

103^D CONGRESS
1ST SESSION

H. R. 820

IN THE SENATE OF THE UNITED STATES

MAY 24 (legislative day, APRIL 19), 1993

Received; read twice and referred to the Committee on Commerce, Science,
and Transportation

AN ACT

To amend the Stevenson-Wydler Technology Innovation Act of 1980 to enhance manufacturing technology development and transfer, to authorize appropriations for the Technology Administration of the Department of Commerce, including the National Institute of Standards and Technology, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **TITLE I—GENERAL PROVISIONS**

4 **SEC. 101. SHORT TITLE; TABLE OF CONTENTS.**

5 (a) SHORT TITLE.—This Act may be cited as the
6 “National Competitiveness Act of 1993”.

1 (b) TABLE OF CONTENTS.—

TITLE I—GENERAL PROVISIONS

- Sec. 101. Short title; table of contents.
- Sec. 102. Findings.
- Sec. 103. Purposes.
- Sec. 104. Definitions.

TITLE II—MANUFACTURING

Subtitle A—Manufacturing Technology and Extension

- Sec. 201. Short title.
- Sec. 202. Findings, purpose, and statement of policy.
- Sec. 203. Role of the Department of Commerce.
- Sec. 204. National Technology Outreach Program.
- Sec. 205. Advanced Manufacturing Technology Development Program.
- Sec. 206. Miscellaneous and conforming amendments.
- Sec. 207. Manufacturing Technology Centers.
- Sec. 208. State Technology Extension Program.

Subtitle B—National Science Foundation Manufacturing Programs

- Sec. 211. Role of the National Science Foundation in manufacturing.
- Sec. 212. Engineering and Cooperative Research Centers.
- Sec. 213. Manufacturing traineeships and fellowships.
- Sec. 214. Total quality management.

TITLE III—CRITICAL TECHNOLOGIES

Subtitle A—Benchmarking Science and Technology

- Sec. 301. Benchmarking United States science and technology against foreign capabilities.

Subtitle B—Advanced Technology Program

- Sec. 321. Development of program plan.
- Sec. 322. Large scale research and development consortia.
- Sec. 323. Technical amendments.
- Sec. 324. Country qualification notice.
- Sec. 325. Recoupment.

Subtitle C—Civilian Technology Loan Program

- Sec. 331. Loan and loan guarantee authority.
- Sec. 332. Operating plan and effective date.
- Sec. 333. Terms and conditions.
- Sec. 334. Technical assistance for lenders and borrowers.
- Sec. 335. Outreach to economically depressed areas.
- Sec. 336. Socially and economically disadvantaged individuals.
- Sec. 337. Definitions.

Subtitle D—Civilian Technology Development Program

- Sec. 341. Short title.
- Sec. 342. Definitions.

- Sec. 343. Establishment and purpose.
- Sec. 344. Advisory Committee.
- Sec. 345. Organization and licensing.
- Sec. 346. Capital and management requirements.
- Sec. 347. Financing for licensees.
- Sec. 348. Issuance and guarantee of trust certificates.
- Sec. 349. Venture capital for qualified business concerns.
- Sec. 350. Operation.
- Sec. 351. Regulations; liability.
- Sec. 352. Technical assistance for licensees and qualified business concerns.
- Sec. 353. Performance measures; Annual report.
- Sec. 354. Reports, investigations, and examinations.
- Sec. 355. Revocation and suspension of licenses; cease and desist orders.
- Sec. 356. Injunctive relief.
- Sec. 357. Conflicts of interest.
- Sec. 358. Removal or suspension of directors and officers.
- Sec. 359. Violations.
- Sec. 360. Civil penalties.
- Sec. 361. Antitrust savings clause.

TITLE IV—MISCELLANEOUS

- Sec. 401. Department of Commerce Technology Advisory Board.
- Sec. 402. International standardization.
- Sec. 403. Malcolm Baldrige Award amendments.
- Sec. 404. Cooperative research and development agreements.
- Sec. 405. Competitiveness assessments and evaluations.
- Sec. 406. Study of semiconductor lithography technologies.
- Sec. 407. American workforce quality partnerships.
- Sec. 408. Severability.
- Sec. 409. Sunset.
- Sec. 410. Use of domestic products.
- Sec. 411. National Quality Program.
- Sec. 412. Definitions.
- Sec. 413. Fastener Quality Act amendments.

TITLE V—AUTHORIZATIONS OF APPROPRIATIONS

- Sec. 501. Technology Administration.
- Sec. 502. National Institute of Standards and Technology.
- Sec. 503. Additional activities of the Technology Administration.
- Sec. 504. National Science Foundation.
- Sec. 505. Availability of appropriations.
- Sec. 506. Prohibitions.

1 **SEC. 102. FINDINGS.**

2 The Congress finds that—

- 3 (1) the creation, development, and adoption of
- 4 advanced technologies are significant determinants

1 of sustainable economic growth, productivity im-
2 provement, and competitive standing;

3 (2) over the last decade, the rate of advanced
4 technology adoption in the United States has been
5 about half that of some prominent foreign nations
6 and has contributed to a relative decline in United
7 States industrial competitiveness;

8 (3) maintaining a highly competitive manufac-
9 turing base in the United States is essential for eco-
10 nomic prosperity and national welfare and requires
11 continuous development and adoption of advanced
12 manufacturing technologies that will enable United
13 States manufacturers to develop innovative products
14 rapidly and manufacture goods of the highest quality
15 at competitive prices;

16 (4) there is general agreement on which fields
17 of technology are critical for economic competitive-
18 ness through the first decade of the next century,
19 but the United States Government must pursue a
20 comprehensive strategy to ensure that the appro-
21 priate research, development, and applications activi-
22 ties and other reforms occur so these technologies
23 are readily available to United States manufacturers
24 for incorporation into products made in the United
25 States;

1 (5) technology-based products of the twenty-
2 first century must be developed incorporating the
3 values of sustainable development, including low en-
4 ergy and material use, safety, recyclability, and
5 minimal pollution;

6 (6) the cost of and difficulty in obtaining in-
7 vestment capital for small high technology compa-
8 nies are significant deterrents to their formation, de-
9 velopment, and growth;

10 (7) standardization of weights and measures,
11 including development and promotion of product and
12 quality standards, has a significant role to play in
13 competitiveness;

14 (8) strategic technology planning for sustain-
15 able economic growth, the support of critical civilian
16 technology research, development, and application,
17 and advancement of manufacturing technology re-
18 search, development, and adoption are appropriate
19 Government roles; and

20 (9) programs established under this Act, and
21 the amendments made by this Act, shall be funded
22 as a result of shifting the total Federal investment
23 in research and development to achieve a balance be-
24 tween support for defense and civilian activities, and

1 shall not be financed through additional deficit
2 spending.

3 **SEC. 103. PURPOSES.**

4 The purposes of this Act are to—

5 (1) promote and facilitate the creation, develop-
6 ment, and adoption of technologies by United States
7 companies throughout the Nation that will contrib-
8 ute significantly to United States competitiveness,
9 employment, and sustainable economic growth;

10 (2) improve the competitiveness of United
11 States manufacturers, particularly small businesses,
12 by developing a nationwide technology outreach pro-
13 gram to improve access to information, expertise,
14 technology, and management practices required to
15 compete throughout the world;

16 (3) promote the development and rapid applica-
17 tion of advanced manufacturing technologies and
18 processes by United States manufacturers, with em-
19 phasis on environmentally sound practices and sus-
20 tainable economic growth;

21 (4) stimulate long-term investment in United
22 States companies engaged in development or utiliza-
23 tion of critical or other advanced technologies;

24 (5) establish mechanisms to ensure synergistic
25 linkages between Federal, State, and local initiatives

1 aimed at enhancing the competitiveness of United
2 States companies;

3 (6) enhance and expand the core programs of
4 the National Institute of Standards and Technology,
5 including the Advanced Technology Program;

6 (7) monitor and assess foreign technology capa-
7 bilities relative to those of the United States in order
8 to assist United States companies and policymakers
9 in identifying and responding to competitive oppor-
10 tunities and challenges; and

11 (8) facilitate cooperation among Federal agen-
12 cies with the goal of achieving an integrated national
13 effort to improve United States competitiveness, em-
14 ployment, and sustainable growth.

15 **SEC. 104. DEFINITIONS.**

16 For purposes of this Act—

17 (1) the term “advanced manufacturing tech-
18 nology” has the meaning given such term in section
19 4 of the Stevenson-Wydler Technology Innovation
20 Act of 1980, as amended by section 206(a) of this
21 Act;

22 (2) the term “critical technologies” means tech-
23 nologies identified as critical technologies pursuant
24 to section 603(d) of the National Science and Tech-

1 nology Policy, Organization, and Priorities Act of
2 1976 (42 U.S.C. 6683(d));

3 (3) the term “Director” means the Director of
4 the Institute;

5 (4) the term “Institute” means the National In-
6 stitute of Standards and Technology;

7 (5) the term “modern technology” has the
8 meaning given such term in section 4 of the Steven-
9 son-Wydler Technology Innovation Act of 1980, as
10 amended by section 206(a) of this Act;

11 (6) the term “Secretary” means the Secretary
12 of Commerce;

13 (7) the term “small business” means a United
14 States company that is a small business within the
15 meaning given such term in the Small Business Act;

16 (8) the term “sustainable economic growth” has
17 the meaning given such term in section 4 of the Ste-
18 venson-Wydler Technology Innovation Act of 1980,
19 as amended by section 206(a) of this Act;

20 (9) the term “State” means each of the several
21 States, the District of Columbia, the Commonwealth
22 of Puerto Rico, the Virgin Islands, Guam, American
23 Samoa, the Commonwealth of the Northern Mariana
24 Islands, and any other territory or possession of the
25 United States;

1 (10) the term “United States” means the sev-
2 eral States, the District of Columbia, the Common-
3 wealth of Puerto Rico, the Virgin Islands, Guam,
4 American Samoa, the Commonwealth of the North-
5 ern Mariana Islands, and any other territory or pos-
6 session of the United States;

7 (11) the term “United States company” has the
8 meaning given such term in section (4) of the Ste-
9 venson-Wydler Technology Innovation Act of 1980,
10 as amended by section 206(a) of this Act;

11 (12) the term “United States manufacturer”
12 has the meaning given such term in section 4 of the
13 Stevenson-Wydler Technology Innovation Act of
14 1980, as amended by section 206(a) of this Act; and

15 (13) the term “Under Secretary” means the
16 Under Secretary of Commerce for Technology.

17 **TITLE II—MANUFACTURING**

18 **Subtitle A—Manufacturing**

19 **Technology and Extension**

20 **SEC. 201. SHORT TITLE.**

21 This subtitle may be cited as the “Manufacturing
22 Technology and Extension Act of 1993”.

1 **SEC. 202. FINDINGS, PURPOSE, AND STATEMENT OF POL-**
2 **ICY.**

3 The Stevenson-Wydler Technology Innovation Act of
4 1980 (15 U.S.C. 3701 et seq.) is amended by adding at
5 the end the following new title:

6 **“TITLE III—MANUFACTURING**
7 **TECHNOLOGY**

8 **“SEC. 301. FINDINGS, PURPOSE, AND STATEMENT OF POL-**
9 **ICY.**

10 “(a) FINDINGS.—Congress finds and declares the fol-
11 lowing:

12 “(1) United States manufacturers, especially
13 small businesses, require the adoption and imple-
14 mentation of both modern and advanced manufac-
15 turing and process technologies to meet the chal-
16 lenge of foreign competition.

17 “(2) The development and application of mod-
18 ern and advanced manufacturing technologies are
19 vital to the sustainable economic growth, standard of
20 living, competitiveness in world markets, and na-
21 tional security and welfare of the United States.

22 “(3) New developments in flexible, computer-in-
23 tegrated manufacturing, electronic manufacturing
24 communications networks, and other new tech-
25 nologies make possible dramatic improvements
26 across all industrial sectors in productivity, quality,

1 and the speed with which United States manufactur-
2 ers can respond to changing market opportunities.

3 “(4) The application of advances in computer
4 science and technology to manufacturing is also vital
5 to the Nation’s prosperity, national and economic se-
6 curity, industrial production, engineering, and sci-
7 entific advancement.

8 “(5) The Department of Commerce’s Tech-
9 nology Administration, along with other Federal
10 agencies, can continue to play an important role in
11 assisting United States companies to develop, test,
12 and adopt modern and advanced manufacturing
13 technologies and in establishing high-performance
14 computing technology testbeds to develop, refine,
15 test, and transfer advanced manufacturing and
16 networking technologies and associated applications.

17 “(b) PURPOSE.—It is the purpose of this title to con-
18 tribute to the competitiveness of the United States by en-
19 hancing the Department of Commerce’s technology pro-
20 grams to—

21 “(1) provide United States manufacturers, es-
22 pecially small businesses, with ready access to high
23 quality advice and assistance in the development,
24 adoption, and improvement of modern manufactur-

1 ing processes and technology, and in solving their
2 specific technology-based problems; and

3 “(2) encourage, facilitate, and support the de-
4 velopment and adoption of advanced manufacturing
5 principles and technologies by United States manu-
6 facturers.

7 “(c) STATEMENT OF POLICY.—Congress declares
8 that it is the policy of the United States that—

9 “(1) Federal agencies, particularly the Depart-
10 ment of Commerce, shall work with United States
11 manufacturers, labor, and the States to ensure that
12 the United States is second to no other nation in the
13 development, adoption, and use of modern and ad-
14 vanced manufacturing technology;

15 “(2) the Department of Commerce shall work
16 with all the major Federal research and development
17 agencies to encourage the development and adoption,
18 by United States manufacturers, of advanced manu-
19 facturing technologies, and shall work closely with
20 United States manufacturers and labor, and with
21 the Nation’s universities, to develop and test those
22 technologies; and

23 “(3) the Department of Commerce shall place a
24 high priority on the establishment and growth of a
25 National Technology Outreach Program to promote

1 and facilitate the development and use by United
2 States manufacturers of modern and advanced man-
3 ufacturing systems and applications for manufactur-
4 ing.

5 “(d) CONSTRUCTION.—Nothing in this title shall be
6 construed as modifying the duties and responsibilities of
7 the Department of Energy with regard to its technology
8 resources and expertise in matters under its jurisdiction.”.

9 **SEC. 203. ROLE OF THE DEPARTMENT OF COMMERCE.**

10 Title III of the Stevenson-Wydler Technology Innova-
11 tion Act of 1980, as added by section 202 of this Act,
12 is further amended by adding at the end the following new
13 section:

14 **“SEC. 302. ROLE OF THE DEPARTMENT OF COMMERCE.**

15 “(a) DEPARTMENT OF COMMERCE.—Consistent with
16 the purposes and policies of section 301, the Department
17 of Commerce shall have primary responsibility in the Fed-
18 eral Government in working with United States manufac-
19 turers and labor and the States to develop advanced man-
20 ufacturing technologies and to promote and assist the
21 adoption and use of modern and advanced manufacturing
22 technologies, practices, and management techniques
23 throughout the United States. In carrying out this title,
24 the Secretary, acting, as appropriate, through the Under
25 Secretary and the Director, shall—

1 “(1) consult and cooperate with other Federal
2 agencies, including the Department of Defense, the
3 Department of Energy, and the National Aero-
4 nautics and Space Administration to ensure consist-
5 ent and, where possible, coordinated efforts to pro-
6 mote the development and adoption of modern and
7 advanced manufacturing technologies;

8 “(2) assist the Office of Science and Tech-
9 nology Policy in its efforts to coordinate the manu-
10 facturing technology activities of the various Federal
11 agencies; and

12 “(3) work with representatives of Federal,
13 State, and local agencies, manufacturing extension
14 programs, private industry, industry groups, worker
15 organizations, and academia to encourage and facili-
16 tate the use of both advanced manufacturing tech-
17 nologies, including those developed by the Advanced
18 Manufacturing Technology Development Program
19 established under section 304 of this Act, and mod-
20 ern manufacturing technologies and practices to
21 United States manufacturers.

22 The Secretary shall annually report to Congress on actions
23 taken under this subsection.

1 “(b) OTHER FEDERAL AGENCIES.—To the extent
2 permitted by other law, other Federal agencies shall co-
3 operate with the Secretary in carrying out this title.”.

4 **SEC. 204. NATIONAL TECHNOLOGY OUTREACH PROGRAM.**

5 Title III of the Stevenson-Wydler Technology Innova-
6 tion Act of 1980, as added by sections 202 and 203 of
7 this Act, is further amended by adding at the end the fol-
8 lowing new section:

9 **“SEC. 303. NATIONAL TECHNOLOGY OUTREACH PROGRAM.**

10 “(a) ESTABLISHMENT AND PURPOSE.—There is
11 hereby established a National Technology Outreach Pro-
12 gram (in this section referred to as the ‘Outreach Pro-
13 gram’), the purpose of which shall be to—

14 “(1) interconnect, programmatically and elec-
15 tronically, the Nation’s technology and manufactur-
16 ing extension centers, programs, and activities;

17 “(2) improve the competitiveness of United
18 States manufacturers and create jobs located in the
19 United States; and

20 “(3) assist United States manufacturers, espe-
21 cially small businesses, to expand and accelerate the
22 use of cost-effective modern manufacturing tech-
23 nologies and practices and to develop and adopt ad-
24 vanced manufacturing technologies. The Secretary,
25 acting through the Under Secretary and the Direc-

1 tor, shall implement and coordinate the Outreach
2 Program in accordance with an initial plan and a 5-
3 year plan for the Outreach Program, to be submit-
4 ted to the Congress under subsection (g).

5 “(b) PROGRAM COMPONENTS.—The Outreach Pro-
6 gram shall constitute a partnership between the Depart-
7 ment of Commerce, the States, the private sector, and,
8 as appropriate, shall include other Federal agencies to
9 provide a national system of manufacturing and tech-
10 nology extension centers and technical services to United
11 States manufacturers, particularly small businesses. The
12 Outreach Program shall include—

13 “(1) Manufacturing Outreach Centers estab-
14 lished under subsection (c);

15 “(2) Regional Centers for the Transfer of Man-
16 ufacturing Technology established under section 25
17 of the National Institute of Standards and Tech-
18 nology Act (15 U.S.C. 278k);

19 “(3) the State Technology Extension Program
20 established under section 26 of the National Insti-
21 tute of Standards and Technology Act (15 U.S.C.
22 278l);

23 “(4) the Outreach Program Information Net-
24 work and the Clearinghouse established under sub-
25 sections (d) and (e) of this section, respectively; and

1 “(5) other technology and manufacturing exten-
2 sion centers and activities supported by Federal,
3 State, or local agencies which could contribute to the
4 goals of this title and that the Secretary considers
5 appropriate for inclusion in the Outreach Program.

6 “(c) MANUFACTURING OUTREACH CENTERS.—(1)
7 Eligible government and private sector organizations that
8 are engaged in technology or manufacturing extension ac-
9 tivities may apply to the Secretary for designation as Man-
10 ufacturing Outreach Centers, in such form and manner
11 as the Secretary may prescribe. Eligible organizations in-
12 clude Federal, State, and local government agencies, ex-
13 tension programs, universities, and laboratories; small
14 business development centers; and professional societies,
15 worker organizations, industrial organizations, nonprofit
16 organizations, community development organizations,
17 community colleges, and technical schools and colleges.

18 “(2) The Secretary shall establish standards, consist-
19 ent with the requirements of subsection (f), for designa-
20 tion of existing technology or manufacturing extension
21 programs and for qualification of start-up programs as
22 Manufacturing Outreach Centers.

23 “(3) The Secretary may, through a competitive proc-
24 ess, make grants, subject to the availability of appropria-
25 tions, to Manufacturing Outreach Centers designated in

1 accordance with the standards established under para-
2 graph (2), to enable them to fulfill the purposes and per-
3 form the activities of the Outreach Program. If a State
4 plan for technology extension exists in a State where an
5 applicant for a grant under this paragraph is operating
6 or plans to operate, the proposer shall demonstrate in its
7 application that its proposal is compatible with such State
8 plan. The purpose of such grants is to upgrade the overall
9 quality of the Outreach Program and to contribute to the
10 goal of ready availability of the services and information
11 provided through the Outreach Program, including infor-
12 mation on modern and advanced manufacturing tech-
13 nology, to all interested United States manufacturers.
14 Such grants shall be awarded to increase the capabilities
15 and capacity of Manufacturing Outreach Centers. Manu-
16 facturing Outreach Centers may not concurrently receive
17 financial assistance under section 25 of the National Insti-
18 tute of Standards and Technology Act and grants under
19 this paragraph. Grants may be awarded under this para-
20 graph for an initial period not to exceed 3 years and may
21 be renewed for one additional period, not to exceed 2
22 years. Such grants may not at any time exceed 50 percent
23 of the operating costs and in-kind contributions of the
24 grant recipient.

1 “(4) In selecting applicants to participate in the Out-
2 reach Program and in making grants under paragraph
3 (3), the Secretary shall solicit and consider evaluations of
4 the applicant’s performance record and current capabili-
5 ties, and the potential usefulness of the applicant’s pro-
6 posal, from United States manufacturers that the Sec-
7 retary considers qualified to make such evaluations.

8 “(d) OUTREACH PROGRAM INFORMATION NET-
9 WORK.—(1) The Department of Commerce shall provide
10 for an instantaneous, interactive electronic communica-
11 tions network (in this section referred to as the ‘outreach
12 network’) to serve the Outreach Program, to facilitate ef-
13 fective and efficient interaction within it, and to permit
14 the collection and dissemination in electronic form, in a
15 timely and accurate manner, of information described in
16 subsection (e). The outreach network shall, wherever prac-
17 ticable, make use of existing public and private computer
18 networks, data bases, and electronic bulletin boards. The
19 design, configuration, acquisition plan, and operating poli-
20 cies, including user fees and appropriate electronic access
21 for public and private information suppliers and users, of
22 the outreach network shall be included in the 5-year plan
23 prepared under subsection (g)(2) and shall address—

24 “(A) effective mechanisms for providing operat-
25 ing funds for the maintenance and use of the out-

1 reach network established under this paragraph, in-
2 cluding user fees, industry support, and continued
3 Federal investment;

4 “(B) the future operation and evolution of the
5 outreach network, including its relationship with
6 other public or private information services;

7 “(C) how to protect the copyrights of material
8 distributed over the outreach network; and

9 “(D) appropriate policies—

10 “(i) to ensure the security of proprietary
11 information that might be available on the out-
12 reach network and to protect the privacy of
13 users of the outreach network; and

14 “(ii) to facilitate and limit access to the
15 outreach network and its information to mem-
16 ber organizations of the Outreach Program and
17 to United States companies, State and local
18 governments, United States universities and
19 colleges, and United States nonprofit organiza-
20 tions that the Secretary deems appropriate.

21 “(2) Except as provided in this section, the outreach
22 network established under paragraph (1) shall be designed
23 and configured in a manner that will enable interoper-
24 ability with networks and technologies developed under the
25 National High-Performance Computing Program de-

1 scribed in section 101 of the High-Performance Comput-
2 ing Act of 1991 (15 U.S.C. 5511). The Secretary shall
3 also, as appropriate, coordinate activities under this sub-
4 section with the relevant activities of other Federal agen-
5 cies, particularly the agile manufacturing/enterprise inte-
6 gration activities of the Department of Defense.

7 “(e) CLEARINGHOUSE.—(1) The Secretary shall de-
8 velop a clearinghouse system, using existing public and
9 private sector information providers and carriers where
10 appropriate, to—

11 “(A) identify expertise and acquire information,
12 appropriate to the purpose of the Outreach Program
13 stated in subsection (a), from all appropriate Fed-
14 eral sources, and where appropriate from other
15 sources, providing assistance where necessary in
16 making such information electronically available
17 through and compatible with the outreach network;

18 “(B) ensure ready access, through the outreach
19 network, by United States companies, Federal agen-
20 cies, State and local governments, United States
21 universities and colleges, United States nonprofit or-
22 ganizations that the Secretary deems appropriate,
23 and member organizations of the Outreach Program,
24 to the most recent relevant available information and
25 expertise;

1 “(C) ensure that common standards of inter-
2 connection are utilized by the outreach network and
3 the clearinghouse to allow maximum interoperability
4 and usership; and

5 “(D) to the extent practicable, inform United
6 States manufacturers of the availability of such in-
7 formation.

8 “(2) The clearinghouse shall include information
9 available electronically on—

10 “(A) activities of Manufacturing Outreach Cen-
11 ters, Regional Centers for the Transfer of Manufac-
12 turing Technology, the State Technology Extension
13 Program, and the users of the outreach network;

14 “(B) domestic and international standards and
15 other export promotion information, including con-
16 formity assessment requirements and procedures;

17 “(C) the Malcolm Baldrige Quality program,
18 and quality principles and standards;

19 “(D) manufacturing processes minimizing waste
20 and negative environmental impact;

21 “(E) federally funded technology development
22 and transfer programs;

23 “(F) how to access data bases and services; and

1 “(G) skills training, particularly the implemen-
2 tation and use of modern and advanced manufactur-
3 ing techniques.

4 “(3) The Secretary, acting through the Under Sec-
5 retary, may convene a national conference to develop rec-
6 ommendations for common standards for interconnection
7 and for improved dissemination to users of the clearing-
8 house of information on domestic and international tech-
9 nical regulations and standards, and on conformity assess-
10 ment procedures, including draft standards and regula-
11 tions. Invited participants are to include a broad cross sec-
12 tion of the standards, accreditation, and user commu-
13 nities.

14 “(f) ADDITIONAL REQUIREMENTS.—In carrying out
15 this section, the Secretary shall satisfy the following re-
16 quirements:

17 “(1) The Outreach Program and the outreach
18 network shall be established and operated through
19 cooperation and cofunding among Federal, State,
20 and local governments, other public and private con-
21 tributors, and end users that the Secretary deter-
22 mines are appropriate for providing maximum bene-
23 fit to United States manufacturers.

24 “(2) The Outreach Program and the outreach
25 network shall utilize and leverage, to the extent

1 practicable, existing organizations, data bases, elec-
2 tronic networks, facilities, capabilities, and existing
3 standards for interconnection, and shall be designed
4 to complement rather than supplant State and local
5 programs.

6 “(3) The Outreach Program and the outreach
7 network shall be subject to all applicable provisions
8 of law for the protection of trade secrets and busi-
9 ness confidential information.

10 “(4) Access to the services available through
11 the Outreach Program and information available
12 through the outreach network servicing the Outreach
13 Program shall be limited, as appropriate, to United
14 States companies, State and local governments,
15 United States universities and colleges, and United
16 States nonprofit organizations that the Secretary
17 deems appropriate.

18 “(5) Local or regional needs should determine
19 the management structure and staffing of the Manu-
20 facturing Outreach Centers. The Outreach Program
21 shall strive for geographical balance with the ulti-
22 mate goal of access for all United States manufac-
23 turers.

24 “(6) Manufacturing Outreach Centers should
25 have the capability to deliver outreach services di-

1 rectly to United States manufacturers, actively work
2 with, rather than supplant, the private sector, and to
3 the extent practicable, maximize the exposure of
4 United States manufacturers to demonstrations of
5 modern technologies in use, including flexible manu-
6 facturing practices.

7 “(7) The Department of Commerce shall de-
8 velop mechanisms for—

9 “(A) soliciting the perspectives of United
10 States manufacturers using the services of the
11 Manufacturing Outreach Centers and Regional
12 Centers for the Transfer of Manufacturing
13 Technology; and

14 “(B) evaluating the effectiveness of the
15 Manufacturing Outreach Centers and Regional
16 Centers for the Transfer of Manufacturing
17 Technology.

18 “(g) PLAN AND REPORTS.—(1) Within 6 months
19 after the date of enactment of this title, the Secretary,
20 after consultation with the Under Secretary, the Director,
21 the Department of Commerce Technology Advisory Board,
22 other appropriate Federal agencies, and a cross-section of
23 potential participants in the Outreach Program, shall sub-
24 mit an initial plan for the implementation of this title to
25 Congress—

1 “(A) describing how the Secretary will carry out
2 the responsibility to create, operate, and support the
3 Outreach Program and the outreach network, in-
4 cluding the interactive electronic linkage of Manu-
5 facturing Outreach Centers to the programs of the
6 Technology Administration and other appropriate
7 Federal, State, and local agencies;

8 “(B) establishing criteria and procedures, con-
9 sistent with the requirements of this title, for—

10 “(i) the selection of organizations to re-
11 ceive Department of Commerce services or fi-
12 nancial assistance as part of the Outreach Pro-
13 gram, including qualifications and training of
14 technology extension agents;

15 “(ii) access to services provided by partici-
16 pants in the Outreach Program and to informa-
17 tion available through the outreach network
18 servicing the Outreach Program; and

19 “(iii) the annual evaluation of the Out-
20 reach Program in achieving the purposes of this
21 title; and

22 “(C) evaluating the need for and the benefits of
23 a National Conference of States on Technology Ex-
24 tension, similar in structure to the National Con-
25 ference on Weights and Measures, and, if the Sec-

1 retary determines that such a Conference is advis-
2 able, developing, in consultation with the States and
3 other interested parties, a plan for the establish-
4 ment, operation, funding, and evaluation of such a
5 Conference.

6 “(2) Within 1 year after the date of enactment of
7 this title, the Secretary, in consultation with the Under
8 Secretary, the Director, and the Department of Commerce
9 Technology Advisory Board, shall prepare and submit to
10 the Congress a 5-year plan for implementing the Outreach
11 Program and the outreach network and clearinghouse es-
12 tablished under subsections (d) and (e), respectively. Such
13 5-year plan shall identify appropriate methods for expand-
14 ing the Outreach Program in a geographically balanced
15 manner. Such 5-year plan shall include a detailed imple-
16 mentation plan and cost estimates and shall take into con-
17 sideration and build on the report submitted under para-
18 graph (1). In the preparation of such 5-year plan, the Sec-
19 retary shall provide an opportunity for public comment,
20 and the plan submitted to Congress shall include a sum-
21 mary of comments received. Such plan may not be imple-
22 mented until 90 days after its submission to the Congress.

23 “(3) Beginning with first year after submission of the
24 5-year plan under paragraph (2), the Secretary shall an-

1 nually report to the Congress, at the time of the Presi-
2 dent's annual budget request to Congress, on—

3 “(A) progress made in achieving the purposes
4 of the Outreach Program described in subsection (a)
5 using criteria and procedures established under sub-
6 section (g)(1)(B)(iii);

7 “(B) changes proposed to the 5-year plan;

8 “(C) performance in adhering to schedules; and

9 “(D) any recommendations for legislative
10 changes necessary to enhance the Outreach Pro-
11 gram.

12 The report under this paragraph submitted at the end of
13 the fourth year of operation of the Outreach Program
14 shall include recommendations on whether to terminate
15 the Outreach Program or extend it for an additional pe-
16 riod not to exceed 5 years.”.

17 **SEC. 205. ADVANCED MANUFACTURING TECHNOLOGY DE-**
18 **VELOPMENT PROGRAM.**

19 Title III of the Stevenson-Wydler Technology Innova-
20 tion Act of 1980, as added by sections 202, 203, and 204
21 of this Act, is further amended by adding at the end the
22 following new section:

1 **“SEC. 304. ADVANCED MANUFACTURING TECHNOLOGY DE-**
2 **VELOPMENT PROGRAM.**

3 “(a) ESTABLISHMENT.—The Secretary, through the
4 Under Secretary and the Director, shall establish an Ad-
5 vanced Manufacturing Technology Development Program
6 which shall include projects to develop advanced manufac-
7 turing systems, networks, electronic data exchange, and
8 which shall be complementary with advanced manufactur-
9 ing technology development programs supported by other
10 Federal agencies.

11 “(b) PURPOSE.—The purpose of the Advanced Manu-
12 facturing Technology Development Program is to create
13 collaborative multiyear technology development programs
14 involving United States companies and, as appropriate, co-
15 operating with other Federal agencies and laboratories,
16 the States, worker organizations, universities and colleges,
17 independent research organizations, and other interested
18 persons, in order to develop, refine, test, and transfer de-
19 sign and manufacturing technologies and associated appli-
20 cations, including advanced computer integration and elec-
21 tronic networks for manufacturing information exchange.

22 “(c) PROGRAM COMPONENTS.—The Advanced Manu-
23 facturing Technology Development Program shall in-
24 clude—

25 “(1) the advanced manufacturing research and
26 development activities at the Institute; and

1 “(2) one or more technology development
2 testbeds within the United States, selected in ac-
3 cordance with procedures, including cost sharing, es-
4 tablished for the Advanced Technology Program es-
5 tablished under section 28 of the National Institute
6 of Standards and Technology Act (15 U.S.C. 278n),
7 whose purpose shall be to develop, refine, and test
8 advanced manufacturing, data exchange, and
9 networking technologies and associated applications
10 and to facilitate the transfer of such technologies
11 and applications to United States manufacturers.

12 “(d) FUNCTIONS AND ACTIVITIES.—The Advanced
13 Manufacturing Technology Development Program, under
14 the coordination of the Secretary, through the Director,
15 shall—

16 “(1) test and, as appropriate, facilitate and
17 support the development of the equipment, computer
18 software, and systems integration necessary for the
19 successful operation within the United States of ad-
20 vanced design and manufacturing systems and asso-
21 ciated electronic networks;

22 “(2) establish at the Institute and the tech-
23 nology development testbed or testbeds—

24 “(A) prototype advanced computer-inte-
25 grated manufacturing systems;

1 “(B) prototype electronic networks linking
2 manufacturing systems; and

3 “(C) prototype clean manufacturing sys-
4 tems;

5 “(3) assist United States companies to develop
6 voluntary consensus standards relevant to advanced
7 computer-integrated manufacturing operations, in-
8 cluding standards for networks, electronic data
9 interchange, and digital product data specifications;

10 “(4) help to make high-performance computing
11 and networking technologies an integral part of de-
12 sign and production processes where appropriate;

13 “(5) conduct research to identify and overcome
14 technical barriers to the successful and cost-effective
15 operation of advanced manufacturing systems and
16 networks and to promote and facilitate electronic
17 data exchange;

18 “(6) facilitate the efforts of United States com-
19 panies to develop and test new applications for man-
20 ufacturing systems, networks, and information ex-
21 change;

22 “(7) involve in the Advanced Manufacturing
23 Technology Development Program, to the maximum
24 extent practicable, both those United States manu-
25 facturers which make manufacturing technology and

1 related computer equipment and software, and Unit-
2 ed States companies which buy such technology,
3 equipment and software;

4 “(8) identify training needs, as appropriate, for
5 managers, engineers, and employees of United
6 States manufacturers in the operation and applica-
7 tions of advanced manufacturing technologies and
8 networks, with particular emphasis on training for
9 production workers in the effective use of advanced
10 manufacturing technology;

11 “(9) work with United States companies, uni-
12 versities, independent research organizations, and
13 other interested parties to develop standards, tools,
14 and techniques for the use of advanced computer-
15 based training systems, including multi-media and
16 interactive learning technologies;

17 “(10) involve small businesses in its activities;

18 “(11) exchange information and personnel, as
19 appropriate, between the technology development
20 testbeds and the outreach network created under
21 section 303(d); and

22 “(12) coordinate its activities with the National
23 High-Performance Computing Program described in
24 section 101 of the High-Performance Computing Act

1 of 1991 (15 U.S.C. 5511) to ensure that both pro-
2 grams are complementary and compatible.

3 “(e) TESTBED AWARDS.—(1) In selecting applicants
4 to receive awards under subsection (c)(2) of this section,
5 the Secretary shall give preferential consideration to appli-
6 cants that have existing computer expertise in manufac-
7 turing applications and the ability to diffuse such expertise
8 to United States companies, and that, in the case of joint
9 research and development ventures, include both suppliers
10 and users of advanced manufacturing technology. In the
11 case of systems described in subsection (d)(2)(C), the Sec-
12 retary shall also give preferential consideration to appli-
13 cants that have existing program expertise in clean manu-
14 facturing, including the areas of concurrent engineering,
15 materials research, and environmental science, and which
16 have a technology transfer mechanism in place to transfer
17 testbed results of a clean manufacturing program to in-
18 dustry participants.

19 “(2) An industry-led joint research and development
20 venture applying for an award under subsection (c)(2) of
21 this section may include one or more State research orga-
22 nizations, universities, Federal laboratories, independent
23 research organizations, or Regional Centers for the Trans-
24 fer of Manufacturing Technology (as created under section
25 25 of the National Institute of Standards and Technology

1 Act) and other organizations as the Secretary considers
2 appropriate.

3 “(f) ADVICE AND ASSISTANCE.—(1) Within 6 months
4 after the date of enactment of this title, and before any
5 request for proposals is issued, the Secretary shall hold
6 one or more workshops to solicit advice from United
7 States companies and from other Federal agencies, par-
8 ticularly the Department of Defense, the Department of
9 Energy, and the National Aeronautics and Space Adminis-
10 tration, regarding the specific missions and activities of
11 the testbeds.

12 “(2) The Secretary shall, to the greatest extent pos-
13 sible, coordinate activities under this section with activities
14 of other Federal agencies and initiatives relating to com-
15 puter-aided acquisition and logistics support, electronic
16 data interchange, flexible computer-integrated manufac-
17 turing, and enterprise integration.

18 “(3) The Secretary may request and accept funds,
19 facilities, equipment, or personnel from other Federal
20 agencies in order to carry out this section.

21 “(g) ANTITRUST SAVINGS CLAUSE.—This section
22 shall not be construed to modify, impair, or supersede the
23 operation of the antitrust laws. For purposes of this sub-
24 section, the term ‘antitrust laws’ has the meaning given
25 it in subsection (a) of the first section of the Clayton Act

1 (15 U.S.C. 12(a)), except that such term includes the Act
2 of June 19, 1936 (49 Stat. 1526; 15 U.S.C. 13 et seq.),
3 commonly known as the Robinson Patman Act, and sec-
4 tion 5 of the Federal Trade Commission Act (15 U.S.C.
5 45) to the extent that such section 5 applies to unfair
6 methods of competition.”.

7 **SEC. 206. MISCELLANEOUS AND CONFORMING AMEND-**
8 **MENTS.**

9 (a) DEFINITIONS.—Section 4 of the Stevenson-
10 Wydler Technology Innovation Act of 1980 (15 U.S.C.
11 3703) is amended by adding at the end the following new
12 paragraphs:

13 “(14) ‘Director’ means the Director of the Na-
14 tional Institute of Standards and Technology.

15 “(15) ‘Institute’ means the National Institute
16 of Standards and Technology.

17 “(16) ‘Assistant Secretary’ means the Assistant
18 Secretary of Commerce for Technology Policy.

19 “(17) ‘Advanced manufacturing technology’
20 means—

21 “(A) numerically-controlled machine tools,
22 robots, automated process control equipment,
23 computerized flexible manufacturing systems,
24 associated computer software, and other tech-
25 nology for improving manufacturing and indus-

1 trial production of goods, including bio-
2 technology products, which advance the state-
3 of-the-art; or

4 “(B) novel manufacturing techniques and
5 processes not previously generally available that
6 improve manufacturing quality, productivity,
7 and practices, including engineering design,
8 quality assurance, concurrent engineering, con-
9 tinuous process production technology, inven-
10 tory management, upgraded worker skills, com-
11 munications with customers and suppliers, and
12 promotion of sustainable economic growth.

13 “(18) ‘Modern technology’ means the best avail-
14 able proven technology, techniques, and processes
15 appropriate to enhancing the productivity of manu-
16 facturers or to promoting sustainable economic
17 growth.

18 “(19) ‘Sustainable economic growth’ means eco-
19 nomic growth that enhances the national quality of
20 life and preserves environmental integrity.

21 “(20) The term ‘United States company’ means
22 an entity which the Secretary finds, based on a dem-
23 onstration by such entity—

24 “(A) maintains substantial employment in
25 the United States;

1 “(B) agrees, with respect to a technology
2 arising from assistance provided under this Act
3 or the National Competitiveness Act of 1993, to
4 promote the manufacture within the United
5 States of products resulting from that tech-
6 nology;

7 “(C) agrees to procure parts and materials
8 for such products from competitive United
9 States suppliers; and

10 “(D) either—

11 “(i) is a United States-owned com-
12 pany; or

13 “(ii) is a company incorporated in the
14 United States that has a parent company
15 incorporated in a country which the Sec-
16 retary finds—

17 “(I) affords to United States-
18 owned companies opportunities com-
19 parable to those afforded to any other
20 company to participate in programs
21 and to have access to resources and
22 information equivalent to the opportu-
23 nities authorized under this Act or the
24 National Competitiveness Act of 1993

1 to foreign-owned entities engaged in
2 commerce in the United States;

3 “(II) has a standards develop-
4 ment and conformity assessment proc-
5 ess that is open and transparent, and
6 that results in standards that are fair
7 and reasonable and do not discrimi-
8 nate against United States products
9 and production processes;

10 “(III) affords to United States-
11 owned companies local investment op-
12 portunities comparable to those af-
13 forded any other company; and

14 “(IV) affords adequate and effec-
15 tive protection for the intellectual
16 property rights of United States-
17 owned companies.

18 “(21) The term ‘United States manufacturer’
19 means a United States company which the Secretary
20 finds, based on a demonstration by such company,
21 makes substantial investments in the United States
22 in research, development, and manufacturing (in-
23 cluding the manufacture of major components or
24 subassemblies in the United States).

1 “(22) The term ‘United States-owned company’
2 has the meaning given such term in section 28(j)(2)
3 of the National Institute of Standards and Tech-
4 nology Act (15 U.S.C. 278n(j)(2).

5 “(23) ‘Benchmarking’ means the assessment of
6 foreign science and technology capabilities relative to
7 comparable United States capabilities.

8 “(24) ‘Independent research organizations’
9 means nonprofit organizations organized primarily
10 for the purpose of conducting or managing research
11 activities.”.

12 (b) REDESIGNATIONS.—The Stevenson-Wydler Tech-
13 nology Innovation Act of 1980 (15 U.S.C. 3701 et seq.)
14 is amended—

15 (1) by inserting immediately after section 4 the
16 following new title heading:

17 **“TITLE I—DEPARTMENT OF**
18 **COMMERCE AND RELATED**
19 **PROGRAMS”;**

20 (2) by redesignating sections 5 through 10 as
21 sections 101 through 106, respectively;

22 (3) by redesignating sections 16 through 22, as
23 sections 107 through 113, respectively;

1 (4) by inserting immediately after section 113
2 (as redesignated by paragraph (3) of this sub-
3 section) the following new title heading:

4 **“TITLE II—FEDERAL**
5 **TECHNOLOGY TRANSFER”;**

6 (5) by redesignating sections 11 through 15 as
7 sections 201 through 205, respectively;

8 (6) by redesignating section 23 as section 206;

9 (7) in section 4—

10 (A) by striking “section 5” each place it
11 appears and inserting in lieu thereof “section
12 101”;

13 (B) in paragraphs (4) and (6), by striking
14 “section 6” and “section 8” each place they ap-
15 pear and inserting in lieu thereof “section 102”
16 and “section 104”, respectively; and

17 (C) in paragraph (13), by striking “section
18 6” and inserting in lieu thereof “section 102”;

19 (8) in section 105 (as redesignated by para-
20 graph (2) of this subsection) by striking “section 6”
21 each place it appears and inserting in lieu thereof
22 “section 102”;

23 (9) in section 106(d) (as redesignated by para-
24 graph (2) of this subsection) by striking “7, 9, 11,

1 15, 17, or 20’ and inserting in lieu thereof “103,
2 105, 108, 111, 201, or 205”;

3 (10) in section 201(i) (as redesignated by para-
4 graph (5) of this subsection) by inserting “loan,
5 lease, or” after “may”; and by inserting “Actions
6 taken under this subsection shall not be subject to
7 Federal requirements on the disposal of property.”
8 after “activities.”;

9 (11) in section 202(b) (as redesignated by para-
10 graph (5) of this subsection) by striking “section
11 14” and inserting in lieu thereof “section 204”;

12 (12) in section 204(a)(1) (as redesignated by
13 paragraph (5) of this subsection) by striking “sec-
14 tion 12” and inserting in lieu thereof “section 202”;

15 (13) in section 113 (as redesignated by para-
16 graph (3) of this subsection) by striking “sections
17 11, 12, and 13” and inserting in lieu thereof “sec-
18 tions 201, 202, and 203”;

19 (14) in section 206 (as redesignated by para-
20 graph (6) of this subsection)—

21 (A) by striking “section 11(b)” in sub-
22 section (a)(2) and inserting in lieu thereof “sec-
23 tion 201(b)”;

1 (B) by striking “section 6(d)” in sub-
2 section (b) and inserting in lieu thereof “section
3 102(d)”; and

4 (15) by adding at the end of section 201 (as re-
5 designated by paragraph (5) of this subsection) the
6 following new subsection:

7 “(j) ADDITIONAL TECHNOLOGY TRANSFER MECHA-
8 NISMS.—In addition to the technology transfer mecha-
9 nisms set forth in this section and section 202 of this Act,
10 the heads of Federal departments and agencies also may
11 transfer technologies through the technology transfer and
12 extension programs of the Department of Commerce and
13 the Department of Defense.”.

14 **SEC. 207. MANUFACTURING TECHNOLOGY CENTERS.**

15 Section 25 of the National Institute of Standards and
16 Technology Act (15 U.S.C. 278k), is amended—

17 (1) by amending the section heading to read as
18 follows: “MANUFACTURING TECHNOLOGY CENTERS”;

19 (2) in subsection (c)(5), by striking “which are
20 designed” and all that follows through “operation of
21 a Center” and inserting in lieu thereof “to a maxi-
22 mum of one-third Federal funding. Each Center
23 which receives financial assistance under this section
24 shall be evaluated during its sixth year of operation,
25 and at such subsequent times as the Secretary con-

1 siders appropriate, by an evaluation panel appointed
2 by the Secretary in the same manner as was the
3 evaluation panel previously appointed. The Secretary
4 shall not provide funding for additional years of the
5 Center’s operation unless the evaluation is positive
6 and the Secretary finds that continuation of funding
7 furthers the goals of the Department. Such addi-
8 tional Federal funding shall not exceed one-third of
9 the cost of the Center’s operations”;

10 (3) by striking subsection (d); and

11 (4) by adding at the end the following new sub-
12 sections:

13 “(d) If a Center receives a positive evaluation during
14 its third year of operation, the Director may, any time
15 after that evaluation, contract with the Center to provide
16 additional technology extension or transfer services above
17 and beyond the baseline activities of the Center. Such ad-
18 ditional services may include, but are not limited to, the
19 development and operation of the following:

20 “(1) Programs to assist United States compa-
21 nies that are engaged in manufacturing and their
22 employees, including front-line production workers,
23 in the Center’s region to learn and apply the tech-
24 nologies, techniques, and processes associated with

1 systems management technology, electronic data ex-
2 change, or improving manufacturing productivity.

3 “(2) Services focused on the testing, develop-
4 ment, and application of manufacturing and process
5 technologies within specific technical fields such as
6 advanced materials or electronics fabrication for the
7 purpose of assisting United States companies that
8 are engaged in manufacturing, both within the Cen-
9 ter’s original service region and in other regions, to
10 improve manufacturing quality, product design,
11 workforce training, and production efficiency in
12 those specific technical fields.

13 “(3) Industry-led demonstration programs that
14 involve United States manufacturing technology con-
15 sortia to provide ongoing research, technology trans-
16 fer, and worker training assistance to their mem-
17 bers. An award under this paragraph shall be for no
18 more than \$500,000 per year, and shall be subject
19 to renewal after a 1-year demonstration period.

20 “(e) In addition to any assistance provided or con-
21 tracts entered into with a Center under this section, the
22 Director is authorized to make separate and smaller
23 awards, through a competitive process, to nonprofit orga-
24 nizations which wish to work with a Center. Such awards
25 shall be for the purpose of enabling those organizations

1 to provide outreach services, in collaboration with the Cen-
2 ter, to United States manufacturers located in parts of
3 the region served by the Center which are not easily acces-
4 sible to the Center and which are not served by any other
5 manufacturing outreach center. Organizations which re-
6 ceive such awards shall be known as Local Manufacturing
7 Offices. In reviewing applications, the Director shall con-
8 sider the needs of rural as well as urban manufacturers.
9 No single award for a Local Manufacturing Office shall
10 be for more than three years, awards shall be renewable
11 through the competitive awards process, and no award
12 shall be made unless the applicant provides matching
13 funds at least equal to the amount received under this sec-
14 tion.

15 “(f) In carrying out this section, the Director shall
16 coordinate his efforts with the plans for the National
17 Technology Outreach Program established under section
18 303 of the Stevenson-Wydler Technology Innovation Act
19 of 1980.”.

20 **SEC. 208. STATE TECHNOLOGY EXTENSION PROGRAM.**

21 (a) ESTABLISHMENT.—Section 26(a) of the National
22 Institute of Standards and Technology Act (15 U.S.C.
23 2781(a)), is amended—

24 (1) by inserting immediately after “(a)” the fol-
25 lowing new sentence: “There is established within

1 the Institute a State Technology Extension Pro-
2 gram.”; and

3 (2) by inserting “through that Program” imme-
4 diately after “technical assistance”.

5 (b) ADDITIONAL AUTHORITIES.—Section 26 of the
6 National Institute of Standards and Technology Act (15
7 U.S.C. 278l) is amended by adding at the end the follow-
8 ing new subsection:

9 “(c) In addition to the general authorities listed in
10 subsection (b) of this section, the State Technology Exten-
11 sion Program also may, through merit-based competitive
12 review processes—

13 “(1) make awards to States and conduct work-
14 shops, pursuant to section 5121(b) of the Omnibus
15 Trade and Competitiveness Act of 1988, in order to
16 help States improve their planning and coordination
17 of technology extension activities;

18 “(2) support technology demonstration projects
19 to help States provide technical assistance and serv-
20 ices to United States manufacturers that will im-
21 prove their productivity and competitiveness;

22 “(3) support State efforts to develop and test
23 innovative ways to help United States manufacturers
24 improve their technical capabilities;

1 “(4) support State efforts designed to help
2 United States manufacturers in rural as well as
3 urban areas adopt modern manufacturing tech-
4 nologies;

5 “(5) support State efforts to assist interested
6 United States manufacturers in the defense industry
7 to adapt to modern or advanced manufacturing tech-
8 nologies as they convert to nondefense or dual-use
9 purposes;

10 “(6) support worker technology education pro-
11 grams in the States at institutions such as research
12 universities, community colleges, labor education
13 centers, labor-management committees, and worker
14 organizations in production technologies critical to
15 the Nation’s future, with an emphasis on high-per-
16 formance work systems, the skills necessary to use
17 modern or advanced manufacturing systems well;

18 “(7) help States develop programs to train per-
19 sonnel who in turn can provide technical skills to
20 managers and workers of United States manufactur-
21 ers; and

22 “(8) support State efforts to assist United
23 States manufacturers to develop on-the-job training
24 in modern and advanced manufacturing tech-
25 nologies, techniques, and processes and to promote

1 the development and adoption of modern and ad-
2 vanced manufacturing technologies.”.

3 **Subtitle B—National Science Foun-**
4 **ation Manufacturing Programs**

5 **SEC. 211. ROLE OF THE NATIONAL SCIENCE FOUNDATION**
6 **IN MANUFACTURING.**

7 The Director of the National Science Foundation,
8 after appropriate consultation with the Secretary, the
9 Under Secretary, and the Director, shall—

10 (1) work with United States companies to iden-
11 tify areas of research in advanced manufacturing
12 technologies and practices that offer the potential to
13 improve United States productivity, competitiveness,
14 employment, and sustainable economic growth;

15 (2) support research at United States univer-
16 sities to improve advanced manufacturing tech-
17 nologies and practices; and

18 (3) work with the Technology Administration
19 and the Institute and, as appropriate, other Federal
20 agencies to accelerate the transfer to United States
21 companies of manufacturing research and innova-
22 tions developed at universities.

1 **SEC. 212. ENGINEERING AND COOPERATIVE RESEARCH**
2 **CENTERS.**

3 The Director of the National Science Foundation
4 shall strengthen and expand the number of Engineering
5 Research Centers and strengthen and expand the Indus-
6 try/University Cooperative Research Centers Program
7 with the goal of increasing the engineering talent base
8 versed in critical technologies, with emphasis on advanced
9 manufacturing technology and practices, and of advancing
10 fundamental engineering knowledge in these technologies,
11 including biotechnology. At least one Engineering Re-
12 search Center shall have a research and education focus
13 on the concerns of United States manufacturers, including
14 small businesses that are trying to modernize their oper-
15 ations. Awards under this section shall be made on a com-
16 petitive, merit review basis and on terms and conditions
17 the Director may prescribe to ensure that the purposes
18 for which the award is made are satisfied. Such awards
19 may include support for acquisition of instrumentation,
20 equipment, and facilities related to the research and edu-
21 cation activities of the Centers and support for under-
22 graduate students to participate in the activities of the
23 Centers.

1 **SEC. 213. MANUFACTURING TRAINEESHIPS AND FELLOW-**
2 **SHIPS.**

3 (a) GRADUATE TRAINEESHIPS.—The Director of the
4 National Science Foundation, in consultation with the
5 Secretary, may establish a program to provide traineeships
6 to graduate students at institutions of higher education
7 within the United States who are citizens of the United
8 States and who choose to pursue masters or doctoral de-
9 grees in manufacturing engineering. The Director of the
10 National Science Foundation shall make an effort to en-
11 sure the provision of traineeships under this subsection to
12 socially and economically disadvantaged individuals (with-
13 in the meaning of section 8(a) (5) and (6) of the Small
14 Business Act, and including women).

15 (b) MANUFACTURING MANAGERS IN THE CLASS-
16 ROOM PROGRAM.—The Director of the National Science
17 Foundation, in consultation with the Secretary, may es-
18 tablish a program to provide fellowships, on a cost-shared
19 basis, to employees of United States companies with expe-
20 rience in manufacturing to serve for 1 or 2 years as in-
21 structors in manufacturing at 2-year community and tech-
22 nical colleges in the United States.

23 **SEC. 214. TOTAL QUALITY MANAGEMENT.**

24 The Director of the National Science Foundation, in
25 consultation with the Secretary, the Under Secretary, and
26 the Director, may establish a program to develop innova-

1 tive curricula, courses, and materials for use by institu-
2 tions of higher education for instruction in total quality
3 management and related management practices, in
4 order to help improve the productivity of United States
5 companies.

6 **TITLE III—CRITICAL**
7 **TECHNOLOGIES**
8 **Subtitle A—Benchmarking Science**
9 **and Technology**

10 **SEC. 301. BENCHMARKING UNITED STATES SCIENCE AND**
11 **TECHNOLOGY AGAINST FOREIGN CAPABILI-**
12 **TIES.**

13 The Stevenson-Wydler Technology Innovation Act of
14 1980, as amended by this Act, is further amended by add-
15 ing at the end the following new title:

16 **“TITLE IV—BENCHMARKING**
17 **SCIENCE AND TECHNOLOGY**

18 **“SEC. 401. FINDINGS AND PURPOSES.**

19 “(a) FINDINGS.—As other countries have gained
20 strength in new technologies and as centers of technical
21 excellence have developed around the world, it has become
22 increasingly important for United States companies and
23 research organizations to understand their scientific and
24 technological capabilities relative to those of other global
25 competitors.

1 “(b) PURPOSES.—The purposes of this title are to
2 conduct and coordinate the collection, evaluation, and dis-
3 semination, to United States companies, State and local
4 governments, and nonprofit organizations, of information
5 on foreign science and technology, specifically information
6 assessing foreign capabilities relative to comparable Unit-
7 ed States capabilities.

8 **“SEC. 402. PROGRAM RESPONSIBILITIES.**

9 “(a) DEPARTMENT OF COMMERCE.—The Depart-
10 ment of Commerce shall be the lead agency of the Federal
11 Government in making available information for assessing
12 the comparative strength of United States scientific and
13 technological capabilities. The Secretary, acting through
14 the Under Secretary, shall—

15 “(1) collect within the Federal Government and
16 disseminate to United States companies, State and
17 local governments, and nonprofit organizations infor-
18 mation regarding foreign process and product re-
19 search and technologies of importance to United
20 States companies and the Federal Government, and
21 regarding related technology assessment activities al-
22 ready underway in the Federal Government;

23 “(2) provide such information and analyses in
24 electronic form, and ensure, consistent with con-
25 fidentiality and security considerations, that they

1 will be available through the clearinghouse to the
2 outreach network created under section 303 of this
3 Act;

4 “(3) work, in coordination with the Federal Co-
5 ordinating Council for Science, Engineering, and
6 Technology, as appropriate, to streamline Federal
7 Government procedures for collecting, evaluating,
8 and disseminating information analyzing foreign sci-
9 entific and technological information; and

10 “(4) conduct appropriate planning for more
11 comprehensive collection, evaluation, dissemination,
12 and application of foreign science and technology in-
13 formation.

14 “(b) OTHER AGENCIES.—All executive departments
15 and agencies shall assist the Secretary in carrying out this
16 title.

17 “(c) ADDITIONAL AUTHORITIES.—The Secretary,
18 acting through the Under Secretary, is authorized to—

19 “(1) arrange for access to information collected
20 and developed under this title, in electronic form or
21 otherwise, by authorized and interested parties, in-
22 cluding charging and retaining fees for expenditure,
23 subject to appropriations;

24 “(2) provide for the collection of additional in-
25 formation to fulfill the purposes of this title;

1 “(3) provide for analysis of foreign research
2 and development activities and technological capa-
3 bilities, particularly in those areas where the United
4 States is considered to be at par or lagging foreign
5 capabilities or where foreign capabilities are pro-
6 jected to overtake those of the United States;

7 “(4) enter into joint ventures authorized under
8 section 212(a)(1)(A) of Public Law 100–519 (15
9 U.S.C. 3704b(a)(1)(a)) in carrying out this title;

10 “(5) consult with users of such information, as
11 appropriate, on the usefulness of available foreign
12 scientific and technological information and on the
13 need for additional information and assessment ac-
14 tivities and consult with other affected agencies of
15 the Federal Government to promote consistent and
16 useful collection, assessment, and analysis of foreign
17 technological information; and

18 “(6) establish and administer the fellowship
19 program described in subsection (d).

20 “(d) FELLOWSHIP PROGRAM.—(1) The Secretary,
21 acting through the Under Secretary, shall establish and
22 administer a fellowship program to support Technology
23 Fellows to assist the Under Secretary in carrying out ac-
24 tivities under this title relating to those countries that are
25 major competitors of the United States in critical tech-

1 nologies, and to identify opportunities for technology
2 transfer to the United States or technological collabora-
3 tion for United States industries.

4 “(2) Technology Fellows shall—

5 “(A) regularly report to the Department of
6 Commerce on work planned, in progress, and accom-
7 plished; and

8 “(B) provide support to the Department of
9 Commerce as requested by that Department.

10 “(3) Fellowships awarded under the program estab-
11 lished under this subsection shall—

12 “(A) be awarded for a period of 2 years;

13 “(B) be reasonable and appropriate; and

14 “(C) include provisions for living and office ar-
15 rangements in the host country.

16 “(4) Only individuals who—

17 “(A) have at least a bachelors degree in engi-
18 neering or science; and

19 “(B) have at least 5 years of work experience
20 in manufacturing or technology development,
21 shall be eligible for a fellowship under this program.”.

1 **Subtitle B—Advanced Technology**
2 **Program**

3 **SEC. 321. DEVELOPMENT OF PROGRAM PLAN.**

4 The Secretary, acting through the Under Secretary
5 and the Director, shall, within 6 months after the date
6 of enactment of this Act, submit to the Congress a plan
7 for the expansion of the Advanced Technology Program
8 established under section 28 of the National Institute of
9 Standards and Technology Act (15 U.S.C. 278n), with
10 specific consideration given to—

11 (1) closer coordination and cooperation with the
12 Advanced Research Projects Agency and other Fed-
13 eral research and development agencies, including
14 joint funding of large scale consortia, as appropriate;

15 (2) broadening of the scope of the program to
16 include and focus on as many critical technologies
17 identified pursuant to section 603(d) of the National
18 Science and Technology Policy, Organization, and
19 Priorities Act of 1976 (42 U.S.C. 6683(d)) as is ap-
20 propriate; and

21 (3) changes that may be needed when annual
22 funds available for awards and cooperative agree-
23 ments under the Program reach levels of
24 \$200,000,000 and \$500,000,000.

1 **SEC. 322. LARGE SCALE RESEARCH AND DEVELOPMENT**
2 **CONSORTIA.**

3 (a) ESTABLISHMENT OF PROGRAM.—The Secretary,
4 acting through the Director, may establish a program for
5 the support of large-scale research and development
6 consortia.

7 (b) SELECTION PROCEDURES AND REQUIRE-
8 MENTS.—

9 (1) GENERAL RULE.—Except as provided in
10 paragraph (2), the selection and making of awards
11 to large-scale research and development consortia
12 under this section shall be carried out in accordance
13 with procedures and requirements applicable to joint
14 ventures described in section 28(b)(1) of the Na-
15 tional Institute of Standards and Technology Act
16 (15 U.S.C. 278n(b)(1)).

17 (2) EXCEPTION.—Notwithstanding section
18 28(b)(1)(B)(ii) of the National Institute of Stand-
19 ards and Technology Act (15 U.S.C.
20 278n(b)(1)(B)(ii)), for purposes of awards made
21 under this section, a minority share of the cost of
22 large-scale research and development consortia may
23 be provided by the Federal Government for up to 7
24 years.

25 (c) PROJECT SELECTION.—Preference shall be given
26 for selection under this section to large-scale research and

1 development consortia that would not be undertaken by
2 the private sector without a Federal investment of
3 \$30,000,000 or more per year.

4 (d) SELECTION CRITERIA.—In selecting large-scale
5 research and development consortia under this section, the
6 Secretary, acting through the Director, shall give priority
7 to consortia that best achieve the following goals:

8 (1) Significant contribution to broad economic
9 growth.

10 (2) Significant contribution to the national
11 quality of life.

12 (3) Significant contribution to environmental
13 sustainability.

14 (4) Promotion of private sector partnership
15 with Federal research and development activities.

16 (5) Substantial improvement of the inter-
17 national competitiveness of United States companies.

18 (6) Involvement of several competitor firms in
19 the development of the key consortia technologies.

20 (7) Strengthening of the linkages between do-
21 mestic suppliers, systems developers, and end-users.

22 (8) Participation by domestic end-users from
23 several industrial sectors.

24 (9) Promotion of the diffusion of
25 nonproprietary information to United States compa-

1 nies through strong links with organizations such as
2 trade and professional groups.

3 (e) INDEPENDENT TECHNICAL REVIEW.—The Sec-
4 retary, through the Director, shall provide for technical
5 review at least once every three years of large-scale re-
6 search and development consortia receiving support under
7 this section, by the National Institute of Standards and
8 Technology, other national laboratories, the Department
9 of Commerce Technology Advisory Board established
10 under section 401 of this Act, or independent research or-
11 ganizations that are not a participant in the large-scale
12 research and development consortium being reviewed.
13 Such review shall be for the purpose of determining
14 progress toward the objectives for which such large-scale
15 research and development consortium was formed, with
16 recommendations for improvement, funding adjustments,
17 or termination of Federal support. The Secretary, through
18 the Director, shall transmit to the Committee on Science,
19 Space, and Technology of the House of Representatives
20 and the Committee on Commerce, Science, and Transpor-
21 tation of the Senate an annual status report summarizing
22 significant accomplishments in achieving those objectives.

23 (f) STUDY.—The Secretary, through the Director,
24 shall undertake a study to determine the best way to maxi-
25 mize the benefit of large-scale research and development

1 consortia to industry as a whole in carrying out this sec-
2 tion. The results of such study shall be submitted to the
3 Congress within 6 months after the date of the enactment
4 of this Act. Such report shall include criteria and proce-
5 dures for the evaluation by the Director of the progress
6 of consortia funded under this section.

7 (g) TERMINATION.—The Secretary shall establish
8 criteria and procedures for terminating Federal funding
9 of a consortium under this section if the Secretary deter-
10 mines that such consortium is not making acceptable
11 progress toward achieving its goals. No consortium shall
12 receive funding under this section for more than 7 years.

13 (h) DEFINITION.—For purposes of this section, the
14 term “large-scale research and development consortia”
15 means a joint venture described in section 28(b)(1) of the
16 National Institute of Standards and Technology Act (15
17 U.S.C. 278n(b)(1)).

18 **SEC. 323. TECHNICAL AMENDMENTS.**

19 Section 28 of the National Institute of Standards and
20 Technology Act (15 U.S.C. 278n) is amended—

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

23 “(k) Notwithstanding subsections (b)(1)(B)(ii) and
24 (d)(3), the Director may grant an extension of not to ex-
25 ceed 6 months beyond the deadlines established under

1 those subsections for joint venture and single applicant
2 awardees to expend Federal funds to complete their
3 projects, if such extension may be granted with no addi-
4 tional cost to the Federal Government.”;

5 (2) in subsection (b)(2), by inserting “, and
6 with independent research organizations” after “es-
7 pecially small businesses”; and

8 (3) in subsection (j)—

9 (A) by redesignating paragraphs (1) and
10 (2) as paragraphs (2) and (3), respectively; and

11 (B) by inserting before paragraph (2), as
12 so redesignated, the following new paragraph:

13 “(1) the term ‘independent research organiza-
14 tions’ means nonprofit organizations organized pri-
15 marily for the purpose of conducting or managing
16 research activities;”.

17 **SEC. 324. COUNTRY QUALIFICATION NOTICE.**

18 Section 28 of the National Institute of Standards and
19 Technology Act (15 U.S.C. 278n) is amended by adding
20 at the end thereof the following new subsection:

21 “(l) The Secretary shall provide prospective appli-
22 cants for assistance under this section with guidance as
23 to their eligibility under subsection (d)(9)(B)(ii). No such
24 applicant shall be required to provide evidence that a

1 country is a country described in such subsection
2 (d)(9)(B)(ii).”.

3 **SEC. 325. RECOUPMENT.**

4 Section 28 of the National Institute of Standards and
5 Technology Act (15 U.S.C. 278n) is amended by adding
6 the following new subsection:

7 “(l)(1) Not later than 180 days after the date of en-
8 actment of this subsection, the Secretary shall establish
9 procedures and criteria for recoupment in connection with
10 any project, for which a grant, contract, or cooperative
11 agreement is made under this section, which has led to
12 the development of a product or process which is marketed
13 or used.

14 “(2)(A) Except as provided in subparagraph (B),
15 such recoupment shall be required as a condition for
16 award and be proportional to the Federal share of the
17 costs of such project, and shall be derived from the pro-
18 ceeds of royalties or licensing fees received in connection
19 with such product or process.

20 “(B) In the case where a product or process is used
21 by the recipient of the financial assistance under this sec-
22 tion for the production and sale of its own products or
23 processes, the recoupment shall consist of a payment
24 equivalent to the payment which would be made under
25 subparagraph (A).

1 “(3) The Secretary may at any time waive or defer
2 all or some of the recoupment requirements of this sub-
3 section as necessary, depending on—

4 “(A) the commercial competitiveness of the en-
5 tity or entities developing or using the product or
6 process;

7 “(B) the profitability of the project; and

8 “(C) the commercial viability of the product or
9 process utilized.”.

10 **Subtitle C—Civilian Technology** 11 **Loan Program**

12 **SEC. 331. LOAN AND LOAN GUARANTEE AUTHORITY.**

13 To the extent provided in appropriation Acts, the
14 Secretary, acting through the Under Secretary, may make,
15 or enter into agreements to make, loans and loan guaran-
16 tees, either directly or in cooperation with other lenders,
17 to small and medium-sized qualified business concerns in
18 accordance with this subtitle.

19 **SEC. 332. OPERATING PLAN AND EFFECTIVE DATE.**

20 (a) **OPERATING PLAN.**—The Secretary, acting
21 through the Under Secretary, shall prepare (in consulta-
22 tion with the Advisory Committee established under sec-
23 tion 344, other appropriate executive agencies, the States,
24 United States companies, the financial community, and
25 other appropriate parties) and submit to the Congress on

1 or before November 1, 1993, an operating plan to carry
2 out this subtitle. In preparing such plan, the Secretary
3 shall consider and evaluate alternative approaches to
4 achieving the purposes of this subtitle and shall develop
5 recommendations, as appropriate, to fulfill the purposes
6 of this subtitle in the most effective and efficient manner
7 achievable. Such evaluations and recommendations shall
8 be included in the plan submitted under this subsection.

9 (b) EFFECTIVE DATE.—Except as provided in sub-
10 section (a), the provisions of this subtitle shall take effect
11 on October 1, 1994.

12 **SEC. 333. TERMS AND CONDITIONS.**

13 Loans and loan guarantees made under section 331
14 shall be in such form and manner and under such terms
15 and conditions as the Under Secretary may prescribe by
16 regulation, and shall be subject to the following terms and
17 conditions:

18 (1) Loans awarded or guaranteed shall be for
19 sound financing of research, development, dem-
20 onstration, or utilization of critical technologies or
21 advanced technologies.

22 (2) Loans shall only be awarded or guaranteed
23 if the Under Secretary finds that—

1 (A) sufficient collateral, which may include
2 both tangible and intangible assets, is pledged;
3 or

4 (B) the borrower is sufficiently financially
5 sound,
6 to reasonably ensure repayment.

7 (3) Loans awarded or guaranteed may not ex-
8 ceed 50 percent of total eligible project costs. For
9 purposes of this section, the term “eligible project
10 costs” shall be defined by the Under Secretary by
11 regulation.

12 (4) The total principal amount of outstanding
13 loans awarded or guaranteed to a single borrower
14 may not exceed \$2,000,000 at any time.

15 (5) Loans awarded or guaranteed shall be sen-
16 ior to any other debt obligations of the borrower, ex-
17 cept to the extent that the Under Secretary consid-
18 ers necessary to accommodate the borrower’s ability
19 to raise sufficient debt or equity capital from non-
20 Federal sources to pay the balance of eligible project
21 costs that are not covered by such loans.

22 (6) Interest on a loan, or portion of a loan,
23 awarded or guaranteed by the Federal Government
24 under this subtitle shall be at a rate determined by
25 the Secretary of the Treasury, at the time such loan

1 is made, to equal the then current average market
2 yield on outstanding debt obligations of the United
3 States with remaining periods to maturity com-
4 parable to the maturity of such loan, plus an addi-
5 tional charge of up to 1 percent applied by the
6 Under Secretary to cover expected defaults and rea-
7 sonable administrative costs of carrying out this sub-
8 title. For purposes of this section, the term “de-
9 fault” shall be defined by the Under Secretary by
10 regulation.

11 (7) Except as provided in paragraph (8), the
12 maturity of loans awarded or guaranteed under this
13 subtitle may not be less than 2 years or greater
14 than—

15 (A) 10 years; or

16 (B) the useful life of property, plant,
17 equipment, or other assets, as determined by
18 the Secretary of the Treasury, which have been
19 pledged as collateral for such loan,

20 whichever is greater.

21 (8) The Under Secretary may extend the matu-
22 rity of or renew a loan or extend the guarantee of
23 a loan for additional periods, not to exceed 5 years,
24 only if such extension or renewal will aid in the or-
25 derly liquidation of such loan.

1 (9) Payment of interest on direct loans made by
2 the Federal Government under this subtitle may be
3 deferred by the borrower, upon approval by the
4 Under Secretary, only to the extent that the bor-
5 rower has established to the satisfaction of the
6 Under Secretary that the borrower has not realized
7 sufficient earnings and returns of capital to make
8 such payment without incurring undue financial
9 hardship, and that there is a reasonable prospect
10 that such loan and interest thereon will be repaid.

11 (10) The Under Secretary may guarantee pay-
12 ment of 100 percent of principal and interest on a
13 loan made under section 331.

14 (11) The Under Secretary may establish,
15 charge, and regulate fees to cover loan origination
16 and servicing costs that are reasonable and nec-
17 essary.

18 **SEC. 334. TECHNICAL ASSISTANCE FOR LENDERS AND BOR-**
19 **ROWERS.**

20 The Secretary, acting through the Under Secretary,
21 shall, upon request, provide technical assistance and serv-
22 ices, as appropriate and needed, to lenders and borrowers
23 under this subtitle, and shall ensure that such lenders and
24 borrowers have ready access to appropriate assistance
25 available under title III of the Stevenson-Wydler Tech-

1 nology Innovation Act of 1980, or under any other Act,
2 in order to aid such lenders and borrowers in achieving
3 the purposes described in section 333(1). The Secretary
4 may charge fees for technical assistance and services pro-
5 vided under this section in amounts sufficient to cover the
6 reasonable cost of such assistance and services. The Sec-
7 retary may waive such fees on a case-by-case basis. Fees
8 paid to the United States under this section shall be de-
9 posited in an account established by the Under Secretary
10 and shall be available solely for carrying out this subtitle,
11 to the extent provided in advance in appropriations Acts.

12 **SEC. 335. OUTREACH TO ECONOMICALLY DEPRESSED**
13 **AREAS.**

14 The Secretary, acting through the Under Secretary,
15 shall seek to ensure that qualified business concerns lo-
16 cated in areas determined by the Secretary to have a de-
17 pressed economy, or a significant concentration of defense-
18 related industries, or chronically high unemployment, are
19 notified of the availability of financial assistance through
20 the program established under this subtitle and, to the ex-
21 tent practicable, to encourage and facilitate the participa-
22 tion of such qualified business concerns in such program.

1 **SEC. 336. SOCIALLY AND ECONOMICALLY DISADVANTAGED**
2 **INDIVIDUALS.**

3 The Secretary shall, to the fullest extent possible, en-
4 sure that at least 10 percent of amounts loaned under this
5 subtitle shall be made available to qualified business con-
6 cerns owned or controlled by socially and economically dis-
7 advantaged individuals (within the meaning of section 8(a)
8 (5) and (6) of the Small Business Act, and including
9 women). Nothing in this section shall permit or require
10 the use of quotas or a requirement that has the effect of
11 a quota in determining eligibility for loans made available
12 under this subtitle. Nothing in this section shall be consid-
13 ered to extend eligibility to individuals on the basis of sex-
14 ual orientation.

15 **SEC. 337. DEFINITIONS.**

16 For purposes of this subtitle, the terms “advanced
17 technologies”, “critical technologies”, and “qualified busi-
18 ness concern” have the meaning given such terms in sec-
19 tion 342 of this Act.

20 **Subtitle D—Civilian Technology**
21 **Development Program**

22 **SEC. 341. SHORT TITLE.**

23 This subtitle may be cited as the “Civilian Tech-
24 nology Development Act of 1993”.

25 **SEC. 342. DEFINITIONS.**

26 For purposes of this subtitle—

1 (1) the term “advanced technologies” means
2 technologies eligible for assistance under the Ad-
3 vanced Technology Program established under sec-
4 tion 28 of the National Institute of Standards and
5 Technology Act (15 U.S.C. 278n);

6 (2) the term “articles” means articles of incor-
7 poration for an incorporated body, and the func-
8 tional equivalent, or other similar documents speci-
9 fied by the Under Secretary, for other business enti-
10 ties;

11 (3) the term “critical technologies” means tech-
12 nologies identified as critical technologies pursuant
13 to section 603(d) of the National Science and Tech-
14 nology Policy, Organization, and Priorities Act of
15 1976 (42 U.S.C. 6683(d));

16 (4) the term “Department” means the Depart-
17 ment of Commerce;

18 (5) the term “executive agency” has the mean-
19 ing given such term in section 105 of title 5, United
20 States Code;

21 (6) the term “license” means a license issued
22 by the Under Secretary under section 345;

23 (7) the term “licensee” means a company li-
24 censed under section 345;

1 (8) the term “preferred securities” means pre-
2 ferred stock or a preferred limited partnership inter-
3 est or other similar security, as defined by the
4 Under Secretary by regulation;

5 (9) the term “private equity capital” means the
6 paid-in capital and paid-in surplus, on hand or le-
7 gally committed to be provided, of a licensee orga-
8 nized as a corporation, or the partnership capital, on
9 hand or legally committed to be provided, of a li-
10 censee organized as an unincorporated partnership,
11 but does not include any funds—

12 (A) borrowed by the licensee from any
13 source;

14 (B) obtained from the sale of preferred se-
15 curities; or

16 (C) derived directly or indirectly from any
17 Federal source;

18 (10) the term “qualified business concern”
19 means a United States company described in section
20 28(d)(9)(B) of the National Institute Standards and
21 Technology Act (15 U.S.C. 278n(d)(9)(B)), if—

22 (A) the business of such company includes
23 the pursuit, under the Small Business Innova-
24 tion Research (SBIR) program, of applications

1 described in section 9(e)(4)(C) of the Small
2 Business Act (15 U.S.C. 638(e)(4)(C));

3 (B) the principal business of such company
4 is the development or application of a critical
5 technology;

6 (C) such company is eligible for assistance
7 under the Advanced Technology Program
8 (ATP) established under section 28 of the Na-
9 tional Institute of Standards and Technology
10 Act (15 U.S.C. 278n); or

11 (D) such company is principally engaged in
12 the development or exploitation of inventions,
13 technological improvements, new processes, or
14 products not previously generally available
15 (within the meaning of section 851(e)(1) of the
16 Internal Revenue Code of 1986);

17 (11) the term “State” means several States, the
18 District of Columbia, the Commonwealth of Puerto
19 Rico, the Virgin Islands, Guam, American Samoa,
20 and the Commonwealth of the Northern Mariana Is-
21 lands, and any other territory or possession of the
22 United States;

23 (12) the term “State sponsored licensee” means
24 a company licensed under section 345 in which a
25 State or instrumentality of a State has at least a 25

1 percent investment interest in the private equity cap-
2 ital of such licensee;

3 (13) the term “university sponsored licensee”
4 means a company licensed under section 345 in
5 which a single university or consortium of univer-
6 sities has at least a 25 percent investment interest
7 in the private equity capital of such licensee; and

8 (14) the term “venture capital” means consid-
9 eration for such—

10 (A) common stock;

11 (B) preferred stock;

12 (C) debt with equity features which may
13 include equity warrants or rights to convert into
14 common stock and which provides for interest
15 payments contingent upon and limited to the
16 extent of earnings; or

17 (D) other financing,

18 as the Under Secretary determines to be substan-
19 tially similar to equity financing, issued by a quali-
20 fied business concern.

21 **SEC. 343. ESTABLISHMENT AND PURPOSE.**

22 (a) ESTABLISHMENT.—There is established within
23 the Technology Administration of the Department of Com-
24 merce a national program to stimulate and supplement the
25 availability of long-term investment capital for the forma-

1 tion, development, and growth of qualified business con-
2 cerns throughout the United States. The Secretary,
3 through the Under Secretary, shall, through such pro-
4 gram, provide for the selection, licensing, monitoring, and
5 financial and technical support of professionally managed
6 technology investment companies which in turn shall pro-
7 vide financial, management, and technical assistance to
8 qualified business concerns, with preference given to satis-
9 fying the seed and early-stage financing needs of such con-
10 cerns that are not being met by other sources on reason-
11 able terms.

12 (b) PURPOSES.—The purposes of this subtitle are—

13 (1) to contribute to United States economic
14 competitiveness, employment, and prosperity;

15 (2) to promote the advancement, maturation,
16 and application of critical and other advanced tech-
17 nologies;

18 (3) to supplement and stimulate long-term in-
19 vestment in qualified business concerns; and

20 (4) to encourage and facilitate the formation
21 and growth of professionally managed technology in-
22 vestment companies throughout the United States
23 that will give preference to satisfying the capital
24 needs of qualified business concerns, especially dur-
25 ing their early stages of development.

1 (c) RESPONSIBILITIES.—(1) In carrying out this sub-
2 title, the Secretary, acting through the Under Secretary,
3 and subject to the availability of appropriations, shall—

4 (A) consult with and, to the extent permitted by
5 law, utilize the capabilities of other executive agen-
6 cies, as appropriate, to ensure the efficient and ef-
7 fective implementation of this subtitle;

8 (B) explore, with other executive agencies, ways
9 to avoid duplication of effort by consolidating the
10 administration of the program established by this
11 subtitle with any other similar Federal program, and
12 as part of such consolidation may delegate adminis-
13 trative functions, as necessary and appropriate, to
14 another executive agency;

15 (C) consult with the Secretary of Energy, the
16 Secretary of Defense, and the Administrator of the
17 National Aeronautics and Space Administration, on
18 all policy matters related to the Civilian Technology
19 Development Program that deal with development or
20 utilization of technologies developed by those agen-
21 cies;

22 (D) consult with State governments to ensure
23 that the existing programs run by or chartered by
24 State governments which seek to accomplish pur-
25 poses similar to those stated in subsection (b) are

1 encouraged and not undermined by the implementa-
2 tion of this subtitle; and

3 (E) explore with State governments ways in
4 which programs currently run by or chartered by
5 State governments which seek to accomplish pur-
6 poses similar to those stated in subsection (b) can
7 serve as models for the Secretary or be used to en-
8 sure the efficient and effective implementation of
9 this subtitle.

10 (2) To the extent permitted by law, other executive
11 agencies shall cooperate with the Under Secretary in car-
12 rying out this subtitle.

13 (d) OPERATING PLAN.—The Secretary, acting
14 through the Under Secretary, shall prepare (in consulta-
15 tion with the Advisory Committee established under sec-
16 tion 344, other appropriate executive agencies, the States,
17 United States companies, the financial community, and
18 other appropriate parties) and submit to the Congress on
19 or about November 1, 1993, an operating plan to carry
20 out this subtitle. In preparing such plan, the Secretary
21 shall consider and evaluate alternative approaches to
22 achieving the purposes of this subtitle and shall develop
23 recommendations, as appropriate, to fulfill the purposes
24 of this subtitle in the most effective and efficient manner

1 achievable. Such evaluations and recommendations shall
2 be included in the plan submitted under this subsection.

3 (e) OUTREACH TO ECONOMICALLY DEPRESSED
4 AREAS.—The Secretary, acting through the Under Sec-
5 retary, shall seek to ensure that qualified business con-
6 cerns located in areas determined by the Secretary to have
7 a depressed economy, or a significant concentration of de-
8 fense-related industries, or chronically high unemploy-
9 ment, are notified of the availability of financial assistance
10 through the program established under this subtitle and,
11 to the extent practicable, to encourage and facilitate the
12 participation of such qualified business concerns in such
13 program.

14 (f) EFFECTIVE DATE.—Except as provided in sub-
15 section (d) and in sections 344 and 351(a), the provisions
16 of this subtitle shall take effect on October 1, 1994.

17 **SEC. 344. ADVISORY COMMITTEE.**

18 (a) ESTABLISHMENT.—There is established a Civil-
19 ian Technology Development Advisory Committee (in this
20 section referred to as the “CTD Advisory Committee”).

21 (b) COMPOSITION.—The CTD Advisory Committee
22 shall be composed of 7 members, appointed by the Under
23 Secretary from among private individuals who, because of
24 their experience and accomplishments in technology devel-
25 opment, maturation, and adoption, business development,

1 venture capital, finance, or other relevant areas, are excep-
2 tionally qualified to perform the duties of the CTD Advi-
3 sory Committee. The Under Secretary shall designate 1
4 member to serve as chairman.

5 (c) DUTIES.—The duties of the CTD Advisory Com-
6 mittee shall include advising the Under Secretary on all
7 matters related to policy, planning, execution, and evalua-
8 tion of the program established under this subtitle.

9 (d) TERMINATION.—Section 14 of the Federal Advi-
10 sory Committee Act shall not apply to the CTD Advisory
11 Committee.

12 **SEC. 345. ORGANIZATION AND LICENSING.**

13 (a) IN GENERAL.—Any incorporated body, limited
14 partnership, or State instrumentality organized and char-
15 tered or otherwise existing under State law for the purpose
16 of performing the functions and conducting the activities
17 contemplated under this subtitle, that possesses the pow-
18 ers, capabilities, and expertise reasonably necessary to
19 perform such functions and conduct such activities, may
20 apply for a license under this subtitle in such form and
21 manner as the Under Secretary may prescribe.

22 (b) ARTICLES.—The articles of any applicant shall
23 specify in general terms the objects for which the applicant
24 is formed, the name assumed by such applicant, the area
25 or areas in which its operations are to be carried on, the

1 place where its principal office is to be located, and the
2 amount and classes of its shares of capital stock. Such
3 articles may contain any other provisions not inconsistent
4 with this subtitle that the applicant may see fit to adopt
5 for the regulation of its business and the conduct of its
6 affairs. Such articles and any amendments thereto adopt-
7 ed from time to time shall be subject to the approval of
8 the Under Secretary.

9 (c) BUSINESS PLAN.—The business plan of any ap-
10 plicant shall specify in general terms—

11 (1) how the applicant proposes to achieve the
12 objects for which it is formed, to operate and govern
13 its business, and to fulfill the purposes and satisfy
14 the requirements of this subtitle;

15 (2) the board members or general partners and
16 the management and professional staff of the appli-
17 cant, and the professional training, experience, rep-
18 utation, and investment performance record, if any,
19 of each such individual, along with a description of
20 the applicant's current and proposed management
21 structure;

22 (3) all current or committed private investors in
23 the applicant, together with the amount, terms, con-
24 ditions, and conveyances associated with such invest-

1 ment, and appropriate background information on
2 each private investor; and

3 (4) such other information as the Under Sec-
4 retary may require.

5 Such business plan and any material amendments thereto
6 adopted from time to time shall be subject to the approval
7 of the Under Secretary.

8 (d) APPROVAL OF ARTICLES AND BUSINESS PLAN;
9 LICENSING.—The articles and business plan of an appli-
10 cant for a license shall be forwarded to the Under Sec-
11 retary for consideration and approval or disapproval. In
12 determining whether to approve a prospective licensee’s
13 articles and business plan and permit it to operate under
14 the provisions of this subtitle, the Under Secretary shall
15 give due regard, among other things, to the general busi-
16 ness reputation, character, suitability, and demonstrated
17 ability, experience, and performance in the development,
18 growth, and financing of qualified business concerns, of
19 the proposed owners and management of the prospective
20 licensee, and the likelihood of successful operations of the
21 prospective licensee including adequate profitability and fi-
22 nancial soundness. After consideration of all relevant fac-
23 tors, if the Under Secretary approves the company’s arti-
24 cles and business plan and determines that the applicant
25 satisfies or will satisfy the requirements of this subtitle,

1 the Under Secretary may approve the company to operate
2 under the provisions of this subtitle and issue the company
3 a license for such operation.

4 **SEC. 346. CAPITAL AND MANAGEMENT REQUIREMENTS.**

5 (a) CAPITAL.—(1) The private equity capital of a li-
6 censee shall be adequate to ensure a reasonable prospect
7 that the licensee will be operated soundly and profitably,
8 and managed actively and prudently in accordance with
9 its articles and business plan. Such private equity capital
10 shall not be less than \$5,000,000, except that, in the case
11 of a State sponsored licensee or a university sponsored li-
12 censee, such private equity capital shall not be less than
13 \$2,500,000. At the time of issuance of a license, not less
14 than 75 percent of the private equity capital of the licensee
15 shall be available or committed to be available for new in-
16 vestment in accordance with this subtitle.

17 (2) To the extent permitted by other law, including
18 the Employee Retirement Income Security Act of 1974
19 (29 U.S.C. 1001 et seq.), private and public pension funds
20 may contribute to the private equity capital of a licensee
21 without restriction as to the amount of such contribution.

22 (3) State and local government entities may contrib-
23 ute not more than 40 percent of the total private equity
24 capital of a licensee.

1 (4) The aggregate amount of shares in any such li-
2 censee or licensees which may be owned or controlled by
3 any stockholder, or by any group or class of stockholders,
4 may be limited by the Under Secretary.

5 (b) MANAGEMENT.—The management and oper-
6 ational control of a licensee shall be carried out by suitable
7 private individuals who possess the professional training,
8 experience, and capabilities reasonably necessary to
9 achieve the purposes of this subtitle.

10 **SEC. 347. FINANCING FOR LICENSEES.**

11 (a) AUTHORITY TO PURCHASE AND GUARANTEE
12 PREFERRED SECURITIES.—To encourage and facilitate
13 the formation and growth of licensees and qualified busi-
14 ness concerns, the Under Secretary may purchase or com-
15 mit to purchase nonvoting preferred securities, with or
16 without equity warrants, issued by a licensee, or guaran-
17 tee, or commit to guarantee, the payment of 100 percent
18 of the redemption price of and dividends on such preferred
19 securities, to the extent provided in appropriations Acts,
20 if the licensee has demonstrated to the satisfaction of the
21 Under Secretary that it is financially sound and that it
22 has complied with or will comply with the requirements
23 of this subtitle, the terms of its license, and any rule, regu-
24 lation, or order issued under this subtitle. Such purchases
25 and guarantees shall constitute direct loans and loan guar-

1 antees within the meaning of paragraphs (1) and (3) of
2 section 502 of the Federal Credit Reform Act of 1990,
3 respectively. A trust or pool acting on behalf of the Under
4 Secretary may purchase preferred securities that are guar-
5 anteed under this subsection.

6 (b) TERMS AND CONDITIONS OF PREFERRED SECURITIES.—(1) Guarantees and purchases of preferred securities, or commitments to make such guarantees and purchases, under this section may be made on such terms and
7 conditions as the Under Secretary shall establish by regu-
8 lation or set forth in contract to ensure compliance with
9 this subtitle and to protect the interests of taxpayers and
10 the United States in the event of default or otherwise. For
11 purposes of this paragraph, the Under Secretary shall by
12 regulation define the term “default”.

13 (2)(A) Except as provided in subparagraph (B), preferred securities issued under this section shall be senior
14 in priority for all purposes to all non-Federal equity inter-
15 ests in a licensee unless the Under Secretary, in the exer-
16 cise of reasonable investment prudence and in considering
17 the financial soundness of the licensee, determines other-
18 wise.

19 (B) The equity interests of a university or consortium
20 of universities, or of a State or instrumentality of a State,
21 in a licensee shall be equal in priority to Federal equity
22

1 interests in such licensee for all purposes unless the Under
2 Secretary, in the exercise of reasonable investment pru-
3 dence and in considering the financial soundness of the
4 licensee, determines otherwise.

5 (3) Preferred securities issued under this section
6 shall be redeemed by the issuer not later than 10 years
7 after their date of issuance for an amount equal to 100
8 percent of the original issue price plus any accrued and
9 unpaid dividends. In order to facilitate the orderly liquida-
10 tion of a licensee's investments, redemption of such pre-
11 ferred securities may be extended by mutual consent for
12 no more than 5 years beyond such expiration date.

13 (4) Preferred securities issued under this section
14 shall pay dividends at a rate determined by the Secretary
15 of the Treasury at the time of issuance to equal the then
16 current average market yield on outstanding marketable
17 debt obligations of the United States with remaining peri-
18 ods to maturity comparable to the time to required re-
19 demption of such preferred securities, plus such additional
20 charge, if any, toward covering expected defaults and rea-
21 sonable administrative costs of carrying out this subtitle
22 as the Under Secretary may determine to be reasonable
23 and appropriate. Such additional charge shall not exceed
24 2 percent.

1 (5) Dividends on preferred securities issued under
2 this section shall be cumulative and preferred and paid
3 out of net realized earnings and returns of capital avail-
4 able for distribution, as defined by the Under Secretary
5 by regulation.

6 (6) The payment of dividends on preferred securities
7 issued under this section may be deferred by the issuer
8 until such time as, and to the extent that, the issuer real-
9 izes earnings and returns of capital available for distribu-
10 tion. Accumulated and unpaid dividends on such preferred
11 securities shall be paid by the issuer before or at the time
12 of redemption of the preferred securities and before any
13 distribution of net realized earnings and returns of capital
14 of the issuer to its non-Federal equity investors, except
15 as provided in subsection (e)(2) (B) and (C). With respect
16 to preferred securities issued under this section to a party
17 other than the Under Secretary, during the time of any
18 deferral under this paragraph, the Under Secretary shall
19 make, on behalf of the issuer, required dividend payments
20 to the holder of the preferred securities, its agents or as-
21 signs, or the appropriate central registration agent, if any.
22 The authority to make dividend payments provided in this
23 paragraph shall be limited to the extent of amounts pro-
24 vided in advance in appropriations Acts for such purposes.

1 (7) For purposes of this subsection, the term “divi-
2 dends” means dividends on preferred stock and returns
3 on preferred limited partnership interests or other similar
4 securities, as defined by the Under Secretary by regula-
5 tion.

6 (c) LIMITATIONS AND RESTRICTIONS.—(1) The total
7 principal amount of debt, as evidenced by notes, bonds,
8 debentures, or certificates of indebtedness, plus the total
9 face amount of preferred securities purchased or guaran-
10 teed by the Under Secretary under subsection (a), issued
11 and outstanding from a licensee shall not exceed 200 per-
12 cent of the private equity capital of the licensee.

13 (2) The total face amount of preferred securities pur-
14 chased or guaranteed by the Under Secretary under sub-
15 section (a) and outstanding from a licensee or a combina-
16 tion of licensees which are commonly controlled, as defined
17 and determined by the Under Secretary, shall not exceed
18 \$50,000,000.

19 (3)(A) If preferred securities issued under this sec-
20 tion are outstanding, then the issuing licensee shall be
21 subject to the following restrictions:

22 (i) The total principal amount of debt, as evi-
23 denced by notes, bonds, debentures, or certificates of
24 indebtedness, of a licensee issued and outstanding

1 may not exceed 50 percent of the private equity cap-
2 ital of the licensee.

3 (ii) The annual management expenses of a li-
4 censee shall not exceed an amount which the Under
5 Secretary determines to be reasonable and appro-
6 priate.

7 (iii) The aggregate amount of obligations and
8 securities acquired and for which commitments may
9 be issued by a licensee for any single qualified busi-
10 ness concern shall not exceed \$2,000,000 or 20 per-
11 cent of the private equity capital of such licensee,
12 whichever is greater, unless the Under Secretary ap-
13 proves a greater amount.

14 (B) For purposes of this paragraph, the term “man-
15 agement expenses” includes expenses incurred in the nor-
16 mal course of operations, but shall not include the cost
17 of legal, accounting, and consulting services provided by
18 outside parties and by affiliates of the licensee which are
19 not normal practice in making and monitoring investments
20 consistent with the purposes of this subtitle.

21 (d) USE OF CAPITAL BY LICENSEES.—(1) A licensee
22 issuing preferred securities under this section shall invest
23 or commit to invest—

24 (A) an amount equal to the face value of such
25 preferred securities that are outstanding; plus

1 (B) an amount of its private equity capital
2 equal to 50 percent of the amount described in sub-
3 paragraph (A),

4 in the venture capital of qualified business concerns in ac-
5 cordance with section 349.

6 (2) At least 50 percent of the amount of investments
7 required under paragraph (1) shall be for seed and early
8 stage financing, as defined by the Under Secretary by reg-
9 ulation. The Under Secretary may alter the percentage re-
10 quirement under this paragraph to the extent necessary,
11 in the determination of the Under Secretary, to achieve
12 the purposes of this subtitle and maintain prudent invest-
13 ment diversification.

14 (3) Proceeds to a licensee derived from preferred se-
15 curities issued under this section may be used by the is-
16 suer to redeem any preferred securities issued under this
17 section that have been outstanding at least 5 years, as
18 provided in subsection (b)(3).

19 (4) Proceeds to a licensee derived from preferred se-
20 curities issued under this section that have not been in-
21 vested pursuant to paragraphs (1) and (2) or used for re-
22 demptions pursuant to paragraph (3) and are not reason-
23 ably needed for the operations of the licensee shall be in-
24 vested in direct obligations of, or obligations guaranteed
25 as to principal and interest by, the United States, or in

1 certificates of deposit maturing within one year or less,
2 issued by any institution the accounts of which are insured
3 by the Federal Deposit Insurance Corporation.

4 (e) PROFIT DISTRIBUTION BY LICENSEES.—(1) Any
5 distribution of net realized earnings and returns of capital
6 made by a licensee that exceeds amounts required for the
7 purposes stated in paragraph (2) shall be distributed pro
8 rata to all investors entitled to such distributions. The
9 United States shall receive no funds under this paragraph.

10 (2)(A) Except as provided in subparagraphs (B) and
11 (C), any distribution of net realized earnings and returns
12 of capital made by a licensee shall first be used to pay
13 accumulated and unpaid dividends owed on outstanding
14 preferred securities issued under this section and to satisfy
15 the redemption requirements of subsection (b)(3).

16 (B) For purposes of subparagraph (A), the redemp-
17 tion requirements of subsection (b)(3) shall be considered
18 to be satisfied if necessary and appropriate actions, as de-
19 termined by the Under Secretary, have been undertaken
20 by the licensee to ensure that such requirements will be
21 satisfied.

22 (C) If a licensee is operating as a limited partnership
23 or as a corporation described in subchapter S of chapter
24 1 of subtitle A of the Internal Revenue Code of 1986 or
25 an equivalent pass-through entity for tax purposes, it may

1 distribute to the partners or shareholders an amount equal
2 to the estimated amount of Federal, State, and local in-
3 come taxes due from such partners and shareholders on
4 their share of undistributed taxable income for the current
5 taxable year before payments described in subparagraph
6 (A) are made.

7 (f) USE OF PAYMENTS TO THE UNITED STATES.—
8 Amounts received by the United States from the payment
9 of dividends and the redemption of preferred securities
10 pursuant to this section, and fees paid to the United
11 States by a licensee pursuant to this subtitle, shall be de-
12 posited in an account established by the Under Secretary
13 and shall be available solely for carrying out this subtitle,
14 to the extent provided in advance in appropriations Acts.

15 **SEC. 348. ISSUANCE AND GUARANTEE OF TRUST CERTIFI-**
16 **CATES.**

17 (a) AUTHORITY TO ISSUE TRUST CERTIFICATES.—
18 The Under Secretary is authorized to issue trust certifi-
19 cates representing ownership of all or a fractional part of
20 preferred securities issued by licensees and guaranteed by
21 the Under Secretary under this subtitle. Such trust certifi-
22 cates shall be based on and backed by a trust or pool ap-
23 proved by the Under Secretary and composed of preferred
24 securities and such other contractual obligations as the

1 Under Secretary may undertake to facilitate the sale of
2 such trust certificates.

3 (b) GUARANTEE OF TRUST CERTIFICATES.—The
4 Under Secretary is authorized, upon such terms and con-
5 ditions as are deemed appropriate, to guarantee the timely
6 payment of the principal of and interest on trust certifi-
7 cates issued by the Under Secretary or his agent for pur-
8 poses of this section. Such guarantee shall be limited to
9 the extent of the redemption price of and dividends on the
10 preferred securities, plus any related contractual obliga-
11 tions, which compose the trust or pool.

12 (c) PREPAYMENTS AND REDEMPTIONS.—In the event
13 that preferred securities or contractual obligations in such
14 trust or pool are redeemed or extinguished, either volun-
15 tarily or involuntarily, the guarantee of timely payment
16 of principal and interest on the trust certificates shall be
17 reduced in proportion to the amount of redemption price
18 and dividends such redeemed preferred security or extin-
19 guished contractual obligation represents in the trust or
20 pool. Dividends or partnership profit distributions on such
21 preferred securities and related contractual obligations,
22 shall accrue and be guaranteed by the Under Secretary
23 only through the date of payment on the guarantee. Dur-
24 ing the term of the trust certificate, it may be called for

1 redemption, whether voluntary or involuntary, of all pre-
2 ferred securities residing in the pool.

3 (d) FEES.—The Under Secretary may collect fees for
4 a guarantee under this section that are reasonable and
5 customary.

6 (e) PAYMENT OF CLAIMS.—(1) In the event the
7 Under Secretary pays a claim under a guarantee issued
8 under this section, it shall be subrogated fully to the rights
9 satisfied by such payment.

10 (2) No State or local law, and no Federal law, shall
11 preclude or limit the exercise by the Under Secretary of
12 ownership rights in the preferred securities residing in a
13 trust or pool against which trust certificates are issued.

14 (f) REGISTRATION AND INTERMEDIARY OPER-
15 ATIONS.—(1) The Under Secretary shall provide for a
16 central registration of all trust certificates sold pursuant
17 to this section. Such central registration shall include with
18 respect to each sale, identification of each licensee, the in-
19 terest rate or dividend rate paid by the licensee, commis-
20 sions, fees, or discounts paid to brokers and dealers in
21 trust certificates, identification of each purchaser of the
22 trust certificate, the price paid by the purchaser for the
23 trust certificate, the interest rate paid on the trust certifi-
24 cate, the fees of any agent for carrying out the functions

1 described in paragraph (2), and such other information
2 as the Under Secretary deems appropriate.

3 (2) The Under Secretary shall contract with an agent
4 or agents to carry out on behalf of the Under Secretary
5 the pooling and the central registration functions of this
6 section including, notwithstanding any other provision of
7 law, maintenance on behalf of and under the direction of
8 the Under Secretary, such commercial bank accounts as
9 may be necessary to facilitate trusts or pools backed by
10 securities guaranteed or purchased under this subtitle,
11 and the issuance of trust certificates to facilitate such
12 poolings. Such agent or agents shall provide a fidelity
13 bond or insurance in such amounts as the Under Secretary
14 determines to be necessary to fully protect the interests
15 of the Federal Government.

16 (3) Prior to any sale, the Under Secretary shall re-
17 quire the seller to disclose to a purchaser of a trust certifi-
18 cate issued pursuant to this section, information on the
19 terms, conditions, and yield of such instrument.

20 **SEC. 349. VENTURE CAPITAL FOR QUALIFIED BUSINESS**
21 **CONCERNS.**

22 Each licensee may provide venture capital to qualified
23 business concerns, in such manner and under such terms
24 as the licensee may fix in accordance with the regulations
25 of the Under Secretary.

1 **SEC. 350. OPERATION.**

2 (a) COOPERATION.—Wherever practicable the oper-
3 ations of a licensee, including the generation of business,
4 may be undertaken in cooperation with banks or other li-
5 censees, investors, or lenders, incorporated or unincor-
6 porated, and any servicing or initial investigation required
7 for loans or acquisitions of securities by the licensee under
8 the provisions of this subtitle may be handled through
9 such banks or other licensees, investors, or lenders on a
10 fee basis. Any licensee may receive fees for services ren-
11 dered to such banks and other licensees, investors, and
12 lenders.

13 (b) ADVISORY SERVICES.—Each licensee may make
14 use, wherever practicable, of the advisory services of the
15 Federal Reserve System and of the Department of Com-
16 merce which are available for and useful to industrial and
17 commercial businesses, and may provide consulting and
18 advisory services on a fee basis and have on its staff per-
19 sons competent to provide such services. A licensee may
20 not charge fees for such services that are provided to a
21 qualified business concern in which it has an investment.

22 **SEC. 351. REGULATIONS; LIABILITY.**

23 (a) REGULATIONS.—The Under Secretary is author-
24 ized to prescribe regulations governing the operations of
25 licensees, and to carry out the provisions of this subtitle,
26 in accordance with the purposes of this subtitle.

1 (b) LIABILITY OF THE UNITED STATES.—Nothing in
2 this subtitle or in any other provision of law imposes any
3 liability on the United States with respect to any obliga-
4 tions entered into, or stocks issued, or commitments made,
5 by any licensee operating under the provisions of this
6 subtitle.

7 **SEC. 352. TECHNICAL ASSISTANCE FOR LICENSEES AND**
8 **QUALIFIED BUSINESS CONCERNS.**

9 (a) TECHNICAL ASSISTANCE.—The Secretary shall,
10 upon request, provide technical assistance and services, as
11 appropriate and needed, to licensees and to qualified busi-
12 ness concerns receiving financial assistance under this
13 subtitle, and shall ensure that such qualified business con-
14 cerns have ready access to appropriate assistance available
15 under title III of the Stevenson-Wydler Technology Inno-
16 vation Act of 1980, or under any other Act, in order to
17 aid such qualified business concerns in their development
18 or utilization of critical or other advanced technologies.
19 Technical assistance and services under this subsection
20 shall include providing licensees and qualified business
21 concerns with—

22 (1) an assessment of the technological and sci-
23 entific feasibility of a project, or an analysis of a
24 specific field of technical or scientific endeavor;

1 (2) improved access to technology developed by
2 the Institute and assistance in obtaining access to
3 technology developed by other Federal agencies and
4 laboratories;

5 (3) expert analysis of the economics of tech-
6 nology development undertaken by a qualified busi-
7 ness concern; and

8 (4) any other assistance or service that the
9 Under Secretary determines, after consultation with
10 licensees and qualified business concerns, is nec-
11 essary and appropriate to enhance prospects for suc-
12 cess and to reduce technical risk for licensees and
13 qualified business concerns.

14 (b) FEES.—The Secretary may charge fees for serv-
15 ices and technical assistance provided under subsection (a)
16 in amounts sufficient to cover the reasonable cost of such
17 services and assistance. The Secretary may waive fees es-
18 tablished under this subsection.

19 **SEC. 353. PERFORMANCE MEASURES; ANNUAL REPORT.**

20 (a) PERFORMANCE MEASURES.—The performance of
21 the program established under this subtitle shall be evalu-
22 ated relative to progress made in achieving its purposes
23 and shall be measured in relevant and meaningful terms
24 such as significant accomplishments in advancing tech-
25 nology, businesses formed and financed, jobs created,

1 taxes generated, licenses granted and maintained, capital
2 invested, and other criteria the Under Secretary may deem
3 appropriate.

4 (b) ANNUAL REPORT.—The Under Secretary shall
5 prepare, in consultation with the advisory committee es-
6 tablished under section 344, and submit annually a report
7 to the Congress containing a full and detailed account of
8 operations under this subtitle. Such report shall include—

9 (1) an assessment of progress made in achiev-
10 ing the purposes of this subtitle;

11 (2) performance measures established under
12 subsection (a);

13 (3) a list of licensees along with their location,
14 area of operations, investment objectives, capitaliza-
15 tion, and net asset value, both at cost and at current
16 fair market value;

17 (4) an audit setting forth the amount, type, re-
18 cipient, and source of disbursements, receipts, and
19 losses sustained by the Federal Government as a re-
20 sult of operations under this subtitle during the pre-
21 ceding fiscal year and since inception of the pro-
22 gram;

23 (5) the Under Secretary's plans to ensure the
24 provision of licensee financing to all areas of the
25 country and to all qualified business concerns, and

1 plans to notify and to encourage and facilitate the
2 participation of qualified business concerns as re-
3 quired by section 343(e), including steps taken to
4 accomplish those goals;

5 (6) steps taken by the Under Secretary to carry
6 out this subtitle and to ensure compliance with stat-
7 utory and regulatory standards relating thereto; and

8 (7) recommendations with respect to program
9 changes, statutory changes, and other matters, in-
10 cluding tax incentives, to improve and facilitate the
11 operations of licensees and to encourage the use of
12 their financing facilities by qualified business con-
13 cerns.

14 **SEC. 354. REPORTS, INVESTIGATIONS, AND EXAMINATIONS.**

15 (a) REPORTING REQUIREMENTS.—Each license is-
16 sued under this subtitle shall require a licensee with out-
17 standing preferred securities to provide the Under Sec-
18 retary such information, including companies financed,
19 disbursements made along with associated terms and con-
20 ditions, receipts, portfolio valuation and net asset value
21 at cost and at estimated fair market value, and other fi-
22 nancial statements, that the Under Secretary may require
23 to satisfy the requirements of section 353(b) and to deter-
24 mine, in a timely manner, compliance with this subtitle

1 and regulations promulgated under this subtitle. Such re-
2 porting shall be—

3 (1) except as otherwise provided in this sub-
4 section, consistent with the reporting practices and
5 standards of the venture capital industry;

6 (2) uniform for all licensees;

7 (3) submitted annually to the Under Secretary,
8 with valuation and other information provided more
9 frequently as the Under Secretary may require; and

10 (4) certified by the Board of Directors or the
11 General Partners of the licensee.

12 The Under Secretary may exempt from making such re-
13 ports any licensee which is registered under the Invest-
14 ment Company Act of 1940 only to the extent necessary
15 to avoid duplication in reporting requirements.

16 (b) VALUATIONS.—The Under Secretary shall, by
17 regulation, establish guidelines for estimating the fair
18 market value of investments held by a licensee as required
19 under subsection (a). The board of directors of a corporate
20 licensee and the general partners of a partnership licensee
21 shall have the sole responsibility for making a good faith
22 determination of the fair market value of investments held
23 by such licensee, based on guidelines established under
24 this subsection.

1 (c) INVESTIGATIONS.—The Secretary may undertake
2 investigations to determine whether a licensee or any other
3 person has engaged or is about to engage in any acts or
4 practices which constitute or will constitute a violation of
5 any provision of this subtitle, or of any rule, regulation,
6 or order issued under this subtitle. The Secretary shall
7 permit any person to file a statement in writing, under
8 oath or otherwise as the Secretary shall determine, as to
9 all the facts and circumstances concerning the matter to
10 be investigated. For the purpose of any investigation, the
11 Secretary is empowered to administer oaths and affirma-
12 tions, subpoena witnesses, compel their attendance, take
13 evidence, and require the production of any books, papers,
14 and documents which are relevant to the inquiry.

15 (d) EXAMINATIONS.—Each licensee shall be subject
16 to examinations made at the discretion and direction of
17 the Under Secretary by examiners selected or approved
18 by, and under the supervision of, the Under Secretary.
19 The Under Secretary may enter into contracts with pri-
20 vate parties to perform such examinations. The cost of
21 such examinations, including the compensation of the ex-
22 aminers, may in the discretion of the Under Secretary be
23 assessed against the licensee examined and when so as-
24 sessed shall be paid by such licensee.

1 **SEC. 355. REVOCATION AND SUSPENSION OF LICENSES;**
2 **CEASE AND DESIST ORDERS.**

3 (a) GROUND FOR REVOCATION OR SUSPENSION.—

4 A license may be revoked or suspended by the Secretary—

5 (1) for willful or repeated violation of any provi-
6 sion of this subtitle or any rule, regulation, or order
7 issued thereunder; or

8 (2) if the licensee no longer serves the purposes
9 for which it was granted a license.

10 (b) CEASE AND DESIST ORDERS.—Where a licensee
11 or any other person has not complied with any provision
12 of this subtitle, or of any rule, regulation, or order issued
13 thereunder, or is engaging or is about to engage in any
14 acts or practices which constitute or will constitute a viola-
15 tion of such provision, rule, regulation, or order, the Sec-
16 retary may order such licensee or other person to cease
17 and desist from such action or failure to act. The Sec-
18 retary may further order such licensee or other person to
19 take such action or to refrain from such action as the Sec-
20 retary considers necessary to ensure compliance with such
21 provisions, rules, regulations, or orders. The Secretary
22 may also suspend the license of a licensee, against whom
23 an order has been issued, until such licensee complies with
24 such order.

25 (c) SUBPOENAS.—The Secretary may require by sub-
26 poenas the attendance and testimony of witnesses and the

1 production of all books, papers, and documents relating
2 to the hearing from any place in the United States.

3 (d) ENFORCEMENT.—If any licensee or other person
4 against which or against whom an order is issued under
5 this section fails to obey the order, the Secretary may
6 apply to the district court of the United States for the
7 district where the licensee has its principal place of busi-
8 ness, for the enforcement of the order.

9 **SEC. 356. INJUNCTIVE RELIEF.**

10 (a) IN GENERAL.—If the Secretary determines that
11 a licensee or any other person has engaged, or is about
12 to engage, in any acts or practices which constitute a vio-
13 lation of any provision of this subtitle, or of any rule, regu-
14 lation, or order issued under this subtitle, the Secretary
15 may apply to the appropriate district court of the United
16 States for injunctive relief.

17 (b) RECEIVERSHIP.—Whenever it is necessary in
18 order to achieve the purposes of injunctive relief granted
19 under subsection (a), and upon proper application by the
20 Secretary, the court may order the attachment of assets
21 of a licensee and may appoint a receiver to administer
22 such assets under the direction of the court.

23 **SEC. 357. CONFLICTS OF INTEREST.**

24 For the purpose of controlling conflicts of interest
25 which may be detrimental to qualified business concerns,

1 to licensees, to the shareholders or partners of either, or
2 to the purposes of this subtitle, the Under Secretary shall
3 adopt regulations to govern transactions with any officer,
4 director, shareholder, or partner of any licensee, or with
5 any person or concern, in which any interest, direct or in-
6 direct, financial or otherwise, is held by any officer, direc-
7 tor, shareholder, or partner of (1) any licensee, or (2) any
8 person or concern with an interest, direct or indirect, fi-
9 nancial or otherwise, in any licensee. Such regulations
10 shall include appropriate requirements for public disclo-
11 sure (including disclosure in the locality most directly af-
12 fected by the transaction) necessary to the purposes of this
13 section.

14 **SEC. 358. REMOVAL OR SUSPENSION OF DIRECTORS AND**
15 **OFFICERS.**

16 (a) GROUND.—The Secretary, after an opportunity
17 for agency hearing, may serve upon any director or officer
18 of a licensee a written notice of its intention to remove
19 such director or officer from office, temporarily or perma-
20 nently, whenever in the opinion of the Secretary such di-
21 rector or officer—

22 (1) has willfully and knowingly—

23 (A) committed any substantial violation of
24 this subtitle or any rule, regulation, or order is-
25 sued under this subtitle; or

1 (B) committed or engaged in any act,
2 omission, or practice which constitutes a sub-
3 stantial breach of his fiduciary duty as such di-
4 rector or officer,

5 and that such violation or such breach of fiduciary
6 duty is one involving personal dishonesty on the part
7 of such director or officer; or

8 (2) has been convicted of a felony involving dis-
9 honesty or breach of trust.

10 (b) HEARING.—A hearing under this section shall be
11 on the record and shall be held in the Federal judicial dis-
12 trict or in the territory in which the principal office of
13 the licensee is located unless the party afforded the hear-
14 ing consents to another place. A hearing under this section
15 shall be fixed for a date not earlier than 30 days nor later
16 than 60 days after the date of service of such notice, un-
17 less an earlier or a later date is set by the Secretary at
18 the request of (1) such director or officer and for good
19 cause shown, or (2) the Attorney General of the United
20 States. Unless such director or officer shall appear at the
21 hearing in person or by a duly authorized representative,
22 he shall be deemed to have consented to the issuance of
23 an order of such removal.

1 **SEC. 359. VIOLATIONS.**

2 (a) PARTICIPATION.—Whenever a licensee commits a
3 violation of this subtitle, or any rule, regulation, or order
4 issued under this subtitle, such violation shall be deemed
5 to be also a violation on the part of any person who, di-
6 rectly or indirectly, authorizes, orders, participates in, or
7 causes, brings about, counsels, aids, or abets in the com-
8 mission of such violation.

9 (b) BREACH OF FIDUCIARY DUTY.—It shall be a vio-
10 lation of this subtitle for any officer, director, employee,
11 agent, or other participant in the management or conduct
12 of the affairs of a licensee to engage in any act or practice,
13 or to omit any act, in breach of his fiduciary duty as such
14 officer, director, employee, agent, or participant, if, as a
15 result thereof, the licensee has suffered or is in imminent
16 danger of suffering financial loss or other damage.

17 (c) DISQUALIFICATION.—Except with the written
18 consent of the Secretary, it shall be a violation of this sub-
19 title for any person to take office, or to continue to serve,
20 as an officer, director, or employee of a licensee, or to be-
21 come or continue to serve as an agent or participant in
22 the conduct of the affairs or management of a licensee,
23 if such person—

24 (1) has been convicted of a felony, or any other
25 criminal offense involving dishonesty or breach of
26 trust; or

1 (2) has been found civilly liable in damages, or
2 has been permanently or temporarily enjoined by an
3 order, judgment, or decree of a court of competent
4 jurisdiction, by reason of any act or practice involv-
5 ing fraud or breach of trust.

6 **SEC. 360. CIVIL PENALTIES.**

7 Any person who is found by the Secretary, after no-
8 tice and opportunity to be heard on the record in accord-
9 ance with section 554 of title 5, United States Code, to
10 have committed a violation of this subtitle or any rule,
11 regulation, or order issued under this subtitle shall be lia-
12 ble to the United States for a civil penalty of not more
13 than \$1,000 for each violation. Each day of a continuing
14 violation shall constitute a separate violation. The amount
15 of such civil penalty shall be assessed by the Secretary
16 by written notice. The Secretary may compromise, modify,
17 or remit, with or without conditions, any civil penalty
18 which is subject to imposition or which has been imposed
19 under this section.

20 **SEC. 361. ANTITRUST SAVINGS CLAUSE.**

21 This subtitle shall not be construed to modify, impair,
22 or supersede the operation of the antitrust laws. For pur-
23 poses of this section, the term “antitrust laws” has the
24 meaning given it in subsection (a) of the first section of
25 the Clayton Act (15 U.S.C. 12(a)), except that such term

1 includes the Act of June 19, 1936 (49 Stat. 1526; 15
2 U.S.C. 13 et seq.), commonly known as the Robinson Pat-
3 man Act, and section 5 of the Federal Trade Commission
4 Act (15 U.S.C. 45) to the extent that such section 5 ap-
5 plies to unfair methods of competition.

6 **TITLE IV—MISCELLANEOUS**

7 **SEC. 401. DEPARTMENT OF COMMERCE TECHNOLOGY AD-** 8 **VISORY BOARD.**

9 (a) ESTABLISHMENT.—There is established a De-
10 partment of Commerce Technology Advisory Board (in
11 this section referred to as the “Advisory Board”) to assist
12 the Technology Administration in the performance of its
13 functions.

14 (b) COMPOSITION.—The Advisory Board shall be
15 composed of at least 17 members, appointed by the Under
16 Secretary from among individuals who, because of their
17 experience and accomplishments are exceptionally quali-
18 fied to provide advice to the Under Secretary on the plans,
19 programs, and policy of the Technology Administration.
20 The Under Secretary shall make an effort to ensure the
21 appointment of socially and economically disadvantaged
22 individuals (within the meaning of section 8(a) (5) and
23 (6) of the Small Business Act, and including women) to
24 the Advisory Board. The Under Secretary shall designate

1 1 member to chair the Advisory Board. Membership of
2 the Advisory Board shall include representatives of—

3 (1) United States small businesses;

4 (2) other United States manufacturers;

5 (3) research universities and independent re-
6 search institutes;

7 (4) State and local government agencies in-
8 volved in technology extension;

9 (5) national laboratories;

10 (6) industrial, worker, and professional organi-
11 zations;

12 (7) financial organizations; and

13 (8) computing and communications equipment
14 and services providers.

15 (c) DUTIES.—The duties of the Advisory Board shall
16 include advising the Secretary, the Under Secretary, and
17 the Director regarding—

18 (1) the development of policies and options for
19 implementation that the Advisory Board considers
20 essential to technology creation, development, and
21 adoption, including policies that would benefit small
22 businesses;

23 (2) the development and rapid application of
24 critical and other advanced technologies, including
25 advanced manufacturing technologies;

1 (3) the development of computer and commu-
2 nications support services for advanced manufactur-
3 ing; and

4 (4) the planning, execution, and evaluation of
5 programs under the authority of the Technology Ad-
6 ministration.

7 (d) MEETINGS.—(1) The chairman shall call the first
8 meeting of the Advisory Board not later than 90 days
9 after the date of enactment of this Act.

10 (2) The Advisory Board shall meet at least once every
11 6 months, and at the call of the Under Secretary.

12 (e) TRAVEL EXPENSES.—Members of the Advisory
13 Board, other than full-time employees of the United
14 States, shall be allowed travel expenses in accordance with
15 subchapter I of chapter 57 of title 5, United States Code,
16 while engaged in the business of the Advisory Board.

17 (f) CONSULTATION.—In carrying out this section, the
18 Under Secretary shall consult with other agencies, as ap-
19 propriate.

20 (g) TERMINATION.—Section 14 of the Federal Advi-
21 sory Committee Act shall not apply to the Advisory Board.

22 (h) SECRETARIAL DISCRETION.—Notwithstanding
23 any other provision of this section, the Secretary shall
24 have the discretion to decide whether to establish the Advi-
25 sory Board or create a more cost-effective way to achieve

1 the goal of closer cooperation with industry. If the Sec-
2 retary exercises such discretion and establishes an alter-
3 native mechanism, the Under Secretary shall make an ef-
4 fort to ensure the participation of socially and economi-
5 cally disadvantaged individuals (within the meaning of sec-
6 tion 8(a)(5) and (6) of the Small Business Act, and in-
7 cluding women) in the alternative mechanism.

8 **SEC. 402. INTERNATIONAL STANDARDIZATION.**

9 (a) FINDINGS.—The Congress finds that—

10 (1) private sector consensus standards are es-
11 sential to the timely development of competitive
12 products;

13 (2) Federal Government contribution of re-
14 sources and more active participation in the vol-
15 untary standards process in the United States can
16 increase the quality of United States standards, in-
17 crease their compatibility with the standards of
18 other countries, and ease access of products manu-
19 factured by United States manufacturers to foreign
20 markets; and

21 (3) the Federal Government, working in co-
22 operation with private sector organizations including
23 trade associations, engineering societies, and tech-
24 nical bodies, can effectively promote United States
25 Government use of United States consensus stand-

1 ards and, where appropriate, the adoption and
2 United States Government use of international
3 standards.

4 (b) STANDARD PILOT PROGRAM.—Section 104(e) of
5 the American Technology Preeminence Act of 1991 is
6 amended—

7 (1) by inserting “(1)” before “Pursuant to
8 the”;

9 (2) by striking “matching funds” and inserting
10 in lieu thereof “financial contributions deemed ap-
11 propriate by the Secretary”; and

12 (3) by adding at the end the following new
13 paragraph:

14 “(2) As necessary and appropriate, the Institute shall
15 expand the program established under section 112 of the
16 National Institute of Standards and Technology Author-
17 ization Act for Fiscal Year 1989 (15 U.S.C. 272 note)
18 by extending the existing program to include other coun-
19 tries that request assistance with standards-related activi-
20 ties from official representatives of the United States Gov-
21 ernment. The Institute may enter into additional contracts
22 with non-Federal organizations representing United
23 States companies, as such term is defined in section
24 28(d)(9)(B) of the National Institute of Standards and
25 Technology Act (15 U.S.C. 278n(d)(9)(B)) or with United

1 States-based professional societies who participate in the
2 development of standards. Such contracts shall require
3 cost sharing between Federal and non-Federal sources for
4 such purposes. In awarding such contracts, the Institute
5 shall seek to promote and support the dissemination of
6 United States technical standards to additional foreign
7 countries and shall seek, as the Director deems appro-
8 priate, to promote the adoption of international standards
9 supported by United States industry, and shall seek to as-
10 sist private sector professional societies which participate
11 in the development of standards in expediting the develop-
12 ment of domestic standards which enable the introduction
13 of technologies, products, or technology-based services
14 which are being delayed due to the lack of available stand-
15 ards. The Institute and such contractors shall, in carrying
16 out the preceding sentence, cooperate with governmental
17 bodies, private organizations including standards setting
18 organizations and industry, and multinational institutions
19 that promote economic development. The organizations re-
20 ceiving such contracts may establish training programs to
21 bring to the United States foreign standards experts for
22 the purpose of receiving in-depth training in the United
23 States standards system.”.

1 (c) REPORT ON STANDARDS.—(1) Section 508(a) of
2 the American Technology Preeminence Act of 1991 (15
3 U.S.C. 3701 note) is amended—

4 (A) by inserting “standards development and
5 international” after “a thorough review of inter-
6 national”;

7 (B) by redesignating paragraphs (1) through
8 (5) as paragraphs (2) through (6), respectively; and

9 (C) by inserting before paragraph (2), as so re-
10 designated by subparagraph (B) of this paragraph,
11 the following new paragraph:

12 “(1) Current and potential future roles of the
13 Federal Government in the development and promul-
14 gation of domestic and global product and process
15 standards.”.

16 (2) The Secretary, in consultation with the Institute
17 and the Department of Commerce Technology Advisory
18 Board established under section 401 of this Act and with,
19 as appropriate, the active participation of the private sec-
20 tor, shall submit to the Congress a report describing the
21 appropriate roles of the Department of Commerce in aid
22 to United States companies in achieving conformity as-
23 sessment and accreditation and otherwise qualifying their
24 products in foreign markets, through the development and
25 promulgation of domestic and global product and quality

1 standards, and through the implementation of conformity
2 assessment and accreditation procedures based upon such
3 standards, including a discussion of the extent to which
4 each of the policy options provided in the March 1992 Of-
5 fice of Technology Assessment report, entitled “Global
6 Standards”, contributes to meeting the goals of—

7 (A) increasing the international adoption of
8 standards beneficial to United States industries; and

9 (B) improving the coordination of United States
10 representation to international standards setting
11 bodies.

12 (3) The report shall also describe emerging product
13 and market areas which can be assisted by shortening the
14 time required for the development of standards and make
15 recommendations on contributions the Department of
16 Commerce can make to improving the timeliness of stand-
17 ards development.

18 **SEC. 403. MALCOLM BALDRIGE AWARD AMENDMENTS.**

19 (a) Section 108(c)(3) of the Stevenson-Wydler Tech-
20 nology Innovation Act of 1980, as so redesignated by sec-
21 tion 206(b)(3) of this Act, is amended to read as follows:

22 “(3) No award shall be made within any category or
23 subcategory if there are no qualifying enterprises in that
24 category or subcategory.”.

1 (b)(1) Section 108(c)(1) of the Stevenson-Wydler
2 Technology Innovation Act of 1980, as so redesignated by
3 section 206(b)(3) of this Act, is amended by adding at
4 the end the following new subparagraph:

5 “(D) Educational institutions.”.

6 (2)(A) Within 1 year after the date of enactment of
7 this Act, the Secretary shall submit to the Congress a re-
8 port containing—

9 (i) criteria for qualification for a Malcolm
10 Baldrige National Quality Award by various classes
11 of educational institutions;

12 (ii) criteria for the evaluation of applications for
13 such awards under section 108(d)(1) of the Steven-
14 son-Wydler Technology Innovation Act of 1980, as
15 so redesignated by section 206(b)(3) of this Act; and

16 (iii) a plan for funding awards described in
17 clause (i).

18 (B) In preparing the report required under subpara-
19 graph (A), the Secretary shall consult with the National
20 Science Foundation and other public and private entities
21 with appropriate expertise, and shall provide for public no-
22 tice and comment.

23 (C) The Secretary shall not accept applications for
24 awards described in subparagraph (A)(i) until after the

1 report required under subparagraph (A) is submitted to
2 the Congress.

3 **SEC. 404. COOPERATIVE RESEARCH AND DEVELOPMENT**
4 **AGREEMENTS.**

5 Section 202 of the Stevenson-Wydler Technology In-
6 novation Act of 1980 (15 U.S.C. 3710a), as redesignated
7 by section 206(b)(5) of this Act, is amended—

8 (1) in subsection (d)(1), by inserting “(includ-
9 ing both real and personal property)” after “or
10 other resources” both places it appears; and

11 (2) in subsection (d)(2)(A), by inserting “in-
12 cluding Federal test and evaluation facilities,” after
13 “by a Federal agency,”.

14 **SEC. 405. COMPETITIVENESS ASSESSMENTS AND EVALUA-**
15 **TIONS.**

16 Section 101(e) of the Stevenson-Wydler Technology
17 Innovation Act of 1980, as so redesignated by section
18 206(b)(2) of this Act, is amended to read as follows:

19 “(e) COMPETITIVENESS ASSESSMENTS AND EVALUA-
20 TIONS.—(1) The Secretary, through the Under Secretary,
21 shall—

22 “(A) provide for the conduct of research and
23 analyses to advance knowledge of the ways in which
24 the economic competitiveness of United States com-
25 panies can be enhanced through Federal programs

1 established under the National Competitiveness Act
2 of 1993 or the amendments made by that Act; and

3 “(B) as appropriate, provide for evaluations of
4 Federal technology programs established or ex-
5 panded under the National Competitiveness Act of
6 1993 or the amendments made by that Act in order
7 to judge their effectiveness and make recommenda-
8 tions to improve their contribution to United States
9 competitiveness.

10 “(2) All executive departments and agencies shall as-
11 sist the Secretary in carrying out this section as appro-
12 priate.

13 “(3) Nothing in this section shall authorize the re-
14 lease of information to, or the use of information by, the
15 Secretary or Under Secretary in a manner inconsistent
16 with law or any procedure established pursuant thereto.

17 “(4) The head of any Federal agency may detail such
18 personnel and may provide such services, with or without
19 reimbursement, as the Secretary may request to assist in
20 carrying out the activities required under this section.”.

21 **SEC. 406. STUDY OF SEMICONDUCTOR LITHOGRAPHY**
22 **TECHNOLOGIES.**

23 Within 9 months after the date of enactment of this
24 Act, the Critical Technologies Institute (in this section re-
25 ferred to as the “Institute”) established under section 822

1 of the National Defense Authorization Act for Fiscal Year
2 1991 shall, after consultation with the private sector and
3 appropriate officials from other Federal agencies, submit
4 to Congress a report on advanced lithography technologies
5 for the production of semiconductor devices. The report
6 shall include the Institute's evaluation of the likely tech-
7 nical and economic advantages and disadvantages of each
8 such technology, an analysis of current private and Gov-
9 ernment research to develop each such technology, and
10 any recommendations the Institute may have regarding
11 future Federal support for research and development in
12 advanced lithography.

13 **SEC. 407. AMERICAN WORKFORCE QUALITY PARTNER-**
14 **SHIPS.**

15 (a) AMENDMENT.—Title III of the Stevenson-Wydler
16 Technology Innovation Act of 1980, as added by title II
17 of this Act, is further amended by adding at the end the
18 following new section:

19 **“SEC. 305. AMERICAN WORKFORCE QUALITY PARTNER-**
20 **SHIPS.**

21 “(a) PROGRAM AUTHORIZED.—The Secretary may
22 make grants to establish and operate American workforce
23 quality partnership programs in accordance with the pro-
24 visions of this section. The Secretary shall award grants
25 on a competitive basis to pay the Federal share for Amer-

1 ican workforce quality partnership programs to establish
2 workforce training consortia between industry and institu-
3 tions of higher education.

4 “(b) GRANT PERIOD.—Grants awarded under this
5 section may be for a period of 5 years.

6 “(c) GENERAL AUTHORITY.—Each grant recipient
7 shall use amounts provided under the grant to develop and
8 operate an American workforce quality partnership pro-
9 gram.

10 “(d) CONTENTS OF PROGRAM.—An American
11 workforce quality partnership program shall establish
12 partnerships among—

13 “(1) one or more United States manufacturers;

14 “(2) an organization or organizations represent-
15 ing the nonmanagerial employees of the manufactur-
16 ers described in paragraph (1); and

17 “(3) a local community technical college or
18 other appropriate institutions of higher education, a
19 vocational training institution, a Regional Center for
20 the Transfer of Manufacturing Technology, a Manu-
21 facturing Outreach Center, or any similar entity or
22 consortium of such institutions,

23 to train the employees of the industrial partners through
24 both workplace-based and classroom-based programs of
25 training.

1 “(e) FEDERAL SHARE.—The Federal share of the
2 cost of an American workforce quality partnership pro-
3 gram may not exceed 50 percent of the total cost of the
4 program. The non-Federal share of such costs may be pro-
5 vided in-cash or in-kind, fairly valued. The total contribu-
6 tion of the proposed partnership should reflect a substan-
7 tial contribution on the part of the industrial partners and
8 appropriate contributions of the education partners, local
9 or State governments, and other appropriate entities.

10 “(f) APPLICATIONS.—

11 “(1) ELIGIBILITY.—Any consortium described
12 in subsection (d) may apply for a grant under this
13 section at such time and in such manner as the Sec-
14 retary shall prescribe.

15 “(2) PLAN.—Each application submitted under
16 this subsection shall contain a plan for the develop-
17 ment and implementation of an American workforce
18 quality partnership program under this section.
19 Such plan shall—

20 “(A) show a demonstrated commitment, on
21 the part of the industrial partners, to adopt
22 total quality management strategies or other
23 plausible strategies to renew its competitive
24 edge;

1 “(B) demonstrate the need for Federal re-
2 sources because of the long-term nature and
3 risk of such an investment, the inability to fi-
4 nance such ventures because of the high cost of
5 capitalization, intense competition from foreign
6 industries, or such other appropriate reasons as
7 may limit the industrial partners’ ability to
8 launch programs where worker training and de-
9 velopment is a substantial component;

10 “(C) demonstrate long-term benefit for all
11 partners and the local economy, through an en-
12 hanced competitive position of the industrial
13 partners, substantial benefits for regional em-
14 ployment, and the ability of the education and
15 labor participants to further their capabilities to
16 educate and train other nonpartnership-affili-
17 ated individuals wishing to obtain or upgrade
18 technical, technological, industrial management
19 and leadership, or other industrial skills;

20 “(D) make full, appropriate, and innova-
21 tive use of industrial and higher education re-
22 sources and other local resources such as facili-
23 ties, equipment, personnel exchanges, experts,
24 or consultants;

1 “(E) provide for the establishment of an
2 advisory board in accordance with subsection
3 (h);

4 “(F) include an explanation of the indus-
5 trial partners’ plans to adopt new competitive
6 strategies and how the training partnership aids
7 that effort; and

8 “(G) include assurances that the eligible
9 entity will maintain its aggregate expenditures
10 from all sources for employee training, other
11 than those provided under this section, at or
12 above the average level of such expenditures in
13 the 2 fiscal years preceding submission of an
14 application for assistance under this section.

15 “(3) APPROVAL.—

16 “(A) IN GENERAL.—The Secretary shall
17 approve applications based on their potential to
18 create an effective American workforce quality
19 partnership program in accordance with this
20 section.

21 “(B) CRITERIA.—In reviewing grant appli-
22 cations, the Secretary shall give significant con-
23 sideration to the following criteria:

24 “(i) Saliency of argument for requir-
25 ing a Federal investment.

1 “(ii) Commitment of partnership to
2 continue operation after the termination of
3 Federal funding.

4 “(iii) The likelihood that the training
5 will improve the long-term competitiveness
6 of the industrial partners and contribute
7 significantly to economic growth.

8 “(iv) The likelihood that the partner-
9 ship will benefit the education mission of
10 the education partners in ways outside of
11 the scope of the partnership, such as devel-
12 oping the capability to train other
13 nonpartnership-affiliated individuals in
14 similar skills.

15 “(C) PRIORITY CONSIDERATION.—The
16 Secretary shall give priority consideration to in-
17 dustries which are threatened by intense foreign
18 competition important to the long-term national
19 economic or military security of the United
20 States and industries which are critical in ena-
21 bling other United States industries to maintain
22 a healthy competitive position. In addition, the
23 Secretary shall give priority to applicants in
24 areas of high poverty and unemployment.

25 “(g) USE OF FUNDS.—

1 “(1) APPROVED USES.—Federal funds may be
2 used for—

3 “(A) the direct costs of workplace-based
4 and classroom-based training in advanced tech-
5 nical, technological, and industrial management,
6 skills, and training for the implementation of
7 total quality management and technology man-
8 agement strategies, or other competitiveness
9 strategies, contained in the applicant’s plan
10 submitted under subsection (f)(2)(F);

11 “(B) the purchase or lease of equipment or
12 other materials for the purpose of instruction to
13 aid in training;

14 “(C) the development of in-house curricula
15 or coursework or other training-related pro-
16 grams, including the training of teachers and
17 other eligible participants to utilize such curric-
18 ula or coursework; and

19 “(D) reasonable administrative expenses
20 and other indirect costs of operating the part-
21 nership which may not exceed 10 percent of the
22 total cost of the program.

23 “(2) LIMITATIONS.—Federal funds may not be
24 used for nontraining related costs of adopting new
25 competitive strategies including the replacement of

1 manufacturing equipment, product redesign and
2 manufacturing facility construction costs, or salary
3 compensation of the partners' employees. Grants
4 shall not be made under this section for programs
5 that will impair any existing program, contract, or
6 agreement without the written concurrence of the
7 parties to such program, contract, or agreement.

8 “(h) ADVISORY BOARD.—

9 “(1) Each partnership shall establish an advi-
10 sory board which shall include representation from
11 each of the following categories:

12 “(A) Multiple organizational levels of the
13 industrial partners, that shall include manage-
14 rial employees.

15 “(B) The education partners.

16 “(C) Organizations representing
17 nonmanagerial employees.

18 “(2) The advisory board shall—

19 “(A) advise the partnership on the general
20 direction and policy of the partnership including
21 training, instruction, and other related issues;

22 “(B) report to the Secretary after the sec-
23 ond and fourth year of the program, on the
24 progress and status of the partnership, includ-
25 ing its strengths, weaknesses, and new direc-

1 tions, the number of individuals served, types of
2 services provided, and an outline of how the
3 program can be integrated into the existing
4 training infrastructure in place in other Federal
5 agencies and departments; and

6 “(C) assist in the revision of the plans
7 (submitted with the application under sub-
8 section (f)(2)(F)) and include revised plans as
9 necessary in the reports required under sub-
10 paragraph (B).”.

11 (b) EFFECTIVE DATE.—The amendment made by
12 subsection (a) shall take effect on October 1, 1994.

13 **SEC. 408. SEVERABILITY.**

14 If any provision of this Act or the amendments made
15 by this Act, or the application thereof to any person or
16 circumstance, is held invalid, the remainder of this Act
17 and the amendments made by this Act, and the applica-
18 tion thereof to other persons or circumstances, shall not
19 be affected thereby.

20 **SEC. 409. SUNSET.**

21 (a) REPORT TO CONGRESS.—Before April 1, 1995,
22 the Secretary shall submit to the Congress a report that
23 evaluates the success of the programs established by this
24 Act, and the amendments made by this Act, in achieving
25 the purposes of this Act.

1 (b) LIMITATION ON APPROPRIATIONS.—Notwith-
2 standing any other provision of this Act, no funds are au-
3 thorized to be appropriated for any fiscal year after fiscal
4 year 1995 for carrying out the programs for which funds
5 are authorized by this Act, or the amendments made by
6 this Act.

7 **SEC. 410. USE OF DOMESTIC PRODUCTS.**

8 (a) PROHIBITION AGAINST FRAUDULENT USE OF
9 “MADE IN AMERICA” LABELS.—(1) A person shall not
10 intentionally affix a label bearing the inscription of “Made
11 in America”, or any inscription with that meaning, to any
12 product sold in or shipped to the United States, if that
13 product is not a domestic product.

14 (2) A person who violates paragraph (1) shall not be
15 eligible for any contract for a procurement carried out
16 with amounts authorized under this Act, or under any
17 amendment made by this Act, including any subcontract
18 under such a contract pursuant to the debarment, suspen-
19 sion, and ineligibility procedures in subpart 9.4 of chapter
20 1 of title 48, Code of Federal Regulations, or any succes-
21 sor procedures thereto.

22 (b) COMPLIANCE WITH BUY AMERICAN ACT.—(1)
23 Except as provided in paragraph (2), the head of each
24 agency which conducts procurements shall ensure that
25 such procurements are conducted in compliance with sec-

1 tions 2 through 4 of the Act of March 3, 1933 (41 U.S.C.
2 10a through 10c, popularly known as the “Buy American
3 Act”).

4 (2) This subsection shall apply only to procurements
5 made for which—

6 (A) amounts are authorized by this Act, or by
7 any amendment made by this Act, to be made avail-
8 able; and

9 (B) solicitations for bids are issued after the
10 date of enactment of this Act.

11 (3) The Secretary, before January 1, 1995, shall re-
12 port to the Congress on procurements covered under this
13 subsection of products that are not domestic products.

14 (c) PURCHASE OF AMERICAN MADE EQUIPMENT AND
15 PRODUCTS.—

16 (1) SENSE OF CONGRESS.—It is the sense of
17 Congress that any recipient of a grant under this
18 Act, or under any amendment made by this Act,
19 should purchase only American made equipment and
20 products when expending grant monies.

21 (2) NOTICE TO RECIPIENTS OF ASSISTANCE.—
22 In allocating grants under this Act, or under any
23 amendment made by this Act, the Secretary shall
24 provide to each recipient a notice describing the
25 statement made in paragraph (1) by the Congress.

1 (d) DEFINITIONS.—For the purposes of this section,
2 the term “domestic product” means a product—

3 (1) that is manufactured or produced in the
4 United States; and

5 (2) at least 50 percent of the cost of the arti-
6 cles, materials, or supplies of which are mined, pro-
7 duced, or manufactured in the United States.

8 **SEC. 411. NATIONAL QUALITY PROGRAM.**

9 (a) ESTABLISHMENT.—There is established, under
10 the supervision of the Director, a National Quality Pro-
11 gram (in this section referred to as the “Program”). The
12 purpose of the Program shall be to enhance the Malcolm
13 Baldrige National Quality Award, to disseminate informa-
14 tion, and to promote and take part in educational and re-
15 search activities regarding ways in which United States
16 companies and organizations can improve their quality
17 management practices and productivity.

18 (b) ACTIVITIES.—As part of the Program, the Direc-
19 tor is authorized—

20 (1) to develop industry-led workshops, semi-
21 nars, and other mechanisms to disseminate broadly
22 to United States companies and organizations the
23 best practices available in total quality management,
24 including the practices and quality improvement
25 strategies successfully employed by those firms that

1 have won the Malcolm Baldrige National Quality
2 Award, as well as best practices in lean production
3 methods, market-driven product improvement, and
4 customer-supplier relations;

5 (2) to work with industry leaders and others to
6 develop both measures of quality and recommenda-
7 tions concerning what skills employees should have
8 in order to participate effectively in company quality
9 programs; and

10 (3) to explore, with private industry, other Fed-
11 eral agencies, and State and local government, inno-
12 vative ways in which 2-year colleges and other edu-
13 cational institutions can teach quality assurance
14 techniques and related background skills to indus-
15 trial workers in both manufacturing and services.

16 **SEC. 412. DEFINITIONS.**

17 Title III of the Stevenson-Wydler Technology Innova-
18 tion Act of 1980, as added by title II and section 407
19 of this Act, is further amended by adding at the end the
20 following new section:

21 **“SEC. 306. DEFINITIONS.**

22 “For purposes of this title and title IV—

23 “(1) the term ‘State’ means each of the several
24 States, the District of Columbia, the Commonwealth
25 of Puerto Rico, the Virgin Islands, Guam, American

1 Samoa, the Commonwealth of the Northern Mariana
2 Islands, and any other territory or possession of the
3 United States; and

4 “(2) the term ‘United States’ means the several
5 States, the District of Columbia, the Commonwealth
6 of Puerto Rico, the Virgin Islands, Guam, American
7 Samoa, the Commonwealth of the Northern Mariana
8 Islands, and any other territory or possession of the
9 United States.”.

10 **SEC. 413. FASTENER QUALITY ACT AMENDMENTS.**

11 (a) REFERENCES.—Whenever in this section an
12 amendment is expressed in terms of an amendment to a
13 section or other provision, the reference shall be consid-
14 ered to be made to a section or other provision of the Fas-
15 tener Quality Act (15 U.S.C. 5401 et seq.).

16 (b) TECHNICAL AMENDMENTS.—

17 (1) DEFINITIONS.—Section 3 (15 U.S.C. 5402)
18 is amended—

19 (A) in paragraph (8), by striking “Stand-
20 ard” and inserting in lieu thereof “Standards”;
21 and

22 (B) in paragraph (14), by striking “which
23 defines or describes” and all that follows
24 through “of any fastener”.

1 (2) INSPECTION AND TESTING.—Section
2 5(b)(1) (15 U.S.C. 5404(b)(1)) is amended by strik-
3 ing “section 6; unless” and inserting in lieu thereof
4 “section 6, unless”.

5 (3) IMPORTERS AND PRIVATE LABEL DISTRIBUTU-
6 TORS.—Section 7(c)(2) (15 U.S.C. 5406(c)(2)) is
7 amended by inserting “to the same” before “extent”.

8 (c) CLARIFYING AMENDMENTS.—

9 (1) CHEMICAL TESTS.—(A) Section 5(a)(1)(B)
10 (15 U.S.C. 5404(a)(1)(B)) is amended by striking
11 “subsections (b) and (c)” and inserting in lieu there-
12 of “subsections (b), (c), and (d)”.

13 (B) Section 5(a)(2)(A)(i) (15 U.S.C.
14 5404(a)(2)(A)(i)) is amended by striking “sub-
15 sections (b) and (c)” and inserting in lieu thereof
16 “subsections (b), (c), and (d)”.

17 (C) Section 5(c)(4) (15 U.S.C. 5404(c)(4)) is
18 amended by inserting “except as provided in sub-
19 section (d),” before “state”.

20 (D) Section 5 (15 U.S.C. 5404) is amended by
21 inserting at the end the following new subsection:

22 “(d) ALTERNATIVE PROCEDURE FOR CHEMICAL
23 CHARACTERISTICS.—Notwithstanding the requirements of
24 subsections (b) and (c), a manufacturer shall be deemed
25 to have demonstrated, for purposes of subsection (a)(1),

1 that the chemical characteristics of a lot conform to the
2 standards and specifications to which the manufacturer
3 represents such lot has been manufactured if the following
4 requirements are met:

5 “(1) The coil or heat number of metal from
6 which such lot was fabricated has been inspected
7 and tested with respect to its chemical characteris-
8 tics by a laboratory accredited in accordance with
9 the procedures and conditions specified by the Sec-
10 retary under section 6.

11 “(2) Such laboratory has provided to the manu-
12 facturer, either directly or through the metal manu-
13 facturer, a written inspection and testing report,
14 which shall be in a form prescribed by the Secretary
15 by regulation, listing the chemical characteristics of
16 such coil or heat number.

17 “(3) The report described in paragraph (2) in-
18 dicates that the chemical characteristics of such coil
19 or heat number conform to those required by the
20 standards and specifications to which the manufac-
21 turer represents such lot has been manufactured.

22 “(4) The manufacturer demonstrates that such
23 lot has been fabricated from the coil or heat number
24 of metal to which the report described in paragraphs
25 (2) and (3) relates.

1 In prescribing the form of report required by subsection
2 (c), the Secretary shall provide for an alternative to the
3 statement required by subsection (c)(4), insofar as such
4 statement pertains to chemical characteristics, for cases
5 in which a manufacturer elects to use the procedure per-
6 mitted by this subsection.”.

7 **TITLE V—AUTHORIZATIONS OF** 8 **APPROPRIATIONS**

9 **SEC. 501. TECHNOLOGY ADMINISTRATION.**

10 There are authorized to be appropriated to the Sec-
11 retary, to carry out the activities of the Under Secretary
12 and the Assistant Secretary of Commerce for Technology
13 Policy, in addition to any other amounts authorized for
14 such purposes, for the Office of the Under Secretary—

15 (1) \$5,425,000 for fiscal year 1994; and

16 (2) \$10,000,000 for fiscal year 1995, of which
17 \$2,000,000 are authorized for competitiveness as-
18 sessments and evaluations under section 101(e) of
19 the Stevenson-Wydler Technology Innovation Act of
20 1980, as so redesignated by section 206(b)(2) of this
21 Act.

22 **SEC. 502. NATIONAL INSTITUTE OF STANDARDS AND TECH-** 23 **NOLOGY.**

24 (a) INTRAMURAL SCIENTIFIC AND TECHNICAL RE-
25 SEARCH AND SERVICES.—(1) There are authorized to be

1 appropriated to the Secretary, to carry out the intramural
2 scientific and technical research and services activities of
3 the Institute, \$242,988,000 for fiscal year 1994 and
4 \$300,000,000 for fiscal year 1995.

5 (2) Of the amounts authorized under paragraph
6 (1)—

7 (A) \$1,000,000 for fiscal year 1994 and
8 \$1,000,000 for fiscal year 1995 are authorized only
9 for the evaluation of nonenergy-related inventions;

10 (B) \$9,000,000 for fiscal year 1994 and
11 \$10,000,000 for fiscal year 1995 are authorized only
12 for the technical competence fund; and

13 (C) \$2,000,000 for fiscal year 1994 and
14 \$3,000,000 for fiscal year 1995 are authorized only
15 for the standards pilot project established under sec-
16 tion 104(e) of the American Technology Pre-
17 eminence Act of 1991.

18 (b) TRANSFERS.—(1) Funds may be transferred
19 among the line items listed in subsection (a), so long as—

20 (A) the net funds transferred to or from any
21 line item do not exceed 10 percent of the amount
22 authorized for that line item in such subsection;

23 (B) the aggregate amount authorized under
24 subsection (a) is not changed; and

1 (C) the Committee on Commerce, Science, and
2 Transportation of the Senate and the Committee on
3 Science, Space, and Technology of the House of
4 Representatives are notified in advance of any such
5 transfer.

6 (2) The Secretary may propose transfers to or from
7 any line item listed in subsection (a) exceeding 10 percent
8 of the amount authorized for such line item, but such pro-
9 posed transfer may not be made unless—

10 (A) a full and complete explanation of any such
11 proposed transfer and the reason therefor are trans-
12 mitted in writing to the Speaker of the House of
13 Representatives, the President of the Senate, and
14 the appropriate authorizing Committees of the
15 House of Representatives and the Senate; and

16 (B) 30 days have passed following the trans-
17 mission of such written explanation.

18 (c) FACILITIES CONSTRUCTION.—There are author-
19 ized to be appropriated to the Secretary, to carry out con-
20 struction and modernization of Institute facilities,
21 \$61,686,000 for fiscal year 1994 and \$106,000,000 for
22 fiscal year 1995.

1 **SEC. 503. ADDITIONAL ACTIVITIES OF THE TECHNOLOGY**
2 **ADMINISTRATION.**

3 (a) FISCAL YEAR 1994.—In addition to the amounts
4 authorized under sections 501 and 502, there are author-
5 ized to be appropriated to the Secretary for fiscal year
6 1994—

7 (1) for Regional Centers for the Transfer of
8 Manufacturing Technology, for the National Tech-
9 nology Outreach Program established under section
10 303 of the Stevenson-Wydler Technology Innovation
11 Act of 1980, and for the National Quality Program
12 established under section 410 of this Act,
13 \$30,035,000;

14 (2) for the State Technology Extension Pro-
15 gram, \$3,000,000;

16 (3) for the Advanced Technology Program
17 \$193,489,000, of which \$20,000,000 is authorized
18 for the Advanced Manufacturing Technology Devel-
19 opment Program established under section 304 of
20 the Stevenson-Wydler Technology Innovation Act of
21 1980;

22 (4) for the Civilian Technology Loan Program
23 established under subtitle C of title III of this Act,
24 \$1,000,000;

1 (5) for the Civilian Technologies Development
2 Program established under subtitle D of title III of
3 this Act, \$1,000,000; and

4 (6) for carrying out the Benchmarking Pro-
5 gram established under title IV of the Stevenson-
6 Wydler Technology Innovation Act of 1980,
7 \$2,000,000.

8 (b) FISCAL YEAR 1995.—In addition to the amounts
9 authorized under subsection (a), there are authorized to
10 be appropriated to the Secretary for fiscal year 1995, to
11 carry out the other activities of the Technology Adminis-
12 tration, including the extramural industrial technology
13 services activities of the Institute and the Advanced Tech-
14 nology Program, \$534,000,000, of which—

15 (1) not more than \$150,000,000 shall be for
16 the Regional Centers for the Transfer of Manufac-
17 turing Technology and the National Technology
18 Outreach Program established under section 303 of
19 the Stevenson-Wydler Technology Innovation Act of
20 1980;

21 (2) not more than \$3,000,000 shall be for the
22 National Quality Program established under section
23 410 of this Act;

24 (3) not more than \$3,000,000 shall be for the
25 State Technology Extension Program;

1 (4) not more than \$50,000,000 shall be for the
2 Advanced Manufacturing Technology Development
3 Program established under section 304 of the Ste-
4 venson-Wydler Technology Innovation Act of 1980;

5 (5) not more than \$20,000,000 shall be for the
6 Civilian Technology Loan Program established under
7 subtitle C of title III of this Act;

8 (6) not more than \$50,000,000 shall be for the
9 Civilian Technologies Development Program estab-
10 lished under subtitle D of title III of this Act;

11 (7) not more than \$10,000,000 shall be for car-
12 rying out the Benchmarking Program established
13 under title IV of the Stevenson-Wydler Technology
14 Innovation Act of 1980; and

15 (8) not more than \$50,000,000 shall be for car-
16 rying out the American workforce quality partner-
17 ship program established under section 305 of the
18 Stevenson-Wydler Technology Innovation Act of
19 1980.

20 (c) ADMINISTRATIVE EXPENSES; AUDITS.—Of the
21 amounts made available under subsection (a)(4), not more
22 than \$2,000,000 or 10 percent, whichever is greater, shall
23 be available for administrative expenses. Of the amounts
24 made available under subsection (b)(5), not more than
25 \$5,000,000 or 10 percent, whichever is greater, shall be

1 available for administrative expenses. The Secretary shall
2 ensure that audits are performed by independent auditors
3 on the programs for which funds are appropriated pursu-
4 ant to this section. The summary results of such audits
5 shall be submitted to the Congress by the end of each of
6 the fiscal years 1994 and 1995, and not more than
7 \$2,000,000, or 2 percent of the aggregate amount made
8 available under such section and subsection, whichever is
9 greater, shall be used in each such fiscal year for perform-
10 ing the audits.

11 **SEC. 504. NATIONAL SCIENCE FOUNDATION.**

12 In addition to such other sums as may be authorized
13 by other Acts to be appropriated to the Director of the
14 National Science Foundation, there are authorized to be
15 appropriated to that Director—

16 (1) for carrying out section 212 of this Act,
17 \$20,000,000 for fiscal year 1995; and

18 (2) for carrying out section 213 of this Act,
19 \$30,000,000 for fiscal year 1995.

20 **SEC. 505. AVAILABILITY OF APPROPRIATIONS.**

21 Except as otherwise provided in this title, appropria-
22 tions made under the authority provided in this title shall
23 remain available for obligation until expended.

1 **SEC. 506. PROHIBITIONS.**

2 None of the funds made available in this Act may
 3 be used to provide any direct Federal financial benefit to
 4 any person who is not (1) a citizen or national of the Unit-
 5 ed States; (2) an alien lawfully admitted for permanent
 6 residence; or (3) an alien granted legal status as a parolee,
 7 asylee, or refugee.

Passed the House of Representatives May 19, 1993.

Attest: DONNALD K. ANDERSON,
Clerk.

HR 820 RFS—2

HR 820 RFS—3

HR 820 RFS—4

HR 820 RFS—5

HR 820 RFS—6

HR 820 RFS—7

HR 820 RFS—8

HR 820 RFS—9

HR 820 RFS—10