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REPORT
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MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT OF 2004

JULY 1, 2004.—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. 3598]

[Including cost estimate of the Congressional Budget Office]

The Committee on Science, to whom was referred the bill (H.R. 3598) 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.

CONTENTS

		Page
I.	Amendment	2
II.	Purpose of the Bill	6
III.	Background and Need for the Legislation	6
IV.	Summary of Hearings	7
V.	Committee Actions	8
VI.	Summary of Major Provisions of the Bill	10
VII.	Section-by-Section Analysis (by Title and Section)	10
VIII.	Committee Views	12
IX.	Cost Estimate	13
X.	Congressional Budget Office Cost Estimate	14
XI.	Compliance With Public Law 104–4 (Unfunded Mandates)	15
XII.	Committee Oversight Findings and Recommendations	15
XIII.	Statement on General Performance Goals and Objectives	16

29–006

XIV. Constitutional Authority Statement 16
XV. Federal Advisory Committee Statement 16
XVI. Congressional Accountability Act 16
XVII. Statement on Preemption of State, Local, or Tribal Law 16
XVIII. Changes in Existing Law Made by the Bill, as Reported 16
XIX. Committee Recommendations 19
XX. Minority Views 20
XXI. Proceedings of the Subcommittee Markup 29
XXII. Proceedings of the Full Committee Markup 101

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 2004".

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 Interagency Committee shall be chaired by the Under Secretary of Commerce for Technology.

(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 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) 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 subsection:

"(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.".

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) $425,688,000 for fiscal year 2005, of which—

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

(B) $29,584,000 shall be for Manufacturing Engineering;

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

(D) $42,240,000 shall be for Physics;
(E) $62,724,000 shall be for Material Science and Engineering;
(F) $23,594,000 shall be for Building and Fire Research;
(G) $60,660,000 shall be for Computer Science and Applied Mathematics, of which $2,800,000 shall be for activities in support of the Help America Vote Act of 2002;
(H) $17,445,000 shall be for Technical Assistance; and
(I) $78,102,000 shall be for Research Support Activities;
(2) $446,951,000 for fiscal year 2006;
(3) $469,299,000 for fiscal year 2007; and
(4) $492,764,000 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) $5,400,000 for fiscal year 2005;
(2) $5,535,000 for fiscal year 2006;
(3) $5,674,000 for fiscal year 2007; and
(4) $5,815,000 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 such sums as may be necessary for each of fiscal years 2005 through 2008.

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 2005;
(2) $796,000 for fiscal year 2006;
(3) $820,000 for fiscal year 2007; and
(4) $844,000 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 2005, 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));

(2) $115,000,000 for fiscal year 2006, 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));

(3) $120,000,000 for fiscal year 2007, of which not more than $4,200,000 shall be for the competitive grant program under section 25(e) of such Act (15 U.S.C. 278k(e)); and

(4) $125,000,000 for fiscal year 2008, of which not more than $4,300,000 shall be for the competitive grant program under section 25(e) of such Act (15 U.S.C. 278k(e)).

In any fiscal year for which appropriations are $106,000,000 or greater, none of the funds appropriated pursuant to this subsection shall be used for a general recompetition of Centers established under section 25 of the National Institute of Standards and Technology Act (15 U.S.C. 278k).

(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 2005;

(2) $10,000,000 for fiscal year 2006; and

(3) $10,000,000 for fiscal year 2007.

(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 2005;

(2) $1,750,000 for fiscal year 2006;

(3) $2,000,000 for fiscal year 2007; and

(4) $2,250,000 for fiscal year 2008.

II. PURPOSE OF THE BILL

The purpose of H.R. 3598, the Manufacturing Technology Competitiveness Act of 2004, 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.

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.

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 orga-

nization. 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. The $39 million may not be enough to fund all the existing centers, and the Administration has been seeking funds from other agencies to add funds to MEP in FY 2004.

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 would have to 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 (6) 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 con-

tinued 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. manufacturing 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 rollcall 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 rollcall 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 Advance Technological Education program. The amendment was defeated by a rollcall 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 rollcall 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 rollcall 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 ro1lcall 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 rollcall vote (Y–10; N–12).

11. Mr. Larson offered an amendment to the substitute amendment to create an Under Secretary of Commerce for Manufacturing technology. The amendment was defeated by a rollcall 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 rollcall 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 rollcall vote (Y–14; N–16).

The motion to adopt the bill as amended passed by a rollcall 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.

VI. SUMMARY OF MAJOR PROVISIONS OF THE BILL

H.R. 3598 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. 3598 would also create an additional competitive grant program from which MEP centers can obtain supplemental funding for manufacturing-related projects.
- Authorize funding for NIST's Scientific, Technical, and Research Services account, the Baldrige Quality Award program, and the Construction and Maintenance account. H.R. 3598 would also establish a standards education grant program at NIST and authorize funding for it at $773,000 in FY 2005, increasing to $844,000 in FY 2008.

VII. SECTION-BY-SECTION ANALYSIS (BY TITLE AND SECTION)

Section 1: Short Title

"Manufacturing Technology Competitiveness Act of 2004."

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 recompetition 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 2005, increasing by 5 percent per year through fiscal year 2008. The authorization for FY 05 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 2005, $5.5 million in FY 2006, $5.6 million in FY 2007, and $5.8 million in FY 2008. Authorizes "such sums as may be necessary" for FY 2005 through FY 2008 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 2005, $795,000 for FY 2006, $820,000 for FY 2007, and $844,000 for FY 2008.

Section 8: Authorization of Appropriations

Authorizes for the MEP program $110 million for FY 2005, 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 2006, of which not more than $4.1 million shall be for the competitive grant program; $120 million for FY 2007, of which not more than $4.2 million shall be for the competitive grant program; and $125 million for FY 2008, 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 2005, FY 2006, and FY 2007. Authorizes for the fellowship program under section 4, $1.5 million for FY 2005,

$1.75 million for FY 2006, $2 million for FY 2007, and $2.25 million for FY 2008.

VIII. COMMITTEE VIEWS

Section 2: Interagency Committee, Advisory Committee

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, community 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 6: Construction and Maintenance Account

The Committee did not include specific funding levels for the Construction and Maintenance account because the House and Senate Appropriations Committees have requested a facilities plan from the Department of Commerce that would provide information on the funding requirements and schedules for construction and maintenance at the Gaithersburg, MD and Boulder, CO laboratories. This report has not yet been delivered to Congress. The Committee strongly urges the Administration to submit this report as soon as possible. The Committee is well aware of the pressing needs for improved facilities, especially in Boulder, and expects the Department to put forward an aggressive, well funded plan to address those needs. The authorization of "such sums" for the Construction and Maintenance account should not be misconstrued as a lack of support for a well financed effort to improve NIST's facilities.

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.

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. 3598 are prudent and will create jobs, support innovation, increase the competitiveness of U.S. manufacturing, and enhance the dynamism of the U.S. economy.

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. 3598 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. 3598 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, June 23, 2004.

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. 3598, the Manufacturing Technology Competitiveness Act of 2004.

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

Sincerely,

ELIZABETH M. ROBINSON
(For Douglas Holtz-Eakin, Director).

Enclosure.

H.R. 3598—Manufacturing Technology Competitiveness Act of 2004

Summary: CBO estimates that H.R. 3598 would authorize the appropriation of about $2.6 billion for fiscal years 2005 through 2008 for programs administered by the National Institute of Standards and Technology (NIST). Assuming appropriation of the authorized amounts, CBO estimates that implementing H.R. 3598 would cost $359 million in 2005 and $2.45 billion over the 2005–2009 period. Enacting this bill would not affect direct spending or revenues.

H.R. 3598 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R 3598 is shown in the following table. The costs of this legislation fall within budget function 370 (commerce and housing credit).

	By fiscal year, in millions of dollars—					
	2004	2005	2006	2007	2008	2009
SPENDING SUBJECT TO APPROPRIATION						
NIST spending under current law:						
Budget authority [1]	610	0	0	0	0	0
Estimated outlays	356	217	71	25	7	0
Proposed changes:						
Estimated authorization level	0	618	646	675	695	0
Estimated outlays	0	359	535	609	668	276
NIST spending under H.R. 3598:						
Authorization level [1]	610	618	646	675	695	0

	By fiscal year, in millions of dollars—					
	2004	2005	2006	2007	2008	2009
Estimated outlays	356	576	606	634	675	276

[1] The 2004 level is the amount appropriated for that year.

Basis of estimate: CBO estimates that implementing H.R. 3598 would cost $359 million in 2005 and $2.45 billion over the 2005-2008 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 programs.

The bill would specifically authorize the appropriation of about $2.4 billion for fiscal years 2005 through 2008 for various programs administered by NIST, including four new grant programs that would be established under the bill. Estimated outlays from these specified amounts would total about $2.3 billion over the 2005–2009 period.

In addition, the bill would authorize such sums as may be necessary for fiscal years 2005 through 2008 for the construction and maintenance of NIST research facilities. To estimate those amounts, CBO adjusted the amount provided to NIST for facility construction and maintenance in 2004 for anticipated inflation over the next four years. We estimate that implementing these provisions would require appropriations for NIST research facilities of $266 million over the four-year authorization period. We estimate outlays from such funds would total about $150 million over the 2005–2009 period.

Finally, H.R. 3598 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. 3598 contains no intergovernmental or private-sector mandates as defined in UMRA. State agencies, as partners with manufacturing companies, could apply for grants, which would require matching funds. Further, to the extent that public universities apply for and receive grants, they would be required to match federal funds as a condition of those grants. These costs would be voluntary.

Estimate prepared by: Federal Costs: Melissa E. Zimmerman. Impact on State, Local, and Tribal Governments: Sarah Puro. Impact on the Private Sector: Jean Talarico.

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

XI. COMPLIANCE WITH PUBLIC LAW 1044

H.R. 3598 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. 3598.

XV. FEDERAL ADVISORY COMMITTEE STATEMENT

The functions of the advisory committee authorized by H.R. 3598 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. 3598 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 italic, 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.

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REGIONAL CENTERS FOR THE TRANSFER OF MANUFACTURING TECHNOLOGY

SEC. 25. (a) * * *

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(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.

* * * * * * *

(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.

* * * * * * *

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, mul-

tidisciplinary 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.

XIX. COMMITTEE RECOMMENDATIONS

On June 16, 2004, a quorum being present, the Committee on Science favorably reported the Manufacturing Technology Competitiveness Act of 2004, by a voice vote and recommended its enactment.

XX. MINORITY VIEWS

I. BACKGROUND

The United States economy lost 2,500,000 manufacturing jobs between January 2001 and January 2004. While job growth in recent months has finally begun to keep pace with growth in the work force, the nation (according to Berkeley economist J. Bradford DeLong) remains five to six million jobs away from reaching full output. Evidence that labor markets are still lax can be found in the lag between inflation in the last 12 months (3.1 percent) and hourly wage growth for non-supervisory workers (2.2 percent). Neither the Administration nor Congress has done much to support manufacturers or workers as they face stiffer international competition and a broad domestic recession followed by a jobless economic recovery.

The Science Committee has limited jurisdictional tools to influence the manufacturing sector. However, we do have jurisdiction over industrial support services provided through the Department of Energy and the Department of Commerce (including the Manufacturing Extension Program and the Advanced Technology Program), as well as worker training and retraining programs run by the National Science Foundation.

On June 16, 2004, late into the second session of this Congress, the Science Committee finally took up a manufacturing authorization bill. H.R. 3598 provided the Committee with an opportunity to aggressively harness the resources of the Federal government to support the manufacturing sector. Unfortunately, the Committee fumbled a golden opportunity to fashion a meaningful, bipartisan manufacturing bill.

H.R. 3598 as reported does little other than providing an authorization for the Manufacturing Extension Program (MEP). Given the repeated efforts by the Bush Administration to shut down the MEP, this authorization is welcome, but it is far too timid a step given the size and nature of the challenges facing our workers and companies. Democrats fully support MEP and have fought repeatedly, often as part of bipartisan coalitions, to save it from proposed cuts over the years. These cuts have always originated in Republican quarters—either in Congress or, more recently, the Administration. Much as Democrats appreciate MEP, pretending that authorizing this single program is the only worthwhile step that can be taken to help our manufacturing sector shows a lack of imagination and political will.

During Full Committee markup, we offered twelve amendments to expand the scope of the bill's coverage to engage all the programs within our Committee's jurisdiction. The Majority opposed or voted down nine of our amendments on party-line votes; two amendments were diluted by second-degree Republican amend-

ments; one amendment was accepted. This outcome was disappointing. In light of the repeated votes of the Majority to undercut our efforts to provide substantial support for the manufacturing sector, 13 of 14 Committee Democrats voted against adopting the bill in Committee.

II. DEFERRING TO THE ADMINISTRATION AND THE IRRELEVANCE OF THE COMMITTEE

During the markup, the Chairman noted that some Republican Members would like to support the Democratic amendments, but their adoption might upset the delicate negotiations that had occurred and endanger further progress on the bill. The Chairman repeatedly assured Members, in explaining his opposition to these amendments, that the Committee had to give up certain positions to make the bill acceptable to the House Republican Leadership and the Administration, but that we had gotten back much in return—namely, support for MEP.[1] So while the Administration finally decided (after taking a public-relations beating for months) that it would support the MEP authorization, it was unwilling to provide any substantive legislative help beyond this small and obvious step. The Committee leadership, having won this "concession,"[2] then refused to deviate from the Administration's position during the markup.

How is it that the Administration has such a narrow view of what needs to be done to help our workers and firms? A clue may lie in plain sight. On Labor Day, 2003, President Bush went to Ohio to give a speech in which he laid out steps his administration would take to support manufacturers and jobs. In that widely covered speech he said, "I want you to understand that I understand that Ohio manufacturers are hurting, that there's a problem with the manufacturing sector. And I understand for a full recovery, to make sure people can find work, that manufacturing must do better. And we've lost thousands of jobs in manufacturing * * *"

Unfortunately, the President was three orders of magnitude off when he asserted that "thousands" of jobs had been lost in manufacturing. It wasn't thousands. It wasn't tens of thousands. It wasn't hundreds of thousands. The right phrase coming from his lips should have been "And we've lost millions of jobs in manufacturing." Perhaps if we scale the problem correctly, we can begin to appreciate the magnitude of the challenge facing our companies, workers, families and communities. It is from this perspective that Committee Democrats attempted to authorize a full slate of steps that would provide effective assistance to manufacturing.

The other clear message contained in the Chairman's repeated assurances that all that could be done had been achieved in closed-door meetings with the Administration, was that the Committee itself, and its processes, would be irrelevant to the legislative process. What had mattered was a handful of political functionaries from the Bush Administration meeting with a handful of House Re-

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[1] The Science Committee's support for MEP in H.R. 3598, while welcome, is hardly an act of leadership. The day before our markup, the Commerce, State, Justice Subcommittee of House Appropriations provided full MEP funding for FY 2005.

[2] Given that the reported bill does far less than the introduced bill, it is hard to ascertain exactly what concessions the Administration made during the secret negotiations.

publican staff to settle the scope of legislation to help America's manufacturing workers and companies. There was no invitation to include Minority Members or staff in any of these discussions, nor to negotiate any of the Minority amendments before the markup. Should it be any surprise that the circle of support for manufacturing that they drew was very small?

III. AMENDMENTS TO THE BILL

Democratic amendments focused on four general areas to support the U.S. manufacturing base: focused research in manufacturing fields, bolstering the MEP program, developing a national manufacturing agenda, and education.

Manufacturing-Related Research

Mr. Honda offered an amendment which authorized funding for the Advanced Technology Program (ATP) at $169 million per year for fiscal years 2005 through 2008. The ATP provides funding for high-risk research in the private sector to develop new broad-scale technologies. These projects vary from support of improvements in current manufacturing processes to new products which may be the basis for new manufacturing sectors. Mr. Honda's amendment was in line with the Science Committee's 2004 Views and Estimates (signed by the majority of the Republican Members on March 3, 2004), which state:

> The Committee continues to support ATP and is disappointed that the Administration has included no funds for ATP in the FY05 request. The Committee supports funding the program at the FY04 enacted level ($169 million).

In addition, in a June 1, 2004 letter to Representative Frank Wolf, Chair of the Subcommittee on Commerce, Justice, State, the Judiciary, and Related Agencies, Chairman Boehlert and Subcommittee Chairman Ehlers wrote:

> We continue to support the Advanced Technology Program (ATP) as a critical element of technology transfer in the U.S. We are disappointed that the President requested no funds for this important program in the FY 2005 budget and support funding the program at the FY 2004 enacted level of $169 million.

We completely agree with Chairmen Boehlert and Ehlers about the utility of the ATP and note that many industry groups also support the program. The Committee's leadership did not oppose the Honda amendment on substantive grounds, but out of deference to the Administration's rabid opposition to the ATP program. Their deference to the Administration's position on ATP, developed without Minority input, makes this a much weaker bill.

Ms. Johnson offered an amendment to extend the authorization of the Enterprise Integration Act through 2008 with inflationary increases in FY 2006–08. The bipartisan Enterprise Integration Act of 2002 focuses on the lack of interoperability between manufacturing systems and within the manufacturing supply chain. This seemingly arcane issue actually represents one of the biggest ineffi-

ciencies within the U.S. industrial base. In today's increasingly competitive environment, inefficient exchanges of business information can have significant negative impacts on overall productivity and competitiveness. A recent economic study by RTI International estimated losses of $8.9 billion due to these inefficiencies in the auto and electronics industries alone. The Enterprise Integration Act of 2002 provided NIST with the funding to develop protocols for supply chain integration and authorized the MEP[3] to work with small manufacturers on this critical element of their competitiveness. While the Chairman noted the importance of the original bill, he opposed the amendment because the Administration had never requested funding to implement the legislation. We would note that while the Administration may choose not to support our manufacturing base, this is not a good reason for the Science Committee or Congress not to take action.

Mr. Larson offered an amendment to authorize funding for the Industries of the Future (IF) program within the Office of Industrial Technology at the Department of Energy. On the same day as the manufacturing markup, the Committee reported a bill (H.R. 3890, sponsored by a junior Republican Member of the Committee) authorizing one small program within the IF initiative. So why did the Chairman oppose the Larson amendment? Because the inclusion of the amendment might "drag down the bill." The Chairman also noted that the IF program had been authorized in another bill (H.R. 6) that had already passed the House. This observation led us to wonder how a bill could be dragged down by a provision representing the known will of the House. Another opportunity missed.

Mr. Udall offered an amendment that would authorize funding for the National Institute of Standards and Technology's (NIST) core laboratory programs, including research and much-needed construction. NIST's standards and measurement activities directly support the manufacturing base of the United States. The amendment authorized funding at the President's FY05 requested level of $422 million, with an additional $2.8 million to support NIST activities mandated under the Help America Vote Act, and provided a 5% per year increase in FY 2006–08.

During the past five years, NIST's costs have grown far faster than its budget. Although Mr. Udall's amendment fell short of industry proposals to double NIST funding over the next five years, it did provide for real growth at NIST, including full funding for NIST's construction needs. In recent years, NIST researchers, especially those in Boulder, have been hampered in their work by the obsolescence of their research facilities.

The Chairman offered a substitute to the Udall amendment with one key change—the substitution of "such sums as may be necessary" for authorized construction funding. Yet again, the Chairman cited no substantive objection, just potential objections from the Administration. We believe that an authorizing Committee should provide guidelines for appropriate funding levels and that it is a dereliction of responsibility to use "such sums" language and

[3] A recent report by the National Association of Public Administrators singled out enterprise integration as an area which MEP should provide more services.

to rely upon the beneficence of the Executive Branch or the Appropriations Committee to determine the appropriate funding levels. This is especially true for NIST, which tends to be short-changed by Congress (as evidenced by FY 2004 funding for NIST and construction funding provided in the FY 2005 bill by the House Appropriations Committee). The Science Committee had a chance to send a signal to appropriators on this important issue, but instead adopted language that rubber-stamped whatever preference the Administration and appropriators may have for this important account.

Strengthening the Manufacturing Extension Partnership (MEP) Program

Mr. Gordon offered an amendment to ensure full funding for the network of MEP Centers. The base text allowed the Administration to determine the amount of funds that would be provided to the MEP Centers and to the Competitive Grant Program, meaning that the Administration could choose to provide the MEP Centers with $39 million, as it requested in the FY05 budget, and provide the remaining $71 million to the competitive grant program. Given that this Administration has essentially proposed eliminating the program, the Gordon amendment ensures that Congressional priority is given to maintaining the MEP network. The amendment was accepted.

Mr. Wu offered an amendment to allow the Federal cost-share to increase up to 50% for all MEP Centers in FY 2005. MEP Centers were hard hit by the FY 2004 funding level of $39 million. According to the Modernization Forum, as of April 2004, MEP Centers have closed 58 regional offices and reduced staffing by 15%. If no additional funds are provided in FY04, MEP centers could reduce their staff by 50%. Federal funding problems are matched by a tight fiscal situation in the states, making it difficult for some to meet their one-third matching requirement. To make up for the shortfall, many MEP centers have attempted to meet their budget shortfalls through higher fees, which has raised rates beyond the reach of many small manufacturers at a time when the U.S. small manufacturing community is facing unprecedented levels of competition.

Current law allows a Federal cost-share up to 50% for Centers less than six years old. Mr. Wu's amendment is consistent with the intent of the base statute. While not mandating a 50% Federal cost-share, it does provide the Administration with flexibility in determining how the cost-share might be optimized. A recent report on the MEP by the National Association of Public Administrators also recommended more flexibility in the Federal cost-share. In addition, the Modernization Forum (the umbrella group of the MEP Centers) strongly supported Rep. Wu's amendment.

Chairman Boehlert opposed the amendment arguing that it might hurt MEP Centers because "raising the cost-share would simply reduce the number of centers that can get federal money." This ignores the reality that we already have witnessed a reduction in the number of centers, and nothing between now and the end of the fiscal year will stop the bleeding. Moreover, ongoing financial difficulties in the States may produce continuing difficulties in

keeping centers open. These problems will, not surprisingly, largely be found in those areas of the country hardest hit by the recession. The Wu amendment would have provided the flexibility for the Federal government to act appropriately depending on local fiscal conditions.

Representative Jackson-Lee offered an amendment which would prevent the Administration from implementing a general re-competition of all current MEP Centers. The MEP currently has a thorough evaluation system in place, and the Administration has not identified any specific deficiency that their re-competition proposal would resolve. Rather, given their continued efforts to dismantle the MEP network, the Administration's proposal strikes us as a ruse to justify reduced Federal support for the MEP. Chairman Boehlert modified Representative Jackson-Lee's amendment to allow a general re-competition when MEP funding is less than $106 million. However, in each of the past four fiscal years, small, last-minute, across-the-board cuts or rescissions by the Appropriations Committee have resulted in the MEP receiving slightly less than its apparent appropriation. During the mark-up, the Chairman stated that appropriators are planning on funding MEP at $106 million, implying that his amendment would preclude a wasteful and unnecessary re-competition for FY 2005. However, if the usual across-the-board cut—however small—is applied in FY 2005 and the MEP appropriation falls slightly below $106 million, the Boehlert amendment would allow the Administration to conduct an unjustified general recompetition.

National Manufacturing Agenda

Mr. Udall offered an amendment to establish a President's Manufacturing Council—a concept endorsed in the National Council on Advanced Manufacturing report, "Industry Views Toward a Comprehensive Strategy to Address the Challenges to U.S. Manufacturers." Mr. Udall's amendment would have established a multi-dimensional Council comprised of manufacturers, professional associations and labor unions with a majority of members working in manufacturing, and representatives of research and academic institutions. The Council would be charged with developing a National Manufacturing Strategy and would have broad latitude in assessing how federal efforts could be integrated into the Strategy. For example, R&D initiatives such as nanotechnology, green chemistry, alternative energy, and information technology will clearly impact our manufacturing base and in turn employment opportunities for all Americans. Under the Udall amendment, the composition of the Council would mirror a provision in H.R. 3598 as introduced by Mr. Ehlers. The Ehlers' substitute, however, did nothing more than authorize the existence of the Manufacturing Advisory Council named by Secretary Evans the day before the mark-up. The Administration's Council is limited to representatives of the manufacturing sector. We don't think it is a good idea, nor did Mr. Ehlers when he introduced H.R. 3598.

Chairman Boehlert opposed the Udall amendment for the standard reason—because the Administration would object. Representative Udall then offered a substitute amendment which inserted the provisions of the original Ehlers' bill on the composition of the

Council. Mr. Ehlers opposed this amendment—his own language—on the grounds that "we have worked out this arrangement with the Administration." Be that as it may, we feel that the balanced composition proposed in the original Ehlers' bill was a much better idea.

Mr. Larson offered an amendment to re-orient the Technology Administration (TA) towards manufacturing and competitiveness issues. While the Administration has recently named an Assistant Secretary for Manufacturing and Services, that position falls within an organization (the International Trade Administration) that lacks the range of expertise needed to address the full panoply of manufacturing issues such as training, skills development, education, research and technology, and manufacturing infrastructure. A recent assessment by the National Council for Advanced Manufacturing recommended creation of a position, at the Undersecretary level, that focuses solely on manufacturing and does not include "services" as part of its responsibilities. Rather than creating a new bureaucracy as the Administration proposes, we would build upon an existing infrastructure capable of handling these responsibilities. TA has both the competence and the funding required to carry out these responsibilities, while the Administration has not identified the funding requirements for the new Assistant Secretary. The Chairman, reflecting the Administration's views, opposed the Larson amendment. We would take their reservations more seriously if the Administration had been more willing to share their thinking with the Committee. In fact, the Science Committee has never held any hearings on the Administration's proposals or on H.R. 3598, nor has it taken any testimony from any Administration witness on these issues. Given the importance of manufacturing competitiveness, it is troubling both that the Committee has such a sparse record on the issue and that the Administration has been so secretive about their plans and views.

Mr. Costello offered an amendment to require a study on manufacturing and professional employment trends as a function of off-shoring. The study would include: (1) nature and volume of jobs moving off-shore; (2) growth in off-shore jobs which support exports to the US market; (3) tracking the re-employment prospects of workers displaced by job outshoring; (4) the use of H–1 and L–1 guest worker visas; (5) jobs created by foreign investment in the U.S.; and (6) how outsourcing is impacting student career choices. The many discussions on off-shoring of manufacturing and professional jobs have largely occurred in the absence of hard data. Recent articles in the Wall Street Journal, Business Week and the Washington Post have identified the lack of data as a key factor in preventing realistic assessments of off-shoring. Appropriate policy proposals can only be developed once we understand the dimensions of the problem. The majority opposed Mr. Costello's amendment not for any substantive reasons, but out of concern that it might cause jurisdictional problems. As we have documented repeatedly in the past, the Science Committee has a long history of resolving potential jurisdictional overlaps. We do not believe that jurisdiction would have been a problem with the Costello amendment, which after all only mandates a study, and that the Majority

gave up far too easily on a proposal that addressed a critical problem in manufacturing.

Manufacturing Education

Mr. Udall offered an amendment that would have added key provisions for manufacturing workforce education and development, through the National Science Foundation's Advanced Technological Education (ATE) program. Good quality education is required for the U.S. manufacturing workforce to remain competitive, especially as the manufacturing floor becomes more technically sophisticated.

The amendment boosted funding for the ATE from its current appropriated level of $40 million to $100 million over the 4–year authorization period. The funds provided in the amendment are already authorized in the NSF Authorization Act and would not constitute new funding. A portion (no more than 50%) of these funds would be set aside for the training of manufacturing technicians and $5 million would be authorized for the Manufacturing Skills Standards Council, which sets performance standards to certify job skills for manufacturing workers. Chairman Boehlert and the majority opposed the amendment because it created a "set-aside" within the ATE program that could limit the program's flexibility. Notwithstanding the fact that the Science Committee has a history of creating ATE set-asides which could comprise more than 20 percent of appropriated ATE funds, Mr. Udall offered to delete the language which Chairman Boehlert found objectionable and to simply increase funding for the ATE program. Chairman Boehlert objected to that amendment on the basis that the substitute amendment "had been negotiated through very energetic give-and-take sessions." In short, the Minority was asked to accept the outcome of negotiations that we were not invited to participate in, and the Chairman's opposition to an increase in authorized ATE funding stood.

Conclusion

While the bill as reported is not necessarily objectionable, it does not deal comprehensively with the long-festering problems of the U.S. manufacturing base. The jurisdictional conflicts cited by the Majority in rejecting a number of Democratic amendments are the routine sorts of matters that are dealt with effectively every day in this institution. It is apparent that the real impediments to reporting a serious and effective bill were the inviolate positions taken by the Administration.

So ultimately we are in a position dictated by the White House—a position which respects neither the role of the Committee nor the role of the legislative branch as a whole. The White House has been slow to recognize that there is a problem in the manufacturing sector—that companies are moving jobs offshore or going under and that workers are losing their jobs. By letting the White House set the parameters for our actions, we are limited by their narrow vision of what can be done to help our workers and companies and communities. The Committee is not showing leadership by taking this approach.

BART GORDON.
JOHN B. LARSON.

BRAD MILLER.
DENNIS MOORE.
NICK LAMPSON.
SHEILA JACKSON-LEE.
EDDIE BERNICE JOHNSON.
MICHAEL HONDA.
ZOE LOFGREN.
ANTHONY WEINER.
DENNIS CARDOZA.
MARK UDALL.
BRAD SHERMAN.
JERRY COSTELLO.
LYNN WOOLSEY.
LINCOLN DAVIS.

XXI. PROCEEDINGS OF THE MARKUP BY THE SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS ON H.R. 3598, MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT OF 2003

THURSDAY, MARCH 25, 2004

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS,
COMMITTEE ON SCIENCE,
Washington, DC.

The Subcommittee met, pursuant to call, at 1:15 p.m., in Room 2318 of the Rayburn House Office Building, Hon. Vernon J. Ehlers [Chairman of the Subcommittee] presiding.

Chairman EHLERS. Good afternoon. The Subcommittee will be in order.

Pursuant to notice, the Subcommittee on Environment, Technology, and Standards meets today to consider the following measure, H.R. 3598, the *Manufacturing Technology Competitiveness Act of 2003*. I ask unanimous consent for the authority to recess the Subcommittee at any point, and without objection, it is so ordered, without objection.

I will proceed with my opening statement to begin the session. We will now consider the bill H.R. 3598 and proceed with opening remarks.

Good afternoon, and welcome to today's markup of H.R. 3598, the *Manufacturing Technology Competitiveness Act of 2003*. Manufacturing is a significant contributor of wealth to our economy, a source of high-paying jobs, and a major supporter of industrial research and development in this country. We count on our industry's ability to create new jobs by leading the world in scientific developments. While there are many challenges facing our nation's manufacturers, I believe the fundamental issue of innovation has been generally left out of the debate. For decades, innovation has underpinned America's dominance in the world economy. If our manufacturing sector is to remain competitive in the global marketplace, we must foster innovation within this sector.

While our economy is rebounding, we know the manufacturing sector continues to struggle. In response to the challenges faced by manufacturing, the Subcommittee held a hearing last May to learn from experts in the field about the role of research and development in manufacturing competitiveness. The witnesses expressed

deep concern that the preeminence of U.S. manufacturing in the global economy was eroding through the loss of manufacturing overseas. They described how the U.S. needs to accelerate its pace of innovation to ensure domestic job creation and to maintain our technological edge, especially in critical industries. The witnesses said that some small federal programs already contribute to this area but that more needs to be done.

The legislation we are considering today, H.R. 3598, will provide a structure for better coordination between federal manufacturing R&D programs; strengthen the Manufacturing Extension Partnership program, better known as MEP; establish a collaborative grants program at the National Institute of Standards and Technology, known as NIST, to support innovation; and to create a fellowship program at NIST to cultivate greater U.S. expertise in the manufacturing sciences. 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 Mr. Udall for all of his efforts. The bill is also supported by several groups, including the National Association of Manufacturers, and the National Coalition for Advanced Manufacturing.

I will be offering a manager's amendment that makes some technical corrections to the bill, as introduced. It also removes language establishing an Under Secretary of Commerce for Manufacturing and Technology because the Administration has already created the new position of Assistant Secretary for Manufacturing and Services.

This is an important and timely bill. Our global competitors are eagerly supporting investments in manufacturing research and development, because they know it is the key to sustained economic development. If we are to continue to be the world's technological leader, we need to rise to this new global challenge and make the investments envisioned by this legislation. I urge my colleagues to support it today and as it moves through the Committee and the Floor.

[Statement of Mr. Ehlers follows:]

PREPARED STATEMENT OF CHAIRMAN VERNON J. EHLERS

Good Afternoon and welcome to today's markup of H.R. 3598, the *Manufacturing Technology Competitiveness Act.*

Manufacturing is a significant contributor of wealth to our economy, a source of high-paying jobs, and a major supporter of industrial research and development in this country. We count on our industry's ability to create new jobs by leading the world in scientific developments. While there are many challenges facing our nation's manufacturers, I believe the fundamental issue of innovation has been generally left out of the debate. For decades, innovation has underpinned American's dominance in the world economy. If our manufacturing sector is to remain competitive in the global marketplace, we must foster innovation within this sector.

While our economy is rebounding, we know the manufacturing sector continues to struggle. In response to the challenges faced by manufacturing, the Subcommittee held a hearing last May to learn from experts in the field about the role of research and development in manufacturing competitiveness. The witnesses expressed deep concern that the preeminence of U.S. manufacturing in the global economy was eroding through the loss of manufacturing overseas. They described how the U.S. needs to accelerate its pace of innovation to ensure domestic job-creation and to maintain our technological edge, especially in critical industries. The witnesses said that some small federal programs already contribute to this area, but that more needs to be done.

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This is an important and timely bill. Our global competitors are eagerly supporting investments in manufacturing research and development because they know it is the key to sustained economic development. If we are to continue to be the world's technological leader, we need to rise to this new global challenge and make the investments envisioned by this legislation. I urge my colleagues to support it today and as it moves through the Committee.

Chairman EHLERS. I now recognize Mr. Udall for five minutes to present his opening remarks.

Mr. UDALL. Thank you, Mr. Chairman. I will be brief, as this is a busy day, and the debate on the budget resolution, of course, is underway.

Manufacturing is the primary source of productivity growth in our country. This sector remains critical to the Nation's future prosperity and security, yet U.S.-based manufacturers are facing a crisis today, a crisis marked by a steep decline in business investment, a sluggish global economy, and increased competition from low-wage countries, many with a highly skilled workforce. These forces, as we all know, battered the American manufacturing sector, but neither the Congress nor the Administration has risen to meet this challenge in any direct way. The manufacturing sector has experienced 40 consecutive months of job losses, totaling more than 2.75 million jobs.

As the Chairman mentioned, the subject of the bill before us today is manufacturing. This is probably the most important issue, and certainly the one with the most immediacy that this subcommittee will address in this Congress. Last July, I introduced my own manufacturing legislation, H.R. 2908. I am also a co-sponsor of the bill before us today, so I am supportive of this bill, but I would say that it is a modest effort to support our manufacturing base.

Last June, this subcommittee held a hearing on manufacturing R&D. We had an excellent panel of witnesses, who made a number of specific recommendations on actions that the Federal Government can take and which were within the Science Committee's jurisdiction. But H.R. 3598 reflects few of the recommendations made by our witnesses. And today, the Chairman will be offering a substitute amendment, which is narrower in scope than the original bill.

So while I appreciate the leadership that the Chairman has shown, I think that we do need to do more. That is why I will be offering an amendment which addresses some of these shortcomings and which is based upon the recommendations that were made at our hearing last year.

Thank you, Mr. Chairman, and I look forward to the markup.

[The prepared statement of Mr. Udall follows:]

PREPARED STATEMENT OF REPRESENTATIVE MARK UDALL

Mr. Chairman, I will be brief, as this is a very busy day and debate on the budget resolution is underway.

Manufacturing is the primary source of productivity growth in our country. This sector remains critical to the Nation's future prosperity and security.

Yet U.S.-based manufacturers are facing a crisis today—a crisis marked by a steep decline in business investment, a sluggish global economy, and increased competition from low-wage countries, many with a high-skilled workforce.

These forces have battered the American manufacturing sector. But neither the Congress nor the Administration has risen to meet this challenge in any direct way. The manufacturing sector has experienced 40 consecutive months of job losses—totaling more than 2.75 million jobs.

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Last July, I introduced my own manufacturing legislation, H.R. 2908. I'm also a co-sponsor of the bill before us today. So I am supportive of this bill, but I would say that it is a very modest effort to support our manufacturing base.

Last June, this subcommittee held a hearing on manufacturing R&D. We had an excellent panel of witnesses who made a number of specific recommendations on actions that the Federal Government can take, and which were within the Science Committee's jurisdiction.

But H.R. 3598 reflects few of the recommendations made by our witnesses, and today, the Chairman will be offering a substitute amendment, which is even narrower in scope than the original bill.

So while I appreciate the leadership that the Chairman has shown, I think that we do need to do more. That's why I will be offering an amendment which will address some of these shortcomings and which is based upon the recommendations that were made at our hearing.

Thank you Mr. Chairman.

Chairman EHLERS. Thank you.

Without objection, all Members may place opening statements in the record at this point in time. Hearing no objection, the statements are entered.

The bill is now open for discussion. First reading of the bill.

Ms. TESSIERI. H.R. 3598, to establish an interagency committee to coordinate federal manufacturing research and development efforts in manufacturing——

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.

[See Appendix for H.R. 3598, Summary, and Section-by-Section Analysis.]

Chairman EHLERS. The bill is open for amendments. The first amendment on the roster is an amendment in the nature of a substitute offered by the Chair. I ask unanimous consent that the amendment in the nature of a substitute be considered original text for purposes of amendment under the Five-Minute Rule. Without objection, so ordered.

[See Appendix for Amendment Roster.]

Chairman EHLERS. I have an amendment at the desk. The Clerk shall report the amendment.

Ms. TESSIERI. Amendment in the nature of a substitute to H.R. 3598 offered by Mr. Ehlers.

[See Appendix for the Amendment in the Nature of a Substitute to H.R. 3598, Summary of Substitute Amendment, and Section-by-Section Analysis of Substitute Amendment offered by Mr. Ehlers.]

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

I recognize myself for such time as I may consume.

The major changes offered by the substitute to the original bill include removing the provision that established an Under Secretary of Commerce for Manufacturing and Technology, lowering the authorization levels for the Manufacturing Extension Partnership program to remain consistent with past appropriations for the program, and making other technical changes to the original bill.

Is there any further discussion on this amendment? Hearing none, we will proceed with the next amendment on the roster, which is amendment number 2, an En Bloc amendment offered by Mr. Udall. Are you ready to proceed with the amendment?

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

Chairman EHLERS. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Mr. Udall of Colorado to the amendment in the nature of a substitute.

[See Appendix for the amendment offered by Mr. Udall.]

Mr. UDALL. Mr. Chairman, I would ask unanimous consent that the reading of the amendment be dispensed with.

Chairman EHLERS. Without objection, so ordered.

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

Mr. UDALL. Thank you, Mr. Chairman.

I intend to withdraw the amendment, but I would first like to discuss some of its main provisions. As I mentioned earlier, I introduced a bill, H.R. 2908, last July, and the bill was based on recommendations made at the Subcommittee's hearing last June on manufacturing. And a few of these provisions were incorporated into the bill we are considering today, H.R. 3598.

In brief, my amendment would create a point of interaction for manufacturers and the Department of Commerce. Rather than creating a whole new bureaucracy, the amendment restructures the Technology Administration at the Department of Commerce to emphasize manufacturing as well technology issues. The amendment creates a Manufacturing and Technology Administration headed by the Under Secretary for Manufacturing. And this entity would be responsible for developing and coordinating a federal manufacturing strategy.

Second, the amendment authorizes funding for the NIST Manufacturing Engineering Lab. Although all of NIST's supports are industrial based, the Manufacturing Engineering Lab most directly supports the needs of the manufacturing community.

Third, the amendment authorizes funding for the Advanced Technology Program, ATP, as we all know it, and sets aside $20 million for new awards each year in the focused competition in the area of manufacturing.

Fourth, the amendment authorizes a study on how the Small Business Innovative Research and the Small Business Technology Transfer program might be utilized to support R&D in support of manufacturing.

Five, one of the most critical elements of our manufacturing competitiveness is to have a technically trained workforce. The amendment leverages the National Science Foundation's successful Advanced Technological Education program to include preparation of students for manufacturing jobs. It also provides funding for developing performance standards to certify job skills for manufacturing workers.

Our committee, the Science Committee, has traditionally been at the forefront of manufacturing technology and competitiveness issues. My amendment follows in this tradition, I believe.

And Mr. Chairman, I understand that you are not prepared to support this amendment at this time, and as I mentioned, I intend to withdraw it. However, I do believe its provisions would have improved the bill by promoting a comprehensive and robust manufacturing strategy.

Mr. Chairman, with that, I would ask unanimous consent that the amendment be withdrawn at this time.

[The prepared statement of Mr. Udall follows:]

PREPARED STATEMENT OF REPRESENTATIVE MARK UDALL

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

I intend to withdraw my amendment, but would first like to discuss some of its main provisions.

My amendment is based upon H.R. 2908, a bill I introduced in July 2003. This bill was based upon the recommendations made at the Subcommittee's hearing in June on manufacturing. A few of these provisions were incorporated into H.R. 3598.

In brief, my amendment would:

- Create a point of interaction for manufacturers in the Department of Commerce. Rather than creating a whole new bureaucracy, the amendment restructures the Technology Administration at the Department of Commerce to emphasize manufacturing as well as technology issues. The amendment creates a Manufacturing and Technology Administration headed by the Under Secretary for Manufacturing. This entity would be responsible for developing and coordinating a federal manufacturing strategy.
- The amendment authorizes funding for NIST's Manufacturing Engineering Lab. Although all of NIST supports our industrial base, the Manufacturing Engineering Lab most directly supports the needs of the manufacturing community.
- The amendment authorizes funding for the Advanced Technology Program and sets aside $20 million for new awards each year for a focused competition in the area of manufacturing.
- The amendment authorizes a study on how the Small Business Innovative Research and the Small Business Technology Transfer program might be utilized to support R&D in support of manufacturing.
- One of the most critical elements of our manufacturing competitiveness is to have a technically trained workforce. The amendment leverages the National Science Foundation's successful Advanced Technological Education Program to include preparation of students for manufacturing jobs. It also provides funding for developing performance standards to certify job skills for manufacturing workers.

The Science Committee has traditionally been at the forefront of manufacturing, technology and competitiveness issues. My amendment follows in this tradition.

Mr. Chairman, I understand that you are not prepared to support this amendment at this time. And as I mentioned, I intend to withdraw it. However, I believe its provisions would have improved the bill by promoting a comprehensive and robust manufacturing strategy.

Mr. Chairman, I ask unanimous consent that the amendment be withdrawn.

Chairman EHLERS. Without objection, so ordered.

I do commend the gentleman's efforts on manufacturing and his willingness to withdraw his amendment. I have a great deal of respect for him and his ideas, and we will continue to work together in the future on issues relating to this. It is clear that manufacturing in this nation is in trouble, and there is much to be done. We hope the economic improvement will help it, but clearly, there is a lot we can do in research and development.

Are there any further amendments?

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

Chairman EHLERS. Mr. Baird is recognized.

Mr. BAIRD. Mr. Chairman, I thank you for your recognition and for your leadership on this issue.

The amendment that I had proposed, but that I intend to withdraw, is actually rather similar to my good friend, Mr. Udall, in the sense that it responds to the testimony we heard from some of our witnesses before this Committee, who urged greater involvement in programs, such as SBIR, in support of manufacturing technology research and applications. One of my concerns is that I believe we can do much more to help rapidly growing, high-technology businesses, and I think we have some obstacles in the way that paradoxically may take some of our resources and send them to companies that are, perhaps, ineffective and unsuccessful, and we may starve companies that are in a rapid growth trajectory and have proven success. And I would have hoped that we might have worked with the Under Secretary of Commerce for Technology to work on a technology transfer program—or manufacturing program, rather. I understand the Majority has some concerns about this, and I still believe it worthwhile and consistent with some of the testimony we have heard in this Committee and some that I have heard from our manufacturing and technology sector back home.

So, while I intend to withdraw it, I would certainly ask the Chair if the Chair would be willing to work with us to see if we can address some of these concerns, perhaps, in a somewhat different way.

Chairman EHLERS. Again, I appreciate your ideas and your efforts to improve this. I appreciate, above all, your willingness to withdraw your amendment. We would have to recognize the amendment first before you withdraw it, but we will take care of that technicality later.

Mr. BAIRD. Oh, I am sorry.

Chairman EHLERS. But I will be happy to continue to work with you, and others. As I said earlier, there is a lot of work to be done yet in improving the manufacturing climate in the U.S. And I would be happy to discuss your ideas and the Ranking Member's as well.

Mr. BAIRD. I thank the gentleman. I would ask unanimous consent that amendment be withdrawn.

Chairman EHLERS. First, we will have to—the Clerk will have to read the amendment, and then we can withdraw it.

Mr. BAIRD. Okay.

Chairman EHLERS. The Clerk will read.

Ms. TESSIERI. Amendment offered by Mr. Baird to the amendment in the nature of a substitute.

[See Appendix for the amendment offered by Mr. Baird.]

Mr. BAIRD. Now I ask unanimous consent that it would be withdrawn.

Chairman EHLERS. Without objection, so ordered.

Are there other amendments?

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

Chairman EHLERS. The Clerk will read.

Ms. TESSIERI. Amendment offered by Mr. Smith of Michigan——

Mr. SMITH. I move that the amendment be considered read, Mr. Chairman.

Chairman EHLERS. Without objection, so ordered.

[See Appendix for the amendment to the Amendment in the Nature of a Substitute to H.R. 3598 offered by Mr. Smith.]

Mr. SMITH. The amendment reduces the authorized amount going into this program. And I would just suggest to the Committee, and whether or not I withdraw it depends on the number of conservative Democrats that are here at the time the vote is taken.

There is a problem of our competitiveness in manufacturing that relates not only to our overzealous rules and regulations, not only to the litigious nature that means we really need tort reform, but also the fact that we are taxing our manufacturers approximately 18 percent more than our competition. So to dramatically increase funding and say we are going to tax manufacturers more so that government has the money to help you, I think needs to be thought through very carefully. What my amendment does, it takes the $39 million that was appropriated for this program this current year and increases the amount to the $106.5 million that was authorized and appropriated last year. And it starts with that base for the year 2005 and then increases it according to what the Congressional Budget Office suggests inflation will be for those remaining three years.

And so I would welcome comment, but if there is not opposition, then I won't withdraw the amendment.

Chairman EHLERS. The gentleman's time is expired.

I would yield myself five minutes.

I respect Mr. Smith's amendment to restrict the spending of the government, but I think this is probably one of the poorest places to start, because we do so little for manufacturing already in this country, and I will rise in opposition to the amendment.

I think an interesting analogy is—and I want to make it clear I am not choosing this because of your background, Mr. Smith, as a farmer, because I have used this analogy before in discussions with manufacturers. We have a separate Department of Agriculture in this nation. We provide a great deal of support monetarily to the agricultural system in this country, and I don't begrudge that, because it is a very important sector of our economy and makes us one of the most productive agricultural nations in the world. At the same time, one to two percent of the employed people in this world are those involved in agriculture, encompassing only one to two percent of the workforce in America. Manufacturing encompasses almost 15 percent of the workforce, and we do very, very little for the manufacturing sector.

What we have in the bill is an authorization level of $44 million below what the bill was as introduced. We have already reduced it at the request of some Members. It is a matching program in which the Federal Government provides only B of the total cost, and the states will provide B, with business fees covering the remainder.

It is one of the few programs that we have in the Federal Government that actually helps small business, small manufacturers who, in turn, then, have an opportunity to become big manufacturers. And it has received nothing but praise for its program management and efficiency. It is one of—in other words, it is one of the good programs that the Federal Government has. And I think we ought to continue it at a very decent level.

Recognize, also, coupled with this is, in some sense, the ATP program. It is not part of the same program, but that is a program we have had for some time, which previously spent several hundred millions of dollars, and that has been literally starved, too. So I think it is very important that we maintain this funding level for this program at this time.

And I apologize to Mr. Smith, but I will have to oppose the amendment.

Mr. Gutknecht is recognized for five minutes.

Mr. GUTKNECHT. Mr. Chairman, I don't know whether you have seen the amendment, but I had not seen the amendment until two minutes ago. I would also ask Mr. Smith to withdraw the amendment, but having said that, as a Member of the Budget Committee, and as the debate rages on the House Floor right now in terms of what we are going to do with the budget, I think something that I said yesterday to a group applies to this Subcommittee as well, and that is this is the easiest budget that we are going to have to vote for for as long as any of us serve in the Congress. Things are going to get much more difficult as we go forward.

You look at the problem we have with the retiring baby-boomers, you look at the new entitlement, which was approved by the Congress last year relative to prescription drugs under Medicare, if you read the report by the Trustees of the Social Security and Medicare Trustees that was made public earlier this week, all of these point in the same direction, and that is that the idea that we can continue to grow other areas of the government is an idea whose time has probably passed. And so while I would ask Mr. Smith to withdraw this amendment, I think it does serve a useful purpose in letting us all know that whether we are talking about programs which we strongly support, or programs which we may not support as aggressively, we are going to all begin to really feel the pinch of the federal budget as we go forward.

So I thank Mr. Smith for putting this amendment forward. I would hope, at this point in time, he would withdraw it, but I think it serves as a bookmark that we all need to come back to to discuss how we, on this committee, are going to be part of the solution.

Chairman EHLERS. Is there any further——

Mr. SMITH. Mr. Chairman, I would ask for unanimous consent to have another 60 seconds to make comments.

Chairman EHLERS. Without objection, so ordered.

Mr. SMITH. I guess my concern is derived from the Trustees' report of Medicare and Social Security that came out two days ago.

And that simply ups the unfunded liability of Medicare and Social Security from the previous projection of $51 trillion to a new level of $71 trillion, which means, in terms of what is going to have to come out of the general fund 15 years from now is going to be 28 percent of all of the general fund budget, and in 25 years from now, over 50 percent of the general fund budget to make up the difference between the revenues coming in on the FICA tax for Social Security and Medicare compared to the promises we have made.

And Mr. Chairman, I don't know if you are in the mood for trades, but with your consent that the highlights of that Trustee report, in the form of this paper, be included in the record, I would move that we withdraw the amendment.

Chairman EHLERS. Without objection, the statement will be entered in the record, and without objection, the amendment is withdrawn.

[The information follows:]

Briefing Highlights

For the first time ever, the trustees have calculated the present value of unfunded liabilities under Social Security and Medicare, looking indefinitely into the future.

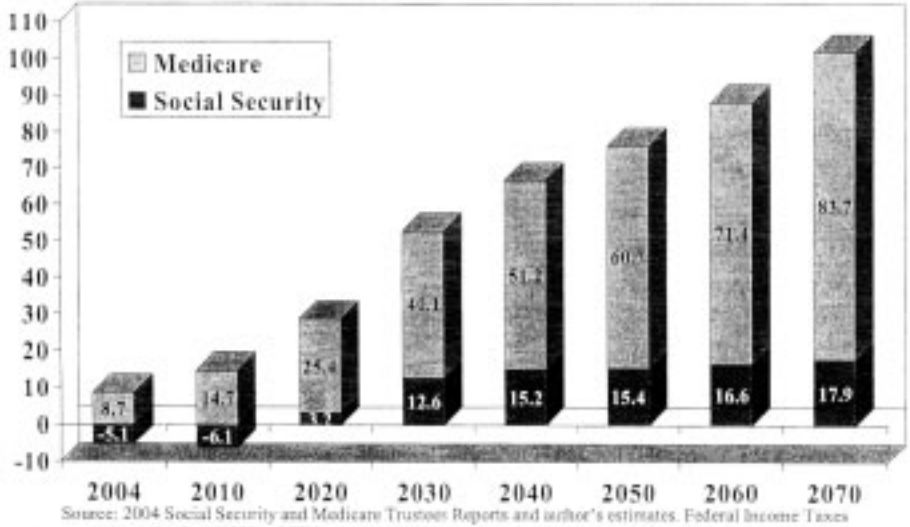
The unfunded obligations total $72 trillion, a number higher than any previous estimate by outside economists.

The $72 trillion unfunded debt breaks down as follows:

Medicare Part A:	$21.8 trillion
Medicare Part B:	$23.2 trillion
Medicare Part D: (Prescription drugs)	$16.6 trillion
Social Security:	$10.4 trillion

General Revenue Transfers to Social Security and Medicare

(as a % of income taxes)



Source: 2004 Social Security and Medicare Trustees Reports and author's estimates. Federal Income Taxes are estimated to be 10.89% of GDP which is the 50 year average.

Chairman EHLERS. Are there any further amendments?

Without objection. I would yield myself 30 seconds to commend the statements of both Mr. Smith and Mr. Gutknecht about the budgetary problems we face in the future. We all recognize that. We have to make the people of this country realize that and that we are going to be living in a different world during the next half-decade to a decade.

Hearing no further amendments, the question is on the amendment in the nature of a substitute. All in favor, say aye. Those opposed, no. The yeas have it, and the amendment in the nature of a substitute is agreed to.

The question is now on the bill, H.R. 3598, the Manufacturing Technology Competitiveness Act, as amended. All of those in favor will say aye. Those opposed will say no. In the opinion of the Chair, the ayes have it.

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

Mr. UDALL. Thank you, Mr. Chairman.

Mr. Chairman, I move that the Subcommittee favorably report the bill H.R. 3598, as amended, to the Full Committee and that the staff be directed to prepare the Subcommittee report. Further, I ask unanimous consent that the staff be instructed to make all necessary technical 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 ayes appear to have it, and the resolution is favorably reported.

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

Thank you all for your attendance here and your participation. I appreciate that. And it is my pleasure to adjourn this subcommittee markup.

[Whereupon, at 1:39 p.m., the Subcommittee was adjourned.]

Appendix:

H.R. 3598, SUMMARY, SECTION-BY-SECTION ANALYSIS OF H.R. 3598, AMENDMENT ROSTER, SECTION-BY-SECTION OF SUBSTITUTE AMENDMENT, MAJOR DIFFERENCES

I

108TH CONGRESS
1ST SESSION

H. R. 3598

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

NOVEMBER 21, 2003

Mr. EHLERS (for himself and Mr. UDALL of Colorado) 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 2003".

SEC. 2. INTERAGENCY COMMITTEE AND ADVISORY COMMITTEE.

(a) INTERAGENCY COMMITTEE.—

(1) ESTABLISHMENT.—The President shall establish 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 Small Business Administration, the Science and Technology Directorate of the Department of Homeland Security, the National Science Foundation, the Department of Energy's Office of Industrial Technology, a representative of the Department of Energy National Laboratories with expertise in manufacturing research, and any other agency that the President may designate. The Interagency Committee shall be chaired by the Under Secretary of Commerce for Manufacturing and Technology.

(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 coordinated manufacturing research and development, including the strengthening of United

1 States manufacturing through the support and
2 coordination of Federal manufacturing re-
3 search, development, technology transfer, stand-
4 ards, and technical training;
5 (B) propose a coordinated interagency
6 budget for manufacturing research and develop-
7 ment to the Office of Management and Budget
8 that will ensure the maintenance of a balanced
9 research portfolio and ensure that each agency
10 is allocated the level of funding required to
11 meet the goals and priorities established for
12 manufacturing research and development; and
13 (C) developing, within 6 months after the
14 date of enactment of this Act, and updating
15 every 3 years, a strategic plan, to be trans-
16 mitted to the Committee on Science of the
17 House of Representatives and the Committee
18 on Commerce, Science, and Transportation of
19 the Senate, and to the President, for manufac-
20 turing research and development that in-
21 cludes—
22 (i) an analysis of the research, devel-
23 opment, technology transfer, standards,
24 technical training, and integration needs of
25 the manufacturing sector important to en-

1 suring and maintaining United States com-
2 petitiveness;
3 (ii) a report on the various Federal
4 programs involved in manufacturing re-
5 search, development, technical training,
6 standards, and integration, their funding
7 levels, and the degree to which they meet
8 the needs identified under clause (i);
9 (iii) an analysis of the gaps that exist
10 in those Federal programs and rec-
11 ommendations of changes that should be
12 made to fill those gaps; and
13 (iv) a plan on how to better coordi-
14 nate and strengthen federally supported
15 manufacturing research, development,
16 technical training, and integration activi-
17 ties.
18 (3) RECOMMENDATIONS AND VIEWS.—In car-
19 rying out its functions under paragraph (2), the
20 Interagency Committee shall consider the input and
21 recommendations of the Advisory Committee and the
22 views of academic, State, industry, and other entities
23 in the manufacturing research and development
24 community.

(4) COORDINATION OF GRANT PROGRAMS.—To ensure the effective implementation of the collaborative grant program under section 33 of the National Institute of Standards and Technology Act, the member agencies of the Interagency Committee shall, where practicable, coordinate their manufacturing grant activities with that program.

(b) ADVISORY COMMITTEE.—

(1) ESTABLISHMENT.—Not later than 6 months after the date of enactment of this Act, the President shall establish an advisory committee to provide advice and information to the Interagency Committee from the non-Federal manufacturing research and development community. The Advisory Committee shall be composed of no more than 25 members appointed by the President, including the following:

(A) 4 members from outside the Federal Government who are eminent in the manufacturing industry, at least 2 of whom are representatives of small and medium-sized companies in such industry.

(B) 4 members from the academic research community who are eminent in their field and have expertise in the manufacturing sciences.

(C) 3 members from labor unions, a majority of whose membership have manufacturing jobs.

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

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

(B) the strategic plan, including proposals for focus areas for research, development, technology transfer, standards, technical training, supply chain integration, and the identification and proposal of technological or organizational solutions to challenges such as outsourcing.

(3) REPORT.—The Advisory Committee shall also assist the Interagency Committee in the update of its strategic plan by providing a report every 3 years, which shall also be transmitted to the Committee on Science of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate, and to the President, that shall assess—

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

(B) the management, coordination, implementation of activities under the strategic plan;

(C) the effectiveness of these activities in improving United States manufacturing competitiveness;

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

(E) new and emerging problems and opportunities affecting the manufacturing research community, including workforce issues, education, 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. MANUFACTURING AND TECHNOLOGY.

(a) AMENDMENT.—Section 5 of the Stevenson-Wydler Technology Innovation Act of 1980 (15 U.S.C. 3704) is amended to read as follows:

1 **"SEC. 5. MANUFACTURING AND TECHNOLOGY.**

2 "(a) ESTABLISHMENT.—There is established in the
3 Department of Commerce a Manufacturing and Tech-
4 nology Administration, which shall operate in accordance
5 with the provisions, findings, and purposes of this Act.
6 The Manufacturing and Technology Administration shall
7 include—

8 "(1) the National Institute of Standards and
9 Technology;

10 "(2) the National Technical Information Serv-
11 ice; and

12 "(3) a policy analysis office, which shall be
13 known as the Office of Manufacturing and Tech-
14 nology Policy.

15 "(b) UNDERSECRETARY AND ASSISTANT SECRE-
16 TARIES.—The President shall appoint, by and with the ad-
17 vice and consent of the Senate, to the extent provided for
18 in appropriations Acts—

19 "(1) an Under Secretary of Commerce for Man-
20 ufacturing and Technology, who shall be an indi-
21 vidual with engineering or management experience
22 in manufacturing, including experience with small
23 and medium-sized manufacturing firms, and experi-
24 ence in dealing with public policy matters related to
25 manufacturing, and who shall be compensated at the

1 rate provided for level III of the Executive Schedule
2 in section 5314 of title 5, United States Code;
3 "(2) an Assistant Secretary of Manufacturing
4 who shall serve as a policy analyst for the Under
5 Secretary; and
6 "(3) an Assistant Secretary of Technology who
7 shall serve as a policy analyst for the Under Sec-
8 retary.
9 "(c) UNDER SECRETARY'S DUTIES.—The Secretary,
10 through the Under Secretary, as appropriate, shall—
11 "(1) manage the Manufacturing and Tech-
12 nology Administration and supervise its agencies,
13 programs, and activities;
14 "(2) serve as a point of contact on Federal
15 manufacturing research and development, as well as
16 broader policy issues related to manufacturing, for
17 discussions among industry, academic, labor, and
18 other groups;
19 "(3) provide that cooperative efforts to stimu-
20 late industrial competitiveness and innovation be un-
21 dertaken between the Under Secretary and other of-
22 ficials in the Department of Commerce responsible
23 for such areas as trade and economic assistance;
24 "(4) encourage and assist the creation of cen-
25 ters and other joint initiatives by State or local gov-

1 ernments, regional organizations, private businesses,
2 institutions of higher education, nonprofit organiza-
3 tions, or Federal laboratories to encourage tech-
4 nology transfer, to encourage innovation, and to pro-
5 mote an appropriate climate for investment in tech-
6 nology-related industries;
7 "(5) propose and encourage cooperative re-
8 search involving appropriate Federal entities, State
9 or local governments, regional organizations, colleges
10 or universities, nonprofit organizations, or private
11 industry to promote the common use of resources, to
12 improve training programs and curricula, to stimu-
13 late interest in manufacturing and technology ca-
14 reers, and to encourage the effective dissemination
15 of manufacturing and technology skills within the
16 wider community;
17 "(6) propose and support studies and policy ex-
18 periments, in cooperation with other Federal agen-
19 cies, to determine the effectiveness of measures for
20 improving United States manufacturing capabilities
21 and productivity; and
22 "(7) ensure that activities undertaken by the
23 Manufacturing and Technology Administration,
24 where appropriate, take into account the needs of
25 small and medium-sized manufacturers.

1 "(d) ASSISTANT SECRETARIES' DUTIES.—The As-
2 sistant Secretaries described in subsection (b)(2) and (3)
3 shall—
4 "(1) produce periodic manufacturing reports
5 and policy analyses for use by the Advisory Com-
6 mittee described in paragraph (3), Federal agencies,
7 policymakers, and manufacturers, which may include
8 such subjects as technology trends, workforce, edu-
9 cation, and the manufacturing economy, to guide im-
10 provements in United States industrial productivity;
11 "(2) identify manufacturing and technological
12 needs, problems, and opportunities within and across
13 industrial sectors that, if addressed, could make sig-
14 nificant contributions to the economy of the United
15 States;
16 "(3) provide technical and administrative sup-
17 port to the Interagency Committee established or
18 designated under section 2(a) of the Manufacturing
19 Technology Competitiveness Act of 2003 and the
20 Advisory Committee established or designated under
21 section 2(b) of the Manufacturing Technology Com-
22 petitiveness Act of 2003; and
23 "(4) conduct public outreach, including the dis-
24 semination of findings and recommendations of the
25 Interagency Committee and the Advisory Committee

1 described in paragraph (3), and of the activities of
2 the Manufacturing and Technology Administration.
3 "(e) REPORT ON FOREIGN EFFORTS.—Not later
4 than one year after the date of enactment of this Act, the
5 Under Secretary of Commerce for Manufacturing and
6 Technology shall submit a report to Congress describing
7 the efforts of foreign governments to attract and develop
8 technology-based manufacturing, including supporting
9 technical and scientific education, research and develop-
10 ment, development of standards, and encouraging techno-
11 logical investment from overseas.".
12 (b) CONFORMING AMENDMENTS.—Section 4 of the
13 Stevenson-Wydler Technology Innovation Act of 1980 (15
14 U.S.C. 3703) is amended—
15 (1) in paragraph (1), by inserting "Manufac-
16 turing and" after "Office of"; and
17 (2) in paragraph (3), by inserting "Manufac-
18 turing and" after "Under Secretary of Commerce
19 for".

20 **SEC. 4. COLLABORATIVE MANUFACTURING RESEARCH**
21 **GRANTS.**

22 The National Institute of Standards and Technology
23 Act is amended—
24 (1) by redesignating the first section 32 as sec-
25 tion 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 GRANTS.

"(a) AUTHORITY.—

"(1) ESTABLISHMENT.—The Director shall establish a 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 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 competi-

1 tiveness of United States manufacturing, and build
2 lasting alliances among collaborators.
3 "(b) PROGRAM CONTRIBUTION.—Awards under this
4 section shall provide for not more than one-third of the
5 costs of a partnership. Not more than an additional one-
6 third of such costs may be obtained directly or indirectly
7 from other Federal sources.
8 "(c) APPLICATIONS.—Applications for awards under
9 this section shall be submitted in such manner, at such
10 time, and containing such information as the Director
11 shall require. Such applications shall describe at a min-
12 imum—
13 "(1) how each partner will participate in devel-
14 oping and carrying out the research agenda of the
15 partnership;
16 "(2) the work that the grant would fund; and
17 "(3) how the work to be funded with the award
18 would contribute to improved performance, produc-
19 tivity, and competitiveness of the United States
20 manufacturing industry.
21 "(d) SELECTION CRITERIA.—In selecting applica-
22 tions for awards under this section, the Director shall con-
23 sider at a minimum—
24 "(1) the degree to which projects will have a
25 broad impact on manufacturing;

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

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

"(4) any other criteria the Director may require.

"(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) PREFERENCE.—The Director shall give preference to the selection of applicants whose proposals include training of qualified candidates at educational institutions or industrial facilities.

"(g) REPORT.—Not later than 2 years after the date of enactment of this Act, the Director shall transmit to Congress a report on the performance of the program under this section.".

SEC. 5. MANUFACTURING FELLOWSHIP PROGRAM.

(a) ESTABLISHMENT.—In order to promote the development of a robust research community working at the leading edge of manufacturing sciences, the Director of

1 the National Institute of Standards and Technology shall
2 establish a program to award—
3 (1) postdoctoral research fellowships to individ-
4 uals who are seeking research positions at institu-
5 tions, including the National Institute of Standards
6 and Technology, engaged in research activities re-
7 lated to manufacturing sciences; and
8 (2) senior research fellowships to individuals
9 seeking research positions at institutions, including
10 the National Institute of Standards and Technology,
11 engaged in research activities related to manufac-
12 turing sciences.
13 (b) APPLICATIONS.—To be eligible for an award
14 under this section, an individual shall submit an applica-
15 tion to the Director of the National Institute of Standards
16 and Technology at such time, in such manner, and con-
17 taining such information as the Director may require.
18 (c) STIPEND LEVELS.—Under this section, the Di-
19 rector shall provide stipends for postdoctoral research fel-
20 lowships at a level consistent with the National Institute
21 of Standards and Technology Postdoctoral Research Fel-
22 lowship Program, and senior research fellowships at levels
23 consistent with support for a faculty member in a sab-
24 batical position.

SEC. 6. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated to the Secretary of Commerce for the Collaborative Manufacturing Research Grants program under section 33 of the National Institute of Standards and Technology Act and for Manufacturing Fellowships at the National Institute of Standards and Technology under section 5 of this Act—

(1) $41,500,000 for fiscal year 2005, of which $40,000,000 shall be for the program under section 33 of the National Institute of Standards and Technology Act and $1,500,000 shall be for the program under section 5 of this Act;

(2) $45,750,000 for fiscal year 2006, of which $44,000,000 shall be for the program under section 33 of the National Institute of Standards and Technology Act and $1,750,000 shall be for the program under section 5 of this Act;

(3) $50,000,000 for fiscal year 2007, of which $48,000,000 shall be for the program under section 33 of the National Institute of Standards and Technology Act and $2,000,000 shall be for the program under section 5 of this Act; and

(4) $54,250,000 for fiscal year 2008, of which $52,000,000 shall be for the program under section 33 of the National Institute of Standards and Tech-

1 nology Act and $2,250,000 shall be for the program
2 under section 5 of this Act.

3 **SEC. 7. 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 placed on proba-
10 tion for one year, after which time the panel shall reevalu-
11 ate the Center. If the Center has not addressed the defi-
12 ciencies identified by the panel, or shown a significant im-
13 provement in its performance, the Director shall conduct
14 a new competition to select an operator for the Center."
15 after "sixth year at declining levels.".

16 (b) 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 section:

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 may be related to projects associated with
18 manufacturing extension activities, including work-
19 force training, supply chain integration, and quality
20 management, or extend beyond these traditional
21 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

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.

"(7) REPORT.—Not later than two years after the first awards under this subsection, the Director shall transmit to Congress a report on the program describing the grants that were awarded, their recipients, the success to date of the program to meet the purposes of this subsection, lessons learned, and the challenges and opportunities facing the future success of the program.

1 "(8) FUNDING.—Funding for the program
2 under this subsection shall not be available unless
3 amounts remain available after financial assistance
4 is provided to Centers as specified under this sec-
5 tion.".
6 (c) AUTHORIZATION OF APPROPRIATIONS.—There
7 are authorized to be appropriated to the Secretary of Com-
8 merce for the Manufacturing Extension Partnership pro-
9 gram under sections 25 and 26 of the National Institute
10 of Standards and Technology Act (15 U.S.C. 278k and
11 278l)—
12 (1) $120,000,000 for fiscal year 2005;
13 (2) $125,000,000 for fiscal year 2006;
14 (3) $132,000,000 for fiscal year 2007; and
15 (4) $137,000,000 for fiscal year 2008.

○

MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT
H.R. 3598 (AS INTRODUCED)

Summary

The purpose of this bill is to foster innovation in the manufacturing sciences, by creating a mechanism for coordinating federal manufacturing research and development, creating new and strengthen existing programs that support manufacturing research, development and innovation, and providing technical extension services to small- and medium-sized manufacturers.

H.R. 3598 will foster innovation, and provide technical guidance and support to small manufacturers as follows:

1) Establish the coordinating mechanism: an *Interagency Committee on Manufacturing Research and Development and an Advisory Committee.* The Interagency Committee would consist of federal research agencies that support manufacturing R&D, plus any additional agencies the President wishes. The Advisory Committee would provide advice and information to the Interagency Committee from the broader manufacturing research community, including universities and industry.

   The Federal Government funds manufacturing R&D in several different agencies, but there is no formal means to coordinate these activities. 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.

2) Establish a *Collaborative manufacturing R&D grant program* to be run out of the National Institute of Standard and Technology (NIST). This would foster innovation in manufacturing technology through partnerships between industry, academia, and other entities. The program would be cost-shared to leverage dollars from other sources.

3) Establish a *post-doctoral and senior research fellowship program* in manufacturing sciences, also at NIST. These types of fellowships will be important in developing a new base of expertise in specific fields to attract graduates to research careers.

4) Authorize the *Manufacturing Extension Partnership* (MEP) program with a mechanism for review and recompetition of MEP Centers. The bill also creates an additional competitive grant program from which MEP Centers can obtain additional funding for manufacturing-related projects.

The MEP program is a cooperative program with states that provide technical assistance to small- and medium-sized manufacturers through a network of 400 centers and offices. The program provides firms with links to experts in business processes, manufacturing technology, supply chain integration, and other manufacturing-related subjects. The Centers are mostly funded approximately with one-third federal funds, one-third state, and one-third fees. The bill does not affect these arrangements.

The Manufacturing Technology Competitiveness Act authorizes funding as follows:

- For the collaborative R&D grants: $40 million in 2005, increasing by $4 million per year to $52 million in FY 2008.
- For the manufacturing fellowship program: $1.5 million in 2005, increasing by $250,000 per year to $2.25 million in FY 2008.
- For the Manufacturing Extension Partnership (MEP) program and Grant Program: $120 million in 2005, increasing to $137 million in FY 2008.

H.R. 3598, MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT (AS INTRODUCED)
SECTION-BY-SECTION

Section 1: Short title.

"Manufacturing Technology Competitiveness Act of 2003"

Section 2: Interagency Committee, Advisory Committee

- Directs the President to establish an Interagency Committee on Manufacturing Research and Development.
- The Interagency Committee will consist of representatives from the federal agencies that have significant manufacturing technology programs.
- The Interagency Committee will establish of goals and priorities to coordinate federal manufacturing research and development, plus a strategic plan and coordinated interagency budget.
- This section also directs the President to establish a 25-member Advisory Committee that would provide advice and information to the Interagency Committee from the nonfederal manufacturing research community, such as industry and academia.
- Together these measures will ensure that there is cooperation and communication between and among federal agencies on manufacturing issues, and that there is input to this discussion from outside the Federal Government to ensure that federal initiatives and programs are kept relevant.

Section 3: Under Secretary for Manufacturing and Technology

- Renames the Technology Administration within the Department of Commerce the Manufacturing and Technology Administration, led by a new Under Secretary for Manufacturing and Technology.
- The new Under Secretary for Manufacturing and Technology's responsibilities include chairing the Interagency Committee, stimulating cooperative research between federal and non-federal entities, and performing various analyses of manufacturing to identify the needs, problems, and opportunities in that sector.
- This section assigns day-to-day responsibility for manufacturing research and development to a high-ranking federal official to ensure that manufacturing issues are a high priority for the Federal Government.

Section 4: Collaborative Manufacturing Research Grants

- Establishes a grant program within the National Institute of Standards and Technology (NIST) that would fund one-third of research partnerships between firms, community colleges, universities, research institutions, state agencies, and non-profits to develop innovative manufacturing technologies.
- This will support collaborations between different entities with expertise in manufacturing who need to work together to remove technological barriers to increasing U.S. manufacturing competitiveness.

Section 5: Manufacturing Fellowship Program

- Establishes a postdoctoral and senior research fellowship program within the National Institute of Standards and Technology, awardees of which are to be engaged in research activities related to manufacturing sciences.
- Academia is experiencing a decline in the number of scientists with expertise in or knowledge of manufacturing, partly because there is little funding to support them. These fellowships will assist scientists with interests in manufacturing to pursue those interests so as to increase high-level manufacturing research talent.

Section 6: Authorization of Appropriations

- Authorizes $40 million for the first year of the collaborative research program, and $1.5 million for the first year of the fellowships program, increasing to $54 million for collaborative research and $2.25 million for fellowships in the fourth year.

Section 7: Manufacturing Extension

- Strengthen the MEP center review process by establishing a probationary period and recompetition process for centers that cannot perform.

- Currently the review process is vague when addressing centers that perform poorly. The legislations codifies guidance on how MEP should proceed.
- Creates a peer-reviewed grant program whereby the MEP Centers can compete with each other for supplemental funding for specific projects to address manufacturing problems in their state or region.
- Much of MEP activities are conducted with individual firms on a fee-for-service basis, but MEP Centers do not have the resources to expand they activities beyond this basic to work on such problems as regional capacity-building, or technical workforce training.
- MEP is reauthorized starting at $120 million in the first year and finishing at $137 million in the fourth year.

COMMITTEE ON SCIENCE

SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS
MARCH 25, 2004
AMENDMENT ROSTER

H.R. 3598, Manufacturing Technology Competitiveness Act of 2003

No.	Sponsor	Description	Results
1.	Mr. Ehlers	Amendment in the Nature of A Substitute to H.R. 3598.	
2.	Mr. Udall	Amendment restructures TA into Manufacturing and Technology Administrations headed by the Under Secretary of Manufacturing and Technology; authorizes funding for the ATP allowing for $80M in new awards each year--$20M of which shall be for manufacturing related proposals; requires the Under Secretary for Manufacturing and Technology to develop a plan to utilize the SBIR program to support manufacturing R&D; and, provides funding to educate and certify skill levels of manufacturing technicians.	
3.	Mr. Baird	Amendment requires the Under Secretary for Technology to develop a plan to utilize the SBIR program to support manufacturing R&D.	
4.	Mr. Nick Smith	Amendment to lower funding levels in the Manufacturing Extension Partnership program.	

AMENDMENT IN THE NATURE OF A SUBSTITUTE TO H.R. 3598 OFFERED BY MR. EHLERS

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 2004".

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

6 (a) INTERAGENCY COMMITTEE.—

7 (1) ESTABLISHMENT.—The President shall es-
8 tablish an interagency committee on manufacturing
9 research and development, which shall include rep-
10 resentatives from the Office of Science and Tech-
11 nology Policy, the National Institute of Standards
12 and Technology, the Science and Technology Direc-
13 torate of the Department of Homeland Security, the
14 National Science Foundation, the Department of
15 Energy, and any other agency that the President
16 may designate. The Interagency Committee shall be
17 chaired by the Under Secretary of Commerce for
18 Technology.

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 an advisory committee to
2 provide advice and information to the Interagency
3 Committee. The Advisory Committee shall be com-
4 posed of no more than 25 members appointed by the
5 President, including the following:
6 (A) 4 members from outside the Federal
7 Government who are eminent in the manufac-
8 turing industry, at least 1 of whom is rep-
9 resentative of small and medium-sized compa-
10 nies in such industry.
11 (B) 4 members from the academic research
12 community who are eminent in their field and
13 have expertise in the manufacturing sciences.
14 (C) 3 members from labor unions, a major-
15 ity of whose membership have manufacturing
16 jobs.
17 (2) RECOMMENDATIONS.—The Advisory Com-
18 mittee shall assist the Interagency Committee by
19 providing it with recommendations on—
20 (A) the goals and priorities for manufac-
21 turing research and development;
22 (B) the strategic plan, including proposals
23 on how to strengthen research and development
24 to help manufacturing; and
25 (C) other issues it considers appropriate.

1 (3) REPORT.—The Advisory Committee shall
2 provide an annual report to the Interagency Com-
3 mittee and the Congress that shall assess—
4 (A) the progress made in implementing the
5 strategic plan and challenges to this progress;
6 (B) the effectiveness of activities under the
7 strategic plan in improving United States man-
8 ufacturing competitiveness;
9 (C) the need to revise the goals and prior-
10 ities established by the Interagency Committee;
11 and
12 (D) new and emerging problems and op-
13 portunities affecting the manufacturing re-
14 search community, research infrastructure, and
15 the measurement and statistical analysis of
16 manufacturing that may need to be considered
17 by the Interagency Committee.
18 (4) FEDERAL ADVISORY COMMITTEE ACT AP-
19 PLICATION.—Section 14 of the Federal Advisory
20 Committee Act shall not apply to the Advisory Com-
21 mittee.
22 **SEC. 3. COLLABORATIVE MANUFACTURING RESEARCH**
23 **GRANTS.**
24 The National Institute of Standards and Technology
25 Act is amended—

1 (1) by redesignating the first section 32 as sec-
2 tion 34 and moving it to the end of the Act; and
3 (2) by inserting before the section moved by
4 paragraph (1) the following new section:

5 **"SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH**
6 **GRANTS.**

7 "(a) AUTHORITY.—
8 "(1) ESTABLISHMENT.—The Director shall es-
9 tablish a program of multiyear awards to partner-
10 ships among participants described in paragraph (2)
11 for the purposes described in paragraph (3). Awards
12 shall be made on a peer-reviewed, competitive basis.
13 "(2) PARTICIPANTS.—Such partnerships shall
14 include at least—
15 "(A) 1 manufacturing industry partner;
16 and
17 "(B) 1 nonindustry partner.
18 "(3) PURPOSE.—The purpose of the program
19 under this section is to foster cost-shared collabora-
20 tions among firms, educational institutions, research
21 institutions, State agencies, and nonprofit organiza-
22 tions to encourage the development of innovative,
23 multidisciplinary manufacturing technologies. Part-
24 nerships receiving awards under this section shall
25 conduct applied research to develop new manufac-

1 turing processes, techniques, or materials that would
2 contribute to improved performance, productivity,
3 and competitiveness of United States manufacturing,
4 and build lasting alliances among collaborators.
5 "(b) PROGRAM CONTRIBUTION.—Awards under this
6 section shall provide for not more than one-third of the
7 costs of a partnership. Not more than an additional one-
8 third of such costs may be obtained directly or indirectly
9 from other Federal sources.
10 "(c) APPLICATIONS.—Applications for awards under
11 this section shall be submitted in such manner, at such
12 time, and containing such information as the Director
13 shall require. Such applications shall describe at a
14 minimum—
15 "(1) how each partner will participate in devel-
16 oping and carrying out the research agenda of the
17 partnership;
18 "(2) the research that the grant would fund;
19 and
20 "(3) how the research to be funded with the
21 award would contribute to improved performance,
22 productivity, and competitiveness of the United
23 States manufacturing industry.

1 "(d) SELECTION CRITERIA.—In selecting applica-
2 tions for awards under this section, the Director shall con-
3 sider at a minimum—
4 "(1) the degree to which projects will have a
5 broad impact on manufacturing;
6 "(2) the novelty and scientific and technical
7 merit of the proposed projects; and
8 "(3) the demonstrated capabilities of the appli-
9 cants to successfully carry out the proposed re-
10 search.
11 "(e) DISTRIBUTION.—In selecting applications under
12 this section the Director shall ensure, to the extent prac-
13 ticable a distribution of overall awards among a variety
14 of manufacturing industry sectors and a range of firm
15 sizes.".
16 **SEC. 4. MANUFACTURING FELLOWSHIP PROGRAM.**
17 Section 18 of the National Institute of Standards and
18 Technology Act (15 U.S.C. 278g–1) is amended—
19 (1) by inserting "(a) IN GENERAL" before "The
20 Director is authorized"; and
21 (2) by adding at the end the following new sub-
22 section:
23 "(b) MANUFACTURING FELLOWSHIP PROGRAM.—
24 "(1) ESTABLISHMENT.—To promote the devel-
25 opment of a robust research community working at

1 the leading edge of manufacturing sciences, the Di-
2 rector shall establish a program to award—
3 "(A) postdoctoral research fellowships at
4 institutions, including the Institute, engaged in
5 research activities related to manufacturing
6 sciences; and
7 "(B) senior research fellowships to estab-
8 lished researchers in industry or at institutions
9 of higher education who wish to pursue studies
10 related to the manufacturing sciences at institu-
11 tions, including the Institute, engaged in re-
12 search activities related to manufacturing
13 sciences.
14 "(2) APPLICATIONS.—To be eligible for an
15 award under this subsection, an individual shall sub-
16 mit an application to the Director at such time, in
17 such manner, and containing such information as
18 the Director may require.
19 "(3) STIPEND LEVELS.—Under this section, the
20 Director shall provide stipends for postdoctoral re-
21 search fellowships at a level consistent with the Na-
22 tional Institute of Standards and Technology
23 Postdoctoral Research Fellowship Program, and sen-
24 ior research fellowships at levels consistent with sup-
25 port for a faculty member in a sabbatical position.".

1 **SEC. 5. MANUFACTURING EXTENSION.**

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

15 (b) MANUFACTURING EXTENSION CENTER COMPETI-
16 TIVE GRANT PROGRAM.—Section 25 of the National Insti-
17 tute of Standards and Technology Act (15 U.S.C. 278k)
18 is amended by adding at the end the following new sub-
19 section:

20 "(e) COMPETITIVE GRANT PROGRAM.—

21 "(1) ESTABLISHMENT.—The Director shall es-
22 tablish, within the Manufacturing Extension Part-
23 nership program under this section and section 26
24 of this Act, a program of competitive awards among
25 participants described in paragraph (2) for the pur-
26 poses described in paragraph (3).

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

1 "(5) SELECTION.—Awards under this sub-
2 section shall be peer reviewed and competitively
3 awarded. The Director shall select proposals to re-
4 ceive awards—
5 "(A) that utilize innovative or collaborative
6 approaches to solving the problem described in
7 the competition;
8 "(B) that will improve the competitiveness
9 of industries in the region in which the Center
10 or Centers are located; and
11 "(C) that will contribute to the long-term
12 economic stability of that region.
13 "(6) PROGRAM CONTRIBUTION.—Recipients of
14 awards under this subsection shall not be required
15 to provide a matching contribution.".
16 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**
17 (a) MANUFACTURING EXTENSION PARTNERSHIP
18 PROGRAM.—
19 (1) IN GENERAL.—There are authorized to be
20 appropriated to the Secretary of Commerce for the
21 Manufacturing Extension Partnership program
22 under sections 25 and 26 of the National Institute
23 of Standards and Technology Act (15 U.S.C. 278k
24 and 278l), other than the program described in
25 paragraph (2) of this subsection—

1 (A) $110,000,000 for fiscal year 2005;
2 (B) $115,000,000 for fiscal year 2006;
3 (C) $120,000,000 for fiscal year 2007; and
4 (D) $125,000,000 for fiscal year 2008.
5 (2) COMPETITIVE GRANT PROGRAM.—There are
6 authorized to be appropriated to the Secretary of
7 Commerce for the competitive grant program under
8 section 25(e) of the National Institute of Standards
9 and Technology Act (15 U.S.C. 278k(e))—
10 (A) $5,000,000 for fiscal year 2005;
11 (B) $7,000,000 for fiscal year 2006;
12 (C) $9,000,000 for fiscal year 2007; and
13 (D) $11,000,000 for fiscal year 2008.
14 (b) COLLABORATIVE MANUFACTURING RESEARCH
15 GRANTS PROGRAM.—There are authorized to be appro-
16 priated to the Secretary of Commerce for the Collaborative
17 Manufacturing Research Grants program under section
18 33 of the National Institute of Standards and Technology
19 Act—
20 (1) $40,000,000 for fiscal year 2005;
21 (2) $44,000,000 for fiscal year 2006;
22 (3) $48,000,000 for fiscal year 2007; and
23 (4) $52,000,000 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 2005;
6 (2) $1,750,000 for fiscal year 2006;
7 (3) $2,000,000 for fiscal year 2007; and
8 (4) $2,250,000 for fiscal year 2008.

AMENDMENT OFFERED BY MR. UDALL OF COLORADO TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Redesignate section 6 as section 12.

After section 5, insert the following new sections:

1 **SEC. 6. MANUFACTURING AND TECHNOLOGY ADMINISTRA-**
2 **TION.**

3 Section 5 of the Stevenson-Wydler Technology Inno-
4 vation Act of 1980 (15 U.S.C. 3704) is amended to read
5 as follows:

6 **"SEC. 5. MANUFACTURING AND TECHNOLOGY.**

7 "(a) ESTABLISHMENT.—There is established in the
8 Department of Commerce a Manufacturing and Tech-
9 nology Administration, which shall operate in accordance
10 with the provisions, findings, and purposes of this Act.
11 The Manufacturing and Technology Administration shall
12 include—

13 "(1) the National Institute of Standards and
14 Technology;

15 "(2) the National Technical Information Serv-
16 ice; and

1 "(3) a policy analysis office, which shall be
2 known as the Office of Manufacturing and Tech-
3 nology Policy.
4 "(b) UNDER SECRETARY AND ASSISTANT SECRE-
5 TARIES.—The President shall appoint, by and with the ad-
6 vice and consent of the Senate, to the extent provided for
7 in appropriations Acts—
8 "(1) an Under Secretary of Commerce for Man-
9 ufacturing and Technology, who shall be com-
10 pensated at the rate provided for level III of the Ex-
11 ecutive Schedule in section 5314 of title 5, United
12 States Code;
13 "(2) an Assistant Secretary of Manufacturing
14 who shall serve as a policy analyst for the Under
15 Secretary; and
16 "(3) an Assistant Secretary of Technology who
17 shall serve as a policy analyst for the Under Sec-
18 retary.
19 "(c) DUTIES.—The Secretary, through the Under
20 Secretary, as appropriate, shall—
21 "(1) manage the Manufacturing and Tech-
22 nology Administration and supervise its agencies,
23 programs, and activities;
24 "(2) conduct manufacturing and technology pol-
25 icy analyses to improve United States industrial pro-

1 ductivity, manufacturing capabilities, and innova-
2 tion, and cooperate with United States industry to
3 improve its productivity, manufacturing capabilities,
4 and ability to compete successfully in an inter-
5 national marketplace;
6 "(3) identify manufacturing and technological
7 needs, problems, and opportunities within and across
8 industrial sectors, that, if addressed, could make sig-
9 nificant contributions to the economy of the United
10 States;
11 "(4) assess whether the capital, technical, and
12 other resources being allocated to domestic indus-
13 trial sectors which are likely to generate new tech-
14 nologies are adequate to meet private and social de-
15 mands for goods and services and to promote pro-
16 ductivity and economic growth;
17 "(5) propose and support studies and policy ex-
18 periments, in cooperation with other Federal agen-
19 cies, to determine the effectiveness of measures for
20 improving United States manufacturing capabilities
21 and productivity;
22 "(6) provide that cooperative efforts to stimu-
23 late industrial competitiveness and innovation be un-
24 dertaken between the Under Secretary and other of-

1 ficials in the Department of Commerce responsible
2 for such areas as trade and economic assistance;
3 "(7) encourage and assist the creation of cen-
4 ters and other joint initiatives by State or local gov-
5 ernments, regional organizations, private businesses,
6 institutions of higher education, nonprofit organiza-
7 tions, or Federal laboratories to encourage tech-
8 nology transfer, to encourage innovation, and to pro-
9 mote an appropriate climate for investment in tech-
10 nology-related industries;
11 "(8) propose and encourage cooperative re-
12 search involving appropriate Federal entities, State
13 or local governments, regional organizations, colleges
14 or universities, nonprofit organizations, or private
15 industry to promote the common use of resources, to
16 improve training programs and curricula, to stimu-
17 late interest in manufacturing and technology ca-
18 reers, and to encourage the effective dissemination
19 of manufacturing and technology skills within the
20 wider community;
21 "(9) serve as a focal point for discussions
22 among United States companies on topics of interest
23 to industry and labor, including discussions regard-
24 ing manufacturing, competitiveness, and emerging
25 technologies;

"(10) consider government measures with the potential of advancing United States technological innovation and exploiting innovations of foreign origin and publish the results of studies and policy experiments; and

"(11) assist in the implementation of the Metric Conversion Act of 1975 (15 U.S.C. 205a et seq.).".

SEC. 7. MANUFACTURING RESEARCH AND IMPLEMENTATION; DEVELOPMENT OF NEW MANUFACTURING TECHNOLOGIES.

There are authorized to be appropriated to the Secretary of Commerce for Manufacturing Engineering activities at the Scientific and Technical Research and Services Laboratory of the National Institute of Standards and Technology—

(1) $30,000,000 for fiscal year 2005;

(2) $31,050,000 for fiscal year 2006;

(3) $32,140,000 for fiscal year 2007; and

(4) $33,260,000 for fiscal year 2008.

SEC. 8. ADVANCED TECHNOLOGY PROGRAM.

(a) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary of Commerce for the Advanced Technology Program under section 28 of the National Institute of Standards and Technology Act (15 U.S.C. 278n)—

1 (1) $219,400,000 for fiscal year 2005, includ-
2 ing $80,700,000 for new awards, of which
3 $20,000,000 shall be for a focused competition in
4 manufacturing sciences;
5 (2) $262,900,000 for fiscal year 2006, includ-
6 ing $80,700,000 for new awards, of which
7 $20,000,000 shall be for a focused competition in
8 manufacturing sciences;
9 (3) $280,900,000 for fiscal year 2007, includ-
10 ing $80,700,000 for new awards, of which
11 $20,000,000 shall be for a focused competition in
12 manufacturing sciences; and
13 (4) $290,400,000 for fiscal year 2008, includ-
14 ing $80,700,000 for new awards, of which
15 $20,000,000 shall be for a focused competition in
16 manufacturing sciences.
17 (b) UNIVERSITY LEADERSHIP OF JOINT VEN-
18 TURES.—
19 (1) JOINT VENTURE AID.—Section 28(b)(1) of
20 the National Institute of Standards and Technology
21 Act (15 U.S.C. 278n(b)(1)) is amended by striking
22 "industry-led United States" and all that follows
23 through "organizations)" and inserting "joint ven-
24 tures".

1 (2) DEFINITION.—Section 28(j)(1) of the Na-
2 tional Institute of Standards and Technology Act
3 (15 U.S.C. 278n(j)(1)) is amended by striking "two
4 or more persons" and inserting "a combination of
5 two or more persons (which shall include at least
6 two companies, each of which participates substan-
7 tially in the joint venture, and may include one or
8 more institutions of higher education or nonprofit
9 organizations)".
10 (c) INTELLECTUAL PROPERTY RIGHTS OWNER-
11 SHIP.—Section 28(d)(11) of the National Institute of
12 Standards and Technology Act (15 U.S.C. 278n(d)(11))
13 is amended by striking "(11)(A)" and all that follows
14 through "with such intellectual property." and inserting
15 the following:
16 "(11)(A) Title to any intellectual property de-
17 veloped by a joint venture from assistance provided
18 under this section may vest in any participant in the
19 joint venture, as agreed by the members of the joint
20 venture, notwithstanding section 202(a) and (b) of
21 title 35, United States Code. The United States may
22 reserve a nonexclusive, nontransferable, irrevocable,
23 paid-up license, to have practiced for or on behalf of
24 the United States in connection with any such intel-
25 lectual property, but shall not, in the exercise of

1 such license, publicly disclose proprietary informa-
2 tion related to the license. Title to any such intellec-
3 tual property shall not be transferred or passed, ex-
4 cept to a participant in the joint venture, until the
5 expiration of the first patent obtained in connection
6 with such intellectual property.".

7 (d) BARRIERS TO PRODUCT DEVELOPMENT.—Sec-
8 tion 28(d) of the National Institute of Standards and
9 Technology Act (15 U.S.C. 278n(d)) is amended by add-
10 ing at the end the following new paragraph:

11 "(12) No contract or award may be made under
12 this section for any project unless the project may
13 remove a scientific or technological barrier to prod-
14 uct development.".

15 (e) PROJECT REVIEW AND EVALUATION.—Section
16 28(g) of the National Institute of Standards and Tech-
17 nology Act (15 U.S.C. 278n(g)) is amended to read as
18 follows:

19 "(g) INDUSTRY AND PEER REVIEW OF PRO-
20 POSALS.—(1) In order to analyze the need for or the value
21 of any proposal made by a joint venture or company re-
22 questing the Secretary's assistance under this section, or
23 to monitor the progress of any project which receives
24 funds under this section, the Secretary, the Under Sec-
25 retary of Commerce for Manufacturing and Technology,

1 and the Director may, notwithstanding any other provision
2 of law, meet with such industry and other expert sources,
3 without a proprietary or financial interest in proposals
4 being evaluated, as they consider useful and appropriate.
5 "(2) In order to better assess whether specific
6 innovations to be pursued are being adequately sup-
7 ported by the private sector, the Director shall con-
8 duct a study of, and thereafter monitor, whether the
9 Secretary, the Undersecretary of Commerce for
10 Manufacturing and Technology, and the Director
11 could benefit from advice and information from ad-
12 ditional industry and other expert sources, without a
13 proprietary or financial interest in proposals being
14 evaluated. Not later than one year after the date of
15 the enactment of this Act, and biennially thereafter,
16 the Director shall transmit to the Congress a report
17 containing the results of the study and monitoring
18 under this paragraph.".

19 **SEC. 9. SMALL BUSINESS INNOVATION RESEARCH/SMALL**
20 **BUSINESS TECHNOLOGY TRANSFER PRO-**
21 **GRAMS.**

22 Not later than 6 months after the date of enactment
23 of this Act, the Under Secretary of Commerce for Manu-
24 facturing and Technology shall develop and transmit to
25 the Congress a plan to maximize the utilization of Federal

1 programs such as the Small Business Innovation Research
2 Program and the Small Business Technology Transfer
3 Program to support manufacturing sciences. Not later
4 than 18 months after the date of enactment of this Act,
5 the Under Secretary of Commerce for Manufacturing and
6 Technology shall transmit to the Congress a report assess-
7 ing how Federal agencies are implementing the plan and
8 including a description of the amount of Small Business
9 Innovative Research and Small Business Technology
10 Transfer funds supporting the plan.

11 **SEC. 10. PLANNING DOCUMENT.**

12 Section 25 of the National Institute of Standards and
13 Technology Act (15 U.S.C. 278k) is amended by adding
14 at the end the following new subsection:

15 "(c) Not later than January 20 of each year, the Di-
16 rector shall transmit to the Congress a 3-year pro-
17 grammatic planning document for the Manufacturing Ex-
18 tension Partnerships program. This document shall be de-
19 veloped in consultation with the Modernization Forum.".

20 **SEC. 11. TECHNICAL WORKFORCE EDUCATION AND DEVEL-**
21 **OPMENT.**

22 (a) AUTHORIZATION OF APPROPRIATIONS.—There
23 are authorized to be appropriated to the Director of the
24 National Science Foundation for the Advanced Techno-
25 logical Education Program established under section 3 of

1 the Scientific and Advanced-Technology Act of 1992 (42
2 U.S.C. 1862i) and for the Manufacturing Skill Standards
3 Council formed as the voluntary partnership for the manu-
4 facturing occupational cluster under section 504(b) of the
5 National Skill Standards Act of 1994 (20 U.S.C.
6 5934(b))—
7 (1) $70,000,000 for fiscal year 2005, of which
8 at least $20,000,000 shall be devoted to the edu-
9 cation of technicians for manufacturing fields,
10 $5,000,000 of which shall be used to support the
11 work of the Manufacturing Skill Standards Council
12 in educating and preparing manufacturing techni-
13 cians for certification;
14 (2) $80,000,000 for fiscal year 2006, of which
15 at least $30,000,000 shall be devoted to the edu-
16 cation of technicians for manufacturing fields,
17 $5,000,000 of which shall be used to support the
18 work of the Manufacturing Skill Standards Council
19 in educating and preparing manufacturing techni-
20 cians for certification;
21 (3) $90,000,000 for fiscal year 2007, of which
22 at least $40,000,000 shall be devoted to the edu-
23 cation of technicians for manufacturing fields,
24 $5,000,000 of which shall be used to support the
25 work of the Manufacturing Skill Standards Council

1 in educating and preparing manufacturing techni-
2 cians for certification; and
3 (4) $100,000,000 for fiscal year 2008, of which
4 at least $50,000,000 shall be devoted to the edu-
5 cation of technicians for manufacturing fields,
6 $5,000,000 of which shall be used to support the
7 work of the Manufacturing Skill Standards Council
8 in educating and preparing manufacturing techni-
9 cians for certification.
10 (b) AMENDMENT.—Section 3 of the Scientific and
11 Advanced-Technology Act of 1992 (42 U.S.C. 1862i) is
12 amended by striking "advanced-technology fields" each
13 place it appears and inserting "manufacturing and ad-
14 vanced-technology fields".

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

Redesignate section 6 as section 7.

After section 5, insert the following new section:

1 **SEC. 6. SMALL BUSINESS INNOVATION RESEARCH/SMALL**
2 **BUSINESS TECHNOLOGY TRANSFER PRO-**
3 **GRAMS.**

4 Not later than 6 months after the date of enactment
5 of this Act, the Under Secretary of Commerce for Tech-
6 nology shall develop and transmit to the Congress a plan
7 to maximize the utilization of Federal programs such as
8 the Small Business Innovation Research Program and the
9 Small Business Technology Transfer Program to support
10 manufacturing sciences. Not later than 18 months after
11 the date of enactment of this Act, the Under Secretary
12 of Commerce for Technology shall transmit to the Con-
13 gress a report assessing how Federal agencies are imple-
14 menting the plan and including a description of the
15 amount of Small Business Innovative Research and Small
16 Business Technology Transfer funds supporting the plan.

AMENDMENT OFFERED BY MR. SMITH OF MICHIGAN TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Page 13, lines 1 through 4, amend subparagraphs (A) through (D) to read as follows:

1 (A) $106,600,000 for fiscal year 2005;

2 (B) $109,000,000 for fiscal year 2006;

3 (C) $111,400,000 for fiscal year 2007; and

4 (D) $113,800,000 for fiscal year 2008.

SUBSTITUTE AMENDMENT TO H.R. 3598

ONE-PAGE SUMMARY

The purpose of this bill is to foster innovation in the manufacturing sciences, an area of emphasis in the President's manufacturing report. The bill creates a mechanism for coordinating federal manufacturing research and development, creates new and strengthens existing programs that support manufacturing research, development and innovation, and provides technical extension services to small- and medium-sized manufacturers.

1) Establish a coordinating mechanism: an *Interagency Committee on Manufacturing Research and Development and an Advisory Committee.* The Interagency Committee would consist of federal research agencies that support manufacturing R&D, plus any additional agencies the President wishes. The Advisory Committee would provide advice and information to the Interagency Committee from the broader manufacturing research community, including universities and industry.

   The Federal Government funds manufacturing R&D in several different agencies, but there is no formal means to coordinate these activities. 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.

2) Establish a *Collaborative manufacturing R&D grant program* to be run out of the National Institute of Standard and Technology (NIST). This would foster innovation in manufacturing technology through partnerships between industry, academia, and other entities. The program would be cost-shared to leverage dollars from other sources.

3) Establish a *post-doctoral and senior research fellowship program* in manufacturing sciences, also at NIST. These types of fellowships will be important in developing a new base of expertise in manufacturing research and development to attract graduates to manufacturing-related careers.

4) Authorize the *Manufacturing Extension Partnership* (MEP) program with a mechanism for review and recompetition of MEP Centers. The bill also creates an additional competitive grant program from which MEP Centers can obtain additional funding for manufacturing-related projects.

The MEP program is a cooperative program with states that provide technical assistance to small- and medium-sized manufacturers through a network of 400 centers and offices. The program provides firms with links to experts in business processes, manufacturing technology, supply chain integration, and other manufacturing-related subjects. The Centers are mostly funded approximately with one-third federal funds, one-third state, and one-third fees. The bill does not affect these arrangements.

The Manufacturing Technology Competitiveness Act authorizes funding as follows:

- For the collaborative R&D grants: $40 million in 2005, increasing by $4 million per year to $52 million in FY 2008.
- For the manufacturing fellowship program: $1.5 million in 2005, increasing by $250,000 per year to $2.25 million in FY 2008.
- For the Manufacturing Extension Partnership (MEP) program: $110 million in 2005, increasing $5 million per year to $125 million in FY 2008.
- For the Manufacturing Extension Partnership grants: $5 million in FY 2005, increasing $2 million per year to $11 million in FY 2008.

SUBSTITUTE AMENDMENT TO H.R. 3598
SECTION-BY-SECTION

Goals of the Bill

The goals of this bill are to foster innovation in the manufacturing sciences by creating a mechanism for coordinating federal manufacturing research and development, creating new and strengthening existing programs that support manufacturing research, development and innovation, and providing technical extension services through the Manufacturing Extension Partnership program to small- and medium-sized manufacturers.

Changes in the Substitute Amendment

The most significant change to H.R. 3598 in the substitute amendment is the removal of the language establishing an Under Secretary of Commerce for Manufacturing and Technology. Because the Administration has announced it will nominate a manufacturing czar imminently, the Committee decided not to duplicate Administration efforts. Other changes were largely technical corrections and clarifying language.

Background: Manufacturing Needs Innovation

Between 2000 and 2004, manufacturing experienced a decline of approximately three million jobs as the manufacturing sector was hit hard by the economic recession. As the economy began its recovery, manufacturing was slow to hire compared to other economic sectors. Experts are warning that the fundamental base of America's economic power—the ability to innovate—is threatened by the increasing technological competence of our trading partners. New products, processes, and materials must be conceived, created, tested, and brought to market ever faster if we are remain a creative and competitive force in world manufacturing.

The Administration in its report, *Manufacturing in America: A Comprehensive Strategy to Address the Challenges to U.S. Manufacturers*, highlighted the need for investment in innovation through enhanced partnership for the transfer of technology, and support for the Manufacturing Extension Partnership (MEP) program. The U.S. has an excellent research foundation from which to develop manufacturing technology, but this process, and the people that do technology transfer, could use some help.

Section 1: Short Title

"Manufacturing Technology Competitiveness Act of 2004"

Section 2: Interagency Committee, Advisory Committee

Section 2 directs the President to establish an Interagency Committee on Manufacturing Research and Development. The Interagency Committee will be assisted by an Advisory Committee representing non-governmental interests, that will provide the Interagency Committee with input to and reviews of federal manufacturing R&D activities.

- The Interagency Committee will consist of representatives from the federal research agencies that have significant manufacturing technology programs.
- The Interagency Committee will establish goals and priorities to coordinate federal manufacturing research and development, and prepare a strategic plan and a coordinated interagency budget.
- The Advisory Committee would provide advice and information to the Interagency Committee from the non-federal manufacturing research community, such as industry and academia.
- Together these measures will ensure that there is cooperation and communication between and among federal agencies on manufacturing issues, and that there is input to this discussion from outside the Federal Government to ensure that federal initiatives and programs are kept relevant.

Section 3: Collaborative Manufacturing Research Grants

Section 3 establishes a grant program within the National Institute of Standards and Technology (NIST) that would fund one-third of research partnerships between firms, community colleges, universities, research institutions, state agencies, and non-profits to develop innovative manufacturing technologies.

- This will support collaborations between different entities with expertise in manufacturing who need to work together to remove technological barriers to increasing U.S. manufacturing competitiveness.

- The cost-sharing provisions will ensure that participants will have to commit their own money to these research projects.
- The requirement for collaborations between two or more participants from different sectors will nurture partnerships between innovators, as well as technology transfer between industrial and non-industrial entities.

Section 4: Manufacturing Fellowship Program

Section 4 establishes a postdoctoral and senior research fellowship program within the National Institute of Standards and Technology, awardees of which will be engaged in research activities related to the manufacturing sciences.

- Academia is experiencing a decline in the number of scientists with expertise in or knowledge of manufacturing, partly because there is little funding to support them.
- The post-doctoral fellowships will encourage young Ph.D. scientists with interests in manufacturing to pursue those interests, thus growing the pool of high-level manufacturing research talent.
- The senior research fellowships will allow academic faculty or researchers in industry to take sabbaticals at academic institutions or at NIST, promoting the spread of knowledge in the manufacturing sciences between academia, industry, and the Federal Government.

Section 5: Manufacturing Extension

Section 5 strengthens the MEP center review process by establishing a probationary period and recompetition process for centers that cannot perform. It also creates a new grant program at MEP to provide extra funds for innovative MEP-related projects.

- Codifies existing practice on how MEP Center review, recompetition, and the shut-down of under-performing Centers should proceed.
- This is to ensure that the MEP Centers continue to meet the highest standards, and that the review and renewal process is consistent across the program.
- Creates a peer-reviewed grant program whereby the MEP Centers can compete with each other for supplemental funding for specific projects to address manufacturing problems in their state or region.
- Much of MEP activities are conducted with individual firms on a fee-for-service basis, but MEP Centers do not have the resources to expand their activities beyond this basic model.
- With additional resources to work on such problems as regional capacity-building, supply-chain integration, or technical workforce training, individual Centers or consortia thereof will be able to implement new ideas to help small- and medium-sized manufacturers.
- Small businesses are the largest source of job growth, 75 percent of all jobs created, and they must be helped through the globalization transition rather than allowed to die on the vine.

Section 6: Authorization of Appropriations

- Authorizes the collaborative R&D grants at $40 million in 2005, increasing by $4 million per year to $52 million in FY 2008.
- Authorizes the manufacturing fellowship program at $1.5 million in 2005, increasing by $250,000 per year to $2.25 million in FY 2008.
- Authorizes the Manufacturing Extension Partnership (MEP) program at $110 million in 2005, increasing $5 million per year to $125 million in FY 2008.
- Authorizes the Manufacturing Extension Partnership grants at $5 million in FY 2005, increasing $2 million per year to $11 million in FY 2008.

MAJOR DIFFERENCES BETWEEN H.R. 3598 AND THE SUBSTITUTE AMENDMENT

Section 1—Short Title

The title is now "The Manufacturing Technology Competitiveness Act of 2004" instead of "2003".

Section 2—Interagency Committee and Advisory Committee

- The members of the Interagency Committee have been changed, eliminating the Small Business Administration, and changing the participation of Department of Energy labs and offices to simply the Department of Energy.
- The language on the reporting and strategic planning requirements for the Interagency Committee has been simplified, although the requirements themselves remain basically unchanged.
- The mandatory members of the Advisory Committee have been altered slightly: the requirement for representatives from small business has been changed from two to one.
- The language on the advice and other contributions of the Advisory Committee has been changed so that the report to the Interagency Committee will be every year, rather than every three years.
- The language on reporting and other activities has been simplified.

Section 3—Manufacturing and Technology

- The original bill expands the current position of the Department of Commerce Under Secretary for Technology to become the Under Secretary for Manufacturing and Technology. The substitute amendment eliminates this section entirely, since the Administration recently announced that it will nominate an Assistant Secretary of Commerce for Manufacturing and Services.

Section 4—Collaborative Manufacturing Research Grants (Section 3 in the substitute amendment)

- The language has been simplified, but the purpose, structure, and function of the grants program is unchanged.
- The authorization of appropriations has been moved to the end of the substitute amendment.

Section 5—Manufacturing Fellowship Program (Section 4 in the substitute amendment)

- The substitute amendment inserts the manufacturing fellowship into a specific section of the NIST Act that authorizes fellowships.
- The authorization of appropriations has been moved to the end of the substitute amendment.

Section 6—Authorization of Appropriations

- All authorizations of appropriations have been moved to the section 6 of the substitute amendment to keep them all in one place.

Section 7—Manufacturing Extension (Section 5 in the substitute amendment)

- The Manufacturing Extension Center evaluation process has been changed slightly to allow the Manufacturing Extension Partnership (MEP) program Director to close down under-performing Centers after the evaluation process has been completed.
- The MEP Competitive Grant program remains unchanged except that the requirement for a report has been eliminated.
- The authorization levels have been lowered slightly to conform to recent appropriations history, and the Competitive Grant dollars have put in a separate category from the MEP program dollars.

XXII. PROCEEDINGS OF THE FULL COMMITTEE MARKUP ON H.R. 3598, MANUFACTURING TECHNOLOGY COMPETITIVENESS ACT OF 2004

WEDNESDAY, JUNE 16, 2004

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

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

Chairman BOEHLERT. The Committee on Science will be in order. Pursuant to notice, the Committee on Science meets today to consider the following measures: H.R. 3890, *To Reauthorize the Steel and Aluminum Conservation and Technology Competitiveness Act of 1988;* H.R. 3598, *Manufacturing Technology Competitiveness Act of 2004;* H.R. 4218, *High-Performance Computing Revitalization Act of 2004;* and H.R. 4516, *Department of Energy High-End Computing Revitalization Act of 2004.* I ask unanimous consent for the authority to recess the Committee at any point during consideration of these matters. And without objection, it is so ordered.

We will now proceed with opening statements, and I will lead off.

I am going to keep my remarks very brief, because we have a long markup ahead of us. I would simply point out that once again we have come up with a good set of bipartisan bills that prepare our nation for the future. We have Ms. Hart's metals bill, which will help our nation save energy, helping the steel and aluminum industries remain competitive by helping our nation become less dependent on foreign sources of energy, all worthy goals. We have Ms. Biggert's computing bill—bills, which will revitalize our high-performance computing efforts, enabling our scientists and computing industry to excel as they face new challenges from abroad. And we have Dr. Ehlers' manufacturing bill, which will help our smaller manufacturers stay up-to-date and competitive. All of these bills reflect significant contributions from the Minority and have lead Minority co-sponsors, whom I am sure Mr. Gordon will acknowledge.

Our debate today will be prolonged, but it won't be on fundamental goals or principles. It will be about whether to do even more in the manufacturing bill. I think we need to get this measure through before we take on additional issues. We will have lively discussion on that, but we are united on trying to do everything possible for our manufacturers.

With that, let the games begin.

Mr. Gordon.

[The prepared statement of Chairman Boehlert follows:]

PREPARED STATEMENT OF CHAIRMAN SHERWOOD BOEHLERT

I'm going to keep my remarks very brief because we have a long markup ahead of us.

I would simply point out that once again we've come with a good set of bipartisan bills that prepare our nation for the future. We have Ms. Hart's metals bill, which will help our nation save energy, helping the steel and aluminum industry remain competitive while helping our nation become less dependent on foreign sources of energy. We have Ms. Biggert's computing bills, which will revitalize our high-performance computing efforts, enabling our scientists and computing industry to excel as they face new challenges from abroad. And we have Mr. Ehlers manufacturing bill, which will help our smaller manufacturers stay up-to-date and competitive.

All these bills reflect significant contributions from the Minority and have lead Minority co-sponsors, whom I'm sure Mr. Gordon will acknowledge.

Our debate today will be prolonged, but it won't be on fundamental goals or first principles. It will be about whether to do even more in the manufacturing bill. I think we need to get this measure through before we take on additional issues. We'll have lively discussion on that, but we are united on trying to do everything possible for our manufacturers.

With that, let the games begin.

Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman. Let me say that we are pleased at the bipartisan cooperation we have experienced in the development of three of the bills considered today: H.R. 3890, *To Reauthorize the Steel and Aluminum Energy Conservation and Technology Competitiveness Act of 1988;* H.R. 4516, the *Department of Energy High-End Computing Revitalization Act of 2004;* and H.R. 4218, the *High-Performance Computing Revitalization Act of 2004.*

With regard to H.R. 4218 and H.R. 4516, we believe the Committee is making a major contribution to reinvigorating high-end computing at a time when traditional U.S. lead is under vigorous challenge. We are depending on this program to increase ability to understand huge data sets across a wide spectrum of programs ranging from advanced manufacturing to weather prediction.

The steel industry is one of several industrial sectors that are heavy users of energy and benefit from cooperative research with the Federal Government. We support not only continuing the Department of Energy's program with the steel industry as set out in H.R. 3890, but also strengthening the entire Industries of the Future Program.

Unfortunately, though, however, the same level of cooperation did not occur on H.R. 3598 in developing our manufacturing policy. This is particularly disturbing in light of the battering this sector has endured over the last three years. We have no problem with the tentative first steps taken in H.R. 3598, but we do not think it is an adequate response to the problems that have cost the jobs of two million Americans. I will have further comments on this bill when it is called up for consideration.

Thank you.

[The prepared statement of Mr. Gordon follows:]

PREPARED STATEMENT OF REPRESENTATIVE BART GORDON

We are pleased at the bipartisan cooperation we have experienced in the development of three bills to be considered today: H.R. 3890, *To Reauthorize the Steel and*

Aluminum Energy Conservation and Technology Competitiveness Act of 1988; H.R. 4516, The *Department of Energy High-End Computing Revitalization Act of 2004;* and H.R. 4218, The *High-Performance Computing Revitalization Act of 2004.*

With regard to H.R. 4218 and H.R. 4516, we believe the Committee is making a major contribution to reinvigorating high-end computing at a time when the traditional U.S. lead is under vigorous challenge. We are depending on this program to increase our ability to understand huge data sets across a wide spectrum of problems ranging from advanced manufacturing to weather prediction. The steel industry is one of several industrial sectors that are heavy users of energy that benefit from cooperative research with the Federal Government. We support, not only continuing the Department of Energy's program with the steel industry as set out in H.R. 3890, but also strengthening the entire Industries of the Future Program.

Unfortunately, the same level of cooperation did not occur on the H.R. 3598, The *Manufacturing Competitiveness Act of 2004,* in developing our manufacturing policy. This is particularly disturbing in light of the battering this sector has endured over the past three years. We have no problem with the tentative first steps taken in H.R. 3598, but we do not think it is an adequate response to the problems that have cost the jobs of two million Americans. I will have further comments on this bill when it is called up for consideration.

Chairman BOEHLERT. Thank you very much, Mr. Gordon.

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

[The prepared statement of Mr. Gingrey follows:]

PREPARED STATEMENT OF REPRESENTATIVE PHIL GINGREY

The Manufacturing Extension Partnership has been tremendously successful at meeting the needs of manufacturers, in helping keep manufacturing jobs in the state, and having a significant impact on economic development in Georgia.

The Georgia Manufacturing Extension Partnership consists on 19 regional offices, four of which are in my district, Carrollton, Cartersville, Newman, and Rome. It is led by the Economic Development Institute (EDI) at my Alma Mata Georgia Tech.

In Georgia during 2002, MEP assistance helped companies create or retain more than 1,300 jobs, invest more than $33 million, cut $13 million in unnecessary costs—and increase or retain $61 million in sales.

However, the cuts in federal funding for the MEP has had a huge negative influence on the effectiveness of the program. The cuts have significantly reduced the number of manufacturers that can serve be served, have significantly reduced the ability to help manufacturers adopt the technology-based solutions they need to keep jobs in Georgia, and have also forced the Economic Development Institute to temporarily suspend operations in three of the regional offices in my district, Carrollton, Newnan and Rome. The reduction in funding has meant more critical needs will go unmet, particularly in rural areas of the state where there are few economic development alternatives.

H.R. 3598 and its authorization of returning funding levels for MEPs back to an effective level will greatly influence the retention and creation of manufacturing jobs in Georgia and throughout the Nation.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF REPRESENTATIVE EDDIE BERNICE JOHNSON

Thank you Mr. Chairman. I appreciate you calling this markup today on such an important issue as manufacturing competitiveness.

Today, the American economy is facing challenges unlike any that it has ever faced before. The sector most drastically affected by this decline is the manufacturing industry. Manufacturing had long been the engine that drove the American economy. Much of manufacturing is still in recession even as the rest of the economy moves forward. Manufacturers have lost pricing power, which means lower profits and lower R&D expenditures. Intense global competition has forced manufacturers to maintain or reduce their prices. As a result, manufactures are having to cut back on research—and on workers. More and more U.S. manufacturers are outsourcing or relocating overseas.

In my home state of Texas, more than 156,000 jobs have been lost since January 2001. The manufacturing unemployment rate continued to drop last month.

Our nation's science and technology programs have allowed us to maintain a technology age, produce a positive balance of trade and create the underpinning for a robust industrial base.

I believe many of our colleagues on both sides of the aisle are very hopeful that policy—not politics—will prevail in this effort.

As this committee has a long history of bipartisanship, I am hopeful that we will reach constructive consensus today. Mr. Chair, I yield back my time.

[The prepared statement of Mr. Udall follows:]

PREPARED STATEMENT OF REPRESENTATIVE MARK UDALL

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

My amendment is based upon provisions in H.R. 2908, a manufacturing bill I introduced in July 2003.

My amendment authorizes funding for the standards and measurement activities of the National Institute of Standards and Technology. It authorizes NIST lab funding at the President's FY05 requested level of $422 million, with an additional $2.8 million included for NIST activities to support voting standards and a small program to develop standards courses in colleges and universities. The bill provides a five percent per year increase in FY06, FY07 and FY08.

Although not in line with industry proposals to double NIST funding over the next five years, it does provide for real growth at NIST. During the past five years, NIST's budget has increased by only seven percent, while it costs have grown by almost 30 percent. The result, in conjunction with last year's budget cuts, has been the termination of NIST scientists, a good number of them from my district.

We all agree about the importance of NIST's standards and measurement activities to this country's economic competitiveness—especially in the field of manufacturing. This committee has long recognized this fact and has always strongly supported NIST's lab activities. Indeed, this year's Committee Views and Estimates stressed the importance of NIST's role in supporting commercial activity.

I was also pleased that both Chairman Boehlert and Chairman Ehlers testified before the Commerce, Justice, State Appropriations Subcommittee about the importance of NIST and the need to provide the President's request level in FY05. They followed this testimony with a recent letter to the CJS Chair and Ranking Member further detailing the case for full NIST funding and stating it was their "number one priority."

The bill before us today is titled the Manufacturing Technology Competitiveness Act. It seems to me that a central element of such a bill should be authorization for NIST lab funding. At an ETS Subcommittee hearing last month, industry representatives testified about the importance of NIST to their continued competitiveness and innovation. They made it clear that without NIST's leadership in standards and measurements, the U.S. would no longer be—as Deborah Grubbe of Dupont put it—"the lead dog on the sled."

I commend Chairman Boehlert and Ehlers for their public support for NIST. *However, I believe the Committee needs to send a strong signal—as an authorization committee*—about the importance of NIST to our broad industrial base—from chemical, pharmaceuticals and information technology to the automotive and machine tool industries, to name just a few.

I am not alone in this assessment. More than 100 industrial and standards organizations have written the appropriations committee requesting they fund NIST at a level of $422 million.

I urge my colleagues to support this amendment.

Chairman BOEHLERT. We will now consider the bill H.R. 3598, the *Manufacturing Technology Competitiveness Act of 2004*.

I will now yield five minutes to Dr. Ehlers to introduce his bill.

Mr. EHLERS. Thank you, Chairman Boehlert, for the opportunity to explain myself.

The Manufacturing Technology Competitiveness Act will help address the long-term problems facing our nation's manufacturers by coordinating federal programs to support and encourage innovation in manufacturing technologies. Specifically, the bill establishes an interagency committee to coordinate existing federal manufacturing research and development activity and creates an advisor committee of non-federal manufacturing experts to advise the process.

It establishes a collaborative research and development pilot program between academia and industry on manufacturing technology. It establishes a fellowship program at NIST to support the next generation of U.S. manufacturing research experts. And it strengthens the Manufacturing Extension Partnership Program and creates a new grant program within MEP to extend the program's expertise beyond its current scope.

I must mention my great pleasure in seeing that the House Appropriations Subcommittee yesterday included $106 million for MEP in its bill. This is a good start in restoring the devastating cuts the program had to absorb this fiscal year and it is certainly in tune with the authorization that is contained in the bill before us.

Mr. Chairman, technology research and development will play a fundamental role in retaining our manufacturing competitiveness. This bill creates a mechanism for cooperation among federal agencies to address manufacturing problems and supports manufacturing innovation and extension programs. I urge my colleagues to support the bill.

[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 the long-term problems facing our nation's manufacturers by coordinating federal programs to support and encourage innovation in manufacturing technologies.

Specifically, the bill:

- Establishes an Interagency Committee to coordinate existing federal manufacturing research and development activities and creates an Advisory Committee of non-federal manufacturing experts to advise the 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 and creates a new grant program within MEP to extend the program's expertise beyond its current scope. I must mention here my great pleasure in seeing that the House CJS appropriations subcommittee included $106 million for MEP in its bill yesterday. That is a good start in restoring the devastating cuts the program had to absorb this year.

Mr. Chairman, technology research and development will play a fundamental role in retaining our manufacturing competitiveness. This bill creates a mechanism for cooperation among federal agencies to address manufacturing's problems, and supports manufacturing innovation and extension programs. I urge my colleagues to support the bill.

Chairman BOEHLERT. Thank you very much, Dr. Ehlers.

Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman. I want to also thank you for bringing up this manufacturing bill. Those of us on this side of the aisle have been awaiting action on this important issue for some time.

The bill before us today represents a small step to help manufacturing workers and firms out of a dark economic trough. Our manufacturing community has been under siege for the past four years and has shed over 2c million jobs. I believe this committee should be making a vigorous effort to develop solutions to the problems

facing our manufacturing base, so I don't think a small step is enough.

The Manufacturing Technology Competitiveness Act, the substitute does not include many elements within the Committee's jurisdiction which could strengthen our manufacturing base. Democrats will offer a series of amendments to strengthen and expand the program being authorized by the Committee here today, and I hope we can do this in a bipartisan fashion. However, I am concerned that this markup may repeat the experience of the green chemistry bill. There, too, we were moving a very narrow bill through the Committee. There, too, Democrats offered several amendments that would have expanded the vision of the bill and given it more impact. There, too, the Chairman and other Members of the Majority were with us on our ideas but asked us not to act on them that day. We were told that then the only—that only a small, almost inconsequential bill would be allowed to the Floor and would be supported by the Administration. I fear we will hear the same claim today, namely that the House Republican leadership and the Administration will oppose a bill containing reasonable provisions we would all like to see added.

It also—there is almost the suggestion that if the Committee wants to have an impact, we must make ourselves very small, almost unseen, and then, only then, would we be allowed to move our tiny bills to the Floor under the suspension calendar. I don't know how you lead. I don't know how we have an impact if we are not going to take the position to try to direct others.

I would also suggest that other—another vision of political necessity would counsel us to pass a comprehensive NIST authorization so that the House has a bill worthy of conference with the Senate. That is what the Senate seems to be interested in doing regardless of the Administration's preference for inaction.

The centerpiece of H.R. 3598 is the authorization of the Manufacturing Extension Partnership. I would remind everyone that this program was created by the Science Committee amid controversy. At the time, the Reagan Administration did not think MEP was a good idea. However, the Science Committee, working in a bipartisan fashion, went ahead and established MEP. Mr. Chairman, you were a leading figure in that effort, along with Senator Rockefeller. In the mid-'90s, there were attempts in Congress to kill the MEP. Again, a group of bipartisan Science Committee Members fought off these attempts. Another program that the Chairman supports, the Advanced Technology Program, was established amidst the same type of controversy.

This committee has had a long-standing impact when we have stuck to our guns and not compromised our beliefs at the very first stage of the legislative process. The Democratic amendments being offered today are substantive amendments, and I support all of them. Each amendment will strengthen the bill.

Mr. Chairman, the subject of this bill is probably the most important national issue this committee will address during this Congress. The Science Committee has traditionally been at the forefront of manufacturing technology and competitiveness issues. I would hope we would follow that tradition today. We need to show

leadership and stand up to say what we believe should be done. We should do the right thing, not the easy thing.

Thank you.

[The prepared statement of Mr. Gordon follows:]

PREPARED STATEMENT OF REPRESENTATIVE BART GORDON

Mr. Chairman:

I want to thank you for taking up a manufacturing bill. Those of us on this side of the aisle have been awaiting action on this important issue for some time. The bill before us today represents a very small step to help America's workers and firms out of a dark economic trough. Our manufacturing community has been under siege for the past four years and has shed over 2.5 million jobs. I believe this committee should be making a vigorous effort to develop solutions to the problems facing our manufacturing base. So I don't think a small step is enough.

Though titled the Manufacturing Technology Competitiveness Act, the Chairman's substitute does not include many elements within the Committee's jurisdiction which could strengthen our manufacturing base. Democrats will offer a series of amendments to strengthen and expand the programs being authorized by the Committee here today and I hope we can do this with bipartisan support.

However, I am concerned that this markup may repeat the experience of the Green Chemistry bill. There too, we were moving a very narrow bill through Committee. There too, Democrats offered several amendments that would have expanded the vision of the bill and given it more impact. There too, the Chairman and other Members of the Majority were with us on our ideas, but they asked us not to act on that day. We were told then that only a small, almost inconsequential bill would be allowed to the Floor and would be supported by the Administration. I fear we will hear that same claim today—namely that the House Republican leadership and the Administration will oppose a bill containing the reasonable provisions we would seek to add.

There is almost the suggestion that if the Committee wants to have an impact, we must make ourselves very small, almost unseen, and then—and only then—will we be allowed to move our tiny bills to the Floor under the suspension calendar. I don't know how you lead, how you have an impact, when you can only take positions that are dictated by others.

I would also suggest that another version of political necessity would counsel us to pass a comprehensive NIST authorization so that the House has a bill worthy of conference with the Senate. That is what the Senate seems interested in doing regardless of the Administration's preference for inaction.

The centerpiece of the H.R. 3598 is the authorization of the Manufacturing Extension Partnership (MEP) program. I would remind everyone that this program was created by the Science Committee amid controversy. At that time, the Reagan Administration did not think the MEP a good idea. However, the Science Committee, working in a bipartisan fashion, went ahead and established the MEP. Mr. Chairman, you were a leading figure in that effort along with Senator Rockefeller. In the mid-nineties there were attempts in Congress to kill the MEP. Again a group of bipartisan Science Committee Members fought off these attempts. Another program the Chairman supports, the Advanced Technology Program, was established amidst the same type of controversy.

This committee has had its most long-lasting impacts when we have stuck to our guns and not compromised our beliefs at the very first stage of the legislative process. The Democratic amendments being offered today are substantive amendments and I support all of them. Each amendment would strengthen this bill.

Mr. Chairman, the subject of this bill is probably the most important national issue this committee will address during this Congress. The Science Committee has traditionally been at the forefront of manufacturing, technology and Competitiveness issues. I would hope we can follow that tradition today. We need to show leadership and stand up to say what we believe should be done. We should do the right thing, not the easy thing.

Chairman BOEHLERT. Thank you very much, Mr. Gordon. And I was reminded when you talked about a small step of what someone far more noteworthy said in the far distant place a few years back, "One small step for man; one giant leap for mankind." Let me observe, there is no shortage of grand ideas that all of us can em-

brace on a bipartisan base, but the reality of a legislative body is that we have to strive mightily to provide leadership and to get the necessary votes to get something enacted into law. What this committee is about is more than just issuing press releases. You talked about our grand vision for the future and how much we all support the manufacturing sector of our economy. I won't find a single dissent on this committee. Everyone wants to do the best we can by our manufacturing sector. That is first and foremost as we deal with this very important subject, and I would suggest that the reauthorization and now we have the good news on the appropriations to the Manufacturing Extension Partnership, something that, as you correctly observed, this committee provided leadership on. And despite some obstacles and some opposition, we are moving forward with that very important program. We want to move forward with a lot of things, but realistically, we have to look over the horizon. We have to consider where we are coming from and what we are proposing in light of where others are coming from and what they are proposing. And when all is said and done, I don't just want another press release; I want meaningful action where we can get the votes necessary to pass the bills that we propose.

So with that, let me say without objection, all Members may place opening statements into the record at this point.

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 on the roster. Without objection, so ordered.

[Note: See the Appendix for H.R. 3598, and Amendment Roster.]

Chairman BOEHLERT. The first amendment on the roster is an amendment in the nature of a substitute offered by Dr. Ehlers. I ask unanimous consent that the amendment in the nature of a substitute be treated as original text for purposes of amendment under the five-minute rule. Without objection, it is so ordered.

I have an amendment at the desk. The Clerk shall report—or rather it is Dr. Ehlers. I am reading his lines on my script.

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

Chairman BOEHLERT. Thank you, Dr. Ehlers. The Clerk shall report the amendment.

Ms. TESSIERI. Amendment in the nature of a substitute to H.R. 3598 offered by Mr. Ehlers——

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

[Note: See the Appendix for the Amendment in the Nature of a Substitute to H.R. 3598 offered by Mr. Ehlers.]

Chairman BOEHLERT. I yield five minutes to Dr. Ehlers to discuss the amendment.

Mr. EHLERS. Thank you, Mr. Chairman. And I will use less than five minutes, because we have a heavy agenda today.

I am offering this amendment in the nature of a substitute, which will incorporate changes that arose as a result of discussion with the Administration on this bill. These changes include allowing the President to designate existing bodies as the interagency committee and the advisory committee, rather than create new ones. It includes converting the collaborative manufacturing grants into a pilot program. Next, keeping the scholarship funding to posi-

tions within NIST. And finally, funding the new MEP competitive grants out of the base authorization for the MEP.

Mr. Chairman, these minor changes were made in good faith after many discussions with the Administration officials. I understand there are proposals in the Committee to add other programs to this legislation today, but I fear that would jeopardize the entire bill. I urge my colleagues to support this amendment in the nature of a substitute before we proceed on with the other amendments.

[The prepared statement of Mr. Ehlers follows:]

PREPARED STATEMENT OF REPRESENTATIVE VERNON J. EHLERS

Thank you Mr. Chairman. I am offering an amendment in the nature of a substitute which will incorporate changes that arose as a result of discussions with the Administration on the bill.

These changes include:

- Allowing the President to designate existing bodies as the Interagency Committee and the Advisory Committee, rather than create new ones.
- Converting the collaborative manufacturing grants into pilot program.
- Keeping the fellowship funding to positions within NIST.
- Funding the new MEP competitive grants out of the base authorization for the MEP.

Mr. Chairman, these minor changes were made in good faith after many discussions with Administration officials. I understand that there are proposals to add other programs to this legislation today, but that would jeopardize the entire bill. I urge my colleagues to support this amendment in the nature of a substitute.

Chairman BOEHLERT. Thank you very much.

As Chairman Ehlers has noted, this amendment reflects the results of negotiations with OMB and the Department of Commerce. And incidentally, they are not always easy but were persistent. I should add that it took a long and persistent effort by the Committee to get these negotiations underway, and I want to thank Dr. Ehlers and his staff for keeping at it. In the end, the negotiations resulted in relatively minor changes that did not eliminate any aspects of the bill. This is a good and necessary amendment that will ensure that we can make real progress on behalf of manufacturers, because it will enable us to get this bill signed into law. And that is our objective. I urge its adoption.

Is there any further discussion on the amendment? Hearing none, the next amendment on the roster is amendment number two, an amendment offered by the gentleman from Colorado——

Mr. UDALL. Mr. Chairman?

Chairman BOEHLERT. Who seeks recognition?

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

Chairman BOEHLERT. All right. You are ready to proceed then. The Clerk will report the amendment.

Ms. TESSIERI. An amendment offered by Mr. Udall of Colorado to the amendment in the nature of a substitute.

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

[Note: See the Appendix for the Amendment offered by Mr. Udall.]

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

Mr. UDALL. Thank you, Mr. Chairman.

This amendment is based upon provisions in H.R. 2908, a manufacturing bill that I introduced in July of 2003. The amendment au-

thorizes funding for the standards and measurement activities of the National Institute of Standards and Technologies. It authorizes NIST lab funding at the President's fiscal year 2005 requested level of $422 million with an additional $2.8 million included for NIST activities to support voting standards and a small program to develop standards courses in colleges and universities. The bill provides a five percent per year increase in fiscal years 2006, 2007, and 2008.

Although not in line with industry proposals to double NIST funding over the next five years, it does provide for real growth at NIST. During the past five years, NIST's budget has increased by only seven percent while its costs have grown by almost 30 percent. The result, in conjunction with last year's budget cuts, has been the termination of NIST's scientists, a good number of them from my District.

We all agree about the importance of NIST's standards and measurement activities to this country's economic competitiveness, especially in the field of manufacturing. This committee has long recognized this fact and has always strongly support NIST's lab activities. Indeed, this year the Committee stresses the importance of NIST's role in supporting commercial activity. I was also pleased that both Chairman Boehlert and Chairman Ehlers testified before the Commerce, Justice, State Appropriations Subcommittee about the importance of NIST and the need to provide the President's request level in fiscal year 2005. They followed this testimony with a recent letter to the CJS Chair and Ranking Member further detailing the case for full NIST funding and stating it was their number one priority.

The bill before us today is entitled "The Manufacturing Technology and Competitiveness Act." It seems to me that a central element of such a bill should be authorization for NIST lab funding. At an ETS Subcommittee hearing last month, the industry representatives testified about the importance of NIST to their continued competitiveness and innovation. They made it clear that without NIST's leadership in standards and measurements, the U.S. would no longer be, as Deborah Grubbe of DuPont put it, "the lead dog on the sled."

I commend Chairman Boehlert and Ehlers for their public support for NIST. However, I believe the Committee needs to send a strong signal as an authorization Committee about the importance of NIST for a broad industrial base, from chemical, pharmaceuticals, and information technology to the automotive and machine tool industries, to name just a few.

I am not alone in this assessment. More than 100 industrial and standards organizations have written the Appropriations Committee requesting they fund NIST at a level $422 million. In that spirit, with that information, Mr. Chairman, I urge my colleagues to support this amendment.

[The prepared statement of Mr. Udall follows:]

Chairman BOEHLERT. Thank you very much, Mr. Udall. And we have come to expect good work from your chair.

Mr. UDALL. Thank you.

Chairman BOEHLERT. Overall, I would say this is a very good amendment. Fully funding the NIST labs is the top budget priority

of this committee this year, and this amendment would enshrine that goal in statute. I should add that thanks, in part, to our work, we were already off to a good start, House Appropriations gave your labs a good number yesterday under difficult circumstances.

I only have one problem with this excellent amendment. It comes down to an issue that I think we will come back to again and again this morning. And it won't become law if it is loaded down with tangential provisions that the White House, and therefore the House and Senate leadership, don't support. In this case, the provision is the funding for the construction account, which is higher than the Administration can support at this time. I would add, as the Administration has, that the Administration is supportive of construction at NIST. In fact, it usually proposes more for that purpose than Congress actually provides. But the Administration, with some justification, does not want to set our high out-year numbers right now.

I know that Mr. Udall is, quite properly in this amendment, looking out for the NIST labs in Boulder, which we all know need a great deal of work. It is not just his parochialism. We share in his sentiment. I would be happy to work with the gentleman on report language that would make clear that this committee strongly supports an aggressive construction program for that purpose, but this is a manufacturing bill, and I don't want to endanger it by a fight over a relatively unrelated provision, but an important unrelated provision. So since the gentleman has offered an amendment that would improve the bill, except for one provision, let me offer an amendment to it.

And I have an amendment at the desk that the Clerk should report and distribute.

Ms. TESSIERI. Amendment offered by Mr. Boehlert to the amendment offered by Mr. Udall of Colorado.

Chairman BOEHLERT. I ask unanimous consent to dispense with the reading, and without objection, it is so ordered.

[Note: See the Appendix for the Amendment offered by Mr. Boehlert.]

Chairman BOEHLERT. I had an amendment to Mr. Udall's amendment that I would ask that be distributed at this time. This amendment simply authorizes "such sums" for the construction account in place of Mr. Udall's specific numbers. My goal is the same as Mr. Udall's: to offer strong support for a robust construction account, but I want to do it in a way that doesn't sink the bill or get ahead of construction planning. I think an open-ended authorization, coupled with strong report language, should accomplish Mr. Udall's goal in a way that won't endanger the bill. I urge support for my substitute.

Is there any other discussion?

Mr. UDALL. Would the gentleman yield?

Chairman BOEHLERT. Yes, sir. I would be glad to yield to Mr. Udall.

Mr. UDALL. I appreciate the gentleman's commitment to the laboratories that NIST operates. I still find myself somewhat puzzled, given the emphasis that we have all placed on these laboratories. I know a few years ago Chairman Ehlers and my good friend Representative Gutknecht traveled to Boulder, and we saw the needs

there and they recognized that we had to move quickly. You have supported construction funding in a letter to the appropriators in 2003. The Committee, as I mentioned, supported the President's request in the views and estimates. Last year, the appropriators asked NIST for a construction plan. And it is my understanding that that plan has been sitting at OMB for some time. And it is also my understanding that the appropriators have said that they wouldn't provide funding for construction unless they had the plan in hand. And it—I actually have it right here. The numbers are clear and in front of us. And the fact that we are now saying that the Committee won't support construction numbers, despite the fact that we have done so in the past, despite the fact that the President's own request for 2005 calls for $24.7 million in funding for the construction, and despite the fact that NIST's construction plan that has been submitted to OMB clearly calls for the numbers included in the bill, I think we are sending the wrong message. And I think this isn't tangential. I think this is crucial to not only NIST's mission but to the mission we all share, which is to upgrade and support our manufacturing sector, Mr. Chairman. So I would respectfully, once again, put on the table that would be my point of view that we ought to have these numbers so that we send a clear message to all interested parties that we are going to rebuild these laboratories because of the important role that they play.

I appreciate the gentleman yielding.

Chairman BOEHLERT. Thank you very much, Mr. Udall.

Mr. Gutknecht.

Mr. GUTKNECHT. Mr. Chairman, as Mr. Udall just said, I have actually been to labs out there in Boulder. And I would strongly encourage other Members of this committee to take the opportunity to go out there, because, really, in many respects, I believe that they are among the crown jewels of the lab work that the Federal Government does. And there is no question that, in terms of the facilities that they have, they are in desperate need to have those updated. But I think the gentleman from Colorado may be overstating. I think the amendment that is being offered by the Chairman is a friendly amendment. And at the end of the day, I say that in part, because I also serve on the Budget Committee. I am sorry. I don't know how many Members of this committee also serve on the Budget Committee, but we are being confronted with an awful lot of requests and a limited amount to spend. And I think it is important for this committee to send the message that we strongly support the NIST labs without, in effect, tying the hands of the appropriators in making requests that will cause decisions that we don't want to have made.

So I think this is the best of all worlds. I think it helps us get this bill passed. I think it demonstrates that we clearly believe that the mission of the NIST laboratories are critical and important without beginning to create a fight that we really don't want to get into. So I would hope the gentleman from Colorado would accept the amendment and we could move forward. And I can promise him that I will, as I have in the past, be willing to write letters to the appropriators and to the Departments and to others who might be able to influence this to make certain that the NIST labs

and the important work that they do will remain a very high priority for this Federal Government.

Chairman BOEHLERT. Thank you very much, Mr. Gutknecht.

And Mr. Udall, we would be glad to work very diligently to try and dislodge that report from OMB if that is where it is bottled up. And I will personally talk to the Director about that. I think it is evident, on both sides of the center aisle here, that we are of one mind on the need to invest more in construction to our NIST labs. So there is no argument about that. And we rally around the flag in your support. And Colorado is a long way from New York or Minnesota, but it is a very important facility—they are very important facilities out there, so we want to go forward in a meaningful way. But I just think that my substitute, or second-degree amendment, deals with the issue in a way that sends a very clear message of what this committee thinks on a bipartisan basis, but does it in such a way that it is not going to raise a red flag that I start having to do battle when I go to the leadership meetings and we can't get this through, and then the veto threats come from the White House and all of that extracurricular activity that would interfere with us advancing in a significant and meaningful way toward the objective we all seek on a bipartisan basis.

Is there any other discussion?

Mr. UDALL. Would the gentleman yield?

Chairman BOEHLERT. Who seeks recognition?

Mr. UDALL. Would the gentleman yield?

Chairman BOEHLERT. Yes, Mr. Udall.

Mr. UDALL. And thank you, Mr. Chairman.

I have no doubt of the gentleman's intentions and sincerity. I just have to share with you my concerns that "such sums" could be equal to zero or they could be equal to the amount—the amounts that I have outlined in my amendment. And I think I would feel much better, and I think many others would, if we actually had some numbers in the bill, given that "such sums" is open to interpretation, broad interpretation, if you will.

Chairman BOEHLERT. Well——

Mr. UDALL. And that is, in fact, why I included these sums in my amendment.

Chairman BOEHLERT. I am very favorably disposed toward the gentleman not only because of his record of contributing significantly to the workings of this committee and not only because of my affection to the lab at Boulder, but I might add that I want to show my appreciation for the Colorado Rockies beating the Boston Red Sox last night, as the Yankees won, so we advance to a 4c-game lead. But I just think that when all is said and done, we ought to go hand in hand and march together to the appropriators. That is where we have really got to make an impact. And I would be glad to do that with you.

Is there any other discussion?

Mr. SMITH. I was just wondering, Mr. Chairman, were you for the Lakers or for the Pistons?

Chairman BOEHLERT. Listen, let us not get into controversial issues.

Mr. GORDON. Mr. Chairman, let me just——

Chairman BOEHLERT. Mr. Gordon.

Mr. GORDON. Let me just quickly add that it is a little awkward, because we know you are very sympathetic to this position that NIST can't do its work if it is working out of dilapidated buildings and it needs to have something done. But we know what the funding level is that is needed here, and I think that we should take the leadership. The Transportation Committee, the President said that he would not accept a bill beyond a certain level, yet the House Transportation bill said, "We need to try to do something better," and they did. The Senate Transportation bill heard what the President said, and they said, "But we need to do something better." And together, they are going to do something that the President did not originally recommend, but it will be better. And I am sure it is going to wind up being signed. We have a chance to take a leadership position here, do what ought to be done. Certainly the President is not going to veto this whole bill because of this one—language. We need to move forward and do the right thing.

Chairman BOEHLERT. You mentioned the Transportation bill, and I happen to be a senior Member of that Committee. Let me observe that the signing of that bill should be history. Everybody in this town was tripping all over each other trying to find a way to get more jobs in our economy. If he had passed this six months ago, we would have those people out there working on those projects, building bridges, repairing roads, et cetera, et cetera. But the fact of the matter is it still is highly speculative on what the final product will be and whether or not the Administration will sign it. I don't want to go into a prolonged period of wondering if we can go forward with a manufacturing bill that has some teeth to it, some significance to it, wondering if the leadership in the House and the leadership in the Senate and the White House are going to argue about whether or not it should be signed, and we will all go home for the August recess and then the election and we won't have anything. I want something, so therefore, I would urge the adoption of my second-degree amendment and support of the amendment, as amended.

If there is no further—Mr. Gutknecht.

Mr. GUTKNECHT. Mr. Chairman, I would just, real briefly, argue that this is not just a matter of whether or not there might be a presidential veto. I can envision that my colleagues from the Budget Committee, if this language is in here, are going to find offsets. And I don't think that is a choice we really want to have to make today or in the future. And if there are offsets, I mean, I must say to my colleague from Colorado, my observation when I was out there as well is that NOAA is over-funded. And that would be a very easy target to make an offset to make certain that NIST gets the funding it needs to rebuild the labs out there.

And I—you know, so I think this is a debate we don't want to have in this committee at this particular point in time. If we decide to go forward with the Udall language, I think we will have that debate on the Floor of the House, and it will not be a good outcome. So I would hope that we could adopt the Chairman's amendment.

Chairman BOEHLERT. If there is no—Ms. Johnson?

Ms. JOHNSON. Mr. Chairman, I do accept this debate as a reasonable approach. However, what concerns me is that maybe we

should have some kind of language in here to explain what is needed. It seems to me that we are advocating our responsibility to gruel on because we have been told what the limitations are. And of course, we are probably forced to go along with it, but I think that we need some history to point out what we see as the need now and perhaps what we are being forced to do. But in years to come, if we only have this language just to please wherever the budget is or the President or whatever, it would appear that this committee has not—either not seen or acknowledged or had enough insight to know what is needed at this time.

Chairman BOEHLERT. Well, this approach does not deal with the world as we would like it; it deals with the world as we find it. And we are not going to abdicate any responsibility. Not only would we embrace the Udall amendment, the spirit behind it, we have committed to strong report language, making it unmistakably clear the bipartisan, strong feeling on this committee of the necessity for adding construction accounts for the NIST laboratories.

So I think we are on the same wavelength; we are just arguing over the specific figure rather than "such sums." And based upon my exposure to the thinking beyond this committee and the leadership and in conversations with the people we have talked with from the Budget Committee and the Appropriations Committee, I think the best approach to go forward to accomplish the objective we all seek is to approve the amendment, as amended by my second-degree amendment, and then go forward.

If there is no further discussion—yes, Ms. Woolsey?

Ms. WOOLSEY. Thank you, Mr. Chairman.

I like the idea of embracing the Udall language. And I sincerely believe you when you say that you mean what you are saying. But we all know that money is where it is ends. Funding is the be all, end all here in the House of Representatives. So I think we are doing the wrong thing by not putting real funds behind this language of Representative Udall.

And then I would like to point out to Mr. Gutknecht that yesterday we had energy bills on the Floor that passed, and not one of them had an offset. So you know, that argument falls flat that, you know, we would have to have an offset today when we didn't have to have one yesterday.

Chairman BOEHLERT. We don't have to have the offset, but somebody else is going to find the offset.

Mr. UDALL. Would the gentlelady yield?

Chairman BOEHLERT. It is her time, yes.

Mr. UDALL. Would the gentlelady yield?

Ms. WOOLSEY. Certainly.

Mr. UDALL. I thank the gentlelady for yielding. Again, I just want to underline that what I am trying to simply do in the amendment is include in the construction and maintenance section the projections that NIST has generated itself, per OMB's request, for construction and maintenance activities from fiscal year 2005 through fiscal year 2008. And all we are doing in this amendment is including those numbers in the amendment so that we have a target off which to operate. And if we include in the amendment the second-degree, which just has "such sums," there is not a blueprint by which to proceed. And I again want to renew my call to

continue to include these numbers in the amendment, because I think it does provide us with a roadmap, perhaps an ideal roadmap, but one, nonetheless, that many of us have acknowledged as important for NIST to continue to do the work that it does to support our manufacturing sectors as well as many others.

Chairman BOEHLERT. Let me take advantage of my position, being in the Chair, and give the concluding statement on this issue. We have made——

Ms. WOOLSEY. Wait, it is still my turn, Mr. Chairman.

Chairman BOEHLERT. I am sorry. I yield back to the gentlelady from California.

Ms. WOOLSEY. I am sorry.

Chairman BOEHLERT. The Chair will return the time to its legitimate owner, and you have four seconds left.

Ms. WOOLSEY. That is right. And I—in that four seconds I would like to say that nobody yesterday required an offset, and that would have—if you thought that was necessary, it should have been in the language of the bill.

Chairman BOEHLERT. All right. Now let me assume some time. I will try to be limited. Let me say we have come a long way. When we started with this manufacturing bill, as Dr. Ehlers knows all too well, our adversaries were outside of this room within the leadership, within the Administration. And as the famous ad of a few years back says, "We have come a long way, Baby." We have got them now signing off on this bill, accepting it. When we started, the Administration was in the process, ill advisedly, of decimating MEP. Now we are up to, as we hear the report from the appropriators, over $100 million for this very valuable program that people on both sides of this aisle agree on. So we are coming a long way, we are just trying to—I am trying to chart a course based upon a lot of experience, and I am not the only one in this room that is experienced, but based upon a lot of experience dealing with both sides, dealing with the leadership, dealing with the Administration. I think we can accomplish what we want, send a very strong message about the importance of construction for NIST laboratories, not the least of which are in the great State of Colorado, and get something that will be signed off by the leadership, come to the Floor, get passed, get to the Administration, and get the Administration to sign it. Or we can get down in the trenches and slug it out and then probably never get time on the Floor, because we don't get agreement. And because we don't have agreement, the Administration directs its attention elsewhere, and that serves no legitimate purpose for those of us who collectively want to add vitality and strength to the manufacturing basis.

So with that, I proclaim the debate on the amendment to the amendment closed, and the vote is on the amendment, as amended—no, no, the amendment to the amendment. All in favor of the second-degree amendment offered by the Chair say aye. Opposed nay. The ayes appear to have it.

Mr. GORDON. Mr. Chairman, I would ask for a recorded vote, reluctantly, but nonetheless, I would like to ask for a recorded vote.

Chairman BOEHLERT. I am not surprised. 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. Lamar Smith.
[No response.]
Ms. TESSIERI. Mr. Weldon.
[No response.]
Ms. TESSIERI. Mr. Rohrabacher.
[No response.]
Ms. TESSIERI. Mr. Nick Smith.
Mr. SMITH OF MICHIGAN. Aye.
Ms. TESSIERI. Mr. Smith votes yes. Mr. Bartlett.
Mr. BARTLETT. Aye.
Ms. TESSIERI. Mr. Bartlett votes yes. Mr. Ehlers.
Mr. EHLERS. Aye.
Ms. TESSIERI. Mr. Ehlers votes yes. Mr. Gutknecht.
Mr. GUTKNECHT. Aye.
Ms. TESSIERI. Mr. Gutknecht votes yes. Mr. Nethercutt.
Mr. NETHERCUTT. Aye.
Ms. TESSIERI. Mr. Nethercutt 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. Aye.
Ms. TESSIERI. Mr. Gilchrest votes yes. Mr. Akin.
Mr. AKIN. Yes.
Ms. TESSIERI. Mr. Akin votes yes. Mr. Johnson.
[No response.]
Ms. TESSIERI. Ms. Hart.
Ms. HART. Yes.
Ms. TESSIERI. Ms. Hart votes yes. Mr. Forbes.
Mr. FORBES. Yes.
Ms. TESSIERI. Mr. Forbes votes yes. Mr. Gingrey.
Mr. GINGREY. Yes.
Ms. TESSIERI. Mr. Gingrey votes yes. Mr. Bishop.
Mr. BISHOP. Yes.
Ms. TESSIERI. Mr. Bishop votes yes. Mr. Burgess.
Mr. BURGESS. Yes.
Ms. TESSIERI. Mr. Burgess 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. Neugebauer.
Mr. NEUGEBAUER. Yes.
Ms. TESSIERI. Mr. Neugebauer votes yes. Mr. Gordon.
Mr. GORDON. No.
Ms. TESSIERI. Mr. Gordon votes no. Mr. Costello.
Mr. COSTELLO. No.
Ms. TESSIERI. Mr. Costello votes no. Ms. Johnson.
Ms. JOHNSON. No.
Ms. TESSIERI. Ms. Johnson votes no. Ms. Woolsey.
Ms. WOOLSEY. No.
Ms. TESSIERI. Ms. Woolsey votes no. Mr. Lampson.

[No response.]
Ms. TESSIERI. Mr. Larson.
Mr. LARSON. No.
Ms. TESSIERI. Mr. Larson 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. Ms. Jackson Lee.
Ms. JACKSON LEE. No.
Ms. TESSIERI. Ms. Jackson Lee votes no. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Mr. BAIRD. No.
Ms. TESSIERI. Mr. Baird votes no. Mr. Moore.
Mr. MOORE. No.
Ms. TESSIERI. Mr. Moore votes no. Mr. Weiner.
[No response.]
Ms. TESSIERI. Mr. Matheson.
Mr. MATHESON. No.
Ms. TESSIERI. Mr. Matheson votes no. Mr. Cardoza.
Mr. CARDOZA. No.
Ms. TESSIERI. Mr. Cardoza votes no.
Chairman BOEHLERT. Clerk, how is Mr. Johnson recorded?
Ms. TESSIERI. Mr. Johnson is not recorded, Mr. Chairman.
Mr. JOHNSON. I vote yes.
Ms. TESSIERI. Mr. Johnson votes yes.
Chairman BOEHLERT. The Clerk will report.
Ms. TESSIERI. Mr. Chairman, yes, 19; no, 14.

Chairman BOEHLERT. The amendment to the amendment is passed. And now the vote is on the amendment, as amended. All in favor, say aye. No. The ayes appear to have it, and the amendment, as amended, is passed.

The next amendment is—on the roster is amendment number three, from our distinguished prolific colleague, Mr. Udall.

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

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Mr. Udall of Colorado to the amendment in the nature of a substitute.

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

[Note: See the Appendix for the Amendment offered by Mr. Udall.]

Chairman BOEHLERT. The gentleman is recognized for five minutes to——

Mr. UDALL. Thank you, Mr. Chairman.

Chairman BOEHLERT.—explain his amendment.

Mr. UDALL. Thank you, Mr. Chairman.

My amendment is based upon provisions in H.R. 2908, a manufacturing bill I introduced in July of 2003. The amendment would strike the provision in the bill establishing an advisory committee, and would instead establish a presidential Council on Manufacturing. The Council would be composed of the Secretary of Commerce, serving as Chair, and the Under Secretary of Manufacturing, serving as Executive Director, and non-federal representatives from the manufacturing industry, professional associations, labor unions, and representatives of research and academic institutions. The Council would be charged with developing a national manufacturing strategy encompassing all factors that affect the U.S. manufacturing base, such as productivity and outsourcing, employment levels, and skills requirements. The Administration has also recommended the establishment of a Presidential Council. The Administration's proposal primarily sees the Council as overseeing the implementation of the recommendations in the Administration's manufacturing report, not recommending an overall manufacturing strategy. But the proposal did recommend that the Council have a strong Congressional mandate, be chaired by the Secretary of Commerce, and make its reports public. This amendment is in line with these recommendations. But in addition, it charges the manufacturing community, rather than government bureaucrats, with developing a strategy.

I understand that my amendment will be opposed because it has been "subsumed by events." It is true that yesterday Secretary Evans announced the members of a new manufacturing council, but a Commerce Department-appointed council is not what Chairman Ehlers' substitute bill calls for. Indeed, the Administration's own report in industry groups, such as the NACFAM, call for a presidential level council. In addition, the council announced yesterday is composed only of representatives from manufacturing and does not include representation from professional associations or labor unions, something that I know is important to Chairman Ehlers. The Chairman's original legislation echoed provisions in my own bill and specifically outlined in the composition of an advisory committee. The substitute we are considering today, however, would give the President complete authority to name an advisory committee, which could be anything, including the interagency committee, in the bill.

So to sum it up, I don't believe my amendment has been "subsumed by events." The manufacturing council that my amendment would establish would be a higher level body and would be more inclusive of all manufacturing-related sectors than the council that Secretary Evans created yesterday. However, it appears that this committee is prepared to accept the Administration's manufacturing council as the advisory committee called for in this bill. I don't believe we should be prepared to accept it. In that spirit, I would urge my colleagues to support this amendment.

I thank the Chairman for the time, and again, would ask Members to support this important amendment.

Thank you.

[The prepared statement of Mr. Udall follows:]

PREPARED STATEMENT OF REPRESENTATIVE MARK UDALL

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

My amendment is based upon provisions in H.R. 2908, a manufacturing bill I introduced in July 2003. My amendment would strike the provision in the bill establishing an advisory committee and would instead establish a Presidential Council on Manufacturing.

The Council would be composed of the Secretary of Commerce, serving as Chair, and the Under Secretary of Manufacturing, serving as Executive Director, and non-federal representatives from the manufacturing industry, professional associations, labor unions, and representatives of research and academic institutions.

The Council would be charged with developing a National Manufacturing Strategy encompassing all factors that affect the U.S. manufacturing base, such as productivity and outsourcing, employment levels, and skills requirements.

The Administration has also recommended the establishment of a Presidential Council. The Administration's proposal primarily sees the Council as overseeing the implementation of the recommendations in the Administration's manufacturing report, not recommending an overall manufacturing strategy. But the proposal did recommend that the Council have a strong Congressional mandate, be chaired by the Secretary of Commerce, and make its reports public.

My amendment is in line with these recommendations. In addition, it charges the manufacturing community—rather than government bureaucrats—with developing a strategy.

I understand that my amendment will be opposed because it has been ''subsumed by events.'' It is true that just yesterday, Secretary Evans announced the members of a new Manufacturing Council. But a Commerce Department-appointed Council is not what Chairman Ehlers's substitute bill calls for. Indeed, the Administration's own report and industry groups such as NACFAM call for a Presidential-level Council.

In addition, the Council as announced yesterday is composed only of representatives from manufacturing and does not include representation from professional associations or labor unions, something that I know is important to Chairman Ehlers. The Chairman's original legislation echoed provisions in my own bill in specifically outlining the composition of an advisory committee. The substitute we are considering today, however, would give the President complete authority to name an advisory committee—which could be anything, including the interagency committee in the bill.

So to sum up, I don't believe my amendment has been subsumed by events. The Manufacturing Council that my amendment would establish would be a higher-level body and would be more inclusive of all manufacturing-related sectors than the Council that Secretary Evans created yesterday.

But it appears that this committee is prepared to accept the Administration's Manufacturing Council as the advisory committee called for in this bill. I don't believe we should be prepared to accept it. So I urge my colleagues to support this amendment.

Chairman BOEHLERT. Thank you very much, Mr. Udall.

Reluctantly, I have to oppose the amendment, which would lead the Administration to strongly object to the bill. Now let me disabuse you of any notion that I am a shill in this instance for the Administration or a subsumer. But the bill already creates an advisory council. The bill also allows the Administration to designate its advisory council to serve that purpose. And you know what Secretary Evans said yesterday. I think the current council is a perfectly adequate channel for official advice to the Administration. And believe me, there is no shortage of unofficial advice.

I don't think it is worth losing this bill because of a debate, in effect, about the shape of the advisory council's table. Let me add that manufacturing is not an obscure issue, and there will be plenty of reports and extensive lobbying efforts relating to manufacturing that would ensure a constant stream of data and ideas to ensure that they get to the Administration, regardless of what any advisory council does. And this is not a partisan issue. Let me tell you, we are getting more than our share of council to the Adminis-

tration on what more we think it should be doing to address the concerns of the manufacturing sector. So based upon that, I reluctantly oppose the amendment. I appreciate the intent, appreciate the spirit, but urge its defeat.

Any other discussion?

Mr. UDALL. Would the Chairman yield?

Chairman BOEHLERT. By all means.

Mr. UDALL. I appreciate the point of view you have just shared with the Committee, Mr. Chairman. I was trying to think creatively here, and I was—I am inclined to ask for unanimous consent to offer a substitute amendment, which would add back into the bill language that was in the bill when it passed the Subcommittee that was supported by Chairman Ehlers and myself. And the substitute would specify the membership of the council. The Administration is proposing just manufacturing representation, and this would include associations, labor unions, and others. It is a simple amendment, a one page. And again, I would ask for unanimous consent to, at this time, offer that substitute amendment.

Chairman BOEHLERT. Are you asking unanimous consent to offer the substitute or are you still thinking creatively?

Mr. UDALL. I am doing both, Mr. Chairman, at least I am trying to. I am asking unanimous consent to offer this substitute amendment at this time.

Chairman BOEHLERT. Without objection, so ordered.

[Note: See the Appendix for the Amendment offered by Mr. Udall.]

Mr. UDALL. Thank you, Mr. Chairman.

Chairman BOEHLERT. And I would ask the distinguished Chair of the Subcommittee, Dr. Ehlers, if he might wish to advance a comment on that.

Mr. EHLERS. Thank you, Mr. Chairman. I always welcome creative thinking, but in this case, I will have to oppose the amendment. We all know that politics is the art of the possible, and we have worked very, very hard on this bill against a lot of different obstacles. I am very anxious to get this bill passed. As you well know, we are nearing the midpoint of this year, and we not only have to get this through the House, but also through the Senate, to have it take effect. And I believe it is an item of such urgency that we simply have to speed up the process, get this moving. And we have worked very carefully with a large number of individuals and groups and the Administration. And you well know that we can put anything in here we like about advisory committees, appointments, et cetera, but the Administration has total freedom in how it wishes to implement it and what appointments to make. And we have worked out this arrangement with he Administration. I could give you endless examples of things I would like to put in the bill, issues that are now passed, for example having an Under Secretary for Manufacturing and Technology. We have managed to get an Assistant Secretary of Manufacturing and Technology. It is not quite what I wanted, but it is certainly better than what we had. The advisory council, as it is formulated in this—in the bill before us, I believe, is adequate. It will fit well with what the Administration is trying to do. It removes the point of contention, and we know that they are sincere about doing it, because just yester-

day Secretary Evans and I participated in the first meeting of the advisory council, and these are first-rate individuals that have been appointed. They are very dedicated, very eager to get moving, and we will see how well it works. I hope it works extremely well, and I would certainly not be averse to working with the Administration to broaden the membership later on, if that proves to be an important factor.

But at this point, I want to get the bill passed. I want it to be signed into law. And we have, I think, negotiated very, very firmly, very hard, and have come up with a fair and comprehensive bill that a large number of people have agreed to. So I oppose the creative amendment that is being offered.

Chairman BOEHLERT. To provide balance to the discussion, we will now recognize Ms. Woolsey. And following her, we will recognize Mr. Gutknecht and then Dr. Baird.

Ms. WOOLSEY. Thank you, Mr. Chairman.

First, on the Udall amendment, the first Udall amendment, and now on this one, I keep hearing that it isn't politically possible for us to agree on these good amendments here in Committee, because it couldn't pass on the House Floor. Could you, would you——

Chairman BOEHLERT. Would the gentlelady just yield for——

Ms. WOOLSEY. Yes.

Chairman BOEHLERT.—a millisecond on that one? Not politically possible? No, no. I—nobody is saying that. What we are saying is, and Dr. Ehlers emphasized it, this involved extensive negotiations with the Administration. It was give and take. We gave some. I think we took back a lot more.

Ms. WOOLSEY. Yeah, but we weren't, Mr. Chairman, in the room, so he didn't—the President and——

Chairman BOEHLERT. It was a small room.

Ms. WOOLSEY. That is probably true, but Mr. Udall could have been there to express his views on this, and he wasn't. I mean, you know, he should have been invited.

What I would like to ask is it possible to—for—to get some commitment from all of you over there that we could have a Floor vote on this issue so that we could see what is possible? Because you know, the White House does not totally run this country. We each represent the same number of constituents around the country as each other, and maybe there would be a will of the Congress to pass this amendment.

Mr. EHLERS. Would the gentlelady yield?

Ms. WOOLSEY. Yes.

Chairman BOEHLERT. Dr. Ehlers.

Mr. EHLERS. I just want to respond to that. The room, indeed, was small, but I want to make it clear that we did negotiate with Minority as well, not simultaneously with the Administration in the same room, but we have had conversations all of the way around. If we—a number of these amendments would actually delay the implementation of the bill. And let us just look back at history and what has happened to the MEP program and the way it has been cut, not just by the Administration, but, in fact, by the Congress last year with disastrous cuts, which endanger the entire program. And we are on a rescue mission here. And this bill restores the program, it improves the program, and we now have the

previous opponents lining up and saying, ''We will support it this way.'' This was not easy work, and that is why it took a lot—this long to get it to the Full Committee.

Ms. WOOLSEY. Well, I would like to——

Mr. EHLERS. And so I simply want to say we have negotiated in good faith with a lot of people, some opposing it and some supporting it.

Ms. WOOLSEY. Well, and I——

Mr. EHLERS. And this is the best——

Ms. WOOLSEY.—respect that. And this is my time, and let me just finish this by saying if you respect our side of it, it would be good to bring this to the House Floor so that we could have a vote of the Congress on this issue.

Mr. EHLERS. If the gentlelady will yield, that is entirely up to the Rules Committee as to whether or not——

Ms. WOOLSEY. Yeah.

Mr. EHLERS.—to permit you to offer an amendment.

Ms. WOOLSEY. Well, it would have to go through that to be some thrust from the leadership of this committee to make that happen.

Chairman BOEHLERT. Thank you. And the gentlelady's time has expired.

And now, Mr. Gutknecht.

Mr. GUTKNECHT. Thank you, Mr. Chairman.

I just wanted to take a couple of minutes to sort of clear the air about this whole issue of our economy and the loss of jobs and manufacturing jobs, in particular. I think this committee needs to be aware, and I think the Congress needs to be aware, and I think sometimes we need to remind our constituents that in the last four months, this economy has produced 1,030,000 new jobs. That is a record that the economy has never duplicated. Even during the roaring '90s, we only produced about a net of two million new jobs during the entire decade. So I think we have to put, you know, this whole thing in perspective, and I think some of us are walking around pretending like the American economy can't produce jobs. It does produce jobs. Let me talk also about manufacturing. And I would like to put this into the record, if I could. This is a study, or at least a summary of a study, done by Dr. Robert Riech. And I think few in this room would describe Dr. Riech as a Republican economist, but he says some very interesting things about manufacturing not only here in the United States but worldwide. The study that he put out, he said that during the period from 1995 to 2002, 22 million factory jobs worldwide were lost. And it is true that here in the United States, we lost about 11 percent of our manufacturing jobs. But in China, they lost 15 percent of their manufacturing jobs. And when you extrapolate from those numbers, what it means is during the same time that the United States was losing about two million manufacturing jobs, China was losing about 10 million manufacturing jobs.

Where did they go? Where did they go? Well, he answers the question in his study in two words. He says higher productivity. That is what is happening around the world, ladies and gentleman. And you know, we can make policy in this committee, and we can make policy through the Ways and Means Committee and we can make policy here in Congress, but you know, some of the things

that are happening worldwide, we can't change. And I think we have to at least be cognizant of the fact that, first of all, all of this doom and gloom about the American economy is way overstated. The American economy is performing very, very well.

During the—let me say one other number that we learned last week. During the '90s, we lost 35 million jobs in the United States. Did you know that? Thirty-five million jobs in America were downsized, outsized, rightsized, Enronized, dot-com-ized. We lost 35 million jobs during the '90s. But because of the dynamism of the American economy, we created 37 million new jobs. That is how the American economy works. I think once in a while we have to step back from some of our own political preconceived notions and look at the facts. And the facts are the American economy is doing incredibly well. And despite what we—whatever we may do here in this room or in this Congress, the fact that advanced manufacturing, new technology, computerized manufacturing today is going to change the way manufacturing is done not only now but in the future. And the idea that somehow we are going to get back to having as many people working in manufacturing as we did 10 years ago is like saying we will have as many farmers in 10 years as we had 10 years ago. It is not going to happen.

Mr. LARSON. Will the gentleman yield?

Mr. GUTKNECHT. I would be happy to yield.

Mr. LARSON. Well, speaking for myself, and I realize that that might be somewhat parochial, but the—as Ronald Reagan would say, the facts are a stubborn thing. And when I look at the loss of manufacturing jobs, which we are addressing here, and when I go home and face the people in my District, I don't care what Robert Riech's statistics are with respect to China. The reality is that we are losing manufacturing jobs, and we are losing manufacturing jobs, and there is a direct correlation between government investment in those jobs, taxation policies that are making it easier for people to invest offshore and create more manufacturing jobs abroad than here. And clearly, we can do something with policy, especially in research and development, and especially in the area of manufacturing. The European Union, and we have heard testimony before this committee, has got a program called "Vision 2020" where they are directly investing. Our—the amounts of money that we are no longer investing in research and development are extraordinary, and there is a direct correlation between investment in research and development and loss of manufacturing jobs.

Mr. GUTKNECHT. Reclaiming my time. I am not going to speak long about Europe, although you do understand that the European economy—in Germany, for example, the economic growth rate is c of one percent. And were it not for the economic growth in the United States, it would be zero. The unemployment rate in Germany today is 10 percent. It is about the same in France. And the idea that they have the model economic policy—and one last point——

Mr. LARSON. I am not saying they have a model economic policy. I am saying——

Mr. GUTKNECHT. Reclaiming my time.

Mr. LARSON.—we are losing—oh, sorry.

Mr. GUTKNECHT. Reclaiming my time. But I think when you go home and talk to your constituents, you owe them the truth. And these are the facts. And we can talk like this isn't going to happen and that manufacturing is going to go back to the way it was in 1980. It is not going to happen. Advanced manufacturing is happening, and we, no matter what we do, are going to have fewer people manufacturing more widgets more efficiently and more productively in the future. That is the way it is going to be. What we have to do is—through this committee is make smart investments so that we have the technology and we can compete in the world marketplace.

Chairman BOEHLERT. The gentleman's time has expired.

Dr. Baird, we are going to recognize the Ranking Member, preempting you, and then he will let you use the remainder of his time. I want to be fair, back and forth.

Mr. Gordon.

Mr. GORDON. Mr. Gutknecht's argument seems to be the philosophy of that is the way the cookie crumbles. He may be satisfied with the state of the economy. He may be satisfied with the job situation, but I am not. Yes, there has been some improvement in jobs in the last few months, and we are all glad of that, but that primarily has been temporary jobs and government jobs. Manufacturing jobs are still going down. Well, we can argue back and forth, but I will say—one thing we can't argue about is so far in the four years coming up this year will be the only time that this country has lost jobs over a four-year period since Herbert Hoover. Maybe you are satisfied. I am not satisfied. We could argue all day long about statistics. Again, take your own statistics, whichever one you want. The question is, the bottom line is, are you satisfied? You know. If you are satisfied, then let us not do anything. If you are not satisfied, then we need to move forward.

But let us move back to this bill about trying to get something done, because I—this amendment, we need to keep in mind, is not a radical measure. This bill—or this amendment, is the same amendment that Mr. Udall and Mr. Ehlers introduced the other day and voted for. It is the same bill. It doesn't take anything away from the Administration. What it does is it sets up the same type of Administration manufacturing council. The one that the Administration has done allows the President only to appoint individuals from the manufacturers. This expands it that says manufacturers, organizations that have members working in manufacturing and also labor representatives. And the President still makes the appointments. This is not a radical idea. This is a bipartisan position that we are just renewing. Now if the President is going to veto this bill on this little matter, I think we are really getting into micro-management.

And with that, I yield to Mr. Baird.

Mr. BAIRD. I thank my colleague.

I would just make two observations. I share my good friend's observation about the deference to the President. I fully recognize that we need to negotiate with the Administration, but the Constitution is a rather important document to me. And Article I of the Constitution says the Congress shall make the laws. It does not say the Executive Branch shall make the laws. And I think one of my

great concerns since coming into this institution has been the increasing of—abdication of our Congressional authority to the Executive Branch.

A second concern has been the increasing tendency to exclude Members of the Minority party. And this committee is—I want to complement this committee. It tends not to do that, and I respect and appreciate that on the part of the Chairman. But this notion that something that is meritorious—that the Congress feels is meritorious has to be subtracted because the Administration might not approve I think stands Article I on its head, and it suggests that it is the Executive Branch that makes laws, not the Congress. We make the laws. The Executive Branch executes those laws. And I would encourage us to assert that authority.

Finally, I would like to address two issues about this loss of jobs. Mr. Gutknecht, whom I have great respect for, talked about the creation of new jobs. It is my understanding that that creation falls short of the replacement rate. In other words, the number of jobs that would need to be created to keep up with the need for new jobs has not been exceeded by the actual creation rate. In other words, we are net losing jobs.

And finally, to get this back to the germaneness of this particular committee, I am particularly concerned about the loss of high-tech manufacturing jobs. We are increasingly seeing high-tech manufacturing move overseas, particularly in the area of custom chip fabs. The number of custom chip fabs being constructed in the world is growing, but the number being constructed in the United States, relative to China, is small. When we lose out on manufacturing of high technology, we lose in several ways. First, and importantly, our national security is jeopardized, because our defense is increasingly dependent on high-technology products. Second, we lose the opportunity for our workforce to work and get that hands-on experience in these high-technology sectors. As the Science Committee, I think we should be desperately concerned about that, because this is high-technology, science-based manufacturing that is leading our nation. And it is no small matter; it is substantive to our economy and to our national defense. And I would hope this committee would address that. And I would urge us not to cavalierly say, "Well, these things happen," because it is very consequential if they do.

And I yield back.

Chairman BOEHLERT. Thank you very much, Dr. Baird.

The vote is on the amendment. All in favor, say aye. Opposed, nay. The ayes appear to have it. There was a delayed reaction.

Mr. UDALL. Mr. Chairman, we were attempting to be creative again.

Mr. Chairman, I would call for a recorded vote.

Chairman BOEHLERT. The Clerk will call the role.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. No.

Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.

[No response.]

Ms. TESSIERI. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]
Ms. TESSIERI. Mr. Rohrabacher.
Mr. ROHRABACHER. No.
Ms. TESSIERI. Mr. Rohrabacher votes no. Mr. Calvert.
[No response.]
Ms. TESSIERI. Mr. Nick Smith.
Mr. SMITH OF MICHIGAN. No.
Ms. TESSIERI. Mr. Smith 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. Nethercutt.
[No response.]
Ms. TESSIERI. 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.
[No response.]
Ms. TESSIERI. Mr. Johnson.
[No response.]
Ms. TESSIERI. Ms. Hart.
Ms. HART. No.
Ms. TESSIERI. Ms. Hart votes no. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
Mr. GINGREY. No.
Ms. TESSIERI. Mr. Gingrey votes no. Mr. Bishop.
Mr. BISHOP. No.
Ms. TESSIERI. Mr. Bishop votes no. Mr. Burgess.
Mr. BURGESS. No.
Ms. TESSIERI. Mr. Burgess votes no. Mr. Bonner.
[No response.]
Ms. TESSIERI. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
Mr. NEUGEBAUER. No.
Ms. TESSIERI. Mr. Neugebauer votes no. Mr. Gordon.
Mr. GORDON. Yes.
Ms. TESSIERI. Mr. Gordon votes yes. Mr. Costello.
Mr. COSTELLO. Yes.
Ms. TESSIERI. Mr. Costello votes yes. Ms. Johnson.
Ms. JOHNSON. Yes.
Ms. TESSIERI. Ms. Johnson votes yes. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Mr. Lampson.
Ms. WOOLSEY. Yes.
Ms. TESSIERI. Oh, Ms. Woolsey votes yes. Mr. Lampson.
Mr. LAMPSON. Yes.
Ms. TESSIERI. Mr. Lampson votes yes. Mr. Larson.

[No response.]
Ms. TESSIERI. Mr. Udall.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Larson votes yes. Mr. Udall.
Mr. UDALL. Yes.
Ms. TESSIERI. Mr. Udall votes yes. Mr. Wu.
Mr. WU. Yes.
Ms. TESSIERI. Mr. Wu votes yes. Mr. Honda.
Mr. HONDA. Yes.
Ms. TESSIERI. Mr. Honda votes yes. Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Miller votes yes. Mr. Davis.
Mr. DAVIS. Yes.
Ms. TESSIERI. Mr. Davis votes yes. Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Mr. BAIRD. Aye.
Ms. TESSIERI. Mr. Baird votes yes. Mr. Moore.
Mr. MOORE. Yes.
Ms. TESSIERI. Mr. Moore votes yes. Mr. Weiner.
[No response.]
Ms. TESSIERI. Mr. Matheson.
Mr. MATHESON. Yes.
Ms. TESSIERI. Mr. Matheson votes yes. Mr. Cardoza.
Mr. CARDOZA. Yes.
Ms. TESSIERI. Mr. Cardoza votes yes.

Chairman BOEHLERT. Could the Clerk tell us how Mr. Johnson is recorded?

Ms. TESSIERI. Mr. Johnson is not recorded.
Mr. JOHNSON. No.
Ms. TESSIERI. Mr. Johnson votes no.

Chairman BOEHLERT. The Clerk will report.

Ms. TESSIERI. Mr. Chairman, yes, 15; no, 15.

Chairman BOEHLERT. The amendment is defeated.

The next amendment is amendment number four, which on your original list is amendment number eleven, offered by the prolific Mr. Udall. But to accommodate his very active schedule, we are moving that up to amendment number four. If that is clear, amendment eleven on your list is now amendment four by Udall. And the gentleman is recognized.

Mr. UDALL. I thank the Chairman for his recognition. I have my third, and last, amendment at the desk. It is also——

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Mr. Udall of Colorado to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Udall.]

Chairman BOEHLERT. The gentleman is recognized for five minutes.

Mr. UDALL. Thank you, Mr. Chairman.

This amendment is also based upon provisions in H.R. 2908, as I have mentioned, the manufacturing bill that I have introduced in July of 2003. One of the most critical elements of our manufacturing competitiveness is to have a technically-trained workforce. My amendment expands the National Science Foundation's current Advanced Technological Educational 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 very modest funding. The amendment also provides funding for the Manufacturing Skills Standards Council. The Council sets performance standards to certify job skills for manufacturing workers. These skill standards are strongly endorsed by unions and industry alike who work together in their development.

My amendment boosts funding for the ATE program from its current level of approximately $31 million to $100 million over the four-year authorization period. A portion of the funds are set aside specifically for the training of manufacturing technicians. Everyone here, everyone in the industry agrees that we must provide better and more technical training for our workforce. In the March 2004 report, *Industry Views Towards a Comprehensive Strategy to Address the Challenges to U.S. Manufacturers*—two of the major recommendations are to increase federal investment for technical education programs in high-demand occupational areas in manufacturing, and second, to support and build upon the work of the Manufacturing Skills Standards Council.

This amendment addresses two of the critical recommendations made in this report, and in that spirit, I urge adoption of my amendment.

I would reluctantly yield back whatever time I have remaining, Mr. Chairman.

[The prepared statement by Mr. Udall follows:]

PREPARED STATEMENT OF REPRESENTATIVE MARK UDALL

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

My amendment is based upon provisions in H.R. 2908, a manufacturing bill I introduced in July 2003.

One of the most critical elements of our manufacturing competitiveness is to have a technically trained workforce. My amendment expands the National Science Foundation's current Advanced Technological Education 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 very modest funding.

My amendment also provides funding for the Manufacturing Skills Standards Council. This Council sets performance standards to certify job skills for manufacturing workers. These skills standards are strongly endorsed by unions and industry alike, who work together in their development.

My amendment boosts funding for the ATE program from its current level of approximately $31 million to $100 million over the four-year authorization period. A portion of these funds are set aside specifically for the training of manufacturing technicians.

Everyone agrees that we must provide better and more technical training for our workforce. In the March 2004 report—*Industry Views Towards a Comprehensive Strategy to Address the Challenges to U.S. Manufacturers*—two of the major recommendations are to increase federal investment for technical education programs in high-demand occupational areas in manufacturing and to support and build upon the work of the Manufacturing Skills Standards Council.

My amendment addresses two of the critical recommendations made in this report. I urge adoption of my amendment.

REPUBLICANS WILL OPPOSE THIS AMENDMENT because it would create a set-aside in the ATE program specifically for manufacturing and the manufacturing skills standards council.

COUNTERPOINT TO THEIR OBJECTIONS: It's true that your amendment would create a set-aside, but the Science Committee often specifies funding for specific NSF programs, and the Committee has certainly done so in the past for the ATE program.

- The Cyber Security R&D Act specified funds within the ATE program for improving education in two-year institutions in fields related to computer and network security [$1M FY03 & $1.25M for each of FY04–07].
- The National Mathematics and Science Partnerships Act, as passed by the House in 2001, included $5M per year [FY02–04] designated for the ATE program for articulation partnerships between secondary schools and two-year colleges to increase participation by under-represented groups.
- The Undergraduate Science, Mathematics, Engineering, and Technology Education Improvement Act passed by the House in 2002 included specific funding in the ATE program for instrumentation [$3M FY03 rising to $5M FY07], for supporting research experiences for undergraduate students [$750K/yr.], and for improvements to core math and science education at two-year colleges [$5M/yr.].
- Within the NSF Education and Human Resources Directorate, the 2002 NSF Authorization Act specifies funding for Rep Boehlert's Robert Noyce Scholarship Program [$20M each year FY03–05].

Chairman BOEHLERT. Thank you very much, Mr. Udall.

Mr. SMITH OF MICHIGAN. The Chair left.

Chairman BOEHLERT. The Chair will recognize Mr. Smith after the Chair has a brief statement.

I understand your intentions here, Mr. Udall, but I think this amendment not only is unnecessary, but it is misguided. The ATE program, which I helped fight to create, when I came to this committee as a Junior Member, nobody paid a bit of attention to community colleges, to junior colleges, to those two-year institutions out there. They couldn't get the time of day up here. Now we have a program that really is addressed to help two-year colleges improve their technology programs and help local industries in ways that are tailored to the specific needs of their colleges and regions. A set aside, I think, would interfere with that basic goal by earmarking money for a specific purpose regardless of what needs the colleges and the areas have. The colleges themselves strongly oppose this amendment. And after all of these years of fighting to get our attention, they have got our attention. We all agree that they are doing a splendid job. We want it so they get out of the way a little bit and help them to continue to do that job.

The Chair recognizes Chairman Smith.

Mr. SMITH OF MICHIGAN. Mr. Chairman, certainly I align myself with your comments. And Mr. Udall indicated that everybody agrees on more technical training. But it depends on what part of the country you are from and who the community colleges are in the kind of decisions that they make. And so to limit the flexibility of these colleges, I have—our Subcommittee, of course, oversees NSF, who administers this program. They are against this amendment, because it limits the flexibility. The community colleges, as the Chairman mentioned, are against this amendment, because it limits their flexibility to do what they feel is important in encouraging manufacturing and training at their local community colleges. So I hope we would not increase the funding in this amend-

ment from 43 to 70, and I would hope that we would not limit the flexibility of this program by deciding how much technical training has to be used up in this particular ATE program.

Chairman BOEHLERT. Mr. Lampson.

Mr. LAMPSON. Thank you, Mr. Chairman. I appreciate that.

I used to teach a college like this for nine years, and I understand what the needs are. And I find it a little bit surprising to hear that they don't need the money or that they would oppose this. The college that I taught in is in need of financing from wherever they can possibly get it. We have seen about a 21 percent increase in the tuition for the students who are attending Lamar Institute of Technology in Beaumont, Texas. And they are hurting for anything and everything that they can get. And I don't know, specifically, if this amendment would benefit that specific program in Beaumont, but I know that the growing pains that they have, the needs that they have to provide for students that are having a very difficult time getting the skills that they want and need because of whatever available jobs that there are, and I just left two people. I missed the first vote in this meeting a while ago because of two people who have just lost jobs, both in their—one of them in their mid-50s and the other in their upper-40s. The lady who lost her job had to train her counterpart in India before she left it. Those are the kinds of things that we have got to find any innovative means that we possibly can to address in my mind. And I——

Mr. UDALL. Would the gentleman yield?

Mr. LAMPSON.—would yield my remaining time to Mr. Udall.

Mr. UDALL. I thank the gentleman for yielding and appreciate his stories from his District. I just wanted to clarify that the amendment would plus-up, not squeeze, existing funding. And I don't believe it would limit the flexibility. This bill has been available for close to a year now, and this is the first time that I have heard that NSF has a problem with it or the problems in the college world.

If we look at, Mr. Chairman, other activities that the Committee has undertaken in the past through the ATE program, for example, the National Mathematics and Science Partnerships Act as passed by the House in 2001, it included $1 million per year—I am sorry, $5 million per year designated for the ATE program for articulation partnerships between secondary schools and two-year colleges. Undergraduate Science, Mathematics, Engineering, and Technology Education Improvement Act from 2002 included specific funding in the ATE program for instrumentation. And the Robert Noyce Scholarship program, with which you are familiar and worked very hard to see supported, is funded through the NSF Education and Human Resources Directorate, $20 million each year from 2003 to 2005. So we have it, when we felt it was valuable, directed funds in this way. I just want to set that clear for the record. And I appreciate the gentleman from Texas yielding to me.

Chairman BOEHLERT. The gentleman's time has expired.

Let me just say, Mr. Lampson, in response—and you just arrived, so you didn't hear the earlier comments. I was observing that, many years ago, nobody paid any attention to the community colleges to the junior colleges. You are darn right they need the money. I don't want to take any money away from them. I am look-

ing to give them more money, but I don't want to limit or restrict their flexibility. For example, something that this committee, on a bipartisan basis, is very concerned about is cyber security. And so if a community college in your District or mine or, God forbid if they are in Tennessee in Mr. Gordon's District, but if they want to set up a program to train people in computer technology or in cyber security, that is not directly related to manufacturing. This would restrict them. They can't do that. I mean, we want to give them the money they need to do what they do best, provide—identify training needs and then provide that in a very responsive, responsible way.

There are all sorts of training programs going on in community colleges all over America, and I want to give them more money, because that is critically important. But I don't want to restrict them. Not all economies are based upon manufacturing. And what they do as a practical matter in my District, we have got Moorehawk Valley Community College, 5,000 full-time equivalent students. They survey all of the businesses in the area. What are your unmet needs for the future in terms of training for your employees or perspective employees, because hopefully they are going to grow? And then they provide a program to meet that need.

It varies. Some are directly related to manufacturing. Others have nothing to do with manufacturing. But they are training people for jobs, giving them skills that they need to fill those jobs. And then they check with the Industrial Development Agency or the Chamber of Commerce and say, "What do you need in your portfolio to go out and search for more jobs for our area?" "Well, we need more people trained in A, B, or C." And then they develop a training program for A, B, or C. So we are not trying to take any money from them; we are trying to give them flexibility.

Mr. UDALL. So you are saying, then, that this would prohibit——

Chairman BOEHLERT. Yeah, I am saying this is too—I think, too restrictive. Too restrictive. And the colleges are opposed to it themselves, because there may be more than manufacturing, the type of training program they have—the Advanced Technology Education program may involve something in another sector of the economy that is not directly related to manufacturing, but this would restrict it to manufacturing. I want to give them the flexibility. I mean, I have the highest regard for the Presidents of the community colleges in my District, and I have got several of them. Part of the state university system, they are not some fly-by-night operations. They are not some diploma mill. They are good, quality institutions of higher education. All I am saying to them, "You are doing a good job. We want to help you get some money. And if you get some money under the ATE program, that is wonderful, but I don't want to restrict it to just one sector, manufacturing, when it could involve the service sector." If some company has the wisdom not to go overseas and outsource but to set up a telemarketing operation in your District or mine, but they need people to be trained, I want to let them be trained under the auspices of the ATE program. And I don't want them to come back to me and say, "Gee, we have the training program and the ability to train, but we don't have the resources, because the ATE program is restricted only to manufacturing."

Is there any other comment on the bill?

Mr. SMITH. Mr. Chairman, just very briefly, it should tell us something when the community colleges don't want the earmark, the caravel, to set aside; they want to maintain and retain their flexibility. So in areas where there are manufacturing, they spend a lot greater effort in that kind of training. In areas of the country where there isn't manufacturing, with this amendment, then they get gypped because they—there is an earmark set aside that they can only use it for that purpose. What we are interested in, in the ATE program, is the expansion of job training that is going to allow job growth in that particular part of the country. So the community colleges oppose it, NSF opposes this kind of caravel, and I think it sets a dangerous precedent for other interest areas that might want to caravel for their particular interest.

Chairman BOEHLERT. And jumping on and using you—some of your time, the—we are not saying to the community colleges, "You just use this for athletic programs or to expand your library or something else. Restrict it solely to advanced technology education." What we are saying is we want it to be broader than just addressing the educational needs of the manufacturing sector. And I will tell you what, there isn't a community college in America that gets funds under this program that doesn't immediately set up a program to train people for the manufacturing sector, if that is identified as a need in that particular community. So it is not as if manufacturing is being ignored. We are in this together. We want to do everything we can to help manufacturing. But that is not the only area of our economy that needs some assistance in terms of advanced technology education; there are other areas.

Dr. Baird.

Mr. BAIRD. Mr. Chairman, I just would inquire, what evidence do we have? I appreciate it. I am not doubting the gentlemen. I just—it would help me in making my decision on this. What evidence do we have that the community colleges writ large oppose this? Do we have letters, communication that has been shared with this—Members of this committee, because we keep hearing that they oppose it? I haven't heard from my community colleges personally about this. Maybe my colleagues have.

Mr. LAMPSON. Would the gentleman yield?

Chairman BOEHLERT. Yeah. And listen, I have got something right here from the Senior Legislative Association, American Association of Community Colleges. "Per our conversation, here are our concerns with the Udall amendment: restricts flexibility. The ATE program, through its competitive grants for centers and projects, has the flexibility to fund the highest quality proposals that respond to the local and regional workforce and stay abreast of emerging technological trends. Carving out a significant percentage of the program's funds for one specific area would dramatically alter the nature of the program. Advanced manufacturing already—focus. In recent years, advanced manufacturing has been a focus within the program with the establishment of regional centers." And I would be glad to have Xeroxed——

Mr. LAMPSON. Mr. Chairman, one quick question. I—the Cyber Security R&D Act, which we put $11.4 million a year into, does exactly the same thing as this. How is it different? How is that—how

does this work without being restrictive and then the one that we are—the manufacturing part be restrictive?

Chairman BOEHLERT. Dr. Ehlers, did you want to—the comment from Mr. Lampson? I was trying to read this. What is the question, if you would?

Mr. LAMPSON. The question is, we put—in another area, we restricted $11.4 million per year for the Cyber Security R&D Act, what is called in the Cyber Security R&D Act, we specified funds within—out of the ATE, within the ATE. How is this one okay to be restrictive for that and——

Chairman BOEHLERT. Because——

Mr. LAMPSON.—what we are——

Chairman BOEHLERT. That is an easy one to explain, as the author of the Cyber Security Research and Development Act, which the President proudly signed. That threat, the vulnerability of our cyber systems transcends all industries, all sectors of the economy, whether it is manufacturing, service sector, hospitality sector, you name it. It goes—it is across the board. That is one of the greatest challenges facing this nation right now. We have got to—that is why we responded so magnificently on this committee. And we passed the Cyber Security Research and Development Act. But that is not just in manufacturing or just in the service sector or just in the financial sector. As a matter of fact—well, we don't want to go into all of that, but——

Mr. LAMPSON. It is very specific with the security industry——

Mr. SMITH OF MICHIGAN. Would the gentleman from Lampson—Mr. Lampson, would you yield for another short comment?

Chairman BOEHLERT. You always have time when you are on this committee, Mr. Lampson.

Mr. LAMPSON. I would be happy to yield to Mr. Smith.

Mr. SMITH. I deem that you have time.

Let me just say that there is no caravel in ATE for cyber security. It is a different program. There is no caravel in ATE for any program unless we pass this amendment that does start the caravel.

Chairman BOEHLERT. According to this, it is a carve-out.

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

Chairman BOEHLERT. Mr. Udall.

Mr. UDALL. I intend to be brief, and I thank the Chairman for yielding me some additional time.

As I listen to the conversation here, I think there are some important points being made by everybody. And I am wondering whether you would be amenable to considering removing from my amendment the carve-out, the set aside portion but maintaining the authorization. Right now we have $31 million. Included in my amendment would call for $70 million. And it would seem to me that total could be well utilized to pursue our mission here. And if there are concerns about the carve-outs, we remove them from my amendment and leave the $70 million——

Chairman BOEHLERT. You know what, I can make a good case, and you probably would support it for $200 million.

Mr. UDALL. I am with you. That is a deal. Let us go.

Chairman BOEHLERT. No, it is not a deal. But the fact of the matter is this has been negotiated through very energetic give-and-

take sessions. We gave some. We took back a lot more. That is how we arrived at the point where we bring this before the Committee for a markup. We just put big numbers in there, it would—makes us all happy. We are the authorizers. We can go issue big press releases. "Boy, look at what we did for the community colleges of America and manufacturing." They have a snowball's chance in hell of getting anyplace. This committee is about doing things that are going to end up with a finished product, not giving us all an opportunity to give great press releases. And you are no more guilty of that than I am. You know. I probably would shove you aback and say, "Well, it was my idea." But the point of the matter is we have been through extensive negotiations. We have been through extensive debate on this amendment. And we will now have a vote on the amendment.

Is there—the vote is on the amendment offered by Mr. Udall, which is amendment number four, originally amendment number eleven, but in deference to his schedule, we have moved it up to number four. The vote is on the amendment. The Clerk will call the—well, wait a minute. The vote. All in favor, say aye. Opposed, no. The nos have it.

Mr. UDALL. Mr. Chairman, I would ask for a recorded vote.

Chairman BOEHLERT. The Clerk will call the roll.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. No.

Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.

[No response.]

Ms. TESSIERI. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]

Ms. TESSIERI. Mr. Rohrabacher.

Mr. ROHRABACHER. No.

Ms. TESSIERI. Mr. Rohrabacher votes no. Mr. Calvert.

Chairman BOEHLERT. Did you get Mr. Weldon?

Ms. TESSIERI. I did not. I am sorry. Mr. Weldon.

Mr. WELDON. No.

Ms. TESSIERI. Mr. Weldon votes no. Mr. Rohrabacher.

Mr. ROHRABACHER. No.

Ms. TESSIERI. Mr. Calvert.

[No response.]

Ms. TESSIERI. Mr. Nick Smith.

Mr. SMITH OF MICHIGAN. No.

Ms. TESSIERI. Mr. Bartlett.

Mr. BARTLETT. No.

Ms. TESSIERI. Mr. Ehlers.

Mr. EHLERS. No.

Ms. TESSIERI. Mr. Gutknecht.

Mr. GUTKNECHT. No.

Ms. TESSIERI. Mr. Nethercutt.

Mr. NETHERCUTT. No.

Ms. TESSIERI. Mr. Lucas.

Mr. LUCAS. No.

Ms. TESSIERI. Mr.—Mrs. Biggert.

Ms. BIGGERT. No.

Ms. TESSIERI. Mr. Gilchrest.
Mr. GILCHREST. No.
Ms. TESSIERI. Mr. Akin.
Mr. AKIN. No.
Ms. TESSIERI. Mr. Johnson.
Mr. JOHNSON. No.
Ms. TESSIERI. Mr.—Ms. Hart.
Ms. HART. No.
Ms. TESSIERI. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
Mr. GINGREY. No.
Ms. TESSIERI. Mr. Bishop.
Mr. BISHOP. No.
Ms. TESSIERI. Mr. Burgess.
Mr. BURGESS. No.
Ms. TESSIERI. Mr. Bonner.
Mr. BONNER. No.
Ms. TESSIERI. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
Mr. NEUGEBAUER. No.
Ms. TESSIERI. Mr. Gordon.
Mr. GORDON. Aye.
Ms. TESSIERI. Mr. Costello.
Mr. COSTELLO. Aye.
Ms. TESSIERI. Ms. Johnson.
Ms. JOHNSON. Aye.
Ms. TESSIERI. Ms. Woolsey.
Ms. WOOLSEY. Aye.
Ms. TESSIERI. Mr. Lampson.
Mr. LAMPSON. Yes.
Ms. TESSIERI. Mr. Larson.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Udall.
Mr. UDALL. Yes.
Ms. TESSIERI. Mr. Wu.
[No response.]
Ms. TESSIERI. Mr. Honda.
Mr. HONDA. Aye.
Ms. TESSIERI. Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Davis.
Mr. DAVIS. Aye.
Ms. TESSIERI. Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Mr. BAIRD. Aye.
Ms. TESSIERI. Mr. Moore.
Mr. MOORE. Aye.

Ms. TESSIERI. Mr. Weiner.

[No response.]

Ms. TESSIERI. Mr. Matheson.

Mr. MATHESON. Aye.

Ms. TESSIERI. Mr. Cardoza.

Mr. CARDOZA. Aye.

Chairman BOEHLERT. How is Mr. Hall recorded?

Ms. TESSIERI. Mr. Hall is not recorded, sir.

Mr. HALL. I vote no.

Ms. TESSIERI. Mr. Hall votes no.

Chairman BOEHLERT. How is Ms. Woolsey?

Ms. WOOLSEY. Aye.

Ms. TESSIERI. I am sorry. Ms. Woolsey is recorded as yes.

Chairman BOEHLERT. The distinguished gentleman from Oregon, Mr. Wu, wants to be recorded as aye.

Ms. TESSIERI. Mr.—okay.

Chairman BOEHLERT. The Clerk will report.

Ms. TESSIERI. Mr. Chairman, yes, 15; no, 18.

Chairman BOEHLERT. Thank you. The amendment is defeated.

The next amendment is amendment number five offered by Mr. Gordon. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Mr. Gordon to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Gordon.]

Chairman BOEHLERT. Before the Chair recognizes Mr. Gordon, let me point out that we are in recess. The House is in recess. We are—we don't have a vote pending, so don't get nervous.

The distinguished gentleman from the State of Tennessee.

Mr. GORDON. Mr. Chairman, I understand that you are going to accept this amendment, so——

Chairman BOEHLERT. In the spirit of partnership that we have in this committee, of course, I enthusiastically accept the amendment.

Mr. GORDON. And extending that partnership, in complement, I will not take the—my normal time. I will just say that this was a straightforward amendment that stopped the Administration from being able to do away with the MEP program administratively since it couldn't do away with it legislatively because of the bipartisan support and establishes the funding level at the amount that CJS Appropriations Subcommittee provided yesterday.

Thank you.

Chairman BOEHLERT. Well, let me just say the Ranking Member has offered a very good amendment and would prevent the new efforts we are creating here from undermining the MEP program, which we agree is a very good program. He set the appropriate priorities in this amendment, and I urge its adoption.

The vote is on the amendment. All of those in favor, say aye. Opposed, no. The ayes have it. The amendment is passed.

The next amendment on the roster is amendment number six, an amendment offered by Ms. Jackson Lee.

Mr. SMITH OF MICHIGAN. My schedule, Mr. Chairman.

Chairman BOEHLERT. Who Smith? I am sorry. You preempted Ms. Jackson Lee by Chairman Smith.

Mr. SMITH OF MICHIGAN. Well, we would certainly—with Ms. Jackson Lee's permission, we will make this a joint amendment.

Chairman BOEHLERT. But she is not here, so that—the next amendment is the amendment on the roster, which is listed on the roster as amendment number six, but now becomes amendment number seven, according to my tally sheet. And are you ready to proceed with your amendment?

Mr. SMITH OF MICHIGAN. I am ready to proceed, Mr. Chairman.

Chairman BOEHLERT. All right.

Mr. SMITH OF MICHIGAN. The amendment—we have the amendment——

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Mr. Smith of Michigan to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Smith of Michigan.]

Chairman BOEHLERT. The gentleman is recognized for five minutes.

Mr. SMITH OF MICHIGAN. Serving on the Budget Committee and being very concerned about how we expand spending, the needs are unlimited. This amendment, in short, says let us increase—let us make future increases the same as inflation. So let me put this in perspective of what we are funding this program at. This current year is $40 million. This authorizing legislation that, Mr. Ehlers, has been long overdue, because we have had a program now. We have been funding it without authorization. It is $40 million this year. We hope to get it up to $105 million, but for future increases in the legislation now is a $5 million increase per year, which is approximately five percent. This reduces it to have it grow at the rate of inflation, and the amendment simply says that increases in those out-years will grow at the rate of inflation. The estimate of savings is between $10 million and $15 million. And so that this doesn't continue to expand and take away from other programs, my suggestion to this committee is let us have it grow at the rate of inflation, rather than put a figure in that could be two or three times the rate of inflation, or possibly, in some years, less than inflation.

And with that, I would yield back.

Chairman BOEHLERT. Thank you.

I appreciate the gentleman's effort to save money in these cash-strapped times, but our point here is to get adequate funding for the Manufacturing Extension Partnership. I oppose the amendment. We are not doing nearly well enough by the manufacturing sector in terms of the support necessary for the Manufacturing Extension Partnership, and we need to work hard to convince the Administration to finally come along with a higher number that we want for MEP. This bill is not exactly spendthrift. It increases funding by about five percent in fiscal year 2006 and by smaller percentages in subsequent years.

Now once again, the Administration, which has not been known for overspending on MEP, has said it would not oppose the levels we have proposed. The Manufacturing Extension Partnership is an investment in our economic future, and we ought not to stint on it. I urge the defeat of this amendment.

The Chair recognizes Mr. Gordon.

Mr. GORDON. In the spirit of bipartisanship, I concur with the Chairman's opposition.

Chairman BOEHLERT. Is there anyone else that seeks recognition? Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman.

The—it may be interesting to know what the rate of inflation is going to be in the next few years. This might actually increase spending if the rate of inflation goes up. But let me simply point out the wild fluctuations in this program. If you really want to apply at the rate of inflation, why not start with 1998 when the appropriation was $113.5 million, in which case the expenditures under a rate of inflation increase would be much, much higher? It is just the last few years that it has been cut, as I said, I think primarily by mistake in the appropriation staff in this past year. But certainly what we are asking for is lower than the inflationary increase based on the amounts that were allocated in the past, and I oppose this amendment.

Mr. SMITH OF MICHIGAN. Would the gentleman yield for just a reaction?

Mr. EHLERS. Reluctantly, yes.

Mr. SMITH OF MICHIGAN. Well, I think we should remind ourselves that we can't simply limit the excessive overspending in terms of deficit to the appropriators. Authorizing committees also have that same kind of responsibility. Instead of feel-good amendments saying that we are going to dramatically increase a lot of spending for a lot of programs and then leave it to the appropriators to try to hold the line on spending, I would suggest, respectfully, that authorizing committees have the same kind of responsibility. When the President gives us a budget that this—in this case of the 2005 budget is somewhat conservative compared to other spending increases that we have experienced, and I would just say that authorizing committees have that responsibility as much as appropriating committees. We are now, I think, in a desperate situation where we are increasing the debt of this country over $500 billion a year, and this is a load that we are putting on future generations. Our servicing the debt, our interest on the debt now uses up 14 percent of the budget. It costs $300 billion a year. Interest rates are going up. Our increase in the debt with our deficit spending is increasing. We are putting a huge load on future generations. We can't do simply the feel-good legislations of the future. And we are now approaching an estimated $70 trillion unfunded liability in Social Security and Medicare and Medicaid, and I throw that as my speech for the day.

Mr. EHLERS. Reclaiming my time. I agree with much of what the gentleman has said, but it seems to me the place is not to start—we should not start with MEP, but we should look at things that we have increased by 10 percent in this year's budget, Homeland Security, or eight percent for our Defense Department. If you are really going to talk fiscal conservatism, there are much, much bigger targets to deal with than the MEP, and I oppose the amendment.

Chairman BOEHLERT. Dr. Ehlers, Dr. Bartlett seeks recognition. Would you yield some of your time? You have some time remaining.

Chairman BOEHLERT. Dr. Bartlett, your colleague.

Mr. EHLERS. Yes, I would be pleased to yield to Dr. Bartlett.

Mr. BARTLETT. Thank you very much.

Along with my colleague, Mr. Smith, we two are probably two of the most vocal Members of Congress concerned about the growing deficits in our—on our spending. We have had a lot of talk here about statistics, and I was reminded of an observation my major professor made when I was working on my doctorate more than 50 years ago. One morning, he said, "Roscoe, you know, there are three degrees of liars. There are liars, and there are damn liars, and there are statisticians." And we have heard a lot about statistics. I will tell you, there are some statistics that I think are unarguable and that is the enormous trade deficit. Now excepting for agricultural products and mining products, what we export and what we import are manufactured products. And that trade deficit last year was $489 billion. The last two months, I think, have been record deficits of more than $50 billion.

Now you can't have this kind of a trade deficit without recognizing that relatively you have lost jobs. You can have all of the statistics you are talking about that say we have increased manufacturing jobs, but if that was relatively true, the trade deficit would be going down. And the trade deficit is going in exactly the opposite direction. It is going up, which means that we are losing globally in terms of manufacturing jobs. Whatever any of the statistics say, I think that the final arbiter of how well we are doing is the trade balance.

Now we have that trade balance for several reasons, and most of those reasons are beyond our control. One is tax policies, which we really need to change. Another is regulatory policies, which we really need to change. But what we can have some influence on in this committee are two very important things that we have been falling shy on for a number of years now and that is investment in basic research and investment in R&D. And anything that we can do in this committee, and we have a relatively small role to play, because I think tax policies and regulatory policies are primarily the culprits here. But there is also another problem here, and that is for years now, as a major economic power, we have been spending a smaller percentage of our GDP on basic research and R&D than any other power. It is exactly the equivalent of the farmer eating his seedcorn. Most of my farmers aren't dumb enough to eat their seed corn, but we have been doing that in our country now for a number of years. So whatever we do on this committee that increases the amount of money that goes to R&D and basic research, we are going to help turn around this sorry statistic that every quarter, not every month, our trade deficit grows larger and larger. So whatever we can do to change that we will be contributing to the American people.

Thank you very much.

Chairman BOEHLERT. Thank you very much.

And here is the final word. One of the reasons why we are so enthusiastic on a bipartisan basis in supporting the Manufacturing

Extension Partnership is that we know when we help small businesses who are in the manufacturing sector, that preserves jobs and increases the revenue they contribute to the U.S. Treasury in the payment of taxes.

So with that, let me say, on a bipartisan basis, there is support for the opposition to the amendment. The vote is now on the amendment offered by Mr. Smith of Michigan. All of those in favor say aye. Opposed, nay. The nays appear to have it. The amendment is defeated.

The next amendment is amendment number eight, which is the old amendment number seven, which is offered by the new Mr. Honda.

Mr. HONDA. Thank you, Mr. new Chairman.

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

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Mr. Honda to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Honda.]

Chairman BOEHLERT. The gentleman is recognized for five minutes.

Mr. HONDA. Thank you, Mr. Chairman.

This is a straightforward amendment whose sentiment nearly all of the Members of this committee supported earlier this year in our committee's views and estimates. This amendment authorizes funding for the Advanced Technology Program at a level of $169 million per year for four years. Since this bill is focused on manufacturing, my amendment specifies that 25 percent of the funds for new ATP awards be for a focused competition to support manufacturing sciences. 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. Since 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 a March 2003 hearing on the nanotechnology R&D bill, witness Allen Marty stated the need for ATP, or programs like it, to bridge the Valley of Death between the research concept and an actual product that could be manufactured. At a 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. At—and at every hearing on the President's budget request, since I joined this committee, Members from both sides of the aisle have made glowing statements about ATP and expressed disappointment, or even outraged about the low level of funding included in the budget request.

The Committee has even taken a position in support of ATP. The Committee's 2004 views and estimates signed by 25 Members of this committee, including 18 Republicans, state, and I quote, "The Committee continues to support ATP and is disappointed that the

Administration has included no funds for ATP in the 2005 request. The Committee supports funding the program at the 2004 enacted level of $169 million.'' And in testimony before the CJS Appropriations Subcommittee, the Chairman of both the Full Committee and the Subcommittee of Jurisdiction testified in support of MEP and ATP saying, and I quote, ''Both of these programs have not only proven their worth as an appropriate use of government funds, but are also necessary to help improve the edge that U.S. manufacturers need to compete in the global economy.''

Now numerous outside groups have echoed the Chairman's support for ATP funding, including the Electronic Industries Alliance, the International Economic Development Council, the National Association of Manufacturers, and the Coalition for Future of Manufacturing, the ASTRA, the Alliance for Science and Technology Research of America, and the Council on Competitiveness.

Given the recommendations of outside experts and the Committee's long-standing support for the Advanced Technology Program, I can see no reason why our Chairman could not be pleased to incorporate this amendment into the manufacturing bill. I urge my colleagues to support this amendment.

[The prepared statement of Mr. Honda follows:]

PREPARED STATEMENT OF REPRESENTATIVE MIKE HONDA

Mr. Chairman, this is a straightforward amendment whose sentiment nearly all of the members of this committee supported earlier this year in our Committee's Views and Estimates on the FY 2005 Budget Request.

It authorizes funding for the Advanced Technology Program, at a level of $169 million per year for four years. Since this bill is focused on manufacturing, my amendment specifies that 25 percent of the funds for new ATP awards be for a focused competition to support manufacturing sciences.

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. Since 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 a March 2003 hearing on the Nanotechnology R&D bill, 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. At a 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.

At every hearing on the President's budget request since I've joined this committee, Members from both sides of the aisle have made glowing statements about ATP and expressed disappointment or even outrage about the low level of funding included in the budget requests.

The Committee has even taken a position in support of ATP. The Committee's 2004 Views and Estimates, signed by 25 members of this committee (including 18 Republicans), state: ''The Committee continues to support ATP and is disappointed that the Administration has included no funds for ATP in the FY05 request. The Committee supports funding the program at the FY04 enacted level ($169 million).''

And in testimony before the CJS Appropriations Subcommittee, the Chairmen of both the Full Committee and the Subcommittee of Jurisdiction testified in support of MEP and ATP, saying: ''Both of these programs have not only proven their worth as an appropriate use of government funds, but are also necessary to help provide the edge that U.S. manufacturers need to compete in the global economy.''

Numerous outside groups have echoed the Chairmen's 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.

Given the recommendations of outside experts, and the Committee's long-standing support for the Advanced Technology Program, I can see no reason why the Chairman would not be pleased to incorporate this amendment into the Manufacturing Bill.

I urge my colleagues to support my amendment.

Chairman BOEHLERT. Thank you very much, Mr. Honda.

And I must confess at the outset that this is the toughest amendment for me to oppose, but I have to do so. This is a classic example of the perfect being the enemy of the good. Now those who have been around this committee for some time know I have been a very strong and very vocal supporter of ATP. I helped create the program, and I have always backed it. And I can't always say that of everyone on my side of the aisle. I mean, we have had previous chairmen of this committee who were vigorously opposed to ATP, and I was there in the trenches fighting for it. But our goal here today is to pass a bill to help smaller, often struggling, manufacturers and to ensure that we get a bill that can be signed into law. ATP is a great program. I stand up and attest to it, but this amendment would act as a poison pill. It deters us from the larger purpose. Let us not weigh this bill down with the debate over the controversial ATP program. And in that debate, Mr. Honda, you and I are on the same side of the argument. That will sink the bill. Let us do right by our manufacturers and see this bill into law. We can have the political debate on ATP at a later time.

I would add this that ATP, which is supposed to help cutting—create cutting-edge practices and processes, is really geared largely at helping a different group of companies in a different way than the MEP program. This bill will not have any gap, no big void, if we put ATP off until another day. So let us make some real progress today. I must urge the defeat of this amendment.

Is there anyone else who seeks recognition?

Mr. GORDON. Would the gentleman yield?

Chairman BOEHLERT. Mr. Gordon.

Mr. GORDON. Yes. Mr. Chairman, let me just remind the Committee that the majority of the Republicans on this committee signed the views and estimates that supported the ATP funding at $169 million. And both big Chairman Boehlert and little Chairman Ehlers have testified before the Appropriations Committee supporting the ATP funding. And let me also point out that currently—I mean, this could mean the end of this program. And currently, Mr. Weldon has four active programs in his District. Mr. Smith has two. Mr. Ehlers has three. Mr. Boehlert, Hall, Calvert, and Hart all have one currently. Let me also—and there are many others, this is just on this committee, that Maryland would lose $37 million on projects actually being pursued. Michigan, $131 million. New York, $112 million. This really does affect people. It affects our folks back home. I think it is not unreasonable for people to be watching this vote. And let me also remind you that the Senate has put in almost double this funding, $240-something million for the ATP program. And so I would hope that this vote would not, Mr. Chairman, be—feel that your high—your hands were tied on the NIST authorization when the Senate level will probably come up and you will vote against the Senate level. So I think this really

puts us at a point of jeopardy. And I think we all should think about that.

Chairman BOEHLERT. Dr. Ehlers.

Mr. EHLERS. Thank you, Mr. Chairman.

We have two very good programs that have been operating for some years, the MEP and the ATP. They have fallen on hard times for various reasons, political and otherwise. Part of the reason for the MEP problem is that it hasn't—simply hasn't been authorized for a number of years. And so I have decided, let us try to get rid of that problem at least. Let us reauthorize MEP, make it into a better program, and get that passed. And that is what this bill does. This, in no way, should be interpreted to mean that the ATP program is not good or should not survive. My plan is to do that next. And I appreciate you taking note in my loss of weight by referring to me as the little Chairman, but I just wanted to make clear that that is my goal on the Subcommittee I chair to get the MEP reauthorized, tackle the ATP, get that reorganized and straightened out. As you know, there are a lot of objections to certain parts of it. We will work through that whole process once again and get that done.

At this point, it—as the Chairman said, this is a poison pill simply because the homework has not been done yet, the political homework, to sell people on the ATP program to say we are making this a better program; this is a better package, so I urge defeat of the—of this amendment even though I agree with the intent of what Mr. Honda is trying to do.

Mr. SMITH OF MICHIGAN. Mr. Ehlers, would you yield for a question?

Mr. EHLERS. Yes.

Mr. SMITH OF MICHIGAN. I, in no way, question your good faith here. And I am saying that very sincerely. But what is the vehicle left this year for the ATP program? I mean, since the NIST is now incorporated here, I don't see that you are going to have any kind of vehicle left.

Mr. EHLERS. Well, certainly I could introduce another bill, but that is not the issue. The issue is, I think, in view of the time here, we will deal with ATP as we have for the past few years, just working directly with the appropriators. And we will take care of the reauthorization as soon as we can. If we can't do it this year, we will do it next year.

Chairman BOEHLERT. The gentleman's time has expired.

Mr. GORDON. Mr. Chairman.

Chairman BOEHLERT. Now while we are searching for another vehicle, we want to make darn sure that the journey of this vehicle is completed. And what we are suggesting is the poison pill aspect of this amendment would halt in its tracks the journey of an otherwise most worthy vehicle.

The Chair recognizes——

Mr. GORDON. If the Chairman would yield——

Chairman BOEHLERT. I would be glad to yield.

Mr. GORDON. Why is the Administration going to veto this bill because of ATP, but it is not going to veto the appropriation that has ATP?

Chairman BOEHLERT. We don't negotiate appropriations. This negotiation has been long and arduous. Dr. Ehlers has been in it up to his ears working very hard. Once again, it was a give-and-take process. Once again, let me point out, we had to give some things. We took back a lot more, and we have got the Administration now saying they are not objecting to our higher numbers for MEP than they originally proposed. We have got the Administration saying a lot of things that are favorable toward the unified position of this committee. They didn't accept everything. Negotiations are never one-sided. We had to give. And on ATP, and I am a—I am one of the big cheerleaders for the ATP program. I recognize its value. But the fact of the matter is it ain't going to happen if ATP is in here. That is my observation. That is the observation of Dr. Ehlers after extended commitment to the overall program.

The Chair recognizes Mr. Hall and then Mr. Honda.

Mr. HALL. Mr. Chairman, it is—I agree with you that this is a good amendment and has a good author. I guess my concern is, and I have one of these programs in Northeast Texas, is do you think it—apparently it is your opinion that what the Administration opposing it they do, that if it has this provision in it, then it endangers the work that you all have done.

Chairman BOEHLERT. That is my considered opinion, and that, too, of Dr. Ehlers.

Mr. HALL. I thank the Chairman.

Mr. EHLERS. Will the gentleman yield?

Mr. HALL. I do yield.

Mr. EHLERS. I just want to make an additional point. The context of this discussion has been that it is us versus the Administration. I would point out on the ATP there is considerable dissent within both the House and the Senate on this issue as well, and we have to remember that it takes only one Senator to put a hold on a bill over there, and I would not be surprised to see that happen. So we just have more work to do on this yet and come up with a product that is going to be acceptable to everyone.

Thank you.

Chairman BOEHLERT. Thank you for the observation, Dr. Ehlers.

Mr. Honda.

Mr. HONDA. Thank you. Thank you, Mr. Chairman.

I just have a comment and then a question. Just to remind our colleagues, 50 percent of all manufacturing projects are led by small companies, and in this country, 70 percent of our economy is run by small companies. And 90 percent of the small companies in these projects are single applicants. Small company manufacturing projects are 60 percent more likely to collaborate with other organizations than large companies. Over 85 percent of all of the manufacturing technical awards are given to small companies. Small company manufacturing projects commercialize almost twice as many products or processes as do large companies. Average employment growth of a small company projects is over 180 percent. 70 percent of small companies are able to attract additional private funding after the ATP award. And we know this—that this just works. And it really puzzles me that we are concerned about the Administration when our role—which was mentioned before, our role is to put out what we understand the best. We represent our

communities. And in Silicone Valley, we know that there are hundreds of small companies that would benefit by this, as other communities across this country would.

So I guess my question is, if, on the Senate side, there is a provision for funding for ATP and the NIST reauthorization, if we don't send a provision from our side, would it not be more difficult in conference to do this? And if we had it in, would it be——

Chairman BOEHLERT. No. It is still in play.

Mr. HONDA. If it is still in play, then——

Chairman BOEHLERT. I am a champion.

Mr. HONDA. Then it would seem to me that we should——

Chairman BOEHLERT. And I will seek advice from you before I say anything.

Mr. HONDA. Mr. Chairman, I would be pleased if you did, but I think I would rather have your vote supported on this amendment.

Chairman BOEHLERT. Thank you.

Mr. HONDA. But I just—Mr. Chairman, just to close, it would seem to me logical for this committee, given its history, to support this amendment and move it forward into the Conference Committee process. Let us see what happens with that there.

Chairman BOEHLERT. On that amendment, you have had the last word. Now the vote is on the amendment offered by Mr. Honda. All in favor, say aye. Opposed nay. The nays appear to have it.

Mr. HONDA. Mr. Chairman, I ask for a recorded vote.

Chairman BOEHLERT. The Clerk will call the roll.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. A reluctant no.

Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.

Mr. HALL. No.

Ms. TESSIERI. Mr. Hall votes no. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]

Ms. TESSIERI. Mr. Rohrabacher.

Mr. ROHRABACHER. No.

Ms. TESSIERI. Mr. Rohrabacher votes no. Mr. Calvert.

[No response.]

Ms. TESSIERI. Mr. Nick Smith.

Mr. SMITH OF MICHIGAN. I would reluctantly vote no.

Ms. TESSIERI. Mr. Smith 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. Nethercutt.

[No response.]

Ms. TESSIERI. 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. Ms. Hart.
Ms. HART. No.
Ms. TESSIERI. Ms. Hart votes no. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
Mr. GINGREY. No.
Ms. TESSIERI. Mr. Gingrey votes no. Mr. Bishop.
Mr. BISHOP. No.
Ms. TESSIERI. Mr. Bishop votes no. Mr. Burgess.
Mr. BURGESS. No.
Ms. TESSIERI. Mr. Burgess votes no. Mr. Bonner.
Mr. BONNER. No.
Ms. TESSIERI. Mr. Bonner votes no. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
Mr. NEUGEBAUER. No.
Ms. TESSIERI. Mr. Neugebauer votes no. Mr. Gordon.
Mr. GORDON. Aye.
Ms. TESSIERI. Mr. Gordon votes yes. Mr. Costello.
Mr. COSTELLO. Aye.
Ms. TESSIERI. Mr. Costello votes yes. Ms. Johnson.
Ms. JOHNSON. Aye.
Ms. TESSIERI. Ms. Johnson votes yes. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Mr. Lampson.
Mr. LAMPSON. Yes.
Ms. TESSIERI. Mr. Lampson votes yes. Mr. Larson.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Larson votes yes. Mr. Udall.
Mr. UDALL. Yes.
Ms. TESSIERI. Mr. Udall votes yes. Mr. Wu.
[No response.]
Ms. TESSIERI. Mr. Honda.
Mr. HONDA. Yes.
Ms. TESSIERI. Mr. Honda votes yes. Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Miller votes yes. Mr. Davis.
Mr. DAVIS. Aye.
Ms. TESSIERI. Mr. Davis votes yes. Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Mr. BAIRD. Yes.
Ms. TESSIERI. Mr. Baird votes yes. Mr. Moore.
Mr. MOORE. Yes.
Ms. TESSIERI. Mr. Moore votes yes. Mr. Weiner.
[No response.]
Ms. TESSIERI. Mr. Matheson.

Mr. MATHESON. Aye.

Ms. TESSIERI. Mr. Matheson votes yes. Mr. Cardoza.

[No response.]

Ms. JACKSON LEE. How I am recorded?

Ms. TESSIERI. Mr. Chairman, Ms. Jackson Lee is not recorded.

Ms. JACKSON LEE. Yes.

Ms. TESSIERI. Ms. Jackson Lee votes yes.

Chairman BOEHLERT. How is Mr. Wu recorded?

Ms. TESSIERI. Mr. Chairman, Mr. Wu is not recorded.

Mr. WU. Yes.

Ms. TESSIERI. Mr. Wu votes yes.

Mr. NETHERCUTT. How is Mr. Nethercutt recorded?

Ms. TESSIERI. Mr. Nethercutt is not recorded, sir.

Mr. NETHERCUTT. No.

Ms. TESSIERI. Mr. Nethercutt votes no. Mr. Chairman, yes, 14; no, 18.

Mr. GUTKNECHT. [Presiding] Maybe I should turn the mike on there.

The next amendment on the roster is amendment number nine, an amendment offered by the gentleman from Illinois, Mr. Costello.

Mr. Costello.

Mr. COSTELLO. Mr. Chairman, thank you.

Mr. Chairman, I think we have an amendment on this side, finally, that you can accept. Let me say that there has been a lot of discussion this morning about outsourcing of jobs——

Mr. GUTKNECHT. If the gentleman would suspend, let—please, let us allow the Clerk to report the amendment. It is listed as number eight on the sheet.

Ms. TESSIERI. I am sorry. Thank you. Yes. Thank you. Amendment offered by Mr. Costello to the amendment in the nature of a substitute.

Mr. GUTKNECHT. I ask unanimous consent to dispense with the reading. Without objection, so ordered.

[Note: See the Appendix for the Amendment offered by Mr. Costello.]

Mr. GUTKNECHT. The gentleman from Illinois is recognized for five minutes to explain his amendment.

Mr. COSTELLO. Mr. Chairman, thank you.

Mr. Chairman, there has been a lot of discussion this morning about the outsourcing of jobs and the number of jobs that have gone to other countries. I think one of the problems Mr. Bartlett and others have pointed out, it is difficult to determine how many jobs have we actually lost to other countries. And my amendment addresses that issue. My amendment that I am offering this morning would help us, both the Congress and the Administration, to assess the effects of the number of jobs that have left the United States and gone to other countries and the effects of that. I think we all understand and realize that off-shoring is contributing to the high levels of unemployment among electrical—electronics and computer engineers in the United States, and it could have major ramifications for our ability to create high-wage, high-tech jobs in the future.

There have been recent articles in the *Washington Post, The Wall Street Journal, Business Week,* and others that have highlighted

the wide range of estimates on the number of jobs moving overseas and how the lack of reliable data could be leading people to false conclusions, both positive and negative, about off-shoring and its impacts. My amendment, Mr. Chairman, would direct the Under Secretary of Technology to conduct a study to assess the following: one, the nature and number of jobs that are moving offshore; two, growth in jobs and support exports to the U.S. market, reemployment prospects of displaced workers, H1–B and L1–Visa use, jobs created by foreign investments in the United States, how off-shoring of jobs is impacting student career choices.

Mr. Chairman, the Under Secretary would have 60 days to enter into a contract to begin this study, and would have nine months to complete the study and report it back to the Congress. Mr. Chairman, it is a straightforward amendment. It is something that is needed so that we can, in fact, determine how many jobs have left the United States, what positive and negative impacts that it has had, and it would, in fact, be a valuable tool to the Congress and to the Administration in determining how we deal with this ever-growing problem here in our country.

Mr. GUTKNECHT. The gentleman yields back?

Mr. COSTELLO. I reserve the balance of my time.

[The prepared statement of Mr. Costello follows:]

PREPARED STATEMENT OF REPRESENTATIVE JERRY F. COSTELLO

Mr. Chairman, today I am introducing an amendment that requires the Under Secretary for Technology to contract with the RAND Corporation or similar entity for a study on manufacturing and professional employment trends as a function of off-shoring. Specifically, my amendment would measure the jobs lost here and moved offshore; measure expansion of companies' foreign workforce compared with their U.S. workforce; look at reemployment of displaced workers including wages and new occupations; H1–B and L1–Visa use; jobs created by foreign investment in the U.S.; and measure how off shoring of jobs is impacting student career choices.

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. Recently, *The Wall Street Journal, Business Week* and the *Washington Post* carried articles on outsourcing and all identified the lack of data on the job impact of outsourcing.

Some believe we have seen just the tip of the off-shoring iceberg, with perhaps 3.3 million service sector jobs moving overseas between 2000 and 2015 in a wide range of relatively well paid white-collar occupations. If true, the number of jobs sent offshore over the 15-year projection period might account for some two percent of total U.S. employment in a single year (2015).

People watched the first wave of off-shoring take place in manufacturing. In the 1980s and 1990s, two-thirds of workers who lost jobs in manufacturing industries hit by overseas competition earned less on their next job. A quarter of workers who lost their jobs and were re-employed saw income fall 30 percent or more. Up to one million manufacturing jobs are estimated to have been shifted overseas since 2001 by U.S. companies and their suppliers. The economy survived this hit by migrating to services. But now a major part of the service economy may undergo the same disruption and people do not have another sector to which they can turn.

Further, others wonder whether off-shoring will result in college graduates facing a dwindling supply of jobs that traditionally have served as stepping stones to secure, high skilled positions. As to the overseas movement of more skilled jobs, they question the adequacy of the government's safety net to meet the needs of already well educated and well paid workers who lose their jobs to offshore outsourcing, including financial analysts, income tax preparers, and x-ray technicians.

Mr. Chairman, it is my understanding that you have jurisdictional concerns regarding this amendment and that by including this study, the process will be delayed in getting the overall bill on the suspension calendar. 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.

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.

Mr. GUTKNECHT. The gentleman reserves the balance of his time. The—he—the gentleman may well be correct that if Chairman Boehlert were sitting in the chair he might agree with this amendment, but there is a new sheriff in town, and I will reluctantly oppose this amendment, even though I think the basic notion of this is a good one. Frankly, I think we do need to get to the bottom of exactly what is happening, the problem is, I am not certain it fits in this particular bill.

The issue of outsourcing is one that is fraught with controversy, but as I indicated earlier, there was a study done, and there have been a number of studies done outside of the government, one that I cited done by Dr. Robert Riech and was not paid for by the taxpayers and did not become entwined in an authorization bill. And so I will reluctantly oppose this amendment even though I do hope that groups will begin to do some of this research and attempt to get to the bottom of exactly what is happening with not only the American economy, but the world economy and how we fit in the picture. So I will oppose that amendment. And if there are others who would like to speak—I would recognize the gentleman from Michigan.

Mr. EHLERS. Thank you, Mr. Chairman. And I would simply point out that this—including this amendment would almost certainly trigger a referral to the Judiciary Committee, which of course, deals with any issues involving workforce relating to foreign workers coming in or out and also a referral to the Education and Workforce Committee, which I am sure would want to take a look at this as well. And the last thing you need is any referrals triggered at this point. So I urge that we oppose the Costello amendment even though the net result of what he is asking for is needed.

Another issue I would ask is how much of this is already available, because we have so many workforce studies going on? I happen to be on the Education and Workforce Committee, and we are all aware of the work of the Labor Department on these issues. I think much of the information is probably there already. And in addition, the National Science Foundation does their annual workforce study, which just was released approximately a month ago. It may not be assembled precisely the way Mr. Costello would like, but I think the basic information is there, and we can find it when we need it.

But in any event, the main issue I am bringing here is this would trigger referrals to at least one other committee and slow the bill down.

Mr. GUTKNECHT. If the gentleman would yield me just a couple of seconds to that——

Mr. EHLERS. I would be happy to do so.

Mr. GUTKNECHT. You mentioned several committees. One that you didn't mention that ultimately claims to be responsible for trade issues, and that is the Ways and Means Committee. So I think the gentleman makes a valid point that if this amendment were adopted, we would probably slow down the progress of this bill by a factor of at least three or four.

So who else would like to speak on the amendment? The—Mr. Wu?

Mr. WU. Mr. Chairman, I just want to underscore how important I think Mr. Costello's amendment is. While there may be other sources of information about outsourcing, I am not sure about my willingness to depend on Administration sources when the Head of the Council of Economic Advisors thinks that outsourcing is a grand idea. And I think that colors any Executive Branch studies on this subject, and I am proud to serve with Mr. Ehlers on the Education and Workforce Committee. I think that this is an important issue—an important workforce issue. And whether it is the Education and Workforce Committee or Judiciary Committee or the Ways and Means Committee, I think that the history of this body, the recent history of this body has indicated that when those committees are properly motivated, they can work with lightening speed and get the bill to the House Floor with an important study in place. And unless we think that outsourcing is not an important issue in this day and age, we should vote for Mr. Costello's amendment. And I yield to Mr. Costello for any further comments he might have.

Mr. GUTKNECHT. The gentleman from Illinois.

Mr. COSTELLO. I thank the gentleman for yielding.

Let me just make two points. One is the fact that, as I said earlier, we have the *Washington Post, The Wall Street Journal, Business Week*, and other publications saying that we need to get a handle on the data, reliable data. There is not reliable data on the number of jobs that have left and the ramifications, both now and for the future.

And the second point I would make is that the Chairman points out that it may slow down the passage of this bill. I think it is more important to get it right than, in fact, to speed this bill through the process. It is my understanding the Chairman would like to get this bill on the suspension calendar. I would suggest that rather than to worry about getting it on the suspension calendar, we ought to worry about the issues of outsourcing and how we can get a handle on the ramifications. And the best way to do that is, in fact, to mandate this study to report back to the Congress within a nine-month period so that we, in fact, can take a look at the number of jobs that have been lost and the ramifications as well as the other areas that the Secretary would be looking at.

And with that, I would yield back to Mr. Wu.

Mr. WU. And with that, Mr. Chairman, I yield back the balance of my time.

Mr. GUTKNECHT. Mr. Gordon.

Mr. GORDON. Mr. new sheriff Chairman, I think this is an important issue. There has been a lot of acrimonious debate over the last year about outsourcing, but it is basically all opinion and not facts.

It would really move the debate forward and be helpful to us on reaching some, hopefully, conclusions on what we should do on outsourcing to have this information. Now basically everyone has said they agree with this, but the problem is that things may be slowed down because of joint jurisdiction. Well, let me just say, this is a very selective argument. Already this year, this committee has sent several bills to the Floor where there has been joint jurisdiction: Transportation twice, Government Reform twice, once to Resources. And what happens? On minor matters, it is strictly a matter of exchanging letters. It didn't slow us down. We went forward, and we did it because it was the right thing to do. We had a good bill. And just the same way that the Science Committee has had joint jurisdiction on a number of occasions: three times with Resources, two times with Armed Services, one time with Small Business, two times with Transportation. We didn't call special Committee meetings here. We didn't try to slow things down. We said this was minor. It is a good bill. Let us go forward with it. This is what can happen here, too. Who in the world can disagree that this is the right idea and the right thing to do? We should not use this selective argument to stop this good proposal.

And I would finally just say that here we have a chance to do something about outsourcing. And if you think we should, vote yes on this bill. If you don't—or on this amendment. If you don't think we should take a step forward on outsourcing, then vote no. It is very clear.

Thank you, Mr. Chairman.

Mr. GUTKNECHT. Would anyone else care to be heard on the amendment? The gentleman, Mr. Larson.

Mr. LARSON. Thank you, Mr. Chairman.

And I want to associate myself with the remarks of Dr. Bartlett and the distinguished Minority Leader, Mr. Gordon, and Mr. Wu, and Mr. Costello. Sherwood Boehlert took to the Floor last evening, and he was talking very frankly about the hard truth in reality of what is happening to manufacturers here in this country. And he had a very specific and poignant example in Canton, Ohio of the Tempkin Company. It has been visited twice by the President. It has been cited for manufacturing improvement and excellence, and then, in fact, was credited with improvement in productivity because of what they have been able to do in precision manufacturing. And for that, the American workforce saw the Tempkin Company locate manufacturing over in China. Now I don't believe that the Chinese possess any greater manufacturing skills than Americans, but it does create an alarming and poignant and direct truth about what is going on. And we can all cite statistics and data and information, but if we don't have specific studies, as Mr. Costello has outlined, then all we can rely on is what our people in our District tell us and how they are being hurt by the loss of manufacturing jobs due to outsourcing.

Mr. GUTKNECHT. The Chairman has about two minutes and fifty seconds left. And I would just say this about the amendment. The one thing I think we can all agree on is this issue of outsourcing is enormously controversial. And we can all cite our own statistics, and I vaguely recall when I was talking about the research done by Dr. Robert Riech. Believe it or not, there were people on that

side of—to my right who didn't necessarily agree with the conclusions that Mr. Riech had come to. I think the same thing could happen, even with this study. And so while it may well be important that we get some "independent" group to give us more objective data. The problem, of course, is if we put it in this amendment, it is going to make this bill enormously more controversial. I think we should all agree that this is a controversial issue. And what the ultimate conclusions are going to be we really don't know. But it would cause a re-referral to at least two other committees. It would slow down the progress of this bill, and Members, I must remind you that between now and the scheduled adjournment date, we have less than 40 days of session remaining. Now that surprises even me. But I think every time you begin to slow this thing down, you create at least the opportunity that this bill will never get across the finish line and be signed by the President. And I think that would be a mistake.

Mr. COSTELLO. Mr. Chairman.

Mr. GUTKNECHT. I have about 19 seconds left. I will——

Mr. COSTELLO. I would ask you for 18 of the 19.

Mr. GUTKNECHT. I will be very lenient, and I recognize the gentleman from Illinois, Mr. Costello.

Mr. COSTELLO. Mr. Chairman, just in response, let me comment. One is I am not asking for the Under Secretary to draw conclusions. I am asking for statistics. And number two is that I don't understand how asking for a study by the Under Secretary to report back to the Congress makes this bill hugely controversial. We are only asking for a study. In the bipartisan nature of this committee, under the leadership of the Chairman, he has been very bipartisan in the past, I just do not understand how we could not accept asking for an independent study on one of the most controversial issues in the country today in my District and in every District.

So I would just say, and let me say for the record, that I will encourage my colleagues on our side of the aisle that if your side of the aisle can not accept the study, I would ask for a no vote on the passage of this bill. And if you want to make this vote controversial, I can assure you that it is not going to be on the suspension calendar when it reaches the Floor if we can not get you to agree to asking the Under Secretary for a study.

Mr. GUTKNECHT. The gentleman's time has more than expired. The question occurs on the motion, shall the Committee agree with the amendment offered by the gentleman from Illinois? So many as in favor will please say aye. Those opposed will say no. In the opinion of the Chair, the nos have it. The amendment is not agreed to.

Mr. COSTELLO. Mr. Chairman, I request a recorded vote.

Mr. GUTKNECHT. The gentleman has requested a recorded vote. The Clerk will take the roll.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. No.

Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.

Mr. HALL. Yes.

Ms. TESSIERI. Mr. Hall votes yes. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]
Ms. TESSIERI. Mr. Rohrabacher.
[No response.]
Ms. TESSIERI. Mr. Calvert.
[No response.]
Ms. TESSIERI. Mr. Nick Smith.
Mr. SMITH OF MICHIGAN. No.
Ms. TESSIERI. Mr. Smith 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. Nethercutt.
Mr. NETHERCUTT. No.
Ms. TESSIERI. Mr. Nethercutt 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.
[No response.]
Ms. TESSIERI. Mr. Johnson.
[No response.]
Ms. TESSIERI. Ms. Hart.
Ms. HART. No.
Ms. TESSIERI. Ms. Hart votes no. Mr. Forbes.
Mr. FORBES. No.
Ms. TESSIERI. Mr. Forbes votes no. Mr. Gingrey.
Mr. GINGREY. No.
Ms. TESSIERI. Mr. Gingrey votes no. Mr. Bishop.
Mr. BISHOP. No.
Ms. TESSIERI. Mr. Bishop votes no. Mr. Burgess.
[No response.]
Ms. TESSIERI. Mr. Bonner.
Mr. BONNER. No.
Ms. TESSIERI. Mr. Bonner votes no. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
Mr. NEUGEBAUER. No.
Ms. TESSIERI. Mr. Neugebauer votes no. Mr. Gordon.
Mr. GORDON. Aye.
Ms. TESSIERI. Mr. Gordon votes yes. Mr. Costello.
Mr. COSTELLO. Aye.
Ms. TESSIERI. Mr. Costello votes yes. Ms. Johnson.
Ms. JOHNSON. Yes.
Ms. TESSIERI. Ms. Johnson votes yes. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Mr. Lampson.
Mr. LAMPSON. Yes.
Ms. TESSIERI. Mr. Lampson votes yes. Mr. Larson.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Larson votes yes. Mr. Udall.

[No response.]
Ms. TESSIERI. Mr. Wu.
Mr. WU. Aye.
Ms. TESSIERI. Mr. Wu votes yes. Mr. Honda.
Mr. HONDA. Yes.
Ms. TESSIERI. Mr. Honda votes yes. Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Miller votes yes. Mr. Davis.
Mr. DAVIS. Aye.
Ms. TESSIERI. Mr. Davis votes yes. Ms. Jackson Lee.
Ms. JACKSON LEE. Aye.
Ms. TESSIERI. Ms. Jackson Lee votes yes. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
[No response.]
Ms. TESSIERI. Mr. Moore.
Mr. MOORE. Yes.
Ms. TESSIERI. Mr. Moore votes yes. Mr. Weiner.
[No response.]
Ms. TESSIERI. Mr. Matheson.
Mr. MATHESON. Aye.
Ms. TESSIERI. Mr. Matheson votes yes. Mr. Cardoza.
[No response.]
Chairman BOEHLERT. How is Mr. Rohrabacher recorded?
Ms. TESSIERI. Mr. Rohrabacher is not recorded, sir.
Mr. ROHRABACHER. Well, I vote no.

Chairman BOEHLERT. There is a cameo appearance from Mr. Rohrabacher, who is the new father of triplets, so you can understand why he is excessively busy these days.

The Clerk will report.

Ms. TESSIERI. Mr. Chairman, yes, 13; no, 16.

Chairman BOEHLERT. The amendment is defeated.

The next amendment on the roster is amendment number ten, which is the old amendment number four, offered by Ms. Jackson Lee. Ms. Jackson Lee, are you ready to proceed?

Ms. JACKSON LEE. I am. I thank the distinguished Chairman very much. And I thank this committee. This is an important day.

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Ms. Jackson Lee of Texas to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Ms. Jackson Lee.]

Chairman BOEHLERT. The gentlewoman is recognized for five minutes.

Ms. JACKSON LEE. As I was beginning, and I thank the Clerk, this is an important day. We are discussing issues that are impacting Americans as we speak. I recall, Mr. Chairman, in the Committee about two years ago, I believe, the President was visiting a small business in the Midwest, and it was reported just recently that that very business is now near shut down, and in fact, some of the employees have been laid off. If we want to look at one of the more dire circumstances that we find ourselves at this juncture

is in the backdrop of having lost about three million jobs. Manufacturing in our nation, and in our particular states, is probably at an all-time low. I can not think of a more important question to be raised than the one that we are discussing today is how we can further enhance manufacturing opportunities in our nation.

Might I also say in recently visiting the USS George Washington and noting that, fortunately, even though they are on their last production of a major military shipping vehicle in the Hampton area, we can at least count that as part of the manufacturing that has continued. But if we look overall, we will find that manufacturing is depressed, that we are second rate, in many instances in manufacturing, only because we have seen manufacturing move offshore and move to other nations. And so I can not think of a more important statement than to be able to support a Manufacturing Extension Partnership Program. And I am dismayed that this legislative initiative would start, first of all, by seeking to recompete, or have these entities recompete. And so my amendment is simple. It says none of the funds appropriated, pursuant to this subsection, shall be used for a general recompetition of centers established under Section 25.

Let me share with you why that is important. First of all, I would note for my colleagues that Americans looking for work, 8.2 million are looking for jobs. Another two million want a job. We also know, as I indicated, that we have lost 2.5 million manufacturing jobs between January of 2001 and January of 2004. That is about 70,000 a month. I can site for my colleagues, in addition to centers that may not be noted, there are these kinds of centers in Texas 04, Congressman Hall, Congresswoman Johnson in District 30, Representative Burgess in Texas 26, Representative Smith, Texas 21, Representative Hall in Texas 04, and Representative Neugebauer in Texas 19. This is only a sample of the Texas centers. There are centers all around. And the point of these centers, of course, is to coalesce and to stop the bleeding. Why, in fact, would we seek to have, during this very difficult time, using monies to have the recompetition as we are cutting down funds in the Small Business Administration to——

Chairman BOEHLERT. Okay. This——

Ms. JACKSON LEE.—cut microloans? So it seems that our budget efforts are really on the backs of those who can least afford it. And that is, of course, it is on those who are without jobs. And it was on the industry or the sector manufacturing that has lost the greatest impact.

And I would ask my colleagues, as I reserve my time, to support this amendment recognizing that it is crucial that we give an infusion of energy into the creation of jobs, and these centers have been effective in working with local small and medium-sized manufacturing companies to try to serve them in the best way possible. I would argue that the reason we haven't lost five million and seven million manufacturing jobs is because of the effectiveness of these programs and these centers. And it is a needless waste of time and funds to do that. I—as I close and reserve my time, I ask unanimous consent to offer my replacement amendment that is not the one in the Member's packet. I reserve my time.

Chairman BOEHLERT. Without objection, so ordered.

[Note: See the Appendix for the Amendment offered by Ms. Jackson Lee.]

Chairman BOEHLERT. You don't have any time to reserve, unless you consider 20 seconds good time.

Ms. JACKSON LEE. It is good time. I will reserve it, Mr. Chairman.

Chairman BOEHLERT. All right.

Ms. JACKSON LEE. It—the light was beige; it is not red.

Chairman BOEHLERT. Is there anyone who—the light is off. Is there anyone who seeks recognition? The gentlelady is called upon to use the balance of her time or lose it.

Ms. JACKSON LEE. Pardon me?

Chairman BOEHLERT. Use it or lose it. No one else seeking——

Ms. JACKSON LEE. No one else seeks recognition?

Mr. GORDON. Yes.

Chairman BOEHLERT. Mr. Gordon.

Mr. GORDON. Mr. Chairman, I am sorry that there are not more Members here to hear this, because this is a very, very important amendment for anyone that is concerned about the manufacturing centers in their own states. And let me tell you why. This legislation currently includes a provision that allows MEP programs to have an evaluation process. And I am all for evaluating these programs. However, in this instance, the MEP program has a comprehensive evaluation program that works quite well. And this committee has heard no testimony that the current evaluation procedure is broken. It has heard from no centers or from the organization of centers that this program is needed. To their contrary, the organization that represents the manufacturing centers have said that this would be harmful. And let me tell you why. Quite frankly, I think this is an excuse for the Administration to do administratively what it can't do legislatively and that is to kill these programs. And here is the important thing that everybody should keep in mind. If you vote against this amendment or for this bill with amendment and an MEP program in your state is done away with, the trail leads back to you. Make no mistake about it, blood will be on your hands if your state MEP program is lost, because this is the amendment that will allow that to occur, and I reserve the balance of my time.

Chairman BOEHLERT. The gentlelady has 20 seconds left. Do you seek to use that 20 seconds?

Ms. JACKSON LEE. Mr. Chairman, I thought that if there was any opposition, if we were going to have a unified effort, then I will speak, but I thought——

Chairman BOEHLERT. No, I have opposition, but I——

Ms. JACKSON LEE. Then I would like to reserve my time.

Chairman BOEHLERT. In the interest of sparing time, I am going to use my opposition when I offer my second-degree amendment.

Ms. JACKSON LEE. Okay. Then let me just say, Mr. Chairman, this—I will join in the refrain of my colleagues, this is a deal-breaker on the bipartisanship of this particular bill. I don't see any reason to spend money to recompete when these entities are struggling to provide jobs and to ensure that jobs are kept. And any limitation on the amount of monies I also would oppose because I think there is no need to stranglehold job creators for people who

need jobs. And that is what we would be doing with no vote on this amendment, and I hope my colleagues will vote aye on this amendment and not put any limitations on this amendment and make sure that these centers are going full force, because the President himself said in going to Ohio that he knew that Ohio manufacturers were hurting and that he understood that we have lost thousands of jobs in manufacturing. The President himself said this on the loss of manufacturing jobs——

Chairman BOEHLERT. The gentlelady's time has expired.

Ms. JACKSON LEE. On that amendment, I ask for an aye vote.

Thank you, Mr. Chairman.

Chairman BOEHLERT. Thank you very much.

I have an amendment to the amendment. The Clerk will read—report and distribute.

Ms. TESSIERI. Amendment offered by Mr. Boehlert to the amendment offered by Ms. Jackson Lee of Texas.

[Note: See the Appendix for the Amendment offered by Mr. Boehlert.]

Chairman BOEHLERT. And as you—I will talk as the amendment is being distributed. A couple of things just in response to my distinguished colleague, the Ranking Member, Mr. Gordon. As he pointed out his observation that this is a very, very important amendment for anyone concerned about manufacturing. Let me establish for the record, everyone on this committee, Republican, Democrat, Liberal, Moderate, Conservative, East, West, North, South is concerned about manufacturing. Unanimous agreement. Secondly, in the previous amendment, it was sort of equated as you are either for outsourcing or against outsourcing. Let the record show that we are all concerned about outsourcing. We want to prevent all outsourcing that doesn't pass the test. Thirdly, my amendment is geared to avoiding a general recompetition. I couldn't agree more with the gentlelady from Texas. I couldn't agree more with my colleagues that we want to avoid a general recompetition. The best way to do that is by getting enough money to fund all of the centers, which are doing very good work, which is one of the reasons why the Chair and Dr. Ehlers and so many of us, Republican and Democrat alike, have fought vigorously to keep the MEP program, not just alive on life support, but give it resources to that important endeavor.

But if we fail at getting enough money, then the Department will need to review all of the centers to determine how much to fund each one. So I have got an amendment to the amendment that would make it clear that they can't recompete all of the centers if the program is funded at at least $106 million. And the good news is yesterday the appropriators had the good judgment to follow our recommendation and did provide $106 million, which is the level appropriated last year.

So with that, I offer my amendment to the amendment, and I seek——

Ms. JACKSON LEE. Mr. Chairman.

Chairman BOEHLERT.—anyone who wishes to address that amendment.

Ms. JACKSON LEE. Mr. Chairman.

Chairman BOEHLERT. Ms. Jackson Lee.

Ms. JACKSON LEE. Mr. Chairman, first of all, thank you for your good will, but let me respectfully disagree, and allow me to vigorously disagree. There has not been any amount of evidence that would suggest there is a reason to put a limitation that would then trigger recompetition. We have not had any indication that this would be a valid process or that the process utilized to choose these centers in the first place is incomplete. I remake my statement that we are in a crisis as it relates to manufacturing jobs. My sensitivity is that rather than speak vigorously for opportunities to create work, funding, for example, microloans and the Small Business Administration, not closing centers in the Small Business Administration, we find ourselves trying to balance a budget by squeezing dollars out of already hopeless people who do not have jobs. These centers contribute to the increasing opportunities of trying to maintain manufacturing jobs and increase manufacturing jobs. We are talking about already a decrease of some three million jobs and any job increase we can detail by the Department of Labor have been basically service-oriented jobs. A country is weakened by its diminishing opportunities and utilization of manufacturing. I see no purpose in adding bureaucracy for there to be a determination as to full funding or not full funding. The key question is job creation. And the key element of my amendment simply says we don't want recompetition. These individuals have to continue their work. These centers should continue to be worked. They should continue to be productive. And any disruption in them continuing that falls on individual members whose centers are thriving and are working. I would ask individual members once this legislation is filed, then they should go forward and say close the center in my office—not in my office, in my District, and allow those monies to go elsewhere. We will accept petitions from individual members to close those centers, but why should we, if you will, taint and label other centers where they are thriving and functioning by recompetition? If you don't want a center closing in your own location, seek that permission. But why should we do that with respect to these? And I just think that the amendment here begs the question. You admit that there is no purpose of recompetition. It is just simply a refinement of, I think, a solid statement where we don't recompete. There are many other, if you will, aspects of this that we can utilize. Now $106 million, but after the 0.2 percent across-the-board referendum—or excuse me, reduction, it may be—this may trigger the recompete. The issue is whether or not it is necessary to recompete. I don't think the system is broken. I think we need to create jobs. I think we are hurting these systems—these centers if we do that. And I would simply argue that they are doing valuable work and taking minimal federal investment, and they are turning that into productivity.

I would like to reserve my time. Thank you.

Chairman BOEHLERT. No one else seeks recognition. The gentlelady can use it or lose it.

Ms. JACKSON LEE. Okay. Thank you very much, Mr. Chairman.

Let me just re-emphasize the fact that I think what is happening here is it is extremely productive in creating jobs and supporting jobs. The Administration may want us to recompete only to save money, but I can only rely upon the words of our President when

he acknowledged in Ohio that he knew that they were hurting in Ohio, he knew that we were losing thousands of jobs, he realized that people can have the same output with fewer people, but some of it because production moved overseas. He knows what is happening. We need to alter that. In fact, we need to make a 180-degree turn, and we need to be able to support these MEP centers, and they need not be able to recompete. My colleagues, if you don't want a center, I would ask you to—I ask that to occur in your own area, but I would just suggest that there is value to these centers, and we need to be in the business of creating jobs, not eliminating jobs.

I would ask my colleagues to support the amendment of non-recompete. I yield back.

Chairman BOEHLERT. I agree with the gentlelady. We all want to keep the centers we have operating, and we don't want recompetition. And I am encouraged by the wisdom of the appropriators in following our lead yesterday in appropriating $106 million. So the vote occurs on the second-degree amendment offered by the Chair. All in favor, say aye. Opposed, no. The ayes appear to have it.

Ms. JACKSON LEE. Roll call.

Chairman BOEHLERT. The roll call is on the amendment offered by the Chair to the amendment offered by the gentlelady of Texas. The Clerk will call the roll.

Ms. TESSIERI. Mr. Boehlert.

Mr. BOEHLERT. Aye.

Ms. TESSIERI. Mr. Boehlert votes yes. Mr. Hall.

[No response.]

Ms. TESSIERI. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]

Ms. TESSIERI. Mr. Rohrabacher.

[No response.]

Ms. TESSIERI. Mr. Calvert.

[No response.]

Ms. TESSIERI. Mr. Nick Smith.

Mr. SMITH OF MICHIGAN. No. I mean, aye.

Ms. TESSIERI. Mr. Smith of Michigan 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.

[No response.]

Ms. TESSIERI. Mr. Nethercutt.

[No response.]

Ms. TESSIERI. 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.

[No response.]

Ms. TESSIERI. Mr. Johnson.
[No response.]
Ms. TESSIERI. Ms. Hart.
Ms. HART. Aye.
Ms. TESSIERI. Ms. Hart votes yes. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
[No response.]
Ms. TESSIERI. Mr. Bishop.
Mr. BISHOP. Yes.
Ms. TESSIERI. Mr. Bishop votes yes. Mr. Burgess.
[No response.]
Ms. TESSIERI. Mr. Bonner.
Mr. BONNER. Yes.
Ms. TESSIERI. Mr. Bonner votes yes. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
[No response.]
Chairman BOEHLERT. How is Mr. Gutknecht recorded.
Ms. TESSIERI. Mr. Gutknecht is not recorded.
Mr. GUTKNECHT. Gutknecht votes aye.
Ms. TESSIERI. Mr. Gutknecht votes yes. Mr. Gordon.
Mr. GORDON. No.
Ms. TESSIERI. Mr. Gordon votes no. Mr. Costello.
[No response.]
Ms. TESSIERI. Ms. Johnson.
Ms. JOHNSON. No.
Ms. TESSIERI. Ms. Johnson votes no. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Mr. Lampson.
Mr. LAMPSON. No.
Ms. TESSIERI. Mr. Lampson votes no. Mr. Larson.
Mr. LARSON. No.
Ms. TESSIERI. Mr. Larson votes no. Mr. Udall.
Mr. UDALL. No.
Ms. TESSIERI. Mr. Udall votes no. Mr. Wu.
[No response.]
Ms. TESSIERI. Mr. Honda.
Mr. HONDA. No.
Ms. TESSIERI. Mr. Honda votes no. Mr. Miller.
Mr. MILLER. No.
Ms. TESSIERI. Mr. Miller votes no. Mr. Davis.
Mr. DAVIS. No.
Ms. TESSIERI. Mr. Davis votes no. Ms. Jackson Lee.
Ms. JACKSON LEE. No.
Ms. TESSIERI. Ms. Jackson Lee votes no. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Mr. BAIRD. No.
Ms. TESSIERI. Mr. Sherman—Mr. Baird?
Mr. BAIRD. No.
Ms. TESSIERI. Mr. Baird votes no. Mr. Moore.

Mr. MOORE. No.

Ms. TESSIERI. Mr. Moore votes no. Mr. Weiner,

[No response.]

Ms. TESSIERI. Mr. Matheson.

Mr. MATHESON. No.

Ms. TESSIERI. Mr. Matheson votes no. Mr. Cardoza.

[No response.]

Chairman BOEHLERT. How is Mr. Rohrabacher recorded?

Ms. TESSIERI. Mr. Rohrabacher is not recorded, sir.

Chairman BOEHLERT. And how is Mr. Neugebauer recorded?

Ms. TESSIERI. Mr. Neugebauer is not recorded.

Chairman BOEHLERT. And how is Mr. Nethercutt—you got Mr. Neugebauer?

Ms. TESSIERI. Yes, sir, I did.

Chairman BOEHLERT. How is Mr. Nethercutt?

Ms. TESSIERI. Mr. Nethercutt is not recorded.

Chairman BOEHLERT. How is Mr. Smith recorded?

Ms. TESSIERI. Mr. Smith of Michigan is recorded as yes.

Chairman BOEHLERT. The Clerk will report.

Ms. TESSIERI. Mr. Chairman, I have yes 14, no 12.

Chairman BOEHLERT. The amendment to the amendment is passed, and now we vote on the original amendment as amended. All in favor, say aye. Opposed, no. the ayes appear to have it. And the Jackson Lee amendment as amended by the Chair's amendment is passed.

The next amendment is amendment number 11, the old amendment number 9, offered by Ms. Johnson.

Ms. JOHNSON. Thank you, Mr. Chairman. I'm a bit discouraged, but I'm going to offer it anyway.

Chairman BOEHLERT. The Clerk will report the amendment.

Ms. TESSIERI. Amendment offered by Ms. Eddie Bernice Johnson of Texas to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Ms. Johnson.]

Chairman BOEHLERT. The gentlelady is recognized for five minutes for her courageous endeavor.

Ms. JOHNSON. Thank you, Mr. Chairman. My amendment will extend the *Enterprise Integration Act of 2002*. Currently, this language authorizes funding through 2005. My amendment authorizes funding through 2008, and it uses the 2005 funding level of $20 million and provides for inflationary increases of 2c percent per year in 2006, 2007, and 2008.

There are many reasons why this is necessary. The *Enterprise Integration Act of 2002* was originally passed with strong bipartisan support and enjoyed strong interest and support by both large and small manufacturers. The National Association of Manufacturers was an especially strong supporter of the legislation. One of the greatest challenges facing the manufacturing community is information and data exchange within the manufacturing supply chain. To make and deliver products, manufacturing firms must manage complex supply systems that involve the movement, processing, and legal transfer of physical materials and information.

These systems are envisioned as supply chains, virtual supplier customer links that connect upstream suppliers of basic materials,

intermediate products, and associated information to the final customer. In today's increasingly competitive environment, the high cost on inefficient exchanges of business information can be significant—can have significant negative impact on overall productivity and competitiveness.

A recent economic study by RTI, International, estimates losses of $8.9 billion due to these inefficiencies in the auto and electronics industry alone. The *Enterprise Integration Act of 2002* provides NIST with the funding to develop protocols for supply chains integration. It also calls upon manufacturers on this critical element of their competitiveness. A recent report by the National Association of Public Administrators on the MEP singled out Enterprise Integration as an area which MEP should provide more services.

As competitive pressures increase on the manufacturing community, we need to do everything possible to assist them in becoming more efficient. This amendment is a step in this direction, providing funding to critical manufacturing infrastructure issue.

It is for these reasons that I offer this amendment, and I ask my colleagues on both sides of the aisle to please support it.

Thank you, Mr. Chair. Yes, I yield.

[The prepared statement of Ms. Johnson follows:]

PREPARED STATEMENT OF REPRESENTATIVE EDDIE BERNICE JOHNSON

Thank you, Mr. Chair. I appreciate this opportunity to speak on my amendment to the *Manufacturing Technology Competitiveness Act of 2004.*

My amendment, will extend the *Enterprise Integration Act of 2002.* Currently, this language authorizes funding only thru 2005. My amendment authorizes funding thru 2008. It uses the 2005 funding level of $20 million and provides for inflationary increase of 2.5 percent per year in 2006, 2007 and 2008.

There are many reasons why this is necessary:

- The *Enterprise Integration Act of 2002* was originally passed with strong bipartisan support and enjoyed strong industry support by both large and small manufacturers. The National Association of Manufacturers (NAM) was an especially strong supporter of the legislation.
- One of the greatest challenges facing the manufacturing community is information and data exchange within the manufacturing supply chain. To make and deliver products, manufacturing firms must manage complex supply systems that involve the movement, processing and legal transfer of physical materials and information. These systems are envisioned as supply chains—virtual supplier/customer links that connect upstream suppliers of basic materials, intermediate products, and associated information to the final customer. In today's increasingly competitive environment, the high costs of inefficient exchanges of business information can have significant negative impacts on overall productivity and competitiveness. A recent economic study by RTI International estimates losses of $8.9 billion due to these inefficiencies in the auto and electronics industries alone.
- The *Enterprise Integration Act of 2002* provides NIST with the funding to develop protocols for supply chain integration. It also calls upon the MEP to work with small manufacturers on this critical element of their competitiveness. A recent report by the National Association of Public Administrators on the MEP singled out enterprise integration as an area which MEP should provide more services. As competitive pressures increase on the manufacturing community we need to do everything possible to assist them in becoming more efficient. This amendment is a step in this direction—providing funding to focus on this critical manufacturing infrastructure issue.

It is for these reasons that I offer this amendment and ask that my colleagues support its passage. Thank you, Mr. Chair, and I yield back my time.

Mr. GORDON. Let me just quickly say that this makes perfect sense, I think, to—on this important bill to make the time periods

2005 to 2008, which would make it consistent with our current bill. So it only makes sense that they be a consistent time period. I think it is a good amendment.

Chairman BOEHLERT. Thank you very much, Ms. Johnson and Mr. Gordon.

Once again, we're presented with an amendment that would add additional issues and costs to the bill, which I think would prevent its passage. And our objective is to get the bill passed. I support the Enterprise Integration Act, which our Committee made during my Chairmanship. But it has never been funded, and it is simply not as high a priority as MEP is. And MEP can accomplish many of the goals of the Enterprise Integration Act, which is designed to help small industrial suppliers.

Let us keep our eye on the ball here, and help out the MEP program, which we know works and is already in operation, and which we can get real dollars for. Let us not kill an MEP bill by adding on more money for an untested, lower priority program. Incidentally, untested but I support it. Lower priority, but I support it. Ms. Johnson makes a persuasive argument, but it has never been funded.

So I urge the defeat of the amendment, and I ask for a vote on the amendment. All in favor, say aye. Opposed, nay. The nays appear to have it.

Ms. JOHNSON. Could I ask for a record vote, please.

Chairman BOEHLERT. Clerk will call the roll.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. No.

Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.

[No response.]

Ms. TESSIERI. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]

Ms. TESSIERI. Mr. Rohrabacher.

[No response.]

Ms. TESSIERI. Mr. Calvert.

[No response.]

Ms. TESSIERI. Mr. Nick Smith.

[No response.]

Ms. TESSIERI. Mr. Bartlett.

Mr. BARTLETT. No.

Ms. TESSIERI. Mr. Bartlett votes no. Mr. Ehlers.

Mr. EHLERS. No.

Ms. TESSIERI. Mr. Ehlers votes no. Mr. Gingrey—Gutknecht, excuse me. Mr. Gutknecht.

Mr. GUTKNECHT. No.

Ms. TESSIERI. Mr. Gutknecht votes no. Mr. Nethercutt.

[No response.]

Ms. TESSIERI. Mr. Lucas.

Mr. LUCAS. No.

Ms. TESSIERI. Mr. Lucas votes no. Mrs. Biggert.

Ms. BIGGERT. No.

Ms. TESSIERI. Mrs. Biggert votes no. Mr. Gilchrest.

[No response.]

Ms. TESSIERI. Mr. Akin.
[No response.]
Ms. TESSIERI. Mr. Johnson.
Mr. JOHNSON. No.
Ms. TESSIERI. Mr. Johnson votes no. Ms. Hart.
Ms. HART. No.
Ms. TESSIERI. Ms. Hart votes no. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
[No response.]
Ms. TESSIERI. Mr. Bishop.
[No response.]
Ms. TESSIERI. Mr. Burgess.
[No response.]
Ms. TESSIERI. Mr. Bonner.
Mr. BONNER. No.
Ms. TESSIERI. Mr. Bonner votes no. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
[No response.]
Chairman BOEHLERT. Clerk, how is Mr. Rohrabacher recorded?
Ms. TESSIERI. Mr. Rohrabacher is not recorded, sir.
Chairman BOEHLERT. How is Mr. Gilchrest recorded?
Ms. TESSIERI. Mr. Rohrabacher votes no, Mr. Gilchrest——
Mr. GILCHREST. No.
Ms. TESSIERI.—is no. Mr. Gordon.
Mr. GORDON. Aye.
Ms. TESSIERI. Mr. Gordon votes yes. Mr. Costello.
[No response.]
Ms. TESSIERI. Ms. Johnson.
Ms. JOHNSON. Aye.
Ms. TESSIERI. Ms. Johnson votes yes. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Mr. Lampson.
[No response.]
Ms. TESSIERI. Mr. Larson.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Larson votes yes. Mr. Udall.
Mr. UDALL. Aye.
Ms. TESSIERI. Mr. Udall votes yes. Mr. Wu.
[No response.]
Ms. TESSIERI. Mr. Honda.
Mr. HONDA. Aye.
Ms. TESSIERI. Mr. Honda votes yes. Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Miller votes yes. Mr. Davis.
Mr. DAVIS. Aye.
Ms. TESSIERI. Mr. Davis votes yes. Ms. Jackson Lee.
Ms. JACKSON LEE. Yes.
Ms. TESSIERI. Ms. Jackson Lee votes yes. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.

Mr. BAIRD. Aye.

Ms. TESSIERI. Mr. Baird votes yes. Mr. Moore.

[No response.]

Ms. TESSIERI. Mr. Weiner.

[No response.]

Ms. TESSIERI. Mr. Matheson.

Mr. MATHESON. Aye.

Ms. TESSIERI. Mr. Matheson votes yes. Mr. Cardoza.

[No response.]

Chairman BOEHLERT. How is Mr. Smith recorded?

Ms. TESSIERI. Mr. Smith of Michigan is not recorded.

Chairman BOEHLERT. The Clerk will report.

Ms. TESSIERI. Mr. Chairman, yes, 10; no, 12.

Chairman BOEHLERT. The amendment is defeated. The Chair recognizes Mr. Johnson.

Mr. JOHNSON. Thank you, Chairman, and thanks to the kindness of the Chairman and the Ranking Member. I was called downstairs a bit ago, and I would like the record to reflect that had I been here, that I would have voted no on the Honda amendment, no on the Costello amendment, and yes on the Boehlert amendment, which preceded this one. Thank you for your kindness.

Chairman BOEHLERT. Thank you. The next amendment is amendment number 12, which is the old amendment number 10, which is offered by Mr. Larson of Connecticut. Mr. Larson.

Ms. TESSIERI. The amendment offered by Mr. Larson, to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Larson.]

Chairman BOEHLERT. The gentleman is recognized for five minutes.

Mr. LARSON. Thank you, Mr. Chairman. Mr. Chairman, let me start by emphasizing what the genesis of this bill, and while I would like to take credit for myself, it came about because of a meeting with the Chamber of Commerce in Bristol, Southington, and Berlin in my home district in a group of small manufacturers assembled there. If I would close my eyes, I might have thought that I was at an AFL–CIO rally. But they were very direct and specific in what their concerns were, as with respect to the small manufacturing. And one of their most ardent concerns is feeling that they had been left out with any significant voice within the Department of Commerce, and called upon and prevailed upon me and others in a bipartisan fashion to seek the position of an Under Secretary of Manufacturing. It is hard to believe in this day and age, when we have a Secretary of Agriculture, that we don't have a Secretary of Manufacturing.

That being said, as Ronald Reagan would say, facts are sometimes a very difficult thing to deal with, but stubborn in their nature. In the past three years, more than 2.8 million Americans employed in manufacturing have lost their jobs. Because, as we all know, manufacturing jobs are value added. Each manufacturing job supports two non-manufacturing positions across this nation. In my state, because of its industrial nature, it is almost a four to one ratio that is produced. That means that more than 7.5 million peo-

ple have been affected directly or indirectly because of the loss of American manufacturing overseas.

Recently, the Coalition of Advanced Manufacturers stated that this position needs to be placed within the Department of Commerce. An Under Secretary position would then provide the appropriate focus that is needed on manufacturing. The inclusion of the service industry, as the Administration has proposed, with an Assistant Secretary position, diminishes the focus of the position, and diminishes the needs and requirements that this service industry desperately needs at this time.

In line with these assessments, my amendment is to reorient the current Technology Administration, providing an Under Secretary of Technology and the Office of Technology Policy towards manufacturing competitiveness issues. My amendments renames and refocuses the Technology Administration by establishing a Manufacturing and Technology Administration, an Under Secretary of Manufacturing, and an Office of Industry Analysis. The National Institute of Standards and Technology and the National Technical Information Service would remain as part of the Manufacturing Administration. This would provide the high level focus that my constituents have demanded.

And I believe that my manufacturers speak for small manufacturers across the great nation of ours. We have heard debate and discussion today, and I empathize with the Chairman and the Members of the Majority party here, because I understand the hard work and labor that you have put forward. We weren't part of that negotiation. I understand that as well. That is part of the process that we deal with. But we have an obligation as well to represent the small manufacturers in this instance, who are directly impacted by this, and who desperately need a voice in manufacturing. And so I would urge the Members of the Committee to support my amendment.

Chairman BOEHLERT. Thank you very much, Mr. Larson. This is another amendment that unfortunately qualifies for the label poison pill. The Administration has already created an Assistant Secretary for Manufacturing within the International Trade Administration. It is not going to support the creation of a separate manufacturing bureaucracy in a Technology Administration. And I am not so sure that creating the bureaucracy that you are proposing is a good idea in any event.

First, I think that Congress should generally give deference to administrations, whether they are headed by a guy named Bush or headed by a guy named Clinton, on organizational issues. Not always, but in general. And I think we—Mr. Larson's—would give deference here where the Administration's organization and Mr. Larson's are designed to achieve the exact same goal. But I am also leery of creating a larger bureaucracy that would sit on top of NIST. That is only likely to take decisions and money away from the technical folks at NIST—and that is not something I want to do—who already do a good job of working with manufacturers. Let us not lard this bill down with questionable new bureaucracies. Let us help our manufacturers. Let us keep our eye on the ball and help our manufacturers.

I urge defeat of this amendment, and I yield the balance of my time to the distinguished Ranking Member, Mr. Gordon.

Mr. GORDON. Thank you, Mr. Chairman. The problems facing our manufacturing sector is much broader than just a trade issue. And I am not alone in this assessment. The National Association for Advanced Manufacturing recently convened a forum of industry groups to comment on the Administration's proposal. The consensus was that an Assistant Secretary within ITA was not a good idea, but that the position should be at the Under Secretary level. Mr. Larson's amendment is in line with that recommendation, and would only be one position, and not a great bureaucracy.

Mr. LARSON. Would the gentleman yield?

Chairman BOEHLERT. Mr. Larson.

Mr. LARSON. If there is additional time, I do.

Mr. GORDON. Yeah, I yield to Mr. Larson.

Mr. LARSON. Well, I would just add that first of all, my amendment proposed taking an existing structure, and using existing money, so notwithstanding, we are not creating a new bureaucracy. What we are creating is an entirely different focus, and a focus, with all due respect, that isn't my proposal. It is the proposal of manufacturers. As much as I would like to take credit for their thinking, it is they that have been in the forefront. It is groups like MAD that have been talking about how important this is, and again, with all due respect to the Administration, with regard to an Assistant Secretary position, as the distinguished gentleman from Tennessee has pointed out, it just doesn't cut the mustard with respect to this. We can't continue to have our heads in the sand with respect to manufacturing.

The situation is staring us directly in the face. I know it is obvious to the Members on the other side of the aisle. I only wish it were obvious to the Administration.

Chairman BOEHLERT. Thank you very much. Two—well, a couple of comments. One, I find that having my head in the sand is not a very comfortable position, so I long ago abandoned that approach to problems. But secondly, let me point out that manufacturers do support the bill as presently constituted. And three, you do suggest the creation of new positions, and that is not something I can sanction. So, with that, I would suggest that the vote is on the amendment offered by our distinguished colleague from Connecticut. All in favor, say aye. Opposed, nay. Nay. The nays appear to have it. The amendment——

Mr. LARSON. Roll call vote.

Chairman BOEHLERT. Roll call vote.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. No.

Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.

[No response.]

Ms. TESSIERI. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]

Ms. TESSIERI. Mr. Rohrabacher.

Mr. ROHRABACHER. No.

Ms. TESSIERI. Mr. Rohrabacher votes no. Mr. Calvert.

[No response.]
Ms. TESSIERI. Mr. Nick Smith.
[No response.]
Ms. TESSIERI. Mr. Bartlett.
[No response.]
Ms. TESSIERI. Mr. Ehlers.
Mr. EHLERS. No.
Ms. TESSIERI. Mr. Ehlers votes no. Mr. Gutknecht.
Mr. GUTKNECHT. No.
Ms. TESSIERI. Mr. Gutknecht votes no. Mr. Nethercutt.
[No response.]
Ms. TESSIERI. Mr. Lucas.
Mr. LUCAS. No.
Ms. TESSIERI. Mr. Lucas votes no. Mrs. Biggert.
Mrs. BIGGERT. No.
Ms. TESSIERI. Mrs. Biggert votes no. Mr. Gilchrest.
Mr. GILCHREST. No.
Ms. TESSIERI. Mr. Gilchrest votes no. Mr. Akin.
[No response.]
Ms. TESSIERI. Mr. Johnson.
[No response.]
Ms. TESSIERI. Ms. Hart.
Ms. HART. No.
Ms. TESSIERI. Ms. Hart votes no. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
[No response.]
Ms. TESSIERI. Mr. Bishop.
Mr. BISHOP. No.
Ms. TESSIERI. Mr. Bishop votes no. Mr. Burgess.
[No response.]
Ms. TESSIERI. Mr. Bonner.
Mr. BONNER. No.
Ms. TESSIERI. Mr. Bonner votes no. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
[No response.]
Chairman BOEHLERT. How is Mr. Smith recorded, Mr. Smith of Michigan?
Ms. TESSIERI. Mr. Smith is not recorded, sir.
Chairman BOEHLERT. How is Dr. Bartlett recorded?
Ms. TESSIERI. Mr. Smith votes no. Dr. Bartlett is not recorded, sir.
Mr. BARTLETT. No.
Chairman BOEHLERT. And how is Mr. Weldon of Pennsylvania recorded?
Ms. TESSIERI. Mr. Weldon is not recorded, sir.
Mr. WELDON. No.
Ms. TESSIERI. Mr. Weldon votes no. Mr. Gordon.
[No response.]
Ms. TESSIERI. Mr. Costello.
[No response.]
Ms. TESSIERI. Ms. Johnson.
[No response.]

Ms. TESSIERI. Ms. Woolsey.
[No response.]
Ms. TESSIERI. Mr. Lampson.
[No response.]
Ms. TESSIERI. Mr. Larson.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Larson 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. Yes.
Ms. TESSIERI. Mr. Honda votes yes. Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Miller votes yes. Mr. Davis.
Mr. DAVIS. Aye.
Ms. TESSIERI. Mr. Davis votes yes. Ms. Jackson Lee.
Ms. JACKSON LEE. Aye.
Ms. TESSIERI. Ms. Jackson Lee votes yes. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Mr. BAIRD. Aye.
Ms. TESSIERI. Mr. Baird votes yes. Mr. Moore.
Mr. MOORE. Yes.
Ms. TESSIERI. Mr. Moore votes yes. Mr. Weiner.
[No response.]
Ms. TESSIERI. Mr. Matheson.
Mr. MATHESON. Aye.
Ms. TESSIERI. Mr. Matheson votes yes. Mr. Cardoza.
Chairman BOEHLERT. How is Dr. Burgess recorded?
Ms. TESSIERI. Mr. Burgess is not recorded, sir.
Mr. BURGESS. No.
Chairman BOEHLERT. How is Mr. Johnson recorded?
Ms. TESSIERI. Mr. Johnson is not recorded, sir.
Chairman BOEHLERT. The Clerk will report.
Ms. TESSIERI. Yes, 11. No, 15.

Chairman BOEHLERT. 15. The amendment is defeated. Amendment number 12, offered by Dr. Baird. The Clerk will report.

Ms. TESSIERI. Amendment offered by Mr. Baird, to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Baird.]

Chairman BOEHLERT. This gentleman is recognized.

Mr. BAIRD. Mr. Chairman, I have good news. I saved a bundle on life insurance. And I—it is my intent to save this committee a bundle of time, if I may. I don't intend actually to ask for a recorded vote on this, and I will withdraw it. It is my understanding that you have raised legitimate concerns. But if I may, I would like to try to address a couple of concerns I have about this topic.

Chairman BOEHLERT. By all means.

Mr. BAIRD. The concerns have to do with the SBIR program. We have—I have spoken with a number of folks, especially in high technology, who have expressed two sort of opposite end concerns

on SBIR. The first is that the program is known to be subject to abuse. It is known to be subject to abuse. I spoke to a couple of very enterprising young men, who have been extremely successful, who prior to their current business worked in a firm that they described basically as an SBIR mill, a firm that basically subsisted off SBIR resources, and never brought a product to market. And in fact, there are apparently quite a number of these. The converse problem are legitimate firms that seek to bring products to market that would be eligible for SBIR funds, but are not, because they have venture cap. Now, if you have got venture capital, it means essentially that someone has been willing to stake their hard-earned cash on your business, because they think it is a going concern.

However, oftentimes, these companies could use more capital, because they are often very capitally intensive. I can think of one that manufactures state of the art, literally, world state of the art laser products. They are not allowed to benefit from SBIR, not allowed thereby to use that money to create new jobs, et cetera, because they also have venture capital. So, on both ends, I think we need to seriously revisit SBIR.

I had hoped to introduce an amendment to do that, given that this is a manufacturing bill, but I understood there were concerns about sequential referral, and I recognize the needs there. But I would like to ask the Chairman if he would be willing to work with me to address both ends of the SBIR spectrum, as it is within our jurisdiction.

Chairman BOEHLERT. Most assuredly. And I want to work with you to get mutually agreed upon language, strong report language, because you identify something that needs to be addressed, and I wish to do it together.

Mr. BAIRD. I accept that, and I would withdraw—request unanimous consent to withdraw the amendment.

Chairman BOEHLERT. Without objection, so ordered. Thank you very much, Dr. Baird. Amendment number 13, offered by our distinguished colleague from Oregon, Mr. Wu.

Mr. WU. Thank you, Mr. Chairman. I have an amendment at the desk.

Chairman BOEHLERT. The Clerk will report.

Ms. TESSIERI. Amendment offered by Mr. Wu to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Wu.]

Mr. WU. Thank you, Mr. Chairman. My amendment adjusts the current one third federal cost share for six year and older manufacturing extension centers to adjust that to be as much as one half in fiscal year 2005 only. In my state of Oregon and elsewhere around the country, we have suffered through several years of high unemployment. Unemployment is currently at 6.8 percent. It has ranged as high as over eight percent, and in double digits in some of the counties that I represent.

Small and medium sized businesses are the mainstay of the Oregon economy, as they are the mainstay in many parts of the country. Many of these businesses have used, or could use, manufacturing extension programs to help in fine tuning their business models, and to help them become more successful.

In Financial Year 2004, the Manufacturing Extension Program was only provided with one third, or $39 million, of the funding necessary to maintain the existing network of manufacturing extension centers. Full funding would be $106 million. According to the Modernization Forum, the umbrella group of state manufacturing extension centers, and Mr. Chairman, at this point, I have a letter from the Forum which I would like to submit into the record, that according to the Modernization Forum, as of April, manufacturing extension centers will have closed 58 regional offices, and reduced staffing by 15 percent.

Modernization Forum
- an umbella group of
MEPs

June 15, 2004

The Honorable David Wu
U.S. House of Representatives
Longworth House Office Building, Room 1023
Washington, D.C. 20515

Dear Representative Wu:

On behalf of the Manufacturing Extension Partnership (MEP) Centers, I write in support of your amendment to HR 3598 that would change the maximum federal cost share for MEP from one-third to one-half.

As you know, the MEP Centers are experiencing significant financial challenges this fiscal year due to a 63 percent reduction in the federal appropriation. The Centers have laid off 15 percent of their staff and reduced services to small manufacturers.

Your amendment would provide the MEP Centers with some relief as they recover financially. The one-to-one match required by your amendment is also consistent with the match rate required by most other federal grant programs.

Thank you for your leadership on manufacturing issues and MEP. The Modernization Forum fully supports your amendment and stands ready to assist you in its enactment.

Sincerely,

Michael J. Wojcicki
President

cc: Michael Quear

If no additional funds are provided in Financial Year 2004, 16 states may close their manufacturing extension centers. Overall, the centers could reduce their staff by 50 percent, and close half of their regional offices. Another effect of the current funding short-

fall is that the centers are focusing on larger manufacturers, rather than the small and medium sized manufacturers that I think a lot of us want to assist, because the larger manufacturers can afford large dollar projects.

This amendment would allow some flexibility, Mr. Chairman, for one year in the federal cost share, as manufacturing extension centers rebuild. Currently, the federal cost share for centers less than six years old can be up to 50 percent. This amendment is in line with the intent of the statute to allow more flexibility in the federal cost share as centers build up to full capacity.

The amendment, I want to make clear, does not mandate a 50 percent match. It merely allows the federal match to increase up to 50 percent if determined as necessary by the administrations. With states facing their own fiscal crises, it makes sense to show some flexibility, and that is all that we are asking for, flexibility, especially in those states which are hardest hit by the current recession.

In addition, a recent report by the manufacturing extension centers recommended more flexibility in the federal cost share. This amendment is in line with that recommendation, and with that, I urge adoption of the amendment.

Chairman BOEHLERT. Thank you very much. I understand that there is agreement on both sides that, after we debate your amendment, then we will go to the Larson amendment, and then we will vote on both amendments. Is that correct? Do you have any problem with that?

Mr. WU. It is satisfactory. Yes.

Chairman BOEHLERT. Without objection, so ordered. Then, we will debate the Wu amendment. Then we will go directly to the Larson amendment, and we will debate that, and then we will have a vote on the two amendments. If called for. All right.

Let me say, in the six or seven years it has been my privilege to know and work with you, Mr. Wu, this is the first bad idea that I can identify with. Look—we have noted repeatedly, the Federal Government has limited resources. We know that. Raising the cost share would simply reduce the number of centers that can get federal money. That is the last thing we want to do. That is not a good trade off.

Higher share of the federal funds per center means that fewer centers will get funded. That is something we don't want, fewer centers. Also, the centers have long known that they cannot rely exclusively on federal funds. I don't think it is a good precedent to have the Federal Government pick up more of the tab of what are supposed to be customer driven, state backed centers.

This amendment is designed to help the centers, but in reality, it could end up hurting them, and could set a bad precedent, because we would have fewer of them. So, I would urge defeat of the amendment.

Mr. WU. Would the gentleman yield?

Chairman BOEHLERT. I would be glad to yield to my friend and colleague from the West Coast.

Mr. WU. With the very generous introduction, I knew that something bad was going to come about the amendment, but Mr. Chairman, I just want to underscore again, well, two points.

One is that this amendment only calls for flexibility. It does not mandate a 50 percent cost share. It permits the Administration flexibility to have up to 50 percent cost share, where that is found to be warranted. And the second point I want to make is that we are—we do have 50 percent cost share for those centers which are six years old or less. This amendment merely permits that cost share to be up to 50 percent for centers which are older than six years.

Chairman BOEHLERT. Thank you.

Mr. WU. I yield back to the gentleman.

Chairman BOEHLERT. Thank you for that clarification. Is there anyone else who seeks recognition on the Wu amendment?

Mr. WU. I gather the Chairman has not changed his opinion about the amendment.

Chairman BOEHLERT. The Chairman has not. I have—but I will tell you this. I haven't changed my opinion of you. You are a very valuable Member of this committee. Thank you very much. Now, the—we will, as agreed upon, under unanimous consent, go directly to our distinguished colleague from Connecticut, Mr. Larson.

Mr. LARSON. Thank you, Mr. Chairman. I have an amendment at the desk.

Chairman BOEHLERT. Amendment number 14. The Clerk will report.

Ms. TESSIERI. Amendment offered by Mr. Larson to the amendment in the nature of a substitute.

[Note: See the Appendix for the Amendment offered by Mr. Larson.]

Chairman BOEHLERT. The gentleman is recognized for five minutes.

Mr. LARSON. Thank you, Mr. Chairman. This amendment I am proposing authorizes the Industries of the Future program at the Department of Energy and the Office of Energy Efficiency and Renewable Energy. The management of this program is the primary function of the Office of Industrial Technologies, a member of the Interagency Committee established in Section II of the base bill. Through Industries of the Future, the Office of Industrial Technology collaborates with some of the most energy intensive industries for applied research and development in technologies that reduce energy requirements in emissions, and increase productivity.

These core industries include mining, petroleum, metal casting, wood products, glass, chemicals, aluminum and steel, and together, they represent the majority of industrial energy consumption.

Discussions with the participants and testimony of witnesses in the legislative hearing for Ms. Hart's excellent bill, H.R. 3890, last month suggests that this has been one program that the Department of Energy—that has seen very positive results. And a number of technologies resulting from this program have been commercialized and are in use today. However, that bill singles out only the metals research and development portion of this program for reauthorization, providing $20 million a year for Fiscal Year '05 through Fiscal Year '09 for that program alone.

I support this, and the funding is well needed, but it provides no additional support to the other critical manufacturing industries covered by this program. I applaud this committee and the leader-

ship of Chairman Boehlert and Chairwoman Biggert for taking action to help shore up the metals industry, action that is required because the Bush Administration has called for very sharp reductions in funding for the Industries of the Future programs. The Financial Year 2005 request called for approximately $55 million, representing a rapid decline from the $175 million in the last Clinton budget request in Fiscal Year 2001.

This comes at a time when our domestic industries are struggling to stay ahead of foreign competition. While we are addressing this issue for the metals industry, we should not be pursuing policies that cherry-pick one sector of the industry over others, or that pits American manufacturing companies against one another for already scarce resources.

Therefore, my amendment proposes to reauthorize the Industries of the Future program, which includes the metals R&D program authorized by H.R. 3890, and $100 million for Fiscal Year 2005, $105 in Fiscal Year 2006, $110 million in Fiscal Year 2007, $115 million in 2008.

While this amendment would essentially double the President's funding proposal for these critical programs, it is still only two thirds the level of funding these programs received less than five years ago, and therefore, I believe it to be a very prudent request.

The cost of the broad decline in American competitiveness, then market share worldwide, can be directly linked to the country's declining commitment to research and development, as was eloquently pointed out by Mr. Bartlett earlier this morning. This amendment makes a modest effort to reverse this trend, and provide needed assistance to America's core manufacturing industrial infrastructure.

I urge support.

Chairman BOEHLERT. Thank you very much. This is another amendment, in my estimation, that would drag down the bill with tangential programs for no good reason. Look, I support the Industries of the Future program, and indeed, the whole Congress is already on record supporting the program, thanks to this committee, and we deserve credit on both sides. The program is reauthorized quite generously in the Energy Bill, which the House passed yet again just yesterday. So this amendment isn't needed to send any signals to anybody, to signal Congressional support for the program. But the amendment would add an energy issue to this bill, which is not likely to speed its passage, and that is our objective, to speed its passage.

In addition to whatever concerns this would raise with leadership, and at the other end of Pennsylvania Avenue, this amendment would make negotiations with the Senate much more complicated. In the Senate, the Commerce Committee, which has jurisdiction over our bill as written, does not have jurisdiction over DOE. Bringing another Senate Committee into the mix, especially in the second half of an election year, is not a good legislative strategy. As a matter of fact, bringing additional Senators to any discussion is not a good strategy. This amendment would needlessly slow the bill. I would urge its defeat, for I think legitimate reasons, but understand where my heart and where my head is.

I agree on—in support of the Industries for the Future program. Is there anyone else that seeks recognition? If not, the vote is on the amendment. All right, now. Here is where—agreed—previously agreed upon order. The first vote will be on the Wu amendment. Then the second vote will be on the Larson amendment.

First of all, the vote is on the Wu amendment. The Clerk will call the roll. Voice one—well, you know. Unless you want to—all in favor, say aye. No, the nos appear to have it. I was just trying to speed the process.

The Clerk will call the roll.

Ms. TESSIERI. Mr. Boehlert.

Chairman BOEHLERT. No.

Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.

[No response.]

Ms. TESSIERI. Mr. Lamar Smith.

[No response.]

Ms. TESSIERI. Mr. Weldon.

[No response.]

Ms. TESSIERI. Mr. Rohrabacher.

[No response.]

Ms. TESSIERI. Mr. Calvert.

[No response.]

Ms. TESSIERI. Mr. Nick Smith.

Mr. SMITH OF MICHIGAN. No.

Ms. TESSIERI. Mr. Smith 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. Nethercutt.

[No response.]

Ms. TESSIERI. Mr. Lucas.

Mr. LUCAS. No.

Ms. TESSIERI. Mr. Lucas votes no. Mrs. Biggert.

Mrs. BIGGERT. No.

Ms. TESSIERI. Mrs. Biggert votes no. Mr. Gilchrest.

[No response.]

Ms. TESSIERI. Mr. Akin.

[No response.]

Ms. TESSIERI. Mr. Johnson.

[No response.]

Ms. TESSIERI. Ms. Hart.

Ms. HART. No.

Ms. TESSIERI. Ms. Hart votes no. Mr. Forbes.

[No response.]

Ms. TESSIERI. Mr. Gingrey.

[No response.]

Ms. TESSIERI. Mr. Bishop.

[No response.]

Ms. TESSIERI. Mr. Burgess.

[No response.]

Ms. TESSIERI. Mr. Bonner.

[No response.]

Ms. TESSIERI. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
Mr. NEUGEBAUER. No.
Ms. TESSIERI. Mr. Neugebauer votes no. Mr.——
Chairman BOEHLERT.—Rohrabacher recorded?
Ms. TESSIERI. Mr. Rohrabacher is not recorded. Mr. Rohrabacher votes no.
Chairman BOEHLERT. How is Mr. Gilchrest recorded?
Ms. TESSIERI. Mr. Gilchrest is not recorded. Mr. Gilchrest votes no. Mr. Gordon.
Mr. GORDON. Aye.
Ms. TESSIERI. Mr. Gordon votes yes. Mr. Costello.
[No response.]
Ms. TESSIERI. Ms. Johnson.
[No response.]
Ms. TESSIERI. Ms. Woolsey.
Ms. WOOLSEY. Aye.
Ms. TESSIERI. Ms. Woolsey votes yes. Mr. Lampson.
[No response.]
Ms. TESSIERI. Mr. Larson.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Larson 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.
Mr. DAVIS. Yes.
Ms. TESSIERI. Mr. Davis votes yes. Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Mr. BAIRD. Yes.
Ms. TESSIERI. Mr. Baird votes yes. Mr. Moore.
Mr. MOORE. Yes.
Ms. TESSIERI. Mr. Moore votes yes. Mr. Weiner.
Mr. WEINER. Yes.
Ms. TESSIERI. Mr. Weiner votes yes. Mr. Matheson.
[No response.]
Ms. TESSIERI. Mr. Cardoza.
[No response.]
Ms. TESSIERI. Mr. Burgess is not recorded, sir.
Mr. BURGESS. No.
Ms. TESSIERI. Mr. Burgess votes no.
Chairman BOEHLERT. How is Mr. Johnson recorded?
Ms. TESSIERI. Mr. Johnson is not recorded.
Mr. JOHNSON. I vote no, Mr. Chairman.

Chairman BOEHLERT. How is Mr. Bonner recorded?
Ms. TESSIERI. Mr. Bonner is not recorded, sir.
Mr. BONNER. Mr. Bonner votes no.
Ms. TESSIERI. Mr. Bonner votes no.
Chairman BOEHLERT. How is Mr. Weldon of Pennsylvania recorded?
Ms. TESSIERI. Mr. Weldon is not recorded.
Mr. WELDON. No.
Ms. TESSIERI. Mr. Weldon votes no.
Chairman BOEHLERT. How is Dr. Gingrey recorded?
Ms. TESSIERI. Mr. Gingrey is not recorded, sir.
Chairman BOEHLERT. How is Mr. Sherman recorded?
Ms. TESSIERI. Mr. Gingrey votes no. Mr. Sherman is not recorded, sir. Mr. Sherman votes yes.
Chairman BOEHLERT. Mr. Costello, how is he recorded?
Ms. TESSIERI. Mr. Costello is not recorded, sir.
Mr. COSTELLO. Aye, please.
Ms. TESSIERI. Mr. Costello votes yes.
Chairman BOEHLERT. Mr. Lampson, how is he recorded?
Mr. LAMPSON. I—sorry, aye.
Ms. TESSIERI. Mr. Lampson votes yes.
Chairman BOEHLERT. Dr. Ehlers. Recorded?
Ms. TESSIERI. Mr. Ehlers is recorded. Mr. Sherman.
Chairman BOEHLERT. Yes, ma'am.
Ms. TESSIERI. Yes, 14. No, 16.
Chairman BOEHLERT. Thank you. The amendment. The next vote is on the amendment offered by the distinguished gentleman from Connecticut, Mr. Larson. The Clerk will call. All those in favor, say aye. Opposed, no. No. The nos have it.
Mr. LARSON. Roll call vote.
Chairman BOEHLERT. The Clerk will call.
Ms. TESSIERI. Mr. Boehlert.
Chairman BOEHLERT. No.
Ms. TESSIERI. Mr. Boehlert votes no. Mr. Hall.
[No response.]
Ms. TESSIERI. Mr. Lamar Smith.
[No response.]
Ms. TESSIERI. Mr. Weldon.
Mr. WELDON. No.
Ms. TESSIERI. Mr. Weldon votes no. Mr. Rohrabacher.
[No response.]
Ms. TESSIERI. Mr. Calvert.
[No response.]
Ms. TESSIERI. Mr. Smith.
[No response.]
Ms. TESSIERI. 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. Nethercutt.
[No response.]
Ms. TESSIERI. Mr. Lucas.

Mr. LUCAS. No.
Ms. TESSIERI. Mr. Lucas votes no. Mrs. Biggert.
Mrs. BIGGERT. No.
Ms. TESSIERI. Mrs. Biggert votes no. Mr. Gilchrest.
Mr. GILCHREST. No.
Ms. TESSIERI. Mr. Gilchrest votes no. Mr. Akin.
[No response.]
Ms. TESSIERI. Mr. Johnson.
Mr. JOHNSON. No.
Ms. TESSIERI. Mr. Johnson votes no. Ms. Hart.
Ms. HART. No.
Ms. TESSIERI. Ms. Hart votes no. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
[No response.]
Ms. TESSIERI. Mr. Bishop.
[No response.]
Ms. TESSIERI. Mr. Burgess.
Mr. BURGESS. No.
Ms. TESSIERI. Mr. Burgess votes no. Mr. Bonner.
[No response.]
Ms. TESSIERI. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
Mr. NEUGEBAUER. No.
Ms. TESSIERI. Mr. Neugebauer votes no. Mr. Gordon.
Mr. GORDON. Aye.
Ms. TESSIERI. Mr. Gordon votes yes. Mr. Costello.
Mr. COSTELLO.. Aye.
Ms. TESSIERI. Mr. Costello votes yes. Ms. Johnson.
[No response.]
Ms. TESSIERI. Ms. Woolsey.
Mr. WOOLSEY. Aye.
Ms. TESSIERI. Ms. Woolsey votes yes. Mr. Lampson.
Mr. LAMPSON. Yes.
Ms. TESSIERI. Mr. Lampson votes yes. Mr. Larson.
Mr. LARSON. Yes.
Ms. TESSIERI. Mr. Larson votes yes. Mr. Udall.
Mr. UDALL. Yes.
Ms. TESSIERI. Mr. Udall votes yes. Mr. Wu.
Mr. WU. Yes.
Ms. TESSIERI. Mr. Wu votes yes. Mr. Honda.
Mr. HONDA. Yes.
Ms. TESSIERI. Mr. Honda votes yes. Mr. Miller.
Mr. MILLER. Aye.
Ms. TESSIERI. Mr. Miller votes yes. Mr. Davis.
Mr. DAVIS. Aye.
Ms. TESSIERI. Mr. Davis votes yes. Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.

Mr. BAIRD. Aye.
Ms. TESSIERI. Mr. Baird votes yes. Mr. Moore.
Mr. MOORE. Yes.
Ms. TESSIERI. Mr. Moore votes yes. Mr. Weiner.
Mr. WEINER. Aye.
Ms. TESSIERI. Mr. Weiner votes yes. Mr. Matheson.
[No response.]
Ms. TESSIERI. Mr. Cardoza.
[No response.]
Chairman BOEHLERT. How is Mr. Rohrabacher recorded?
Ms. TESSIERI. Mr. Rohrabacher is not recorded, sir.
Mr. ROHRABACHER. No.
Chairman BOEHLERT. How is Mr. Nethercutt recorded?
Ms. TESSIERI. Mr. Nethercutt is not recorded, sir.
Mr. NETHERCUTT. No.
Chairman BOEHLERT. How is Ms.—Dr. Gingrey recorded?
Ms. TESSIERI. Mr. Gingrey is not recorded, sir.
Mr. GINGREY. No.
Chairman BOEHLERT. How is Mr. Smith recorded?
Ms. TESSIERI. Mr. Smith of Michigan is not recorded.
Mr. SMITH OF MICHIGAN. No.
Ms. TESSIERI. Mr. Smith votes no.
Chairman BOEHLERT. How is Mr. Sherman recorded?
Ms. TESSIERI. Mr. Sherman is not recorded.
Mr. SHERMAN. Yes.
Chairman BOEHLERT. Everybody who wish to be recorded recorded? The Clerk will report.
Ms. TESSIERI. Mr. Chairman, yes, 14. No, 16.
Chairman BOEHLERT. The amendment is defeated. Are there any further amendments to the amendment in the nature of a substitute? Hearing none, the question is on the amendment in the nature of a substitute. All in favor, say aye. Aye. Those opposed, say no. The ayes appear to have it. The yeas have it, and the amendment in the nature of a substitute is agreed to. Are there any other amendments? Hearing none, the question is on the bill, H.R. 3598, *Manufacturing Technology Competitiveness Act of 2004,* as amended. All those in favor will say aye. Aye. Opposed, no.
Mr. UDALL. Mr. Chairman, I would ask for a recorded vote.
Chairman BOEHLERT. Well, thank you very much for that intervention, Mr. Udall.
Mr. UDALL. I am back, Mr. Chairman.
Chairman BOEHLERT. The Clerk will call the roll.
Ms. TESSIERI. Mr. Boehlert.
Mr. BOEHLERT. Aye.
Ms. TESSIERI. Mr. Boehlert votes yes. Mr. Hall.
[No response.]
Ms. TESSIERI. Mr. Lamar Smith.
[No response.]
Ms. TESSIERI. Mr. Weldon.
Mr. WELDON. Aye.
Ms. TESSIERI. Mr. Weldon votes yes. Mr. Rohrabacher.
Mr. ROHRABACHER. Aye.
Ms. TESSIERI. Mr. Rohrabacher votes yes. Mr. Calvert.
[No response.]

Ms. TESSIERI. Mr. Nick Smith.
Mr. SMITH OF MICHIGAN. Yes.
Ms. TESSIERI. Mr. Smith 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. Nethercutt.
Mr. NETHERCUTT. Aye.
Ms. TESSIERI. Mr. Nethercutt votes yes. Mr. Lucas.
Mr. LUCAS. Aye.
Ms. TESSIERI. Mr. Lucas votes yes. Mrs. Biggert.
Mrs. BIGGERT. Yes.
Ms. TESSIERI. Mrs. Biggert votes yes. Mr. Gilchrest.
Mr. GILCHREST. Yes.
Ms. TESSIERI. Mr. Gilchrest votes yes. Mr. Akin.
Mr. AKIN. Aye.
Ms. TESSIERI. Mr. Johnson.
Mr. JOHNSON. Yes.
Ms. TESSIERI. Mr. Johnson votes yes. Ms. Hart.
Ms. HART. Aye.
Ms. TESSIERI. Ms. Hart votes yes. Mr. Forbes.
[No response.]
Ms. TESSIERI. Mr. Gingrey.
Mr. GINGREY. Yes.
Ms. TESSIERI. Mr. Gingrey votes yes. Mr. Bishop.
[No response.]
Ms. TESSIERI. Mr. Burgess.
Mr. BURGESS. Yes.
Ms. TESSIERI. Mr. Burgess votes yes. Mr. Bonner.
Mr. BONNER. Yes.
Ms. TESSIERI. Mr. Bonner votes yes. Mr. Feeney.
[No response.]
Ms. TESSIERI. Mr. Neugebauer.
Mr. NEUGEBAUER. Yes.
Ms. TESSIERI. Mr. Neugebauer votes yes. Mr. Gordon.
Mr. GORDON. No.
Ms. TESSIERI. Mr. Gordon votes no. Mr. Costello.
Mr. COSTELLO. No.
Ms. TESSIERI. Mr. Costello votes no. Ms. Johnson.
[No response.]
Ms. TESSIERI. Ms. Woolsey.
Ms. WOOLSEY. No.
Ms. TESSIERI. Ms. Woolsey votes no. Mr. Lampson.
[No response.]
Ms. TESSIERI. Mr. Larson.
Mr. LAMPSON. No.
Ms. TESSIERI. Mr. Larson 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.
Mr. DAVIS. No.
Ms. TESSIERI. Mr. Davis votes no. Ms. Jackson Lee.
[No response.]
Ms. TESSIERI. Ms. Lofgren.
[No response.]
Ms. TESSIERI. Mr. Sherman.
[No response.]
Ms. TESSIERI. Mr. Baird.
Chairman BOEHLERT. Sherman, do you want to——
Mr. SHERMAN. I would like to——
Chairman BOEHLERT. This is your opportunity. We are all waiting with baited breath.
Ms. TESSIERI. Mr. Sherman votes no. Mr. Baird.
Mr. BAIRD. No.
Ms. TESSIERI. Mr. Baird votes no. Mr. Moore.
Mr. MOORE. Yes.
Ms. TESSIERI. Mr. Moore votes yes. Mr. Weiner.
[No response.]
Ms. TESSIERI. Mr. Matheson.
Mr. MATHESON. No. No——
Chairman BOEHLERT. Mr. Moore, did you—your vote. Did you get your——
Mr. MOORE. Yes.
Chairman BOEHLERT. All right.
Ms. TESSIERI. Mr. Weiner.
Mr. WEINER. No.
Ms. TESSIERI. Mr. Weiner votes no. Mr. Matheson.
[No response.]
Ms. TESSIERI. Mr. Cardoza.
Chairman BOEHLERT. Is there anyone else that seeks to be recorded? Before the Clerk—Mr. Lampson. Mr. Lampson. Mr. Lampson of Texas.
Ms. TESSIERI. Mr. Lampson is not recorded. No. Mr. Lampson votes no.
Chairman BOEHLERT. Mr. Hall. How is Mr. Hall?
Ms. TESSIERI. Mr. Hall is not recorded.
Mr. HALL. Mr. Chairman——
Ms. TESSIERI. Mr. Hall votes yes.
Chairman BOEHLERT. The Clerk will report.
Ms. TESSIERI. Mr. Chairman, yes 19, no 13.
Chairman BOEHLERT. Thank you very much. And let me thank all of my colleagues on this committee. We have had a lengthy and spirited debate, and you can see, it is a bipartisan measure that we are reporting out of here, and I appreciate that. Now, for the balance of the—we have got——
Mr. EHLERS. We got—we still——
Chairman BOEHLERT. All right. Recognize Dr. Ehlers for a motion.
Mr. EHLERS. Mr. Chairman, I move that the Committee favorably report H.R. 3598, 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, as amended, favorably. Those in favor of the motion will signify by saying aye. Aye. Nos, no. The ayes appear to have it, and the resolution 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 House of Representatives that the Committee authorize the Chairman to offer such motions as may be necessary in the House to adopt and pass H.R. 3598, as amended, and go to conference with the Senate on H.R. 3598, or a similar bill. Without objection, so ordered.

This concludes our Committee markup, and I want to thank those who indulged all of us for so many hours. I want to thank the staff on a bipartisan basis for their outstanding input, that makes these success stories possible.

This committee is adjourned.

[Whereupon, at 2:15 p.m., the Committee was adjourned.]

Appendix:

H.R. 3598 (AS AMENDED BY THE SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS); SECTION-BY-SECTION ANALYSIS; AMENDMENT ROSTER

U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515

June 10, 2004

MEMORANDUM

TO: Sherwood L. Boehlert, Chairman
Committee on Science

FROM: Vernon J. Ehlers, Chairman
Subcommittee on Environment, Technology, and Standards

SUBJECT: Subcommittee markup of H.R. 3598, the Manufacturing Technology Competitiveness Act of 2004

On March 25, 2004, the Subcommittee on Environment, Technology, and Standards held a markup of H.R. 3598, the Manufacturing Technology Competitiveness Act of 2004.

I offered an Amendment in the Nature of a Substitute which was adopted by a voice vote.

The bill, as reported to the Full Committee, and the revised section-by-section analysis of the measure, are attached.

Attachments (2)

--Bill, as amended
--Revised section-by-section analysis

H.R. 3598, AS REPORTED BY THE SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS ON MARCH 25, 2004

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 2004".

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

6 (a) INTERAGENCY COMMITTEE.—

7 (1) ESTABLISHMENT.—The President shall es-
8 tablish an interagency committee on manufacturing
9 research and development, which shall include rep-
10 resentatives from the Office of Science and Tech-
11 nology Policy, the National Institute of Standards
12 and Technology, the Science and Technology Direc-
13 torate of the Department of Homeland Security, the
14 National Science Foundation, the Department of
15 Energy, and any other agency that the President
16 may designate. The Interagency Committee shall be
17 chaired by the Under Secretary of Commerce for
18 Technology.

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 an advisory committee to
2 provide advice and information to the Interagency
3 Committee. The Advisory Committee shall be com-
4 posed of no more than 25 members appointed by the
5 President, including the following:
6 (A) 4 members from outside the Federal
7 Government who are eminent in the manufac-
8 turing industry, at least 1 of whom is rep-
9 resentative of small and medium-sized compa-
10 nies in such industry.
11 (B) 4 members from the academic research
12 community who are eminent in their field and
13 have expertise in the manufacturing sciences.
14 (C) 3 members from labor unions, a major-
15 ity of whose membership have manufacturing
16 jobs.
17 (2) RECOMMENDATIONS.—The Advisory Com-
18 mittee shall assist the Interagency Committee by
19 providing it with recommendations on—
20 (A) the goals and priorities for manufac-
21 turing research and development;
22 (B) the strategic plan, including proposals
23 on how to strengthen research and development
24 to help manufacturing; and
25 (C) other issues it considers appropriate.

1 (3) REPORT.—The Advisory Committee shall
2 provide an annual report to the Interagency Com-
3 mittee and the Congress that shall assess—
4 (A) the progress made in implementing the
5 strategic plan and challenges to this progress;
6 (B) the effectiveness of activities under the
7 strategic plan in improving United States man-
8 ufacturing competitiveness;
9 (C) the need to revise the goals and prior-
10 ities established by the Interagency Committee;
11 and
12 (D) new and emerging problems and op-
13 portunities affecting the manufacturing re-
14 search community, research infrastructure, and
15 the measurement and statistical analysis of
16 manufacturing that may need to be considered
17 by the Interagency Committee.
18 (4) FEDERAL ADVISORY COMMITTEE ACT AP-
19 PLICATION.—Section 14 of the Federal Advisory
20 Committee Act shall not apply to the Advisory Com-
21 mittee.
22 **SEC. 3. COLLABORATIVE MANUFACTURING RESEARCH**
23 **GRANTS.**
24 The National Institute of Standards and Technology
25 Act is amended—

1 (1) by redesignating the first section 32 as sec-
2 tion 34 and moving it to the end of the Act; and
3 (2) by inserting before the section moved by
4 paragraph (1) the following new section:

5 **"SEC. 33. COLLABORATIVE MANUFACTURING RESEARCH**
6 **GRANTS.**

7 "(a) AUTHORITY.—
8 "(1) ESTABLISHMENT.—The Director shall es-
9 tablish a program of multiyear awards to partner-
10 ships among participants described in paragraph (2)
11 for the purposes described in paragraph (3). Awards
12 shall be made on a peer-reviewed, competitive basis.
13 "(2) PARTICIPANTS.—Such partnerships shall
14 include at least—
15 "(A) 1 manufacturing industry partner;
16 and
17 "(B) 1 nonindustry partner.
18 "(3) PURPOSE.—The purpose of the program
19 under this section is to foster cost-shared collabora-
20 tions among firms, educational institutions, research
21 institutions, State agencies, and nonprofit organiza-
22 tions to encourage the development of innovative,
23 multidisciplinary manufacturing technologies. Part-
24 nerships receiving awards under this section shall
25 conduct applied research to develop new manufac-

1 turing processes, techniques, or materials that would
2 contribute to improved performance, productivity,
3 and competitiveness of United States manufacturing,
4 and build lasting alliances among collaborators.
5 "(b) PROGRAM CONTRIBUTION.—Awards under this
6 section shall provide for not more than one-third of the
7 costs of a partnership. Not more than an additional one-
8 third of such costs may be obtained directly or indirectly
9 from other Federal sources.
10 "(c) APPLICATIONS.—Applications for awards under
11 this section shall be submitted in such manner, at such
12 time, and containing such information as the Director
13 shall require. Such applications shall describe at a
14 minimum—
15 "(1) how each partner will participate in devel-
16 oping and carrying out the research agenda of the
17 partnership;
18 "(2) the research that the grant would fund;
19 and
20 "(3) how the research to be funded with the
21 award would contribute to improved performance,
22 productivity, and competitiveness of the United
23 States manufacturing industry.

1 "(d) SELECTION CRITERIA.—In selecting applica-
2 tions for awards under this section, the Director shall con-
3 sider at a minimum—
4 "(1) the degree to which projects will have a
5 broad impact on manufacturing;
6 "(2) the novelty and scientific and technical
7 merit of the proposed projects; and
8 "(3) the demonstrated capabilities of the appli-
9 cants to successfully carry out the proposed re-
10 search.
11 "(e) DISTRIBUTION.—In selecting applications under
12 this section the Director shall ensure, to the extent prac-
13 ticable a distribution of overall awards among a variety
14 of manufacturing industry sectors and a range of firm
15 sizes.".
16 **SEC. 4. MANUFACTURING FELLOWSHIP PROGRAM.**
17 Section 18 of the National Institute of Standards and
18 Technology Act (15 U.S.C. 278g–1) is amended—
19 (1) by inserting "(a) IN GENERAL" before "The
20 Director is authorized"; and
21 (2) by adding at the end the following new sub-
22 section:
23 "(b) MANUFACTURING FELLOWSHIP PROGRAM.—
24 "(1) ESTABLISHMENT.—To promote the devel-
25 opment of a robust research community working at

1 the leading edge of manufacturing sciences, the Di-
2 rector shall establish a program to award—
3 "(A) postdoctoral research fellowships at
4 institutions, including the Institute, engaged in
5 research activities related to manufacturing
6 sciences; and
7 "(B) senior research fellowships to estab-
8 lished researchers in industry or at institutions
9 of higher education who wish to pursue studies
10 related to the manufacturing sciences at institu-
11 tions, including the Institute, engaged in re-
12 search activities related to manufacturing
13 sciences.
14 "(2) APPLICATIONS.—To be eligible for an
15 award under this subsection, an individual shall sub-
16 mit an application to the Director at such time, in
17 such manner, and containing such information as
18 the Director may require.
19 "(3) STIPEND LEVELS.—Under this section, the
20 Director shall provide stipends for postdoctoral re-
21 search fellowships at a level consistent with the Na-
22 tional Institute of Standards and Technology
23 Postdoctoral Research Fellowship Program, and sen-
24 ior research fellowships at levels consistent with sup-
25 port for a faculty member in a sabbatical position.".

1 **SEC. 5. MANUFACTURING EXTENSION.**

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

15 (b) MANUFACTURING EXTENSION CENTER COMPETI-
16 TIVE GRANT PROGRAM.—Section 25 of the National Insti-
17 tute of Standards and Technology Act (15 U.S.C. 278k)
18 is amended by adding at the end the following new sub-
19 section:

20 "(e) COMPETITIVE GRANT PROGRAM.—

21 "(1) ESTABLISHMENT.—The Director shall es-
22 tablish, within the Manufacturing Extension Part-
23 nership program under this section and section 26
24 of this Act, a program of competitive awards among
25 participants described in paragraph (2) for the pur-
26 poses described in paragraph (3).

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

1 "(5) SELECTION.—Awards under this sub-
2 section shall be peer reviewed and competitively
3 awarded. The Director shall select proposals to re-
4 ceive awards—
5 "(A) that utilize innovative or collaborative
6 approaches to solving the problem described in
7 the competition;
8 "(B) that will improve the competitiveness
9 of industries in the region in which the Center
10 or Centers are located; and
11 "(C) that will contribute to the long-term
12 economic stability of that region.
13 "(6) PROGRAM CONTRIBUTION.—Recipients of
14 awards under this subsection shall not be required
15 to provide a matching contribution.".
16 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**
17 (a) MANUFACTURING EXTENSION PARTNERSHIP
18 PROGRAM.—
19 (1) IN GENERAL.—There are authorized to be
20 appropriated to the Secretary of Commerce for the
21 Manufacturing Extension Partnership program
22 under sections 25 and 26 of the National Institute
23 of Standards and Technology Act (15 U.S.C. 278k
24 and 278l), other than the program described in
25 paragraph (2) of this subsection—

1 (A) $110,000,000 for fiscal year 2005;
2 (B) $115,000,000 for fiscal year 2006;
3 (C) $120,000,000 for fiscal year 2007; and
4 (D) $125,000,000 for fiscal year 2008.
5 (2) COMPETITIVE GRANT PROGRAM.—There are
6 authorized to be appropriated to the Secretary of
7 Commerce for the competitive grant program under
8 section 25(e) of the National Institute of Standards
9 and Technology Act (15 U.S.C. 278k(e))—
10 (A) $5,000,000 for fiscal year 2005;
11 (B) $7,000,000 for fiscal year 2006;
12 (C) $9,000,000 for fiscal year 2007; and
13 (D) $11,000,000 for fiscal year 2008.
14 (b) COLLABORATIVE MANUFACTURING RESEARCH
15 GRANTS PROGRAM.—There are authorized to be appro-
16 priated to the Secretary of Commerce for the Collaborative
17 Manufacturing Research Grants program under section
18 33 of the National Institute of Standards and Technology
19 Act—
20 (1) $40,000,000 for fiscal year 2005;
21 (2) $44,000,000 for fiscal year 2006;
22 (3) $48,000,000 for fiscal year 2007; and
23 (4) $52,000,000 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 2005;
6 (2) $1,750,000 for fiscal year 2006;
7 (3) $2,000,000 for fiscal year 2007; and
8 (4) $2,250,000 for fiscal year 2008.

H.R. 3598 SECTION-BY-SECTION ANALYSIS AS REPORTED BY THE SUBCOMMITTEE ON ENVIRONMENT, TECHNOLOGY, AND STANDARDS

Goals of the Bill

The goals of this bill are to foster innovation in the manufacturing sciences by creating a mechanism for coordinating federal manufacturing research and development, creating new and strengthening existing programs that support manufacturing research, development and innovation, and providing technical extension services through the Manufacturing Extension Partnership program to small- and medium-sized manufacturers.

Background: Manufacturing Needs Innovation

Between 2000 and 2004, manufacturing experienced a decline of approximately three million jobs as the manufacturing sector was hit hard by the economic recession. As the economy began its recovery, manufacturing was slow to hire compared to other economic sectors. Experts are warning that the fundamental base of America's economic power—the ability to innovate—is threatened by the increasing technological competence of our trading partners. New products, processes, and materials must be conceived, created, tested, and brought to market ever faster if we are remain a creative and competitive force in world manufacturing.

The Administration, in its report *Manufacturing in America: A Comprehensive Strategy to Address the Challenges to U.S. Manufacturers,* highlighted the need for investment in innovation through enhanced partnership for the transfer of technology, and support for the Manufacturing Extension Partnership (MEP) program. The U.S. has an excellent research foundation from which to develop manufacturing technology, but this process, and the people that do technology transfer, could use some help.

Section 1: Short title

"Manufacturing Technology Competitiveness Act of 2004".

Section 2: Interagency Committee, Advisory Committee

Section 2 directs the President to establish an Interagency Committee on Manufacturing Research and Development. The Interagency Committee will be assisted by an Advisory Committee representing non-governmental interests, that will provide the Interagency Committee with input to and reviews of federal manufacturing R&D activities.

- The Interagency Committee will consist of representatives from the federal research agencies that have significant manufacturing technology programs.
- The Interagency Committee will establish goals and priorities to coordinate federal manufacturing research and development, and prepare a strategic plan and a coordinated interagency budget.
- The Advisory Committee would provide advice and information to the Interagency Committee from the non-federal manufacturing research community, such as industry and academia.
- Together these measures will ensure that there is cooperation and communication between and among federal agencies on manufacturing issues, and that there is input to this discussion from outside the Federal Government to ensure that federal initiatives and programs are kept relevant.

Section 3: Collaborative Manufacturing Research Grants

Section 3 establishes a grant program within the National Institute of Standards and Technology (NIST) that would fund one-third of research partnerships between firms, community colleges, universities, research institutions, state agencies, and non-profits to develop innovative manufacturing technologies.

- This will support collaborations between different entities with expertise in manufacturing who need to work together to remove technological barriers to increasing U.S. manufacturing competitiveness.
- The cost-sharing provisions will ensure that participants will have to commit their own money to these research projects.
- The requirement for collaborations between two or more participants from different sectors will nurture partnerships between innovators, as well as technology transfer between industrial and non-industrial entities.

Section 4: Manufacturing Fellowship Program

Section 4 establishes a postdoctoral and senior research fellowship program within the National Institute of Standards and Technology, awardees of which will be engaged in research activities related to the manufacturing sciences.

- Academia is experiencing a decline in the number of scientists with expertise in or knowledge of manufacturing, partly because there is little funding to support them.
- The postdoctoral fellowships will encourage young Ph.D. scientists with interests in manufacturing to pursue those interests, thus growing the pool of high-level manufacturing research talent.
- The senior research fellowships will allow academic faculty or researchers in industry to take sabbaticals at academic institutions or at NIST, promoting the spread of knowledge in the manufacturing sciences between academia, industry, and the Federal Government.

Section 5: Manufacturing Extension

Section 5 strengthens the MEP center review process by establishing a probationary period and recompetition process for centers that cannot perform. It also creates a new grant program at MEP to provide extra funds for innovative MEP-related projects.

- Codifies existing practice on how MEP Center review, recompetition, and the shut-down of under-performing Centers should proceed.
- This is to ensure that the MEP Centers continue to meet the highest standards, and that the review and renewal process is consistent across the program.
- Creates a peer-reviewed grant program whereby the MEP Centers can compete with each other for supplemental funding for specific projects to address manufacturing problems in their state or region.
- Much of MEP activities are conducted with individual firms on a fee-for-service basis, but MEP Centers do not have the resources to expand their activities beyond this basic model.
- With additional resources to work on such problems as regional capacity-building, supply-chain integration, or technical workforce training, individual Centers or consortia thereof will be able to implement new ideas to help small- and medium-sized manufacturers.
- Small businesses are the largest source of job growth, 75 percent of all jobs created, and they must be helped through the globalization transition rather than allowed to die on the vine.

Section 6: Authorization of Appropriations

- Authorizes the collaborative R&D grants at $40 million in 2005, increasing by $4 million per year to $52 million in FY 2008.
- Authorizes the manufacturing fellowship program at $1.5 million in 2005, increasing by $250,000 per year to $2.25 million in FY 2008.
- Authorizes the Manufacturing Extension Partnership (MEP) program at $110 million in 2005, increasing $5 million per year to $125 million in FY 2008.
- Authorizes the Manufacturing Extension Partnership grants at $5 million in FY 2005, increasing $2 million per year to $11 million in FY 2008.

COMMITTEE ON SCIENCE - FULL COMMITTEE MARKUP
June 16, 2004
AMENDMENT ROSTER

H.R. 3598, Manufacturing Technology Competitiveness Act of 2004
--Motion to adopt the bill, as amended: agreed to by: Y-19; N-13.
--Motion to report the bill, as amended: agreed to by a voice vote.

No.	Sponsor	Description	Results
1.	Mr. Ehlers	Amendment In The Nature Of A Substitute	--Adopted by a voice vote.
2.	Mr. Udall	Amendment authorizes NIST's Scientific, Technical, and Research Services account starting in FY 2005 at the level of the FY 2005 President's request of $422M plus funding for HAVA and a new standard education grant program, and increases by 5 percent per year.	
2(a)	Mr. Boehlert	Amendment Offered by Mr. Boehlert to the Amendment Offered by Mr. Udall of Colorado	--Adopted by: Y-19; N-14. --Amendment, as amended, was adopted by a voice vote.
3.	Mr. Udall	Amendment would establish a Presidential Council on Manufacturing.	
3(a)	Mr. Udall	Substitute amendment offered by Mr. Udall	--Unanimous Consent granted to substitute a new amendment. --Defeated by: Y-15; N-15.
4.	Mr. Udall	Amendment authorizes manufacturing activities in the National Science Foundation's Advanced Technological Education (ATE) program.	--Defeated by: Y-15; N-18.

5.	Mr. Gordon	Amendment ensures full funding for the network of MEP centers.	--Adopted by a voice vote.
6.	Mr. Smith, MI	Amendment would set the rate of increase in fiscal years 2006-2008 in the authorization for the MEP program to the rate of inflation in the most recent calendar year.	--Defeated by a voice vote.
7.	Mr. Honda	Amendment would authorize $169M for the Advanced Technology Program of which 50 percent of the funds will be available for a focused competition in the manufacturing sciences.	--Defeated by: Y-14; N-18.
8.	Mr. Costello	Amendment would require a study on the manufacturing and professional workforce to assess various trends relating to outsourcing, foreign investment, and reemployment.	--Defeated by: Y-13; N-16.
9. 9(a)	Ms. Jackson Lee Mr. Boehlert	Amendment would strike the review process language in the bill. Amendment offered by Mr. Boehlert to the Amendment Offered by Ms. Jackson Lee of Texas	 --Adopted by: Y-14; N-12. --Amendment to the amendment was adopted by a voice vote.
10.	Ms. Johnson	Amendment reauthorizes funding the Enterprise Integration Act which expires in 2005—starting at $20M in FY 2005 and increases with inflation through FY 2008.	--Defeated by: Y-10; N-12.
11.	Mr. Larson	Amendment would create an Under Secretary of Commerce for Manufacturing and Technology.	--Defeated by: Y-11; N-15.

12.	Mr. Baird	Amendment directs the Under Secretary of Commerce for Technology to transmit to Congress a plan to maximize the utilization of the Small Business Innovation Research Program and the Small Business Technology Transfer Program to support manufacturing sciences.	--Withdrawn by unanimous consent.
13.	Mr. Wu	Amendment would allow the federal cost-share for FY 2005 for the MEP program to go from one-third to one-half on a case-by-case basis.	--Defeated by: Y-14; N-16.
14.	Mr. Larson	Amendment would authorize funding for the Industries of the Future program within the Office of Industrial Technology at the Department of Energy.	--Defeated by: Y-14; N-16.

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Motion to Adopt the Bill, As Amended

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY	✓				
2405	56673	Mr. Hall, R-TX	✓				
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA	✓				
2338	52415	Mr. Rohrabacher, R-CA	✓				
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI	✓				
2412	52721	Mr. Bartlett, R-MD	✓				
1714	53831	Mr. Ehlers, R-MI	✓				
425	52472	Mr. Gutknecht, R-MN	✓				
2443	52006	Mr. Nethercutt, R-WA	✓				
2342	55565	Mr. Lucas, R-OK	✓				
1213	53515	Mrs. Biggert, R-IL	✓				
2245	55311	Mr. Gilchrest, R-MD	✓				
117	52561	Mr. Akin, R-MO					
1229	52371	Mr. Johnson, R-IL	✓				
1508	52565	Ms. Hart, R-PA	✓				
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA	✓				
124	50453	Mr. Bishop, R-UT					
1721	57772	Mr. Burgess, R-TX	✓				
315	54931	Mr. Bonner, R-AL	✓				
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX	✓				
2304	***54231***	***Mr. Gordon, D-TN***		✓			
2454	***55661***	***Mr. Costello, D-IL***		✓			
1511	***58885***	***Ms. Johnson, D-TX***					
2263	***55161***	***Ms. Woolsey, D-CA***		✓			
405	***56565***	***Mr. Lampson, D-TX***		✓			
1005	***52265***	***Mr. Larson, D-CT***		✓			
115	***52161***	***Mr. Udall, D-CO***		✓			
1023	***50855***	***Mr. Wu, D-OR***		✓			
1713	***52631***	***Mr. Honda, D-CA***		✓			
1505	***53032***	***Mr. Miller, D-NC***		✓			
504	***56831***	***Mr. Davis, D-TN***		✓			
2435	***53816***	***Ms. Jackson-Lee, D-TX***					
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***		✓			
1421	***53536***	***Mr. Baird, D-WA***		✓			
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***		✓			
410	***53011***	***Mr. Matheson, D-UT***					
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	19	13			

Attest: Vivian A. Testerman (Clerk)

AMENDMENT IN THE NATURE OF A SUBSTITUTE TO H.R. 3598 OFFERED BY MR. EHLERS

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 2004".

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 Interagency Com-
17 mittee shall be chaired by the Under Secretary of
18 Commerce for Technology.

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 "The
10 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 section:

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 **SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

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

13 (1) $110,000,000 for fiscal year 2005;
14 (2) $115,000,000 for fiscal year 2006;
15 (3) $120,000,000 for fiscal year 2007; and
16 (4) $125,000,000 for fiscal year 2008.

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

23 (1) $10,000,000 for fiscal year 2005;
24 (2) $10,000,000 for fiscal year 2006; and
25 (3) $10,000,000 for fiscal year 2007.

1 (c) FELLOWSHIPS.—There are authorized to be ap-
2 propriated to the Secretary of Commerce for Manufac-
3 turing Fellowships at the National Institute of Standards
4 and Technology under section 18(b) of the National Insti-
5 tute of Standards and Technology Act, as added by section
6 4 of this Act—
7 (1) $1,500,000 for fiscal year 2005;
8 (2) $1,750,000 for fiscal year 2006;
9 (3) $2,000,000 for fiscal year 2007; and
10 (4) $2,250,000 for fiscal year 2008.

AMENDMENT OFFERED BY MR. BOEHLERT TO THE AMENDMENT OFFERED BY MR. UDALL OF COLORADO

Page 3, lines 4 through 8, strike "Technology" and all that follows through "fiscal year 2008" and insert "Technology such sums as may be necessary for each of fiscal years 2005 through 2008".

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT**: Amendment Offered by Mr. Boehlert to the Amendment Offered by Mr. Udall of Colorado

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY	✓				
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA					
2338	52415	Mr. Rohrabacher, R-CA					
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI	✓				
2412	52721	Mr. Bartlett, R-MD	✓				
1714	53831	Mr. Ehlers, R-MI	✓				
425	52472	Mr. Gutknecht, R-MN	✓				
2443	52006	Mr. Nethercutt, R-WA	✓				
2342	55565	Mr. Lucas, R-OK	✓				
1213	53515	Mrs. Biggert, R-IL	✓				
2245	55311	Mr. Gilchrest, R-MD	✓				
117	52561	Mr. Akin, R-MO	✓				
1229	52371	Mr. Johnson, R-IL	✓				
1508	52565	Ms. Hart, R-PA	✓				
307	56365	Mr. Forbes, R-VA	✓				
1118	52931	Mr. Gingrey, R-GA	✓				
124	50453	Mr. Bishop, R-UT	✓				
1721	57772	Mr. Burgess, R-TX	✓				
315	54931	Mr. Bonner, R-AL	✓				
323	52706	Mr. Feeney, R-FL	✓				
1026	54005	Mr. Neugebauer, R-TX	✓				
2304	***54231***	***Mr. Gordon, D-TN***		✓			
2454	***55661***	***Mr. Costello, D-IL***		✓			
1511	***58885***	***Ms. Johnson, D-TX***		✓			
2263	***55161***	***Ms. Woolsey, D-CA***		✓			
405	***56565***	***Mr. Lampson, D-TX***					
1005	***52265***	***Mr. Larson, D-CT***		✓			
115	***52161***	***Mr. Udall, D-CO***		✓			
1023	***50855***	***Mr. Wu, D-OR***		✓			
1713	***52631***	***Mr. Honda, D-CA***		✓			
1505	***53032***	***Mr. Miller, D-NC***		✓			
504	***56831***	***Mr. Davis, D-TN***					
2435	***53816***	***Ms. Jackson-Lee, D-TX***		✓			
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***		✓			
431	***52865***	***Mr. Moore, D-KS***		✓			
1122	***56616***	***Mr. Weiner, D-NY***					
410	***53011***	***Mr. Matheson, D-UT***		✓			
503	***56131***	***Mr. Cardoza, D-CA***		✓			
		TOTAL	19	14			

Attest: Vivian A. Testerian (Clerk)

AMENDMENT OFFERED BY MR. UDALL OF COLORADO TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Redesignate section 6 as section 8.

After section 5, insert the following new sections:

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) $425,688,000 for fiscal year 2005, 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;

1 (E) $62,724,000 shall be for Material
2 Science and Engineering;
3 (F) $23,594,000 shall be for Building and
4 Fire Research;
5 (G) $60,660,000 shall be for Computer
6 Science and Applied Mathematics, of which
7 $2,800,000 shall be for activities in support of
8 the Help America Vote Act of 2002;
9 (H) $17,445,000 shall be for Technical As-
10 sistance; and
11 (I) $78,102,000 shall be for Research Sup-
12 port Activities;
13 (2) $446,951,000 for fiscal year 2006;
14 (3) $469,299,000 for fiscal year 2007; and
15 (4) $492,764,000 for fiscal year 2008.
16 (b) MALCOLM BALDRIGE NATIONAL QUALITY
17 AWARD PROGRAM.—There are authorized to be appro-
18 priated to the Secretary of Commerce for the Malcolm
19 Baldrige National Quality Award program under section
20 17 of the Stevenson-Wydler Technology Innovation Act of
21 1980 (15 U.S.C. 3711a)—
22 (1) $5,400,000 for fiscal year 2005;
23 (2) $5,535,000 for fiscal year 2006;
24 (3) $5,674,000 for fiscal year 2007; and
25 (4) $5,815,000 for fiscal year 2008.

1 (c) CONSTRUCTION AND MAINTENANCE.—There are
2 authorized to be appropriated to the Secretary of Com-
3 merce for construction and maintenance of facilities of the
4 National Institute of Standards and Technology—
5 (1) $59,000,000 for fiscal year 2005;
6 (2) $91,000,000 for fiscal year 2006;
7 (3) $80,000,000 for fiscal year 2007; and
8 (4) $106,000,000 for fiscal year 2008.

9 **SEC. 7. STANDARDS EDUCATION PROGRAM.**

10 (a) PROGRAM AUTHORIZED.—(1) As part of the
11 Teacher Science and Technology Enhancement Institute
12 Program, the Director of the National Institute of Stand-
13 ards and Technology shall carry out a Standards Edu-
14 cation program to award grants to institutions of higher
15 education to support efforts by such institutions to develop
16 curricula on the role of standards in the fields of engineer-
17 ing, business, science, and economics. The curricula
18 should address topics such as—
19 (A) development of technical standards;
20 (B) demonstrating conformity to standards;
21 (C) intellectual property and antitrust issues;
22 (D) standardization as a key element of busi-
23 ness strategy;
24 (E) survey of organizations that develop stand-
25 ards;

1 (F) the standards life cycle;
2 (G) case studies in effective standardization;
3 (H) managing standardization activities; and
4 (I) managing organizations that develop stand-
5 ards.
6 (2) Grants shall be awarded under this section on a
7 competitive, merit-reviewed basis and shall require cost-
8 sharing from non-Federal sources.
9 (b) SELECTION PROCESS.—(1) An institution of
10 higher education seeking funding under this section shall
11 submit an application to the Director at such time, in such
12 manner, and containing such information as the Director
13 may require. The application shall include at a
14 minimum—
15 (A) a description of the content and schedule
16 for adoption of the proposed curricula in the courses
17 of study offered by the applicant; and
18 (B) a description of the source and amount of
19 cost-sharing to be provided.
20 (2) In evaluating the applications submitted under
21 paragraph (1) the Director shall consider, at a
22 minimum—
23 (A) the level of commitment demonstrated by
24 the applicant in carrying out and sustaining lasting

1 curricula changes in accordance with subsection
2 (a)(1); and
3 (B) the amount of cost-sharing provided.
4 (c) AUTHORIZATION OF APPROPRIATIONS.—There
5 are authorized to be appropriated to the Secretary of Com-
6 merce for the Teacher Science and Technology Enhance-
7 ment Institute program of the National Institute of Stand-
8 ards and Technology—
9 (1) $773,000 for fiscal year 2005;
10 (2) $796,000 for fiscal year 2006;
11 (3) $820,000 for fiscal year 2007; and
12 (4) $844,000 for fiscal year 2008.

AMENDMENT OFFERED BY MR. UDALL OF COLORADO TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Page 4, line 3, after "Interagency Committee.", insert "The Advisory Committee shall be composed of no more than 25 members appointed by the President, including the following:

"(A) 4 members from outside the Federal Government who are eminent in the manufacturing industry, at least 1 of whom is representative of small and medium-sized companies in such industry.

"(B) 4 members from the academic research community who are eminent in their field and have expertise in the manufacturing sciences.

"(C) 3 members from labor unions, a majority of whose membership have manufacturing jobs.".

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Substitute Amendment Offered by Mr. Udall - Advisory Committee

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA					
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA		✓			
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO					
1229	52371	Mr. Johnson, R-IL		✓			
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA		✓			
124	50453	Mr. Bishop, R-UT		✓			
1721	57772	Mr. Burgess, R-TX		✓			
315	54931	Mr. Bonner, R-AL					
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX		✓			
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***	✓				
1511	***58885***	***Ms. Johnson, D-TX***	✓				
2263	***55161***	***Ms. Woolsey, D-CA***	✓				
405	***56565***	***Mr. Lampson, D-TX***	✓				
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***					
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***	✓				
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***		✓			
410	***53011***	***Mr. Matheson, D-UT***	✓				
503	***56131***	***Mr. Cardoza, D-CA***	✓				
		TOTAL	15	15			

Attest: Vernon A. Venner (Clerk)

AMENDMENT OFFERED BY MR. UDALL OF COLORADO TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Page 3, line 23, through page 5, line 8, amend subection (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 the President's
5 Manufacturing Council to be chaired by the Under
6 Secretary for Commerce for Technology. The mem-
7 bership of the Council shall consist of non-Federal
8 representatives who are qualified to provide advice
9 on 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;

1 (B) representatives from labor unions and
2 professional associations, a majority of whose
3 members work in manufacturing industries; and
4 (C) representatives of research and aca-
5 demic institutions.
6 (2) DUTY.—The primary duty of the Presi-
7 dent's Manufacturing Council shall be to develop a
8 National Manufacturing Strategy. In developing this
9 Strategy, the Council shall consider issues such as—
10 (A) trends in development in manufac-
11 turing, including employment, skills require-
12 ments, outsourcing, productivity, and any other
13 factors affecting the manufacturing sector;
14 (B) Federal research and development ini-
15 tiatives on subjects such as nanotechnology,
16 green chemistry, alternative energy, and infor-
17 mation technology which could significantly im-
18 pact United States manufacturing abilities, and
19 how they should be coordinated and integrated
20 with the Strategy;
21 (C) technical standards and their impor-
22 tance for international competitiveness; and
23 (D) the role of the National Institute of
24 Standards and Technology in supporting
25 United States industrial competitiveness.

1 (3) REPORTS.—

2 (A) ISSUE REPORTS.—Not later than 1
3 year after the date of enactment of this Act, the
4 President's Manufacturing Council shall trans-
5 mit to the Congress a report on the issues de-
6 scribed in paragraph (2), as well as any other
7 issues the Council considers appropriate. The
8 Council shall update such report periodically, as
9 appropriate.

10 (B) NATIONAL MANUFACTURING STRAT-
11 EGY.—Not later than 18 months after the date
12 of enactment of this Act, the Council shall
13 transmit to the Congress a report containing
14 the National Manufacturing Strategy required
15 under paragraph (2), including specific actions
16 and goals for the Federal Government. The
17 Council shall update the Strategy periodically,
18 as appropriate.

19 (C) OVERSIGHT REPORT.—Not later than
20 1 year after the transmittal of the National
21 Manufacturing Strategy under subparagraph
22 (B), and annually thereafter, the President's
23 Manufacturing Council shall transmit to the
24 Congress an assessment of Federal agencies'
25 implementation of the Strategy.

AMENDMENT OFFERED BY MR. UDALL OF COLORADO TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Redesignate section 6 as section 7.

After section 5, insert the following new section:

1 **SEC. 6. 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) and for the Manufacturing Skill Standards
10 Council formed as the voluntary partnership for the manu-
11 facturing occupational cluster under section 504(b) of the
12 National Skill Standards Act of 1994 (20 U.S.C.
13 5934(b))—
14 (1) $70,000,000 for fiscal year 2005, of which
15 at least $20,000,000 shall be devoted to the edu-
16 cation of technicians for manufacturing fields,

1 $5,000,000 of which shall be used to support the
2 work of the Manufacturing Skill Standards Council
3 in educating and preparing manufacturing techni-
4 cians for certification;
5 (2) $80,000,000 for fiscal year 2006, of which
6 at least $30,000,000 shall be devoted to the edu-
7 cation of technicians for manufacturing fields,
8 $5,000,000 of which shall be used to support the
9 work of the Manufacturing Skill Standards Council
10 in educating and preparing manufacturing techni-
11 cians for certification;
12 (3) $90,000,000 for fiscal year 2007, of which
13 at least $40,000,000 shall be devoted to the edu-
14 cation of technicians for manufacturing fields,
15 $5,000,000 of which shall be used to support the
16 work of the Manufacturing Skill Standards Council
17 in educating and preparing manufacturing techni-
18 cians for certification; and
19 (4) $100,000,000 for fiscal year 2008, of which
20 at least $50,000,000 shall be devoted to the edu-
21 cation of technicians for manufacturing fields,
22 $5,000,000 of which shall be used to support the
23 work of the Manufacturing Skill Standards Council
24 in educating and preparing manufacturing techni-
25 cians for certification.

1 (b) AMENDMENT.—Section 3 of the Scientific and
2 Advanced-Technology Act of 1992 (42 U.S.C. 1862i) is
3 amended by striking "advanced-technology fields" each
4 place it appears and inserting "manufacturing and ad-
5 vanced-technology fields".

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 SUBJECT: Amendment Offered by Mr. Udall - Advanced Technology Education Program

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA		✓			
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA					
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO		✓			
1229	52371	Mr. Johnson, R-IL		✓			
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA		✓			
124	50453	Mr. Bishop, R-UT		✓			
1721	57772	Mr. Burgess, R-TX		✓			
315	54931	Mr. Bonner, R-AL		✓			
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX		✓			
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***	✓				
1511	***58885***	***Ms. Johnson, D-TX***	✓				
2263	***55161***	***Ms. Woolsey, D-CA***	✓				
405	***56565***	***Mr. Lampson, D-TX***	✓				
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***					
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***	✓				
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***					
410	***53011***	***Mr. Matheson, D-UT***	✓				
503	***56131***	***Mr. Cardoza, D-CA***	✓				
		TOTAL	15	18			

Attest: [signature] (Clerk)

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

Page 12, lines 11 through 16, strike ", including the" and all that follows through "fiscal year 2008" and insert "—

"(1) $110,000,000 for fiscal year 2005, 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));

"(2) $115,000,000 for fiscal year 2006, 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));

"(3) $120,000,000 for fiscal year 2007, of which not more than $4,200,000 shall be for the competitive grant program under section 25(e) of such Act (15 U.S.C. 278k(e)); and

"(4) $125,000,000 for fiscal year 2008, of which not more than $4,300,000 shall be for the competitive grant program under section 25(e) of such Act (15 U.S.C. 278k(e))".

AMENDMENT OFFERED BY MR. SMITH OF MICHIGAN

TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Page 12, lines 12 through 16, strike "(15 U.S.C. 278k(e))" and all the follows through "fiscal year 2008" and insert "(15 U.S.C. 278k(c), $110,000,000 for fiscal year 2005, and for each of fiscal years 2006 through 2008, such amount as adjusted for inflation according to the most recent January to December annual change in the Consumer Price Index for All Urban Consumers, as determined by the Bureau of Labor Statistics".

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

At the end of section 6, 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) $169,000,000 for fiscal year 2005 of which
7 25 percent of funds made available for new awards
8 shall be for a focused competition in manufacturing
9 sciences;
10 (2) $169,000,000 for fiscal year 2006 of which
11 25 percent of funds made available for new awards
12 shall be for a focused competition in manufacturing
13 sciences;
14 (3) $169,000,000 for fiscal year 2007 of which
15 25 percent of funds made available for new awards
16 shall be for a focused competition in manufacturing
17 sciences; and

1 (4) $169,000,000 for fiscal year 2008 of which
2 25 percent of funds made available shall be for a fo-
3 cused competition in manufacturing sciences.

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Amendment Offered by Mr. Honda - Advanced Technology Program

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX		✓			
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA			✓		
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA			✓		
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA		✓			
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO		✓			
1229	52371	Mr. Johnson, R-IL					
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA		✓			
124	50453	Mr. Bishop, R-UT		✓			
1721	57772	Mr. Burgess, R-TX		✓			
315	54931	Mr. Bonner, R-AL		✓			
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX		✓			
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***	✓				
1511	***58885***	***Ms. Johnson, D-TX***	✓				
2263	***55161***	***Ms. Woolsey, D-CA***					
405	***56565***	***Mr. Lampson, D-TX***	✓				
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***	✓				
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***		✓			
1421	***53536***	***Mr. Baird, D-WA***	✓				
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***					
410	***53011***	***Mr. Matheson, D-UT***	✓				
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	14	18			

Attest: Vivian A. Cassidy (Clerk)

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

Redesignate section 6 as section 7.

After section 5, insert the following new section:

1 **SEC. 6. 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 Under Secretary of Com-
5 merce for Technology shall enter into a contract with the
6 RAND Corporation, or if such Corporation is unwilling,
7 a similar organization, for a study assessing—
8 (1) the nature and volume of United States
9 manufacturing and professional jobs moving outside
10 the United States;
11 (2) increases in jobs that support exports to the
12 United States market;
13 (3) reemployment prospects for United States
14 workers displaced by United States manufacturing
15 and professional jobs moving outside the United
16 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 number of jobs created in the United
5 States by foreign investment in the United States;
6 and
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.
11 (b) REPORT TO CONGRESS.—Not later than 1 year
12 after the date of enactment of this Act, the Under Sec-
13 retary of Commerce for Technology shall transmit to the
14 Congress a report on the results of the study conducted
15 under subsection (a).

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT**: Amendment by Mr. Costello - Manufacturing and Professional Employment Study

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX	✓				
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA					
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA		✓			
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO					
1229	52371	Mr. Johnson, R-IL					
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA		✓			
1118	52931	Mr. Gingrey, R-GA		✓			
124	50453	Mr. Bishop, R-UT		✓			
1721	57772	Mr. Burgess, R-TX					
315	54931	Mr. Bonner, R-AL		✓			
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX		✓			
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***	✓				
1511	***58885***	***Ms. Johnson, D-TX***	✓				
2263	***55161***	***Ms. Woolsey, D-CA***					
405	***56565***	***Mr. Lampson, D-TX***	✓				
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***					
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***	✓				
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***					
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***					
410	***53011***	***Mr. Matheson, D-UT***	✓				
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	13	16			

Attest: Vernon A. Venuin (Clerk)

AMENDMENT OFFERED BY MR. BOEHLERT TO THE AMENDMENT OFFERED BY MS. JACKSON-LEE OF TEXAS

Line 1, strike "None" and insert "In any fiscal year for which appropriations are $106,000,000 or greater, none".

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Amendment Offered by Mr. Boehlert to the Amendment Offered by Ms. Jackson Lee

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY	✓				
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA					
2338	52415	Mr. Rohrabacher, R-CA	✓				
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI	✓				
2412	52721	Mr. Bartlett, R-MD	✓				
1714	53831	Mr. Ehlers, R-MI	✓				
425	52472	Mr. Gutknecht, R-MN	✓				
2443	52006	Mr. Nethercutt, R-WA	✓				
2342	55565	Mr. Lucas, R-OK	✓				
1213	53515	Mrs. Biggert, R-IL	✓				
2245	55311	Mr. Gilchrest, R-MD	✓				
117	52561	Mr. Akin, R-MO					
1229	52371	Mr. Johnson, R-IL					
1508	52565	Ms. Hart, R-PA	✓				
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA					
124	50453	Mr. Bishop, R-UT	✓				
1721	57772	Mr. Burgess, R-TX					
315	54931	Mr. Bonner, R-AL	✓				
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX	✓				
2304	***54231***	***Mr. Gordon, D-TN***		✓			
2454	***55661***	***Mr. Costello, D-IL***					
1511	***58885***	***Ms. Johnson, D-TX***		✓			
2263	***55161***	***Ms. Woolsey, D-CA***					
405	***56565***	***Mr. Lampson, D-TX***		✓			
1005	***52265***	***Mr. Larson, D-CT***		✓			
115	***52161***	***Mr. Udall, D-CO***		✓			
1023	***50855***	***Mr. Wu, D-OR***					
1713	***52631***	***Mr. Honda, D-CA***		✓			
1505	***53032***	***Mr. Miller, D-NC***		✓			
504	***56831***	***Mr. Davis, D-TN***		✓			
2435	***53816***	***Ms. Jackson-Lee, D-TX***		✓			
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***		✓			
431	***52865***	***Mr. Moore, D-KS***		✓			
1122	***56616***	***Mr. Weiner, D-NY***					
410	***53011***	***Mr. Matheson, D-UT***		✓			
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	14	12			

Attest: Vivian A. Testerman (Clerk)

AMENDMENT OFFERED BY MS. JACKSON-LEE OF TEXAS TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Page 12, after line 16, insert the following:

1 None of the funds appropriated pursuant to this sub-
2 section shall be used for a general recompetition of Cen-
3 ters established under section 25 of the National Institute
4 of Standards and Technology Act (15 U.S.C. 278k).

AMENDMENT OFFERED BY MS. EDDIE BERNICE JOHNSON OF TEXAS TO THE AMENDMENT IN THE NATURE OF A SUBSTITUTE

Redesignate section 6 as section 7.

After section 5, insert the following new section:

1 **SEC. 6. ENTERPRISE INTEGRATION.**

2 There are authorized to be appropriated to the Sec-
3 retary of Commerce for the activities of the National Insti-
4 tute of Standards and Technology under the Enterprise
5 Integration Act of 2002—

6 (1) $20,000,000 for fiscal year 2005;

7 (2) $20,500,000 for fiscal year 2006;

8 (3) $21,013,000 for fiscal year 2007; and

9 (4) $21,538,000 for fiscal year 2008.

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Amendment by Ms. Johnson - Enterprise Integration

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA					
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA					
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO					
1229	52371	Mr. Johnson, R-IL		✓			
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA					
124	50453	Mr. Bishop, R-UT					
1721	57772	Mr. Burgess, R-TX					
315	54931	Mr. Bonner, R-AL		✓			
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX					
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***					
1511	***58885***	***Ms. Johnson, D-TX***	✓				
2263	***55161***	***Ms. Woolsey, D-CA***					
405	***56565***	***Mr. Lampson, D-TX***					
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***					
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***	✓				
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***	✓				
431	***52865***	***Mr. Moore, D-KS***					
1122	***56616***	***Mr. Weiner, D-NY***					
410	***53011***	***Mr. Matheson, D-UT***	✓				
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	10	12			

Attest: Vivian A. Testerman (Clerk)

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

Redesignate section 6 as section 7.

After section 5, insert the following new section:

1 **SEC. 6. MANUFACTURING AND TECHNOLOGY ADMINISTRA-**
2 **TION.**
3 Section 5 of the Stevenson-Wydler Technology Inno-
4 vation Act of 1980 (15 U.S.C. 3704) is amended to read
5 as follows:
6 **"SEC. 5. MANUFACTURING AND TECHNOLOGY ADMINISTRA-**
7 **TION.**
8 "(a) ESTABLISHMENT.—There is established in the
9 Department of Commerce a Manufacturing and Tech-
10 nology Administration, which shall operate in accordance
11 with the provisions, findings, and purposes of this Act.
12 The Manufacturing and Technology Administration shall
13 include—
14 "(1) the National Institute of Standards and
15 Technology;
16 "(2) the National Technical Information Serv-
17 ice; and

1 "(3) a policy analysis office, which shall be
2 known as the Office of Manufacturing and Tech-
3 nology Policy.
4 "(b) UNDER SECRETARY AND ASSISTANT SECRE-
5 TARIES.—The President shall appoint, by and with the ad-
6 vice and consent of the Senate, to the extent provided for
7 in appropriations Acts—
8 "(1) an Under Secretary of Commerce for Man-
9 ufacturing and Technology, who shall be com-
10 pensated at the rate provided for level III of the Ex-
11 ecutive Schedule in section 5314 of title 5, United
12 States Code;
13 "(2) an Assistant Secretary of Manufacturing
14 who shall serve as a policy analyst for the Under
15 Secretary; and
16 "(3) an Assistant Secretary of Technology who
17 shall serve as a policy analyst for the Under Sec-
18 retary.
19 "(c) DUTIES.—The Secretary, through the Under
20 Secretary, as appropriate, shall—
21 "(1) manage the Manufacturing and Tech-
22 nology Administration and supervise its agencies,
23 programs, and activities;
24 "(2) conduct manufacturing and technology pol-
25 icy analyses to improve United States industrial pro-

1 ductivity, manufacturing capabilities, and innova-
2 tion, and cooperate with United States industry to
3 improve its productivity, manufacturing capabilities,
4 and ability to compete successfully in an inter-
5 national marketplace;
6 "(3) identify manufacturing and technological
7 needs, problems, and opportunities within and across
8 industrial sectors, that, if addressed, could make sig-
9 nificant contributions to the economy of the United
10 States;
11 "(4) assess whether the capital, technical, and
12 other resources being allocated to domestic indus-
13 trial sectors which are likely to generate new tech-
14 nologies are adequate to meet private and social de-
15 mands for goods and services and to promote pro-
16 ductivity and economic growth;
17 "(5) propose and support studies and policy ex-
18 periments, in cooperation with other Federal agen-
19 cies, to determine the effectiveness of measures for
20 improving United States manufacturing capabilities
21 and productivity;
22 "(6) provide that cooperative efforts to stimu-
23 late industrial competitiveness and innovation be un-
24 dertaken between the Under Secretary and other of-

1 ficials in the Department of Commerce responsible
2 for such areas as trade and economic assistance;
3 "(7) encourage and assist the creation of cen-
4 ters and other joint initiatives by State or local gov-
5 ernments, regional organizations, private businesses,
6 institutions of higher education, nonprofit organiza-
7 tions, or Federal laboratories to encourage tech-
8 nology transfer, to encourage innovation, and to pro-
9 mote an appropriate climate for investment in tech-
10 nology-related industries;
11 "(8) propose and encourage cooperative re-
12 search involving appropriate Federal entities, State
13 or local governments, regional organizations, colleges
14 or universities, nonprofit organizations, or private
15 industry to promote the common use of resources, to
16 improve training programs and curricula, to stimu-
17 late interest in manufacturing and technology ca-
18 reers, and to encourage the effective dissemination
19 of manufacturing and technology skills within the
20 wider community;
21 "(9) serve as a focal point for discussions
22 among United States companies on topics of interest
23 to industry and labor, including discussions regard-
24 ing manufacturing, competitiveness, and emerging
25 technologies;

1 "(10) consider government measures with the
2 potential of advancing United States technological
3 innovation and exploiting innovations of foreign ori-
4 gin and publish the results of studies and policy ex-
5 periments; and
6 "(11) assist in the implementation of the Metric
7 Conversion Act of 1975 (15 U.S.C. 205a et seq.).".

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Amendment Offered by Mr. Larson - Manufacturing and Technology Administration

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA		✓			
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA					
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO					
1229	52371	Mr. Johnson, R-IL		✓			
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA					
124	50453	Mr. Bishop, R-UT		✓			
1721	57772	Mr. Burgess, R-TX		✓			
315	54931	Mr. Bonner, R-AL		✓			
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX					
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***					
1511	***58885***	***Ms. Johnson, D-TX***					
2263	***55161***	***Ms. Woolsey, D-CA***					
405	***56565***	***Mr. Lampson, D-TX***					
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***	✓				
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***					
1421	***53536***	***Mr. Baird, D-WA***	✓				
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***					
410	***53011***	***Mr. Matheson, D-UT***	✓				
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	11	15			

Attest: Kevin A. Ferguson (Clerk)

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

Redesignate section 6 as section 7.

After section 5, insert the following new section:

1 **SEC. 6. SMALL BUSINESS INNOVATION RESEARCH/SMALL**
2 **BUSINESS TECHNOLOGY TRANSFER PRO-**
3 **GRAMS.**

4 Not later than 6 months after the date of enactment
5 of this Act, the Under Secretary of Commerce for Tech-
6 nology shall develop and transmit to the Congress a plan
7 to maximize the utilization of Federal programs such as
8 the Small Business Innovation Research Program and the
9 Small Business Technology Transfer Program to support
10 manufacturing sciences. Not later than 18 months after
11 the date of enactment of this Act, the Under Secretary
12 of Commerce for Technology shall transmit to the Con-
13 gress a report assessing how Federal agencies are imple-
14 menting the plan and including a description of the
15 amount of Small Business Innovative Research and Small
16 Business Technology Transfer funds supporting the plan.

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

Redesignate section 6 as section 7. .

After section 5, insert the following new section:

1 **SEC. 6. MANUFACTURING TECHNOLOGY CENTER COST**
2 **SHARING.**

3 Section 25(c)(5) of the National Institute of Stand-
4 ards and Technology Act (15 U.S.C. 278k(c)(5)) is
5 amended by inserting ", except that for fiscal year 2005
6 such funding may be as much as a one half of such costs"
7 after "Center under the program".

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Amendment Offered by Mr. Wu - Manufacturing Technology Center Cost Sharing

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX					
2466	52011	Mr. Weldon, R-PA		✓			
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA					
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA					
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO					
1229	52371	Mr. Johnson, R-IL		✓			
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA					
1118	52931	Mr. Gingrey, R-GA		✓			
124	50453	Mr. Bishop, R-UT					
1721	57772	Mr. Burgess, R-TX		✓			
315	54931	Mr. Bonner, R-AL		✓			
323	52706	Mr. Feeney, R-FL					
1026	54005	Mr. Neugebauer, R-TX		✓			
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***	✓				
1511	***58885***	***Ms. Johnson, D-TX***	✓				
2263	***55161***	***Ms. Woolsey, D-CA***	✓				
405	***56565***	***Mr. Lampson, D-TX***	✓				
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***					
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***	✓				
1421	***53536***	***Mr. Baird, D-WA***	✓				
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***	✓				
410	***53011***	***Mr. Matheson, D-UT***					
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	14	16			

Attest: Kevin A. Feneri (Clerk)

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

Redesignate section 6 as section 7.

After section 5, insert the following new section:

1 **SEC. 6. INDUSTRIES OF THE FUTURE.**

2 There are authorized to be appropriated to the Sec-
3 retary of Energy for the Industries of the Future
4 program—

5 (1) $100,000,000 for fiscal year 2005;

6 (2) $105,000,000 for fiscal year 2006;

7 (3) $110,000,000 for fiscal year 2007; and

8 (4) $115,000,000 for fiscal year 2008.

COMMITTEE ON SCIENCE - ROLL CALL – 108th CONGRESS

DATE: 6/16/04 **SUBJECT:** Amendment Offered by Mr. Larson - Industries of the Future

Rm.	Phone	Member	Yes	No	Not Voting	Present	Absent
2246	53665	Mr. Boehlert, R-NY		✓			
2405	56673	Mr. Hall, R-TX					
2231	54236	Mr. Lamar Smith, R-TX		✓			
2466	52011	Mr. Weldon, R-PA		✓			
2338	52415	Mr. Rohrabacher, R-CA		✓			
2201	51986	Mr. Calvert, R-CA		✓			
2305	56276	Mr. Nick Smith, R-MI		✓			
2412	52721	Mr. Bartlett, R-MD		✓			
1714	53831	Mr. Ehlers, R-MI		✓			
425	52472	Mr. Gutknecht, R-MN		✓			
2443	52006	Mr. Nethercutt, R-WA		✓			
2342	55565	Mr. Lucas, R-OK		✓			
1213	53515	Mrs. Biggert, R-IL		✓			
2245	55311	Mr. Gilchrest, R-MD		✓			
117	52561	Mr. Akin, R-MO		✓			
1229	52371	Mr. Johnson, R-IL		✓			
1508	52565	Ms. Hart, R-PA		✓			
307	56365	Mr. Forbes, R-VA		✓			
1118	52931	Mr. Gingrey, R-GA		✓			
124	50453	Mr. Bishop, R-UT		✓			
1721	57772	Mr. Burgess, R-TX		✓			
315	54931	Mr. Bonner, R-AL					
323	52706	Mr. Feeney, R-FL		✓			
1026	54005	Mr. Neugebauer, R-TX		✓			
2304	***54231***	***Mr. Gordon, D-TN***	✓				
2454	***55661***	***Mr. Costello, D-IL***	✓				
1511	***58885***	***Ms. Johnson, D-TX***	✓				
2263	***55161***	***Ms. Woolsey, D-CA***	✓				
405	***56565***	***Mr. Lampson, D-TX***	✓				
1005	***52265***	***Mr. Larson, D-CT***	✓				
115	***52161***	***Mr. Udall, D-CO***	✓				
1023	***50855***	***Mr. Wu, D-OR***	✓				
1713	***52631***	***Mr. Honda, D-CA***	✓				
1505	***53032***	***Mr. Miller, D-NC***	✓				
504	***56831***	***Mr. Davis, D-TN***	✓				
2435	***53816***	***Ms. Jackson-Lee, D-TX***					
102	***53072***	***Ms. Lofgren, D-CA***					
1030	***55911***	***Mr. Sherman, D-CA***	✓				
1421	***53536***	***Mr. Baird, D-WA***	✓				
431	***52865***	***Mr. Moore, D-KS***	✓				
1122	***56616***	***Mr. Weiner, D-NY***	✓				
410	***53011***	***Mr. Matheson, D-UT***					
503	***56131***	***Mr. Cardoza, D-CA***					
		TOTAL	14	16			

Attest: Vivian A. Testani (Clerk)