve research, detection and education and, significantly, sets aside a proportion of appropriated funds for each of those essential activities.

The basis of this bill was the Administration's plan. The Administration is to be congratulated for its swift, thoughtful and comprehensive response to last December's events. We then built on the Administration proposal, following the guidance we received in our January hearing. As a result, the bill stresses and ensures funding for tsunami preparation and education, and we also press for tsunami detection to be integrated, as much as possible, with other Earth- and ocean-observing systems.

Finally, we will take up Dr. Ehlers' manufacturing bill, which the House passed last year. I know that, as was the case last year, we will have some debate over adding to the bill ideas that may be worthy in themselves, but that would guarantee the demise of this bill. I will oppose those amendments, which include authorizing the Advanced Technology Program, a program I have always supported and continue to support. But I want to actually make progress on manufacturing. That's especially important as we enter the budget season with appropriations likely to be more constrained than ever.

And let me say at the outset that I don't want the amendment debate to obscure the broad, bipartisan support for the base bill, which the House passed last year by voice vote—no mean achievement given the political debate surrounding manufacturing last year.

We were going to also mark up the NOAA organic act this morning, but both we and the Democrats have brought up significant additional changes to the bill. We need some more time to talk those through. We will reschedule the markup of the NOAA bill swiftly—perhaps as early as next week.

So let me close by thanking my colleagues on both sides of the aisle for their contributions to these bills. As usual, we've beaten the odds and have worked out sensible, targeted, bipartisan measures.

Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman.

Let me first thank you for moving NOAA to a later date so that we can have a chance—I am sure that this is something that we can work out. And there is, I think, general agreement on both the minority and the majority on this bill.

We are also pleased that the Committee is moving forward on its legislative agenda, and we look forward to continuing to work on a bipartisan basis on several major bills that we hope will be before the Committee shortly.

Today, we are addressing three important legislative areas. We applaud the choice of topics and only question why the Committee has not chosen to legislate more aggressively in certain of these areas, especially manufacturing. We support H.R. 921, the *Minority Serving Institution Digital and Wireless Technological Opportunity Act*. The bill would provide grants to minority serving institutions for information technology upgrades and for training faculty and

staff to use the technology effectively in support of their education and research activities. Minority serving institutions prepare a growing portion of the future science and technology workforce of the Nation, and it is important that these colleges and universities be able to provide a quality education for their students.

H.R. 250, the *Manufacturing Technology Competitiveness Act,* is a start, but we need to make the bill's content live up to its title. Democratic Members of the Committee, once again, will be offering amendments to the MEP funding, workforce training, and technology innovation that would make the bill much stronger. Even if these pass, we will only have taken the first steps on one of the biggest problems of our day, and we hope we will have other opportunities this Congress to deal with the other aspects of this far-reaching problem.

We are especially pleased that the Committee, in a bipartisan fashion, has so rapidly developed H.R. 1674, the *United States Tsunami Warning and Education Act.* The bill directs NOAA to expand the current tsunami warning system on two basins so that all U.S. coastal areas and territories will be covered by a buoy-based detection and warning system. The bill also directs NOAA to conduct a community-based tsunami hazard mitigation program to ensure coastal communities are prepared to act upon any warning issued by the tsunami warning centers and establish a tsunami research program. We enthusiastically support the bill. We feel that the funding levels for hazard mitigation and education programs are too low. Mr. Wu's amendment would correct this problem.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Gordon follows:]

PREPARED STATEMENT OF REPRESENTATIVE BART GORDON

We are pleased that the Committee is moving forward on its legislative agenda and we look forward to continuing to work on a bipartisan basis on several major bills that we hope will be before the Committee shortly.

Today we are addressing four important legislative areas. We applaud the choice of topics and only question why the Committee has not chosen to legislate more aggressively in certain of these areas, especially manufacturing.

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Chairman BOEHLERT. Thank you.

Without objection, Members may place opening statements in the record at this point.

We will now consider H.R. 50, National—no, we won't consider that.

We will now consider the—oh, let us see. Where are we? We are getting there. Follow the script, Boehlert.

We will now consider H.R. 250, *Manufacturing Technology Competitiveness Act of 2005.* I recognize Dr. Ehlers to offer any remarks that he may care to.

Mr. EHLERS. Thank you, Chairman Boehlert, for the chance to explain my bill. The *Manufacturing Technology Competitiveness Act* will help address the long-term problems facing our nation's manufacturers. A key factor to ensure that our manufacturing sector remains competitive in the face of global competition is innovation. This bill encourages innovation by strengthening and improving the coordination of federal manufacturing technology programs. I remind my colleagues this is essentially the same bill that we passed out of Committee last year and passed the House last July. Unfortunately, the Senate did not take up the bill last year.

Specifically, the bill establishes an Interagency Committee to coordinate existing federal manufacturing research and development activities and creates an Advisory Committee of outside experts to advise the federal process. Second, it establishes a collaborative research and development pilot program between academia and industry on manufacturing technology. Third, it establishes a fellowship program at NIST to support the next generation of U.S. manufacturing research experts. And finally, it strengthens the Manufacturing Extension Partnership, the MEP program, including a new grant program within MEP to extend the program's outreach beyond its current scope.

Mr. Chairman, my home State of Michigan currently has the highest unemployment rate in the country, largely due to losses in the manufacturing sector. In West Michigan, manufacturing represents 23 percent of the employment base, by far the most significant sector of the economy. Technology research and development is fundamental to retaining our manufacturing competitiveness. H.R. 250 will bring together a variety of partners from the public and private sectors to build relationships that will foster technological development. I strongly urge my colleagues to support the *Manufacturing Technology Competitiveness Act.*

I yield back the remainder of my time.

[The prepared statement of Mr. Ehlers follows:]

PREPARED STATEMENT OF REPRESENTATIVE VERNON J. EHLERS

Thank you, Chairman Boehlert, for the chance to explain my bill. The *Manufacturing Technology Competitiveness Act* will help address long-term problems facing our nation's manufacturers. A key factor to ensure that our manufacturing sector remains competitive in the face of global competition is innovation. This bill encourages innovation by strengthening and improving the coordination of federal manufacturing technology programs. I remind my colleagues this is essentially the same bill that we passed out of Committee last year and passed the House last July. Unfortunately, the Senate did not take up the bill last year.

Specifically, the bill:

- Establishes an Interagency Committee to coordinate existing federal manufacturing research and development activities and creates an Advisory Committee of outside experts to advise the federal process.
- Establishes a collaborative research and development pilot program between academia and industry on manufacturing technology.
- Establishes a fellowship program at NIST to support the next generation of U.S. manufacturing research experts.
- Strengthens the Manufacturing Extension Partnership (MEP) program, including a new grant program within MEP to extend the program's outreach beyond its current scope.

Mr. Chairman, my home State of Michigan currently has the highest unemployment rate in the country, largely due to losses in the manufacturing sector. In West Michigan, manufacturing represents 23 percent of the employment base, by far the most significant sector of the economy. Technology research and development is fundamental to retaining our manufacturing competitiveness. H.R. 250 will bring together a variety of partners from the public and private sectors to build relationships that will foster technological development. I strongly urge my colleagues to support the *Manufacturing Technology Competitiveness Act.* I yield back the remainder of my time.

Chairman BOEHLERT. I thank the gentleman for his statement, and I now recognize Mr. Gordon for any statement he might care to make.

Mr. GORDON. Thank you, Mr. Chairman.

While I am pleased that we are marking up a NIST reauthorization bill, as embodied in H.R. 250, if we want to help the American manufacturing base, I believe we could do a much better job than the bill as it currently stands. This bill is the same bill that passed the House a year ago in which the Senate never took up. A year ago, we could agree that our manufacturing base was facing a crisis. Since 2001, we had lost 2.7 million manufacturing jobs. In the last year, while this bill languished in the Senate, much more happened. Manufacturing job losses continued, even during what is supposed to be an economic recovery. In the first three months of this year, we lost another 24,000 jobs.

A year ago, the Administration announced its Manufacturing Initiative through the creation of an Assistant Secretary of Manufacturing and Service and supported by a $40 million-plus bureaucracy. And Secretary Evans established a Manufacturing Council.

Since these announcements, very little has been heard from these organizations. Aside from a single hearing in June of 2003, the Science Committee has also done little in the way of oversight or policy hearings on the manufacturing crisis. During last year's debate on the manufacturing, we had a bipartisan agreement that the Federal Government needs to develop policies and programs to retain high-paying, high-skilled manufacturing jobs in the United States. Frankly, I am disappointed that this crisis has received so little high-level attention from the Administration as well as the House and the Senate. I am also disappointed that the Committee's proposed solution is a recycle of a weak bill from last year.

At today's hearing, Democrats will offer the following amendments: one, to ensure full MEP funding; two, improve workforce training; three, stimulate technology innovation; and four, strengthen the Administration's manufacturing efforts. These amendments are similar to the ones we offered last year. These simple amendments were reluctantly opposed by the Chairman at the time. Last year, the Chairman and Mr. Ehlers opposed amend-

ments, but not because of policy differences, but because they had an agreement with the Administration.

A year later, this has changed. The Administration has communicated to staff that they do not support H.R. 250 in the current form. An even anemic bill, the Administration opposes the funding level for MEP, the creation of MEP competitive grant program, and the authorization of Interagency Manufacturing Committee and Advisory Council. While I don't agree with the Administration, I am hoping that today's—hoping that the Chairman today won't just reject our amendments out of hand but join us in taking some steps to solidify the House support of manufacturing.

I support each of these amendments, which will significantly strengthen the bill before us today, and hope the colleagues on both sides of the aisle, many of whom come from states and districts that have witnessed the flight of manufacturing jobs firsthand, will be able to join me in that support.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Gordon follows:]

PREPARED STATEMENT OF REPRESENTATIVE BART GORDON

Mr. Chairman, while I am pleased that we are marking up a NIST authorization bill as embodied in H.R. 250, if we want to help the American manufacturing base I believe we could do a much better job than the bill as it currently stands.

This bill is the same bill that passed the House a year ago and which the Senate never took up. A year ago, we could agree that our manufacturing base was facing a crisis; since 2001 we have lost 2.7 million manufacturing jobs.

In the last year, while this bill languished in the Senate, much more happened; manufacturing job losses continued even during what is supposed to be an economic recovery. In the first three months of this year we have lost another 24,000 jobs. A year ago, the Administration announced its Manufacturing Initiative, the creation of an Assistant Secretary of Manufacturing and Services supported by a $40 million-plus bureaucracy, and Secretary Evans established a Manufacturing Council. Since these announcements very little has been heard of from these organizations.

Aside from a single hearing in June 2003, the Science Committee has also done little in the way of oversight or policy hearings on the manufacturing crisis. During last year's debates on the manufacturing bill we had bipartisan agreement that the Federal Government needs to develop policies and programs to retain high-paying, high-skill manufacturing jobs in the U.S. Frankly, I'm disappointed that this crisis has received so little high-level attention from the Administration and the House and the Senate. I am also disappointed that the Committee's proposed solution is to recycle a weak bill from a year ago.

At today's markup, Democrats will offer amendments to: 1) ensure full MEP funding, 2) improve workforce training, 3) stimulate technology innovation, and 4) strengthen the Administration's manufacturing efforts. These amendments are similar to ones we offered last year. These simple amendments were reluctantly opposed by the Chairman at that time. Last year, the Chairman and Mr. Ehlers opposed amendments, not because of policy differences, but because they had an "agreement" with the Administration. A year later, this too has changed.

The Administration has communicated to staff that they do not support H.R. 250 in its current form. In even an anemic bill, the Administration opposes the funding level for MEP, the creation of the MEP Competitive Grant Program and the authorization of the Interagency Manufacturing Committee and the Advisory Council. While I don't agree with the Administration, I am hoping that today the Chairman won't just reject our amendments out-of-hand, but join us in taking some steps to solidify House support for manufacturing

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Chairman BOEHLERT. Thank you very much.

Let the word go forth from this place at this time that this committee is committed to the Manufacturing Extension Partnership. And it is not quite fair to characterize the Administration's position in the manner that you used in your statement. Officially they haven't taken a position, and we are trying to urge them to take a positive position. Quite frankly, if they take a negative position, that will just force me to redouble my efforts to oppose that position, because this is a good program for the right reasons for America, and as you know, we are partners in this venture as we go forward with the Manufacturing Extension Partnership.

But as Mr. Wu acknowledged in the previous debate on the previous issue, you know, we pray a lot up here on Capitol Hill. Our prayers aren't always answered. And we have to be dealing in realistic terms as we deal with these numbers, and a $2.7 trillion budget that is already a half a trillion dollars in the hole in deficit, and some people think the President has taken leave of his senses, because he hasn't recommended a budget that is in balance. Well, we know how to get a budget in balance. It is a simple mathematical exercise. You slash, you slash, you slash. To the credit of the Administration, it didn't take that tack, and it has proposed a budget in deficit with the thought that if we are able to sufficiently stimulate the economy, the revenue will come in and then the deficit will rapidly diminish. We are just trying to make sure that this gets on their radar screen. MEP, it is like a mantra for this committee. And we are going to keep at it until they get it downtown, because we already have it, and we are trying to make sure that they get it. And I think today's action will help in the process.

So I ask unanimous consent that the bill is considered as read and open to amendment at any point and that Members proceed with the amendments in the order of the roster. Without objection, so ordered.

The first amendment on the roster is offered by Dr. Ehlers. Are you ready to proceed?

Mr. EHLERS. Yes.

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment to H.R. 250 offered by Mr. Ehlers of Michigan.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading of the amendment and that the amendment is considered en bloc. Without objection, so ordered.

The gentleman from Michigan is recognized for five minutes.

Mr. EHLERS. Thank you, Mr. Chairman.

And I will certainly use less time than that. I am offering a very simple amendment that will make a minor change to the language that establishes an Interagency Committee on Manufacturing Research and Development. This amendment clarifies that it should be the Director of the Office of Science and Technology Policy who designates the Chair of the Interagency Committee rather than the Secretary of Commerce making that designation. This merely reflects customary Administration practice with regard to interagency committees that concern research and development.

I urge approval of the amendment.

Chairman BOEHLERT. Is there anyone else who seeks recognition on this? This is something I think that has been cleared. Anybody have any problem? Mr. Gordon?

Okay. The vote is on the amendment. All in favor, say aye. Opposed, no. The ayes appear to have it. The amendment is passed.

The next amendment on the roster is amendment number two offered by the gentleman from Tennessee, Mr. Gordon.

Are you ready to proceed?

Mr. GORDON. Thank you, Mr. Chairman. Yes.

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment to H.R. 250 offered by Mr. Gordon of Tennessee.

Mr. GORDON. This is a very straightforward amendment. It sets aside a specific amount of funding for the competitive grant program, and the balance of funds would be used to support MEP center operations. Since 243 Members of Congress have signed a letter to appropriators, including the Chairman of the Science Committee, requesting $109 million for the MEP centers, my amendment is consistent with this request. In fiscal year 2006, it sets aside $1 million for the new competitive grant program established in H.R. 250, and the remaining $109 million would be for the MEP centers. In fiscal year 2007, it boosts the funding for the grant program to $4 million as originally envisioned in the bill.

H.R. 250, as drafted, would provide $106 million for the MEP centers. This is a cut below the $107.5 million appropriated in fiscal year 2006. While I understand the reasoning behind establishing this new program, first and foremost, we need to fully fund the Manufacturing Extension Partnership, especially since this Administration continues to target this program for deep cuts. My amendment makes clear that the priority should be given to maintaining and expanding the national network of MEP centers.

I yield back my time.

Chairman BOEHLERT. The Chair is happy, based upon those eloquent remarks, to accept the gentleman's amendment.

Is there anyone else who seeks recognition on the amendment?

Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman.

And I also support the amendment. And in addition, I have had a conversation yesterday with Mr. Knollenberg from Michigan who is on the Appropriations Committee and worked very hard to get the appropriation for MEP last year, and he is planning to do precisely the same thing this year.

Chairman BOEHLERT. That is good news to report.

Let me ask you this, do you think there is need for additional massaging of Chairman Knollenberg, or do you think he is—do you feel you have a commitment?

Mr. EHLERS. I suspect most appropriators get enough massaging already, but I would encourage anyone on this committee who wishes to do so to discuss it with Mr. Knollenberg——

Mr. GORDON. Thank you very much.

Mr. EHLERS.—and indicate support.

Chairman BOEHLERT. All right. Thank you very much.

[The prepared statement of Mr. Udall follows:]

PREPARED STATEMENT OF REPRESENTATIVE MARK UDALL

Mr. Chairman, I would like to express my support for this amendment.

The Manufacturing Extension Partnership provides vital support to small manufacturing companies in our country to remain successful and competitive in a global market.

These small manufacturing companies make up 98 percent of the manufacturing industry in this country, yet they are continually struggling and jobs are being lost.

MEP centers works directly with local manufacturers to provide expertise and services tailored to their most critical needs, which range from process improvements and worker training to business practices and information technology applications.

This is a federal, State, and private-sector partnership where every federal dollar leverages two dollars in State and private-sector funding.

A small federal investment leverages billions of dollars in benefits for the economy in terms of jobs created and retained, investment, and sales.

The President's budget proposes deep cuts in MEP for FY06, when our manufacturing jobs continue to travel overseas and the workforce does not have the talent required to remain competitive.

It is vital for our manufacturing industry that we adequately fund MEP.

Chairman BOEHLERT. The vote now is on the amendment. All in favor, say aye. Opposed, no. The ayes have it, and the amendment is adopted.

The next amendment on the roster is amendment number three, an amendment offered by the gentleman from Colorado, Mr. Udall. Are you ready to proceed with the amendment?

Mr. UDALL. Mr. Chairman, I am, and I have an amendment at the desk.

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment to H.R. 250 offered by Mr. Udall of Colorado.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

The gentleman from Colorado is recognized for five minutes.

Mr. UDALL. Thank you, Mr. Chairman.

It is fitting that the Science Committee is taking up a bill to strengthen manufacturing in our country the same day that the House is debating the reauthorization of the Perkins Vocational and Technical Education Act. An important part of revitalizing manufacturing in this country is through a strong investment in vocational and technical training. Everyone agrees that we must provide better and more technical training for our workforce, however our budget priorities the last few years have not reflected this.

In past years, the Administration has requested significant cuts to the *Perkins Vocational and Technical Education Act,* and this year, it seeks to eliminate the Perkins. There have also been cuts in the *Workforce Investment Act* dating back to 2001 that have continued to deteriorate the federal support for technical training.

Educators are not the only ones noticing the decline in our investment to vocational and technical training. Manufacturing companies, too, are noticing the lack of an adequately trained workforce. Former President of the National Association of Manufacturers stated in the June 2003 *Community College Journal:* "Students today have an outdated, negative perception of manufacturing jobs and are not being taught the math and science they will need to compete in a globally competitive, high technology workplace."

With the support of the American Association of Community Colleges, I am offering an amendment that expands the National

Science Foundation's current Advanced Technology Education program, the ATE program, to include the preparation of students for manufacturing jobs. The ATE program works with community colleges to develop curriculum designed to prepare students for the local job market. This program has been highly successful with only modest funding. My amendment boosts funding for the ATE program from its current level of approximately $45 million to $70 million with inflationary increases. A portion of these funds are set aside specifically for the training of manufacturing technicians. These funding increases are within the NSF authorization already passed into law.

This amendment steps up our investment to provide the manufacturing sector with a technically trained workforce with the capacity to compete globally.

Mr. Chairman, I urge adoption of my amendment, and I would yield back any time I have remaining.

Chairman BOEHLERT. I thank the gentleman. I thank you for your amendment. It is on target in the sense that you are putting additional support where I think additional support is needed. My only quarrel with the amendment is it is too much additional support, given the current climate. And once again, we have to talk about the current climate, the situation we all face, not just on this committee, but so many other committees. So at the appropriate time, I will offer a second-degree amendment to increase the funds for the program, but not quite as generous as you are.

Is there anyone else who wishes to discuss?

Mr. GORDON. Yes, Mr. Chairman.

Chairman BOEHLERT. Yes, Mr. Gordon.

Mr. GORDON. Just briefly, I think Mr. Udall has stated the problem very well, but let me remind the Committee, we are spending millions of dollars on research in nanotechnology but little of nothing on the skill of our workforce to be able to use this new technology, unlike what they are doing in China and India and elsewhere. And so we really—you know, the great irony, like the VCR and other things, we don't want to invent nanotechnology here or new products and new ways to go about it and then ship that technology elsewhere because we don't have the workforce to be able to use it. So I think Mr. Udall really is on the right track here.

Mr. UDALL. Would the gentleman yield?

Mr. GORDON. Certainly.

Chairman BOEHLERT. Who seeks recognition? Mr. Udall.

Mr. UDALL. I just would like to point out the historical fact that all of us have been working with the community colleges and their association, and they are on the spot, they are on the front lines, and they felt that $60 million would really make sense. And I want to point out to the Chairman and—with whom I do not want to quarrel, that the $60 million amount was not acceptable to the majority. It also is an interesting fact that Mr. Wu on this committee and Mr. Hooley, who, in a sense, is an *ex officio* Member of this committee, given his great science background, offered an amendment to the Perkins reauthorization to authorize $250 million for manufacturing training, and I know some of my colleagues who serve on the Workforce Education Committee, such as my good friend, Mr. Ehlers, were able to support that amendment.

So I think there is the belief in the importance of this amendment, and I certainly would hope we could pass the amendment with the higher totals in it, because we know the results will be very, very important to our manufacturing economy.

And I yield back my time to the gentleman.

Chairman BOEHLERT. Well, as Mr. Gordon has indicated, he said he thinks you are on the right track, and so does the Chair. And I find when we are discussing this very important program, we are—you are on a track that we usually want to travel together. You just want to go a little bit farther ahead than I do right now, given the situation. Keep in mind, we are going to struggle mightily, mightily to keep the National Science Foundation on the black side of the ledger, a plus of even only a few dollars rather than movement in the other direction. And that is going to be a very difficult challenge. And I, more than most, appreciate the value of community colleges. And I recall 23 years ago when I was a freshman sitting down in the lower tier that we never even discussed community colleges being eligible for NSF funding. Fortunately, they have come around with the successive Administrations and successive Congresses to appreciate the value of community colleges and all they can bring to the table in terms of enrichment of our developing workforce.

So I—while I agree with you wholeheartedly that we have to do more, not less, I am just not quite prepared to do as much more as you want, given the fact that we are struggling mightily and—to keep NSF funding at a reasonable level—acceptable level, and particularly in the education directorate where, quite frankly, I am disappointed that there is a reduction, not an increase.

So given all of that, let me just say I have an amendment to the amendment, and the Clerk will report. Distribute first, then report.

Mr. EHLERS. Mr. Chairman.

Chairman BOEHLERT. Dr. Ehlers.

Mr. EHLERS. I move to strike the last word while we are waiting——

Chairman BOEHLERT. While the Clerk is distributing, you are recognized.

Mr. EHLERS. I simply would like to add a word to your comments on Mr. Udall's amendment.

He is perfectly right. I broke ranks with my party and voted for the amendment on Perkins in the Education Committee. That was entirely appropriate. They have a lot more money to spend than the National Science Foundation at this point. And I felt much of their money could be more wisely spent on this particular purpose.

I think you all know my record. I have been fighting ever since I got here to improve math and science education from pre-school through grad school. If we want to remain competitive with other countries, we have to do that. And with the support of many Members of this committee, we are actually making progress there.

I—but I would agree with the Chairman that the NSF—I am working very, very hard to get their budget back up where it should be, and I would appreciate the assistance of any of my colleagues on this committee if they have not yet signed my letters to the—letter to the appropriators to do so. But there is simply—given the state of the NSF finances, we have to be modest in our

attempt to modify funding that is not one of the major roles of the National Science Foundation, but is certainly a major role of the Department of Education.

So I am indicating my support for the Chairman's amendment when it comes.

Chairman BOEHLERT. Thank you very much.

The Clerk will report the amendment.

Ms. TESSIERI. Boehlert's second-degree amendment to the Udall amendment.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

Just let me say, you have heard my preamble. The amendment, as drafted, proposes more than a 40 percent jump in ATE program. That is just not wise or proportionate in the current budget climate. Instead, I am proposing a generous 10 percent increase. Both my amendment and the original include five percent increases in the out years.

I think, given all things considered, that is a plug for NPR, I think that my amendment offers a more realistic approach, and I would ask that you embrace my amendment.

Is there anyone else who seeks recognition? If not, the vote occurs on the amendment, as amended. The first vote is on the second-degree amendment. All in favor, say aye. Opposed, no. The ayes appear to have it.

Now the amendment, as amended. All in favor, say aye. Opposed, no. The ayes appear to have it, and the amendment, as amended, is passed, and I thank Mr. Udall for his partnership and wisdom and——

Mr. UDALL. Mr. Chairman.

Chairman BOEHLERT.—farsightedness.

Mr. UDALL. If I might, would you yield 30 seconds?

Chairman BOEHLERT. I would be glad to yield to my distinguished colleague from Colorado.

Mr. UDALL. I want to thank the Chairman for yielding. I want to thank the Chairman for his acknowledgment of the importance of this particular sector, and I want to thank my good friend from Michigan, Mr. Ehlers, for his leadership. There is no question that he is always on the front lines. And I look forward to working with him as we move this legislation to the Floor. And I would like to continue this discussion as events proceed to see what all we can do to continue to think about building up this very, very important program.

So thank you, and I would yield back.

Chairman BOEHLERT. And I know I have your commitment to work with the appropriators as we seek to plus-up, almost across the board, the NSF budget submitted.

Mr. UDALL. You do.

Chairman BOEHLERT. Thank you so much.

The next amendment on the roster is amendment number four offered by the gentleman from Missouri, Mr. Carnahan.

Are you ready to proceed?

Mr. CARNAHAN. Yes, Mr. Chairman.

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment to H.R. 250 offered by Mr. Carnahan of Missouri.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

The gentleman is recognized for five minutes.

Mr. CARNAHAN. Thank you, Mr. Chairman and Ranking Member.

Thank you for bringing this issue before the Committee and giving us this opportunity to do a markup today.

The amendment I present here recognizes the importance that the manufacturing industry represents to our nation by elevating the current Advisory Committee, codified in H.R. 250, to a Presidential Council on Manufacturing. If our manufacturing industry and our manufacturing jobs are truly as important as many say they are, we owe it to Americans and the industry to create a Council that has the ear of the President.

As many of us know, the Council on Manufacturing has been in existence since last year and is now solely comprised of industry representatives. My amendment would broaden the diversity of those that sit on the Council to include labor, research, and academia, bringing a much-needed voice to individuals adversely affected by and with expertise in the current state of manufacturing.

Furthermore, under my amendment, the President's Manufacturing Council will be directed to develop a national manufacturing strategy with clear issues to consider and specific reports to be submitted to Congress. As it stands currently, the Advisory Council is not carrying out many of these responsibilities.

The National Council for Advanced Manufacturing reported on the Bush Manufacturing Initiative suggests that the Council have a more expansive role, that they have a strong Congressional mandate, and the Committee be chaired by the Secretary of Commerce. I believe it is clear that the Council, as it stands now, does not meet these recommendations.

I hope that many of the Committee Members will agree that it is Congress's responsibility, our responsibility to take action on the Council's effectiveness as well as strengthening and defining its role.

After speaking with Subcommittee Chairman Ehlers, and out of deference to him, I want to offer this amendment but withdraw it at this time. I appreciate his commitment to work with me and others on the Committee to consider this later in the process. And although withdrawing it, I would reserve the right to pursue opportunities on the Floor or in conference and also to discuss further opportunities to hold hearings on this issue to really make this a working Council on Manufacturing.

Mr. Chairman, with that, I yield back.

[The prepared statement of Mr. Carnahan follows:]+

PREPARED STATEMENT OF REPRESENTATIVE RUSS CARNAHAN

Mr. Chairman and Mr. Ranking Member, thank you for bringing this important bill to us to be marked up.

The amendment I present to you today recognizes the importance that the manufacturing industry represents to our nation, by elevating the advisory committee, present now and codified by H.R. 250, to a Presidential Council on Manufacturing.

If our manufacturing industry and our manufacturing jobs are truly as important as much rhetoric suggests, we owe it to Americans in the industry to create a council that has the ear of our President.

As many of us know, the Council on Manufacturing has been in existence since last year and is now solely comprised of industry representatives. My amendment seeks to broaden the diversity of those that sit on the panel to include labor, research, and academia, bringing a much needed voice to individuals adversely affected by and who have expertise in the current state of manufacturing.

Furthermore, under my amendment, the President's Manufacturing Council will be directed to develop a National Manufacturing Strategy with clear issues to consider and specific reports to be submitted to Congress.

As it stands currently, the Advisory Council is not carrying out its responsibilities as envisioned by H.R. 250, which assigns responsibilities to the Council to review federal manufacturing R&D and to review the actions of the Interagency Working Group on Manufacturing R&D. The Council has accomplished neither of these stated goals.

Perhaps most astonishing, according to the Commerce Department staff, the Council does not have an agenda for the coming year, nor were they certain that such an agenda would even be developed.

The National Coalition for Advanced Manufacturing reported on the Bush Manufacturing Initiative suggesting that the Council have a more expansive role, that they have a strong Congressional mandate, and that the committee be chaired by the Secretary of Commerce.

My colleagues, I believe it is clear that the Council as it stands now does not meet these recommendations.

I hope you will agree that it is Congress's responsibility, our responsibility, to take action on the Council's effectiveness as well as strengthening and defining its role.

After speaking with Subcommittee Chairman Ehlers and out of deference to him, I offer and withdraw this amendment. I appreciate his commitment to consider these issues at a later time. Although I withdraw this amendment, I reserve the right to pursue action when the bill goes to the Floor if we are unable to hold hearings within a meaningful timeframe.

Thank you.

Chairman BOEHLERT. The gentleman asks unanimous consent that his motion be withdrawn. Without objection, so ordered.

Just let me say, Mr. Carnahan, how much we appreciate your engagement, your active engagement and working with Chairman Ehlers and the rest of us on the Committee. It is important that we all work together to get the result that we all hope to get.

Thank you so much.

The next amendment on the roster is amendment number five offered by the gentleman from California, Mr. Honda.

Are you ready to proceed?

Mr. HONDA. Yes, I am, Mr. Chairman.

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment to H.R. 250 offered by Mr. Honda of California.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

Mr. Honda, you are recognized for 300 seconds.

Mr. HONDA. Thank you very much, Mr. Chairman.

And we have done this before, so I will try to be brief.

This is a straightforward amendment. It authorizes funding for the Advanced Technology Program at NIST for three years at the levels of $140 million for 2006, $160 million for 2007, and $203.8 million for 2008.

As everyone here probably knows, the Advanced Technology Program partners with industry to provide funding for early stage technologies that are viewed to be too technically risky or too early by private funding sources. Experts agree that the future of American manufacturing lies in our ability to promote risk-taking and to promote the pursuit of new technologies that go well beyond the

limits of conventional practices. ATP is the logical tool to use to achieve these goals.

Over the past few years, this committee has heard testimony over and over again about the utility of ATP. At the March 2003 hearing on nanotechnology, witness Alan Marty stated the need for ATP, or programs like it, to bridge the Valley of Death between a research concept and an actual product that could be manufactured. And at the June 2003 hearing on manufacturing R&D, the witnesses were unanimous in their belief that ATP was an important element to improving the U.S. manufacturing infrastructure and competitiveness and that the Committee should support ATP.

Numerous outside groups have expressed support for ATP funding, including the Electronics Industry Alliance, International Economic Development Council, the National Association of Manufacturers and its Coalition for the Future of Manufacturing, ASTRA, the Alliance for Science and Technology Research in America, and the Council on Competitiveness. And our committee's views and estimates on 2006 budget requests state, "The Committee continues to support the Advanced Technology Program and is disappointed that the Administration has again included no funds for the program in the budget request."

Mr. Chairman, I would like to enter into the record a letter from the Coalition for NIST Funding, if I may have——

Chairman BOEHLERT. Without objection, so ordered.

[The information follows:]

Coalition for NIST Funding

May 2, 2005

The Hon. Frank Wolf
Chairman
Subcommittee on Science, State, Justice, Commerce and
Related Agencies
House Committee on Appropriations
H - 309
The Capitol
Washington, DC 20515 - 6017

Dear Chairman Wolf;

The undersigned companies, associations, universities and colleges and professional societies write to you on behalf of more than one million scientists and engineers, and 90 percent of America's industrial capacity. We urge Congress to increase investment in the National Institute of Standards and Technology (NIST) — which is vital to our industrial innovation, global competitiveness, and national security — by at least 7 percent overall from its FY 2005 level of funding, i.e. from $695.3 million to $744 million.

Under the Administration's FY 2006 request, overall NIST funding has been slashed by 23.5%, or $163.4 million to only $532 million. While not a large agency, ongoing damage to NIST must be seen as part of a larger pattern of erosion of U.S. scientific talent and capability.

It is vitally important that we understand the causal link between federal investment in our innovation infrastructure, and the ensuing benefits which result from this investment. In particular, we ask your support for the following NIST Programs:

1. NIST Laboratories

The world-leading standards and measurement work carried on by NIST for a century underlies every test or experiment carried out in industry and higher education and provides the foundation for U.S. quality control, innovation and competitiveness. Any list of specific applications is lengthy and impressive. A cursory glance of essential programs would include: building and fire codes (including smoke detector sensitivity standards which have prevented many fire-related deaths every year); dealing with the terrorist threat; bullet-proof body armor; precision machining and semiconductor manufacturing; nanotechnology; cyber security; health care quality; voting technology; new fuel composition technologies; and the energy efficiency of appliances.

The NIST Labs appropriation from Congress provides a foundation for NIST laboratories to conduct critical, and compensated, work on behalf of numerous other Executive Branch agencies like the Department of Homeland Security, the U.S. Department of Energy, the Department of Defense, EPA, etc.

Coalition for NIST Funding c/o ASTRA, The Alliance for Science & Technology Research in America
1550 16th Street, N.W., Washington, D.C. 20036 • 202/872-6160 • www.aboutastra.org

Out of 709 projects selected by the ATP since its inception, well over half of the projects included one or more universities as subcontractors or joint-venture members. Seventy-nine percent of all single-company awards are won by small firms, and half of all joint ventures are led by small or medium-sized companies. The ATP is the most thoroughly reviewed federal R&D program -- and it has held up to the scrutiny. A National Academies of Science panel headed by Intel co-founder Gordon Moore (of "Moore's Law" renown) found as follows: "The ATP is an effective federal partnership program ... [I]t appears to have been successful in achieving its core objective, that is, enabling or facilitating private-sector R&D projects ... where social returns are likely to exceed private returns to private investors."

We request that ATP be funded at the level recommended in the Senate Budget Resolution adopted in March 23 of this year: $142.3 million.

4. Baldrige Quality Award

Also not to be overlooked are the Baldrige Quality Award – we support the Administration request to increase its funding by 4.9% to $5.7 million from $5.4 million. This small sum is matched by about 20 times that effort in industry — and each year thousands of organizations use the Baldrige criteria to improve their own performance standards. A hypothetical portfolio of the stocks of Baldrige award-winners has outperformed the S&P 500 Index in 9 years out of 10, and by margins of up to 6:1. How many federal programs far surpass original expectations?

Conclusion

NIST is a vital agency whose work to make American industry the most efficient and productive in the world should be promoted, not cut back.

Deep cuts in NIST's budget are totally inappropriate at a time when America's foreign competitors are closing in on us with a wide array of technologies and strategies. With our innovation "ecosystems" being challenged worldwide on virtually all fronts, America cannot afford to short-change NIST and our nation's innovation future.

Sincerely,

The Undersigned

(Please see attached listing current as of May 2, 2005)

Many independent studies show that every dollar invested in NIST measurement and standards programs returns at least three dollars in national economic benefits. In the last few years, NIST scientists have garnered two Nobel prizes in physics, yet the cuts in the FY '06 budget guarantee risk a significant reduction in force because the President's budget proposal does not include sufficient funds for other NIST priority programs.

We support the Administration's request to provide $420.6 million for NIST's laboratory programs. Unfortunately, as recent Congressional hearings have demonstrated, it is unclear how much of this amount will actually go toward NIST Labs programs and how much will be needed to shut down the Advanced Technology Program (ATP) which is scheduled for elimination. Finally, a 12.7 % increase in NIST Labs' budget will only partly compensate for damaging cuts which occurred two years ago.

2. Manufacturing Extension Partnership (MEP):

We oppose slashing the MEP Program, which would be cut 56.5% from $107.5 million to $46.8 million. Instead, we request Congressional support for MEP of at least $115 million. This would enable MEP to conduct activities at last year's level, plus an additional 7 percent increase of $ 8 million to cope with inflationary increases and enable the same level of effort from FY '05.

The MEP is a nationwide network of centers that supports centers that provide hands-on technical and business assistance to smaller manufacturers. Working through not-for-profit managed centers, the Centers are funded by federal, state, local and private resources to serve manufacturers. That makes it possible for even the smallest firms to tap into the expertise of knowledgeable manufacturing and business specialists all over the U.S.

Centers often help small firms overcome barriers in locating and obtaining private-sector resources. MEP has assisted over 149,000 firms to date. In a survey of NIST MEP clients served from October 2002 through September 2003, 4,865 companies around the country reported that as a result of NIST MEP services, they: **created or retained 50,000 jobs; increased sales by $1.5 billion; retained another $2.6 billion in sales; and invested $912 million in modernization.**

As American manufacturing stagnates and U.S. manufacturing jobs continue to flow overseas (more than 2.3 million in the past three years alone), Congress should fund MEP at a minimal level to help our manufacturing sector remain competitive.

3. Advanced Technology Program (ATP)

NIST's Advanced Technology Program (ATP) has been one of the most successful of all federal R&D programs. ATP bridges the gap between the lone researcher with a break-through idea, the entrepreneur, the research lab and the market place.

ATP creates new jobs and helps struggling small companies survive their perilous journey through the "valley of death," i.e. the period between invention and proof of concept of a technology, and the actual financing, development and commercialization of the technology. ATP has awarded 709 project grants from a universe of more than 5,200 deserving applications over the past decade.

We can only conjecture what potential inventions and technologies were passed over by ATP's dedicated staff due to budget restraints. We will never know for sure what patents were lost and what industries of the 21st Century could have enjoyed a U.S. base of operations but for "budgetary savings" that short-changed ATP, our economy and our workforce during the last Recession.

Coalition for NIST Funding

Support Signatures for NIST Funding Letter
May 2, 2005
Bolded Entry indicates Endorsing Organization or Individual

Kellie Johnson
President
ACE Clearwater Enterprises
Torrance, CA

Gunther Baubock
VP, Development and Storage Business
Advanced MicroSensors, Inc.
Shrewsbury, MA

Matthew Dugas
Advanced Research Corporation
White Bear Lake, MN

American Chemical Society
Washington, DC

American Dental Association
Washington, DC

American Dental Research Association
Washington, DC

Dr. Peter S. Unger, President
American Association for Laboratory Accreditation
(A2LA)
Frederick, MD

AMT - The Association for Manufacturing Technology
McLean, VA

Kurt R. Klimpel, Ph.D.
President and COO
Aqua Bounty Pacific, Inc.
San Diego, CA

Dr. Mary Low Good
ASTRA, The Alliance for Science & Technology Research in America
Washington, DC

John Yochelson
President
BEST (Building Engineering and Science Talent)
San Diego, CA

Stanley Satz, Ph.D.
President
Bio-Nucleonics Pharma, Inc.
Miami, FL

Roger Cochetti
Group Director
CompTIA
Arlington, VA

Debra Waggoner
Director, Public Policy
Corning Incorporated
Washington DC

Dean Kristina Johnson
Pratt School of Engineering
Duke University
Durham, NC

Nancy M. Bacon
Senior Vice President
Energy Conversion Devices, Inc.
Rochester Hills, MI

David Ephron
R&D Consultant
Portland, OR

Federation of Materials Societies
Washington, DC

Rick Jackson
Executive Director
FIATECH
Bethesda, MD

Russ Fleming
Arab, Alabama

Dr. F. M. Scherer
Harvard University Emeritus
Cambridge, MA

Hewlett-Packard
Palo Alto, CA

IEEE-USA
Washington, DC

Amy Salzhauer
Partner
Ignition Ventures
Cambridge, MA

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Don't Flat Line our Future!

Coalition for NIST Funding

Clay Campbell
System Administrator
INCOGEN Inc.
Williamsburg VA

Industrial Research Institute
Arlilngton, VA

Infineon Technologies
Washington, DC

Information Technology Association of America
Rosslyn, VA

Intel Corporation
San Clara, CA

David W. Bergman, CAE
Vice President, Standards, Technology and International Relations
IPC — Association Connecting Electronic Industries
Bannockburn, IL

G. Groot Gregory
Vice President
Lambda Research Corporation
Littleton MA

Arnold H. Kritz
Professor of Physics
Lehigh University
Bethlehem, PA

Lucent Technologies
Murry Hill, NJ

National Association of Manufacturers
Washington, DC

Rebecca R. Taylor
Senior Vice President
National Center for Manufacturing Sciences (NCMS)
Ann Arbor, MI

James Fraine
CEO/President
Neocera, Inc.
Beltsville, MD

John Myers
Vice President of Development
NVE Corporation
Eden Prairie, MN

Ohio Aerospace Institute
Cleveland, Ohio

Optical Society of America
Washington, DC

Arpad A. Bergh
President
Optoelectronics Industry Development Association (OIDA)
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Mitchell M. Rohde, Ph.D.
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David Ayares, CEO
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Dr. Alan Olsen
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Culver City, CA

Rockwell Collins
Cedar Rapids, IA

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Southeastern Universities Research Association (SURA)
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Dr. Eugene Arthurs
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State University of New York
Buffalo, NY

Sun Microsystems, Inc.
Santa Clara, CA

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Coalition for NIST Funding

Jon T. DeVries
President
Supertron Technologies, Inc.
Newark, NJ

Julie J. Coons
President
Tech Council of Maryland
Rockville, MD

Telecommunications Industry Association
Arlington, VA

Texas State University
San Marco, TX

U.S. Public Policy Committee for the **Association for Computing Machinery**
Arlington, VA

David B. Spencer, Sc.D.
Chief Executive Officer
wTe Corporation
Bedford, Massachusetts

Innovation is America's Economic Heartbeat

Don't Flat Line our Future!

Mr. HONDA. Thank you, Mr. Chairman.

And in the past, Mr. Chairman, you have argued that this is a manufacturing bill and that ATP is not a manufacturing program, so including this amendment is not appropriate. But this is more than a manufacturing bill. It is the NIST reauthorization bill, and this is the only train that will be leaving the station this year. If this bill does not include ATP, there is not going to be another chance to reauthorize the program, and a message will be sent that this committee is not going to stand up and fight for it. This may be our last chance to do something to save ATP, and I think it would be a mistake to pass it up.

I would urge my colleagues to support my amendment. And Mr. Chairman, from what I hear, this bill already doesn't have the support of the Administration because the authorization level in the bill for MEP. What I have heard you say, Mr. Chairman, earlier on that the—that some of our comments were not fair because the Administration has not taken a position. So and the part of this that I know you will understand, so why not swing for the fences, as they say in Cooperstown, and include ATP, too?

I yield back the rest of my time, Mr. Chairman.

[The prepared statement of Mr. Honda follows:]

PREPARED STATEMENT OF REPRESENTATIVE MIKE HONDA

Mr. Chairman. we've done this before, so I'll try to be brief.

This is a straightforward amendment. It authorizes funding for the Advanced Technology Program at NIST for three years, at levels of $140 million for FY06, $160 million for FY07, and $203.8 million for FY08.

As everyone here probably knows, the Advanced Technology Program partners with industry to provide funding for early stage technologies that are viewed to be too technically risky or too early by private funding sources.

Experts agree that the future of American manufacturing lies in our ability to promote risk taking and to promote the pursuit of new technologies that go well beyond the limits of conventional practices. ATP is a logical tool to use to achieve these goals.

Over the past few years, this committee has heard testimony over and over again about the utility of ATP. At the March 2003 hearing on nanotechnology, witness Alan Marty stated the need for ATP or programs like it to bridge the 'valley of death' between a research concept and an actual product that could be manufactured.

And at the June 2003 hearing on manufacturing R&D, the witnesses were unanimous in their belief that ATP was an important element to improving the U.S. manufacturing infrastructure and competitiveness and that the Committee should support ATP.

Numerous outside groups have expressed support for ATP funding, including the

- Electronics Industries Alliance,
- the International Economic Development Council,
- the National Association of Manufacturers and its Coalition for the Future of Manufacturing,
- ASTRA (The Alliance for Science and Technology Research in America),
- and, the Council on Competitiveness.

And our committee's views and estimates on the FY06 Budget Request state: "The Committee continues to support the Advanced Technology Program (ATP) and is disappointed that the Administration has again included no funds for the program in the budget request."

Mr. Chairman, in the past you've argued that this is a manufacturing bill and that ATP is not a manufacturing program, and so including this amendment isn't appropriate.

But this is more than a manufacturing bill. It is the NIST reauthorization bill. This is the only train that will be leaving the station this year. If this bill does not include ATP, there is not going to be another chance to reauthorize the program.

And a message will be sent that this committee is not going to stand up and fight for it.

This may be our last chance to do something to save ATP. I think it would be a mistake to pass it up. I urge my colleagues to support my amendment.

Chairman BOEHLERT. I thank the distinguished gentleman.

And I, too, share the disappointment in the budget submission that didn't include funding for ATP, and boy, you are really, in a sense, putting me on the spot, but it is a spot I welcome, because I am going to have to reluctantly oppose the amendment simply because one way to guarantee that the Administration is vocal in opposition to the base bill is to add and encumber it with funding for ATP. That is a program I believe in. It is a program I helped to create. It is a program that I think is worthwhile. Only what I think sometimes doesn't translate to positive action from the other side of Pennsylvania Avenue.

And my conclusion is this. I mean, as the emissary for the Committee, it is my job to sort of take the temperature of the Administration on a wide range of issues under our jurisdiction, and I have taken the temperature of the Administration. And I have concluded that going from a position of neutral at this point on this bill to one that would be in opposition would be guaranteed if this amendment were included.

So with that explanation, I reluctantly oppose something I believe in, but knowing the reality of the situation, it would place in jeopardy the base bill, and I think it is essential that we go forward with the MEP program.

And so with that, I indicate, once again, I reluctantly oppose but also vigorously oppose because of the circumstances.

Is there anyone else who wishes to address the amendment?

Mr. Gordon and then Dr. Ehlers.

Mr. GORDON. Mr. Chairman, this is beginning to sound like the story line from an afternoon soap opera: "I love you, but I can't live with you." You know, let me just remind you, again, that in the views and estimates that this committee submitted, a majority of Republicans of the Committee and all of the Democrats supported the ATP program. It has widespread support. In the Senate, they voted to support the program. Nine Republicans endorsed the amendment for the ATP program. And again, let me remind you that this Administration has not vetoed a single bill.

And so when we have a majority of Democrats and Republicans on this committee, as well as a majority in the Senate that wants this bill, why in the world should we not go forward in trying to help with this manufacturing crisis in our country?

Chairman BOEHLERT. I can't resist. I love you, but I can't live with you. Given the current climate in the town, I would say that is preferable to: "I will live with you, but I don't love you."

Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman.

I want to go on record that I am not living with anyone but my wife.

I am in the same situation as you. I think the ATP program is a good program. It should be funded. But I just want to remind everyone, we had this argument last year. We did not put ATP on it. The bill did pass the House. It went to the Senate. ATP was

added in the Senate Committee by Mr. Hollings and that killed the bill, because the Chairman of the Committee, whom I begged to take the bill up, said, "No, we can't do it with ATP on it." And I said, "You can always strip it off." And he refused to do it.

Life is complicated enough on this issue at the moment without doing this. And I hate to refer to this as a poison pill amendment, because that is not the intent of Mr. Honda. It is a very good intent and one I sympathize with, but the net effect would be the same. The bill would not reach the President's desk for a veto. It would not even get that far.

So I urge us to reject the Honda Amendment, and I will make the same pledge I made last year that as soon as this bill passes, I will begin working on an ATP bill.

Mr. HONDA. Mr. Chairman, would you yield 30 seconds?

Chairman BOEHLERT. Mr. Honda.

Mr. HONDA. I appreciate the comments, and you don't have to love me and leave me. But I will stick close to the fence. And if the amendment fails, I would like to continue working with the Chair and Dr. Ehlers to perhaps look at the Members who had signed the Coalition letter, and perhaps we can work with whatever objections there may be in an informal basis while we move the formal process forward.

Chairman BOEHLERT. You have that pledge of cooperation from the Chair, and I assure you that Dr. Ehlers echoes the comment I am making, because we find it constructive and productive to work cooperatively with you, Mr. Honda.

Mr. HONDA. Thank you very much, Mr. Chairman.

Chairman BOEHLERT. Thank you very much.

The vote occurs on the Honda Amendment. All in favor, say aye. Opposed, nay. The nays appear to have it. The amendment is defeated.

The next amendment on the roster is amendment number six offered by the gentleman from Illinois——

Mr. UDALL. Mr. Chairman.

Chairman BOEHLERT. Who seeks recognition?

Mr. UDALL. I have——

Chairman BOEHLERT. Mr. Udall.

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

Chairman BOEHLERT. The Clerk will—well, let us see. I think Mr. Costello is next up on the list, but I understand your enthusiasm and your eagerness to get on.

Mr. UDALL. I didn't want to step in front of my colleague from Illinois. I know the two amendments I have refer directly to Mr. Honda's attempt when it comes to ATP, but I am happy to defer to my colleague from Illinois.

Chairman BOEHLERT. Thank you so much.

The gentleman from Illinois, Mr. Costello.

Mr. COSTELLO. Mr. Chairman, thank you.

And to my colleague, Mr. Udall, I would yield to him, but I have an Aviation Subcommittee hearing going on that I need to get back to.

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

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment to H.R. 250——

Chairman BOEHLERT. I ask unanimous——

Ms. TESSIERI.—offered by Mr. Costello of Illinois.

Mr. COSTELLO. I ask unanimous——

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

The gentleman from Illinois is recognized for five minutes.

Mr. COSTELLO. Mr. Chairman, thank you.

Mr. Chairman, there continues to be a lot of discussion about the outsourcing of jobs and the number of jobs that have gone off shore. Articles in the *Washington Post,* the *Wall Street Journal, Business Week,* and others point to the fact that we lack the data to determine the effects of outsourcing. It is difficult to determine how many jobs we have actually lost to other countries, because we do not have sufficient or accurate data on the problem. Last year, the RAND Institute, at the request of the Office of Science and Technology Policy, published "The U.S. Scientific and Technical Workforce: Improving Data for Decision-Making." This report identified data gaps that needed to be filled before making any meaningful policy decisions.

OSTP has yet to take any action on the RAND recommendations. My amendment would incorporate the recommendations made by RAND.

The Omnibus appropriation bill for fiscal year 2005 contains $2 million for a study of off-shoring by the National Academy of Public Administration, NAPA. The Department of Commerce awarded the grant to NAPA to pursue the study, and one year later, still nothing has been done.

We have met with NAPA to go over their study and discuss their questions. However, the various questions they intend to ask are repetitive of past studies. This amendment that I am offering today will build upon existing legislation to help us, both the Congress and the Administration, to focus on specific areas in order to assess the number of jobs that have left the United States and gone to other countries. My amendment will not require additional money to be authorized. Rather, my amendment is instructing NAPA to assess seven fundamental issue areas in order to strengthen their study.

Mr. Chairman, my amendment, number one, would measure the jobs lost here in the United States to other countries; two, measure the expansion of companies, foreign workforce compared with the U.S. workforce; three, it looks at the reemployment of displaced workers, including wages and new occupations; four, H–1B and L–1 visa use; five, jobs created by foreign investment in the United States; six, measure how off-shoring jobs impact student career choices; and seven, determine the number of off-shore jobs created by contractors and subcontractors used by Federal Government.

Mr. Chairman and Members of the Committee, it is our responsibility as authorizers to instruct the appropriators exactly what we want in our authorization bills. Last year, the CJS appropriators authorized $2 million for NAPA to do a study on the off-shoring issue. NAPA needs guidance, and we have an opportunity here to step in and influence the policy questions they are asking and help focus the study on questions that remain unanswered.

Mr. Chairman, I understand that we are working together, our staff is, on this issue, and I would like to ask the Chair and the Ranking Member, number one, it is my understanding that you have agreed, Mr. Gordon has agreed, to insert report language in this bill that would specifically ask the Chairman of the Commerce, Justice and State Appropriations Subcommittee to raise these questions and incorporate the specific seven points that we are requesting in this amendment in the NAPA study, and secondly, that we would write a letter by yourself and the Ranking Member to Mr. Wolf instructing them to please consider incorporating the ongoing NAPA study and my points that we are offering in this amendment. And if in fact, the Chair has agreed to do so, I would be happy to withdraw the amendment.

[The prepared statement of Mr. Costello follows:]

PREPARED STATEMENT OF REPRESENTATIVE JERRY F. COSTELLO

Mr. Chairman, last year, the RAND Institute at the request of the Office of Science and Technology Policy (OSTP) published, "The U.S. Scientific and Technical Workforce: Improving Data for Decision-making." This report identified data gaps that needed to be filled before making any meaningful policy decisions on off-shoring. I came before this committee and the House of Representatives last year to offer an amendment based largely on these recommendations. Furthermore, Mr. Gordon and I wrote to OSTP on September 22, 2004 to find out what specific actions their Office or the Administration has taken or plans to take regarding the RAND recommendations. Consequently, OSTP responded back on October 7, 2004 that they were continuing discussions with the leaders of the federal statistics programs. Also, OSTP was conducting interagency discussions via several National Science and Technology Council subcommittee and working groups.

As of today, it is my understanding that OSTP has yet to take any action on the RAND recommendations, and even worse, those discussions are continuing and OSTP has gotten nowhere. As we wait for OSTP and the National Academy of Public Administration (NAPA) to finish their discussions and formulate their agendas, Congress is unable to address the pressing concerns regarding the off-shoring of jobs.

In order to address this, today I am introducing an amendment that is in-line with the recommendations made by RAND and calls on NAPA to address these recommendations. My amendment builds off of existing legislation from last year's Omnibus appropriations bill for fiscal year 2005. Within the context of the legislation, $2 million dollars in funding was appropriated for NAPA to conduct a study on the effects of off-shoring jobs. NAPA's current state of work on this issue is problematic and his prompted me to help direct the study so Congress has useful information.

When we met with NAPA in March 2005, it was not aware of any prior studies on off-shoring that had been done, which would address the more pressing issues. If the purpose of the NAPA study is to clarify the information that Congress needs to address the issue of off-shoring, than it is puzzling as to why NAPA has not utilized the recommendations of the RAND Institute.

My amendment does not authorize more money to be spent on another study, it simply instructs NAPA or a similar entity to measure the jobs lost here and moved off-shore; measure expansion of companies' foreign workforce compared with their U.S. workforce; look at re-employment of displaced workers including wages and new occupations; H–1b and L–1 visa use; jobs created by foreign investment in the U.S.; and how off-shoring of jobs is impacting student career choices.

I think preserving and improving jobs for U.S. workers is far more important than adhering to a rigid legislative timetable. Good, sound policy to assist U.S. workers should not be sacrificed. Off-shoring is contributing to historically high levels of unemployment among electrical, electronics, and computer engineers, to name just a few, in the U.S. and could have important ramifications for our ability to create high-wage, high-tech jobs. Unfortunately, policy-makers are currently unable to assess either the short-term or the long-term range effects of outsourcing because of the lack of reliable data.

If we are serious about making America more competitive and maintaining high-skilled jobs in the U.S., we first have to understand the real impact of job outsourcing. The debate needs to move away from claims and counter-claims and be framed within the context of real data. Once we understand the problem, we can

then develop policies to address it. This amendment is the first-step in this process—understanding the size and scope of the outsourcing phenomenon.

Thank you Mr. Chairman.

Chairman BOEHLERT. Thank you very much, and we have both agreed. We—all three of us have agreed.

Mr. COSTELLO. Mr. Chairman——

Chairman BOEHLERT. Mr. Gordon and I have—and with you, Mr. Costello, and——

Mr. COSTELLO. With that assurance, I withdraw the amendment.

Chairman BOEHLERT. Without objection, so ordered, and I wish you God speed with your important responsibilities on the Aviation Subcommittee.

Now we are going to have to undertake an unusual procedure here. It turns out that an older version of the Udall Amendment was in the Members' packet, so we amended the wrong version and passed the wrong version. But not to worry.

So I would like to ask unanimous consent to vacate the vote on the Udall Amendment. I would ask the Clerk to pass out the corrected version. Then I move my second-degree amendment to the new version. And once again, all of this is done in consultation with the minority. We are not unilaterally acting here. It was just an inadvertent—sometimes there are many versions of an amendment, and we just happened to get the wrong one in the packet distributed to Members. Now we are correcting that inadvertent action.

And I would move my second-degree amendment. All in favor, say aye. No. The ayes have it, and the second-degree amendment is passed.

And I move the amendment, as amended. All in favor, say aye. No. The ayes have it, and the amendment, as amended, is passed.

Next up on the docket, the very patient Mr. Udall.

Mr. UDALL. Thank you, Mr. Chairman.

I have an amendment at the desk.

Chairman BOEHLERT. The Clerk shall report the amendment.

Ms. TESSIERI. Amendment to H.R. 250 offered by Mr. Udall of Colorado.

Chairman BOEHLERT. The gentleman—I ask unanimous consent to dispense with the reading. Without objection, so ordered.

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

Mr. UDALL. Thank you, Mr. Chairman.

As I mentioned earlier, this amendment, and hopefully a second one that I won't have to offer, focuses on Mr. Honda's comments on the Advanced Technology Program. What this amendment would do is it—because we failed to restore the funding for ATP, this amendment would authorize $66 million for ATP in fiscal year 2006 to cover the costs of grants awarded prior to October 2005 and the close-out costs associated with the termination of the program.

The amended version of this bill includes a provision that requires a report on the impact that the termination costs and how NIST plans to absorb these costs of ending the ATP program. This is not going to solve or even benefit the budgetary gap in NIST funding. With an idealistic timeline, Congress would not receive

the first report until July of this year, 2005. This is after appropriators have indicated the fiscal year 2006 appropriations, the year the majority's costs will impact the NIST budget. The second report will be provided to Congress well after we have any ability to remedy any discrepancies.

As I mentioned at the Subcommittee markup, the Committee has already identified the costs associated with terminating ATP. The views and estimates of the 2006 budget signed by both Democrats and Republican Members of this committee identify at least $33 million in costs resulting from the ending of the program.

If NIST is expected to absorb these close-out costs, they will do so at the expense of funds to the NIST labs. This means that the vital research performed at NIST, of which the lab funding is intended to be used for, will have to be used simply to meet the financial needs of terminating this program.

So the amendment covers the two areas where ATP still holds financial obligations: the termination costs, which will come out of the NIST lab funding, and the grants awarded this fiscal year.

While I support the continuation of ATP, if this committee does not intend to authorize funding to this program, I believe it is our duty at least to authorize these costs involved with ending the program.

And Mr. Chairman, at some risk, I don't want to use a country-western or a soap opera analogy, but I want to return to Mr. Honda's baseball analogy, if we are not going to swing for the fences, let us at least keep the ball in play and maybe we ought to hit for the alleys. And this, in effect, would be a double, maybe a long single, to keep ATP alive and not to push costs off onto the NIST programs that would, in effect, be a double whammy: we terminate ATP and then we require NIST fund the close-out programs and the grant programs in a way that undercuts the research that they are undertaking.

So I would urge adoption of my amendment, and thank the Committee for considering it.

Chairman BOEHLERT. Thank you.

And to continue with your baseball analogy, we are not going to swing for the fences, and maybe we are not going to get a single or a double, but I would suggest we hit a sacrifice. This is the right time to do that, because passage of your amendment sends the wrong signal, I think, from this committee. It signals that we have given up on ATP, and I am not willing to give up on ATP.

But I understand what the gentleman is trying to do, and I agree that if ATP is closed down, which I hope won't be the case, there will need to be discussions about the disposition of grants that have already been awarded, and discussions on how to limit the impact on the internal labs of NIST. But again, this bill is not the place to sort out these issues. And I don't want to assume that the inning is over. I think your amendment would send the wrong signal. It is sort of like, "Well, we lost that one. Let us go on to the next inning." And I am not willing to conceit a loss at this juncture, so I would urge opposition to the amendment.

Is there anyone else who wishes to speak to the amendment? If not, the vote is on——

Mr. GORDON. Yes, I do. I do.

Chairman BOEHLERT. Mr. Gordon.

Mr. GORDON. Mr. Chairman, I am not sure I follow that logic, but I do want to let you know who the batters are up to plate with the sacrifice fly. These are some of the folks that have ATP programs in their district: Mr. Calvert, Mr. Rohrabacher, Mr. Finney, Mr. Schwartz, Mr. Akin, Mr. Boehlert, Mr. Lucas, Mr. Smith, Mr. Reichert, two in Mr. Ehlers, four in Mr. Weldon's, and four in Mr. McCaul's. In addition, just for your information, Texas has 10 ongoing projects; New York, 10; Michigan, 11; and California, 27. So batter up.

Chairman BOEHLERT. You have just given the roster of some of my best friends and most enlightened colleagues in the Congress. So I think there is genuine consensus in this committee, if not unanimity, in support of ATP. So I—once again, I don't want to send the wrong signal that we have given up, that it is a *fait accompli,* that it is going to be no more. I just want to play another inning, and I think we can do so by defeating this amendment.

So without any further, let—the vote is on the amendment. All in favor of Mr. Udall's amendment, say aye. Opposed, nay. The nays appear to have it, and the——

Mr. UDALL. Mr. Chairman, I would like to call for a recorded vote.

Chairman BOEHLERT. I am sure you would.

The Clerk will call the roll.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. No.

Ms. TESSIERI. Mr. Boehlert votes no.

Mr. Hall.

[No response.]

Mr. Smith.

[No response.]

Mr. Weldon.

[No response.]

Mr. Rohrabacher.

Mr. ROHRABACHER. No.

Ms. TESSIERI. Mr. Rohrabacher votes no.

Mr. Calvert.

Mr. CALVERT. No.

Ms. TESSIERI. Mr. Calvert votes no.

Mr. Bartlett.

Mr. BARTLETT. No.

Ms. TESSIERI. Mr. Bartlett votes no.

Mr. Ehlers.

Mr. EHLERS. No.

Ms. TESSIERI. Mr. Ehlers votes no.

Mr. Gutknecht.

Mr. GUTKNECHT. No.

Ms. TESSIERI. Mr. Gutknecht votes no.

Mr. Lucas.

Mr. LUCAS. No.

Ms. TESSIERI. Mr. Lucas votes no.

Mrs. Biggert.

Ms. BIGGERT. No.

Ms. TESSIERI. Mrs. Biggert votes no.

Mr. Gilchrest.
Mr. GILCHREST. No.
Ms. TESSIERI. Mr. Gilchrest votes no.
Mr. Akin.
Mr. AKIN. No.
Ms. TESSIERI. Mr. Akin votes no.
Mr. Johnson.
[No response.]
Ms. TESSIERI. Mr. Forbes.
Mr. FORBES. No.
Ms. TESSIERI. Mr. Forbes votes no.
Mr. Bonner.
Mr. BONNER. No.
Ms. TESSIERI. Mr. Bonner votes no.
Mr. Feeney.
Mr. FEENEY. No.
Ms. TESSIERI. Mr. Feeney votes no.
Mr. Inglis.
Mr. INGLIS. No.
Ms. TESSIERI. Mr. Inglis votes no.
Mr. Reichert.
Mr. REICHERT. No.
Ms. TESSIERI. Mr. Reichert votes no.
Mr. Sodrel.
Mr. SODREL. No.
Ms. TESSIERI. Mr. Sodrel votes no.
Mr. Schwarz.
Mr. SCHWARZ. No.
Ms. TESSIERI. Mr. Schwarz votes no.
Mr. McCaul.
Mr. MCCAUL. No.
Ms. TESSIERI. Mr. McCaul votes no.
Mr. Gordon.
[No response.]
Ms. TESSIERI. Mr. Gordon.
Mr. GORDON. No—oh, no. Aye. Aye.
Chairman BOEHLERT. Okay. He is back.
Ms. TESSIERI. Mr. Gordon votes yes.
Mr. Costello.
Mr. COSTELLO. Yes.
Ms. TESSIERI. Mr. Costello votes yes.
Ms. Johnson.
[No response.]
Ms. TESSIERI. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Ms. Hooley.
Ms. HOOLEY. Aye.
Ms. TESSIERI. Ms. Hooley votes yes.
Mr. Udall.
Mr. UDALL. Aye.
Ms. TESSIERI. Mr. Udall votes yes.
Mr. Wu.
Mr. WU. Aye.
Ms. TESSIERI. Mr. Wu votes yes.

Mr. Honda.
Mr. HONDA. Aye.
Ms. TESSIERI. Mr. Honda votes yes.
Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Miller votes yes.
Mr. Davis.
[No response.]
Ms. TESSIERI. Mr. Carnahan.
Mr. CARNAHAN. Yes.
Ms. TESSIERI. Mr. Carnahan votes yes.
Mr. Lipinski.
Mr. LIPINSKI. Yes.
Ms. TESSIERI. Mr. Lipinski votes yes.
Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Mr. Sherman.
Mr. SHERMAN. Aye.
Ms. TESSIERI. Mr. Sherman votes yes.
Mr. Baird.
Mr. BAIRD. Aye.
Ms. TESSIERI. Mr. Baird votes yes.
Mr. Matheson.
Mr. MATHESON. Aye.
Ms. TESSIERI. Mr. Matheson votes yes.
Mr. Costa.
Mr. COSTA. Aye.
Ms. TESSIERI. Mr. Costa votes yes.
Mr. Green.
Mr. GREEN. Yes.
Ms. TESSIERI. Mr. Green votes yes.
Mr. Melancon.
Mr. MELANCON. Yes.
Ms. TESSIERI. Mr. Melancon votes yes.
Chairman BOEHLERT. How is Mr. Johnson recorded?
Ms. TESSIERI. Mr. Johnson is not recorded.
Mr. JOHNSON. Mr. Johnson votes no.
Ms. TESSIERI. Mr. Johnson votes no.
Chairman BOEHLERT. The Clerk will report.
Ms. TESSIERI. Mr. Chairman, yes, 15; no, 19.
Chairman BOEHLERT. The amendment is defeated.

COMMITTEE ON SCIENCE - ROLL CALL – 109th CONGRESS

DATE: 5/4/05 SUBJECT: Mr. Udall Amendment No. 7

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX					
2184	54236	Mr. Smith, R-TX					
2466	52011	Mr. Weldon, R-PA					
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2342	55565	Mr. Lucas, R-OK		✓			
1317	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO		✓			
1229	52371	Mr. Johnson, R-IL		✓			
307	56365	Mr. Forbes, R-VA		✓			
315	54931	Mr. Bonner, R-AL		✓			
323	52706	Mr. Feeney, R-FL		✓			
330	56030	Mr. Inglis, R-SC		✓			
1223	57761	Mr. Reichert, R-WA		✓			
1508	55315	Mr. Sodrel, R-IN		✓			
128	56276	Mr. Schwarz, R-MI		✓			
415	52401	Mr. McCaul, R-TX		✓			
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2269	***55661***	***Mr. Costello, D-IL***	✓				
1511	***58885***	***Ms. Johnson, D-TX***					
2263	***55161***	***Ms. Woolsey, D-CA***					
2430	***55711***	***Ms. Hooley, D-OR***	✓				
240	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1722	***53032***	***Mr. Miller, D-NC***	✓				
410	***56831***	***Mr. Davis, D-TN***					
1232	***52671***	***Mr. Carnahan, D-MO***	✓				
1217	***55701***	***Mr. Lipinski, D-IL***	✓				
2435	***53816***	***Ms. Jackson Lee, D-TX***					
1030	***55911***	***Mr. Sherman, D-CA***	✓				
1421	***53536***	***Mr. Baird, D-WA***	✓				
1222	***53011***	***Mr. Matheson, D-UT***	✓				
1004	***53341***	***Mr. Costa, D-CA***	✓				
1529	***57508***	***Mr. Green, D-TX***	✓				
404	***54031***	***Mr. Melancon, D-LA***	✓				
		TOTAL	15	19			

Attest: Trevor A. Vacuri (Clerk)

Chairman BOEHLERT. Are there any other amendments?

Hearing none, the vote is on the bill, H.R. 250, *Manufacturing Technology Competitiveness Act of 2005,* as amended. All of those in favor will say aye. All of those opposed, no. In the opinion of the Chair, the ayes have it.

The Clerk will call the roll.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. Aye.

Ms. TESSIERI. Mr. Boehlert votes yes.

Mr. Hall.

[No response.]

Ms. TESSIERI. Mr. Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]

Ms. TESSIERI. Mr. Rohrabacher.

Mr. ROHRABACHER. Yes.

Ms. TESSIERI. Mr. Rohrabacher votes yes.

Mr. Calvert.

Mr. CALVERT. Yes.

Ms. TESSIERI. Mr. Calvert votes yes.

Mr. Bartlett.

Mr. BARTLETT. Yes.

Ms. TESSIERI. Mr. Bartlett votes yes.

Mr. Ehlers.

Mr. EHLERS. Yes.

Ms. TESSIERI. Mr. Ehlers votes yes.

Mr. Gutknecht.

Mr. GUTKNECHT. Yes.

Ms. TESSIERI. Mr. Gutknecht votes yes.

Mr. Lucas.

Mr. LUCAS. Yes.

Ms. TESSIERI. Mr. Lucas votes yes.

Mrs. Biggert.

Ms. BIGGERT. Yes.

Ms. TESSIERI. Mrs. Biggert votes yes.

Mr. Gilchrest.

Mr. GILCHREST. Yes.

Ms. TESSIERI. Mr. Gilchrest votes yes.

Mr. Akin.

Mr. AKIN. Yes.

Ms. TESSIERI. Mr. Akin votes yes.

Mr. Johnson.

Mr. JOHNSON. Yes.

Ms. TESSIERI. Mr. Johnson votes yes.

Mr. Forbes.

Mr. FORBES. Yes.

Ms. TESSIERI. Mr. Forbes votes yes.

Mr. Bonner.

Mr. BONNER. Yes.

Ms. TESSIERI. Mr. Bonner votes yes.

Mr. Feeney.

Mr. FEENEY. Yes.

Ms. TESSIERI. Mr. Feeney votes yes.

Mr. Inglis.
Mr. INGLIS. Yes.
Ms. TESSIERI. Mr. Inglis votes yes.
Mr. Reichert.
Mr. REICHERT. Yes.
Ms. TESSIERI. Mr. Reichert votes yes.
Mr. Sodrel.
Mr. SODREL. Yes.
Ms. TESSIERI. Mr. Sodrel votes yes.
Mr. Schwarz.
Mr. SCHWARZ. Yes.
Ms. TESSIERI. Mr. Schwarz votes yes.
Mr. McCaul.
Mr. MCCAUL. Yes.
Ms. TESSIERI. Mr. McCaul votes yes.
Mr. Gordon.
[No response.]
Ms. TESSIERI. Mr. Costello.
Mr. COSTELLO. No.
Ms. TESSIERI. Mr. Costello votes no.
Ms. Johnson.
[No response.]
Ms. TESSIERI. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Ms. Hooley.
Ms. HOOLEY. No.
Ms. TESSIERI. Ms. Hooley votes no.
Mr. Udall.
Mr. UDALL. No.
Ms. TESSIERI. Mr. Udall votes no.
Mr. Wu.
Mr. WU. No.
Ms. TESSIERI. Mr. Wu votes no.
Mr. Honda.
Mr. HONDA. No.
Ms. TESSIERI. Mr. Honda votes no.
Mr. Miller.
Mr. MILLER. No.
Ms. TESSIERI. Mr. Miller votes no.
Mr. Davis.
[No response.]
Ms. TESSIERI. Mr. Carnahan.
Mr. CARNAHAN. No.
Ms. TESSIERI. Mr. Carnahan votes no.
Mr. Lipinski.
Mr. LIPINSKI. No.
Ms. TESSIERI. Mr. Lipinski votes no.
Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Mr. Baird.
Mr. BAIRD. No.
Ms. TESSIERI. Mr. Baird votes no.

Mr. Matheson.
Mr. MATHESON. No.
Ms. TESSIERI. Mr. Matheson votes no.
Mr. Costa.
Mr. COSTA. No.
Ms. TESSIERI. Mr. Costa votes no.
Mr. Green.
Mr. GREEN. No.
Ms. TESSIERI. Mr. Green votes no.
Mr. Melancon.
Mr. MELANCON. No.
Ms. TESSIERI. Mr. Melancon votes no.
Mr. GORDON. If you didn't get me recorded—how am I recorded?
Ms. TESSIERI. Mr. Gordon, you are not recorded.
Mr. GORDON. No.
Chairman BOEHLERT. The Clerk will report.
Ms. TESSIERI. Mr. Chairman, yes, 19; no, 14.
Chairman BOEHLERT. And the bill is passed.

COMMITTEE ON SCIENCE - ROLL CALL – 109th CONGRESS

DATE: 5/4/05 **SUBJECT:** Motion to adopt the bill, H.R. 250, as amended.

Rm.	Phone	Member	Yes	No	Not Voting	Present	Abse
2246	53665	Mr. Boehlert, R-NY	✓				
2405	56673	Mr. Hall, R-TX					
2184	54236	Mr. Smith, R-TX					
2466	52011	Mr. Weldon, R-PA					
2338	52415	Mr. Rohrabacher, R-CA	✓				
2201	51986	Mr. Calvert, R-CA	✓				
2412	52721	Mr. Bartlett, R-MD	✓				
1714	53831	Mr. Ehlers, R-MI	✓				
425	52472	Mr. Gutknecht, R-MN	✓				
2342	55565	Mr. Lucas, R-OK	✓				
1317	53515	Mrs. Biggert, R-IL	✓				
2245	55311	Mr. Gilchrest, R-MD	✓				
117	52561	Mr. Akin, R-MO	✓				
1229	52371	Mr. Johnson, R-IL	✓				
307	56365	Mr. Forbes, R-VA	✓				
315	54931	Mr. Bonner, R-AL	✓				
323	52706	Mr. Feeney, R-FL	✓				
330	56030	Mr. Inglis, R-SC	✓				
1223	57761	Mr. Reichert, R-WA	✓				
1508	55315	Mr. Sodrel, R-IN	✓				
128	56276	Mr. Schwarz, R-MI	✓				
415	52401	Mr. McCaul, R-TX	✓				
2304	***54231***	***Mr. Gordon, D-TN***		✓			
2269	***55661***	***Mr. Costello, D-IL***		✓			
1511	***58885***	***Ms. Johnson, D-TX***					
2263	***55161***	***Ms. Woolsey, D-CA***					
2430	***55711***	***Ms. Hooley, D-OR***		✓			
240	***52161***	***Mr. Udall, D-CO***		✓			
1023	***50855***	***Mr. Wu, D-OR***		✓			
1713	***52631***	***Mr. Honda, D-CA***		✓			
1722	***53032***	***Mr. Miller, D-NC***		✓			
410	***56831***	***Mr. Davis, D-TN***					
1232	***52671***	***Mr. Carnahan, D-MO***		✓			
1217	***55701***	***Mr. Lipinski, D-IL***		✓			
2435	***53816***	***Ms. Jackson Lee, D-TX***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***		✓			
1222	***53011***	***Mr. Matheson, D-UT***		✓			
1004	***53341***	***Mr. Costa, D-CA***		✓			
1529	***57508***	***Mr. Green, D-TX***		✓			
404	***54031***	***Mr. Melancon, D-LA***		✓			
		TOTAL	19	14			

Attest: Vivian A. Testini (Clerk)

Mr. UDALL. Mr. Chairman. Mr. Chairman.

Chairman BOEHLERT. We have special requests from Dr. Baird to be recognized out of order. You are recognized.

Mr. BAIRD. Mr. Chairman, I appreciate that.

Last year, we discussed briefly the importance of the SBIR program, which we had offered an amendment last year hoping to address the ability of small businesses to receive SBIR funds even if they get venture capital. We had talked last year about a hearing on the matter. We did not get around to that. I would just ask today that perhaps some time during this session we might have such a hearing, and I would invite my colleagues to work with me on drafting this legislation.

Chairman BOEHLERT. I thank you. And we have an active interest in pursuing that, and I can assure you that the Chair intends to do just that.

Thank you very much.

The Chair now recognizes Dr. Ehlers for a motion.

Mr. EHLERS. Mr. Chairman, I move that the Committee favorably report H.R. 250, as amended, to the House with the recommendation that the bill, as amended, do pass. Furthermore, I move that staff be instructed to prepare the legislative report and make necessary technical and conforming changes and that the Chairman take all necessary steps to bring the bill before the House for consideration.

Chairman BOEHLERT. The question is on the motion to report the bill favorably. Those in favor of the motion will signify by saying aye. Opposed, no. The ayes have it, and the bill is favorably reported.

Without objection, the motion to reconsider is laid upon the table. I move that Members have two subsequent calendar days in which to submit supplemental, minority, or additional views on the measure. I move pursuant to Clause 1 of Rule 22 of the Rules of the House of Representatives that the Committee authorizes the Chairman to offer such motions as may be necessary in the House to adopt and pass H.R. 250, *Manufacturing Technology Competitiveness Act of 2005,* as amended. Without objection, so ordered.

I want to thank the Members for their attendance and for their continued active participation in the deliberations of this committee.

We are adjourned.

[Whereupon, at 11:31 a.m., the Committee was adjourned.]

Appendix:

SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS MARKUP MEMORANDUM ON H.R. 250, H.R. 250 (AS AMENDED BY THE SUBCOMMITTEE), SECTION-BY-SECTION ANALYSIS, AMENDMENT ROSTER

COMMITTEE ON SCIENCE
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515

March 15, 2005

MEMORANDUM

TO: Sherwood L. Boehlert, Chairman

FROM: Vernon J. Ehlers, Chairman
Subcommittee on Environment, Technology and Standards

SUBJECT: Subcommittee Markup of H.R. 250, Manufacturing Technology Competitiveness Act of 2005

On March 15, 2005, the Subcommittee on Environment, Technology, and Standards considered H.R. 250, Manufacturing Technology Competitiveness Act of 2005, and ordered the measure reported, as amended, by a voice vote.

Attached is copy of the measure as reported by the Subcommittee, as well as a section-by-section analysis.

I look forward to working with you to bring this bill before the Committee for consideration.

Attachments (2)

H.R. 250, AS AMENDED BY THE SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS ON MARCH 15, 2005

Strike all after the enacting clause and insert the following:

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the "Manufacturing Tech-
3 nology Competitiveness Act of 2005".

4 **SEC. 2. INTERAGENCY COMMITTEE AND ADVISORY COM-**
5 **MITTEE.**

6 (a) INTERAGENCY COMMITTEE.—

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

1 (2) FUNCTIONS.—The Interagency Committee
2 shall be responsible for the planning and coordina-
3 tion of Federal efforts in manufacturing research
4 and development through—
5 (A) establishing goals and priorities for
6 manufacturing research and development, in-
7 cluding the strengthening of United States
8 manufacturing through the support and coordi-
9 nation of Federal manufacturing research, de-
10 velopment, technology transfer, standards, and
11 technical training;
12 (B) developing, within 6 months after the
13 date of enactment of this Act, and updating
14 every 3 years for delivery with the President's
15 annual budget request to Congress, a strategic
16 plan, to be transmitted to the Committee on
17 Science of the House of Representatives and
18 the Committee on Commerce, Science, and
19 Transportation of the Senate, for manufac-
20 turing research and development that includes
21 an analysis of the research, development, tech-
22 nology transfer, standards, technical training,
23 and integration needs of the manufacturing sec-
24 tor important to ensuring and maintaining
25 United States competitiveness;

1 (C) proposing an annual coordinated inter-
2 agency budget for manufacturing research and
3 development to the Office of Management and
4 Budget; and
5 (D) developing and transmitting to Con-
6 gress an annual report on the Federal programs
7 involved in manufacturing research, develop-
8 ment, technical training, standards, and inte-
9 gration, their funding levels, and their impacts
10 on United States manufacturing competitive-
11 ness, including the identification and analysis of
12 the manufacturing research and development
13 problems that require additional attention, and
14 recommendations of how Federal programs
15 should address those problems.
16 (3) RECOMMENDATIONS AND VIEWS.—In car-
17 rying out its functions under paragraph (2), the
18 Interagency Committee shall consider the rec-
19 ommendations of the Advisory Committee and the
20 views of academic, State, industry, and other entities
21 involved in manufacturing research and develop-
22 ment.
23 (b) ADVISORY COMMITTEE.—
24 (1) ESTABLISHMENT.—Not later than 6
25 months after the date of enactment of this Act, the

1 President shall establish or designate an advisory
2 committee to provide advice and information to the
3 Interagency Committee.
4 (2) RECOMMENDATIONS.—The Advisory Com-
5 mittee shall assist the Interagency Committee by
6 providing it with recommendations on—
7 (A) the goals and priorities for manufac-
8 turing research and development;
9 (B) the strategic plan, including proposals
10 on how to strengthen research and development
11 to help manufacturing; and
12 (C) other issues it considers appropriate.
13 (3) REPORT.—The Advisory Committee shall
14 provide an annual report to the Interagency Com-
15 mittee and the Congress that shall assess—
16 (A) the progress made in implementing the
17 strategic plan and challenges to this progress;
18 (B) the effectiveness of activities under the
19 strategic plan in improving United States man-
20 ufacturing competitiveness;
21 (C) the need to revise the goals and prior-
22 ities established by the Interagency Committee;
23 and
24 (D) new and emerging problems and op-
25 portunities affecting the manufacturing re-

1 search community, research infrastructure, and
2 the measurement and statistical analysis of
3 manufacturing that may need to be considered
4 by the Interagency Committee.
5 (4) FEDERAL ADVISORY COMMITTEE ACT AP-
6 PLICATION.—Section 14 of the Federal Advisory
7 Committee Act shall not apply to the Advisory Com-
8 mittee.

9 **SEC. 3. COLLABORATIVE MANUFACTURING RESEARCH**
10 **PILOT GRANTS.**

11 The National Institute of Standards and Technology
12 Act is amended—
13 (1) by redesignating the first section 32 as sec-
14 tion 34 and moving it to the end of the Act; and
15 (2) by inserting before the section moved by
16 paragraph (1) the following new section:

17 **"SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH**
18 **PILOT GRANTS.**

19 "(a) AUTHORITY.—
20 "(1) ESTABLISHMENT.—The Director shall es-
21 tablish a pilot program of awards to partnerships
22 among participants described in paragraph (2) for
23 the purposes described in paragraph (3). Awards
24 shall be made on a peer-reviewed, competitive basis.

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
2 minimum—
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. 4. 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 section, the
7 Director shall provide stipends for postdoctoral re-
8 search fellowships at a level consistent with the Na-
9 tional 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. 5. MANUFACTURING EXTENSION.**
14 (a) MANUFACTURING CENTER EVALUATION.—Sec-
15 tion 25(c)(5) of the National Institute of Standards and
16 Technology Act (15 U.S.C. 278k(c)(5)) is amended by in-
17 serting "A Center that has not received a positive evalua-
18 tion by the evaluation panel shall be notified by the panel
19 of the deficiencies in its performance and may be placed
20 on probation for one year, after which time the panel may
21 reevaluate the Center. If the Center has not addressed the
22 deficiencies identified by the panel, or shown a significant
23 improvement in its performance, the Director may conduct
24 a new competition to select an operator for the Center or

1 may close the Center." after "sixth year at declining lev-
2 els.".

3 (b) FEDERAL SHARE.—Strike Section 25(d) of the
4 National Institute of Standards Act (15 U.S.C. 278k(d))
5 and insert the following:

6 "(d) ACCEPTANCE OF FUNDS.—In addition to such
7 sums as may be appropriated to the Secretary and Direc-
8 tor to operate the Centers program, the Secretary and Di-
9 rector also may accept funds from other Federal depart-
10 ments and agencies and under section 2(c)(7) from the
11 private sector for the purpose of strengthening United
12 States manufacturing. Such funds, if allocated to a Center
13 or Centers, shall not be considered in the calculation of
14 the Federal share of capital and annual operating and
15 maintenance costs under subsection (c).".

16 (c) MANUFACTURING EXTENSION CENTER COMPETI-
17 TIVE GRANT PROGRAM.—Section 25 of the National Insti-
18 tute of Standards and Technology Act (15 U.S.C. 278k)
19 is amended by adding at the end the following new sub-
20 sections:

21 "(e) COMPETITIVE GRANT PROGRAM.—

22 "(1) ESTABLISHMENT.—The Director shall es-
23 tablish, within the Manufacturing Extension Part-
24 nership program under this section and section 26
25 of this Act, a program of competitive awards among

1 participants described in paragraph (2) for the pur-
2 poses described in paragraph (3).
3 "(2) PARTICIPANTS.—Participants receiving
4 awards under this subsection shall be the Centers, or
5 a consortium of such Centers.
6 "(3) PURPOSE.—The purpose of the program
7 under this subsection is to develop projects to solve
8 new or emerging manufacturing problems as deter-
9 mined by the Director, in consultation with the Di-
10 rector of the Manufacturing Extension Partnership
11 program, the Manufacturing Extension Partnership
12 National Advisory Board, and small and medium-
13 sized manufacturers. One or more themes for the
14 competition may be identified, which may vary from
15 year to year, depending on the needs of manufactur-
16 ers and the success of previous competitions. These
17 themes shall be related to projects associated with
18 manufacturing extension activities, including supply
19 chain integration and quality management, or extend
20 beyond these traditional areas.
21 "(4) APPLICATIONS.—Applications for awards
22 under this subsection shall be submitted in such
23 manner, at such time, and containing such informa-
24 tion as the Director shall require, in consultation

1 with the Manufacturing Extension Partnership Na-
2 tional Advisory Board.
3 "(5) SELECTION.—Awards under this sub-
4 section shall be peer reviewed and competitively
5 awarded. The Director shall select proposals to re-
6 ceive awards—
7 "(A) that utilize innovative or collaborative
8 approaches to solving the problem described in
9 the competition;
10 "(B) that will improve the competitiveness
11 of industries in the region in which the Center
12 or Centers are located; and
13 "(C) that will contribute to the long-term
14 economic stability of that region.
15 "(6) PROGRAM CONTRIBUTION.—Recipients of
16 awards under this subsection shall not be required
17 to provide a matching contribution.
18 "(f) AUDITS.—A center that receives assistance
19 under this section shall submit annual audits to the Sec-
20 retary in accordance with Office of Management and
21 Budget Circular A–133 and shall make such audits avail-
22 able to the public on request.".

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
7 Technology—
8 (1) $426,267,000 for fiscal year 2006, of
9 which—
10 (A) $50,833,000 shall be for Electronics
11 and Electrical Engineering;
12 (B) $28,023,000 shall be for Manufac-
13 turing Engineering;
14 (C) $52,433,000 shall be for Chemical
15 Science and Technology;
16 (D) $46,706,000 shall be for Physics;
17 (E) $33,500,000 shall be for Material
18 Science and Engineering;
19 (F) $24,321,000 shall be for Building and
20 Fire Research;
21 (G) $68,423,000 shall be for Computer
22 Science and Applied Mathematics;
23 (H) $20,134,000 shall be for Technical As-
24 sistance;
25 (I) $48,326,000 shall be for Research Sup-
26 port Activities;

1 (J) $29,369,000 shall be for the National
2 Institute of Standards and Technology Center
3 for Neutron Research; and
4 (K) $18,543,000 shall be for the National
5 Nanomanufacturing and Nanometrology Facil-
6 ity;
7 (2) $447,580,000 for fiscal year 2007; and
8 (3) $456,979,000 for fiscal year 2008.
9 (b) MALCOLM BALDRIGE NATIONAL QUALITY
10 AWARD PROGRAM.—There are authorized to be appro-
11 priated to the Secretary of Commerce for the Malcolm
12 Baldrige National Quality Award program under section
13 17 of the Stevenson-Wydler Technology Innovation Act of
14 1980 (15 U.S.C. 3711a)—
15 (1) $5,654,000 for fiscal year 2006;
16 (2) $5,795,000 for fiscal year 2007; and
17 (3) $5,939,000 for fiscal year 2008.
18 (c) CONSTRUCTION AND MAINTENANCE.—There are
19 authorized to be appropriated to the Secretary of Com-
20 merce for construction and maintenance of facilities of the
21 National Institute of Standards and Technology—
22 (1) $58,898,000 for fiscal year 2006;
23 (2) $61,843,000 for fiscal year 2007; and
24 (3) $63,389,000 for fiscal year 2008.

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 2007, 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
21 minimum—
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
5 minimum—
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 2006;
17 (2) $796,000 for fiscal year 2007; and
18 (3) $820,000 for fiscal year 2008.
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) $110,000,000 for fiscal year 2006, of which
4 not more than $4,000,000 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) $115,000,000 for fiscal year 2007, of which
8 not more than $4,100,000 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) $120,000,000 for fiscal year 2008, of which
12 not more than $4,200,000 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 2006;
22 (2) $10,000,000 for fiscal year 2007; and
23 (3) $10,000,000 for fiscal year 2008.
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 2006;
6 (2) $1,750,000 for fiscal year 2007; and
7 (3) $2,000,000 for fiscal year 2008.

H.R. 250, MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT OF 2005, AS AMENDED AT SUBCOMMITTEE SECTION-BY-SECTION ANALYSIS (BY TITLE AND SECTION)

Section 1: Short title

"Manufacturing Technology Competitiveness Act of 2005"

Section 2: Interagency Committee, Advisory Committee

Directs the President to establish or designate an Interagency Committee on Manufacturing Research and Development. The Interagency Committee would be assisted by an Advisory Committee representing non-governmental interests to provide the Interagency Committee with input to and reviews of Federal manufacturing R&D activities.

Section 3: Collaborative Manufacturing Research Pilot Grants

Amends the NIST Act by creating a new Section 33 that establishes a pilot grant program within NIST that would fund research partnerships between firms, community colleges, universities, research institutions, State agencies, and non-profits to develop innovative manufacturing technologies. The federal share of a partnership's costs could not exceed one-third.

Section 4: Manufacturing Fellowship Program

Amends Section 18 of the NIST Act to establish a postdoctoral and senior research fellowship program in the manufacturing sciences at NIST.

Section 5: Manufacturing Extension

Amends Section 25(c)(5) of the NIST Act by adding language to codify the existing MEP center review process, and by establishing a probationary period and re-competition schedule for centers that cannot perform. Also amends the Act to allow the MEP program to accept funds from other federal agencies and private sources without requiring matching funds or fees from the Centers. Amends Section 25 of the NIST Act by adding language at the end of that section creating a new competitive grant program under MEP to provide funding for innovative MEP-related projects.

Section 6: Scientific, Technical, and Research Services

Authorizes appropriations for the laboratory accounts at NIST at $426.2 million in FY 2006, $447.5 million in FY 2007, and $457.0 million in FY 2008. The authorization for FY 2006 is divided as follows: $50.8 million for Electronics and Electrical Engineering; $28.0 million for Manufacturing Engineering; $52.4 million for Chemical Science and Technology; $46.7 million for Physics; $33.5 million for Material Science and Engineering; $24.3 million for Building and Fire Research; $68.4 million for Computer Science and Applied Mathematics, $20.1 million for Technical Assistance, $48.3 million for Research Support Activities, $29.3 million for the NIST Center for Neutron Research, and $18.5 for the National Nanotechnology and Nanometrology Facility.

Authorizes appropriations for the Malcolm Baldrige National Quality Award at $5.6 million in FY 2006, $5.7 million in FY 2007, and $5.9 million in FY 2008.

Authorizes $58.9 million for the NIST Construction Account in 2006, increasing to $61.8 million in FY 2007 and $63.4 million In FY 2008.

Directs the Secretary of Commerce to submit reports to Congress on the impact of the proposed elimination of the Advanced Technology Program on NIST's laboratory programs, and how these impacts could be mitigated.

Section 7: Standards Education Program

Establishes a Standards Education Program as part of the Teacher Science and Technology Enhancement Institute Program at NIST. The program shall award grants on a cost-shared basis to institutions of higher education to develop curricula on the role of standards in engineering, business, science, and economics. Authorizes appropriations for this purpose of $773,000 for FY 2006, $795,000 for FY 2007, and $820,000 for FY 2008.

Section 8: Authorization of Appropriations

Authorizes for the MEP program $110 million for FY 2006, of which not more than $4 million shall be for the competitive grant program established by section 5 of H.R. 3598; $115 million for FY 2007, of which not more than $4.1 million shall be for the competitive grant program; and $120 million for FY 2008.

Authorizes for the collaborative manufacturing pilot grant program under section 3, $10 million per year for FY 2006, FY 2007, and FY 2008.

Authorizes for the fellowship program under section 4, $1.5 million for FY 2006, $1.75 million for FY 2007, and $2 million for FY 2008.

COMMITTEE ON SCIENCE - FULL COMMITTEE MARKUP
May 4, 2005
AMENDMENT ROSTER

H.R. 250, Manufacturing Technology Competitiveness Act of 2005
--Motion to adopt the bill, as amended: agreed to by a roll call vote – Y-19; N-14.
--Motion to report the bill, as amended: agreed to by a voice vote.

No.	Sponsor	Description	Results
1.	Mr. Ehlers	Amendment would have the Director of the Office of Science and Technology Policy, rather than the Secretary of Commerce, designate the chair of the interagency committee on R&D.	--Adopted by a voice vote.
2..	Mr. Gordon	Amendment to ensure full funding for the network of MEP centers.	--Adopted by a voice vote.
3.	Mr. Udall	Amendment authorizes funding for the Advanced Technological Education program and for the Manufacturing Skill Standards Council to enhance technical workforce education and development.	--Boehlert second degree amendment: adopted by a voice vote. --Udall amendment, as amended: adopted by a voice vote.
3(a).	Mr. Boehlert	Boehlert Second Degree Amendment to the Udall Amendment.	
4.	Mr. Carnahan	Amendment would establish a President's Manufacturing Council to develop a National Manufacturing Strategy.	--Unanimous consent request to withdraw the amendment: agreed to.
5.	Mr. Honda	Amendment authorizes funding for the Advance Technology Program for Fiscal Year 2006 through Fiscal Year 2008.	--Defeated by a voice vote.
6.	Mr. Costello	Amendment to require a study on the manufacturing and professional workforce to assess various trends relating to outsourcing for investment and re-employment.	--Unanimous consent request to withdraw the amendment: agreed to.
7.	Mr. Udall	Amendment specifies funding levels for the Advanced Technology Program.	--Defeated by a roll call vote: Y-15; N-19.

AMENDMENT TO H.R. 250
OFFERED BY MR. EHLERS OF MICHIGAN

Page 1, lines 17 and 18, strike "Secretary of Commerce" and insert "Director of the Office of Science and Technology Policy".

AMENDMENT TO H.R. 250

OFFERED BY MR. GORDON OF TENNESSEE

In section 8(a), amend paragraphs (1) through (3) to read as follows:

1 (1) $110,000,000 for fiscal year 2006, of which
2 not more than $1,000,000 shall be for the competi-
3 tive grant program under section 25(e) of such Act
4 (15 U.S.C. 278k(e));
5 (2) $115,000,000 for fiscal year 2007, of which
6 not more than $4,000,000 shall be for the competi-
7 tive grant program under section 25(e) of such Act
8 (15 U.S.C. 278k(e)); and
9 (3) $120,000,000 for fiscal year 2008, of which
10 not more than $4,100,000 shall be for the competi-
11 tive grant program under section 25(e) of such Act
12 (15 U.S.C. 278k(e)).

AMENDMENT TO H.R. 250
OFFERED BY MR. UDALL OF COLORADO

At the end of the bill, insert the following new section:

1 **SEC. 9. TECHNICAL WORKFORCE EDUCATION AND DEVEL-**
2 **OPMENT.**

3 (a) AUTHORIZATION OF APPROPRIATIONS.—There
4 are authorized to be appropriated to the Director of the
5 National Science Foundation, from sums otherwise au-
6 thorized to be appropriated, for the Advanced Techno-
7 logical Education Program established under section 3 of
8 the Scientific and Advanced-Technology Act of 1992 (42
9 U.S.C. 1862i)—

10 (1) $70,000,000 for fiscal year 2006,
11 $5,000,000 of which may be used to support the
12 education and preparation of manufacturing techni-
13 cians for certification;

14 (2) $73,500,000 for fiscal year 2007,
15 $5,000,000 of which may be used to support the
16 education and preparation of manufacturing techni-
17 cians for certification; and

18 (3) $77,000,000 for fiscal year 2008,
19 $5,000,000 of which may be used to support the

1 education and preparation of manufacturing techni-
2 cians for certification.
3 (b) AMENDMENT.—Section 3 of the Scientific and
4 Advanced-Technology Act of 1992 (42 U.S.C. 1862i) is
5 amended—
6 (1) by inserting ", including manufacturing"
7 after "advanced-technology fields" each place it ap-
8 pears other than in subsection (c)(2); and
9 (2) by inserting ", including manufacturing,"
10 after "advanced-technology fields" in subsection
11 (c)(2).

Boehlert Second Degree Amendment to the Udall Amendment

On page 1, line 10, strike "$70,000,000" and replace with "$55,000,000".

On page 1, line 14, strike ""$73,500,000" and replace with "$57,750,000".

On page 1, line 18, strike "$77,000,000" and replace with "$60,600,000".

AMENDMENT TO H.R. 250
OFFERED BY MR. CARNAHAN OF MISSOURI

In section 2, amend subsection (b) to read as follows:

1 (b) PRESIDENT'S MANUFACTURING COUNCIL.—
2 (1) ESTABLISHMENT AND COMPOSITION.—Not
3 later than 60 days after the date of enactment of
4 this Act, the President shall establish or designate
5 the President's Manufacturing Council under the di-
6 rection of the Secretary of Commerce. The member-
7 ship of the Council shall consist of non-Federal rep-
8 resentatives who are qualified to provide advice on
9 manufacturing research, education, employment
10 trends, and other relevant manufacturing policy
11 issues. The President shall appoint individuals who
12 are—
13 (A) representatives from manufacturing in-
14 dustries with equal representation from small,
15 medium-sized, and large manufacturers;
16 (B) representatives from labor unions and
17 professional associations, a majority of whose
18 members work in manufacturing industries; and

1 (C) representatives of research and aca-
2 demic institutions.
3 (2) DUTY.—The primary duty of the Presi-
4 dent's Manufacturing Council shall be to develop a
5 National Manufacturing Strategy. In developing this
6 Strategy, the Council shall consider issues such as—
7 (A) trends in development in manufac-
8 turing, including employment, skills require-
9 ments, outsourcing, productivity, and any other
10 factors affecting the manufacturing sector;
11 (B) Federal research and development ini-
12 tiatives on subjects such as nanotechnology,
13 green chemistry, alternative energy, and infor-
14 mation technology which could significantly im-
15 pact United States manufacturing abilities, and
16 how they should be coordinated and integrated
17 with the Strategy;
18 (C) technical standards and their impor-
19 tance for international competitiveness; and
20 (D) the role of the National Institute of
21 Standards and Technology in supporting
22 United States industrial competitiveness.
23 (3) REPORTS.—
24 (A) ISSUE REPORTS.—Not later than 1
25 year after the date of enactment of this Act, the

1 President's Manufacturing Council shall trans-
2 mit to the Congress a report on the issues de-
3 scribed in paragraph (2), as well as any other
4 issues the Council considers appropriate. The
5 Council shall update such report periodically, as
6 appropriate.

7 (B) NATIONAL MANUFACTURING STRAT-
8 EGY.—Not later than 18 months after the date
9 of enactment of this Act, the Council shall
10 transmit to the Congress a report containing
11 the National Manufacturing Strategy required
12 under paragraph (2), including specific actions
13 and goals for the Federal Government. The
14 Council shall update the Strategy periodically,
15 as appropriate.

16 (C) OVERSIGHT REPORT.—Not later than
17 1 year after the transmittal of the National
18 Manufacturing Strategy under subparagraph
19 (B), and annually thereafter, the President's
20 Manufacturing Council shall transmit to the
21 Congress an assessment of Federal agencies'
22 implementation of the Strategy.

AMENDMENT TO H.R. 250

OFFERED BY MR. HONDA OF CALIFORNIA

At the end of section 8, insert the following new subsection:

1 (d) ADVANCED TECHNOLOGY PROGRAM.—There are
2 authorized to be appropriated to the Secretary of Com-
3 merce for the Advanced Technology Program under sec-
4 tion 28 of the National Institute of Standards and Tech-
5 nology Act (15 U.S.C. 278n)—
6 (1) $140,000,000 for fiscal year 2006;
7 (2) $160,000,000 for fiscal year 2007; and
8 (3) $203,800,000 for fiscal year 2008.

AMENDMENT TO H.R. 250
OFFERED BY MR. COSTELLO OF ILLINOIS

At the end of the bill, insert the following new section:

1 **SEC. 9. MANUFACTURING AND PROFESSIONAL EMPLOY-**
2 **MENT STUDY.**

3 (a) STUDY.—Not later than 60 days after the date
4 of enactment of this Act, the Secretary of Commerce shall
5 enter into a contract with the National Academy of Public
6 Administration, or a similar organization, for a study
7 assessing—

8 (1) the nature and number of United States
9 manufacturing and professional jobs moving outside
10 the United States;

11 (2) the nature and number of jobs that have
12 been moved outside the United States that support
13 exports to the United States market;

14 (3) reemployment prospects for United States
15 workers displaced by United States manufacturing
16 and professional jobs moving outside the United
17 States;

1 (4) the number of nonimmigrant alien H–1B
2 and L–1 visas that have been issued, and what jobs
3 they are being used for;
4 (5) the nature and number of jobs created in
5 the United States by foreign investment in the
6 United States;
7 (6) the effects that the movement of United
8 States manufacturing and professional jobs outside
9 the United States is having on student career
10 choices: and
11 (7) the nature and number of jobs moved out-
12 side the United States that are supported by Federal
13 contractors and subcontractors.
14 (b) REPORT TO CONGRESS.—Not later than 1 year
15 after the date of enactment of this Act, the Secretary of
16 Commerce shall transmit to the Congress a report on the
17 results of the study conducted under subsection (a).

AMENDMENT TO H.R. 250
OFFERED BY MR. UDALL OF COLORADO

At the end of section 8, insert the following new subsection:

1 (d) ADVANCED TECHNOLOGY PROGRAM.—There are
2 authorized to be appropriated to the Secretary of Com-
3 merce for the Advanced Technology Program under sec-
4 tion 28 of the National Institute of Standards and Tech-
5 nology Act (15 U.S.C. 278n)—
6 (1) $66,500,000 for fiscal year 2006,
7 including—
8 (A) $43,500,000 for grants awarded before
9 October 1, 2005; and
10 (B) $23,000,000 for the costs of termi-
11 nating the Advanced Technology Program; and
12 (2) $1,560,000 for fiscal year 2007 for grants
13 awarded before October 1, 2006.

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