STEVENSON-WYDLER TECHNOLOGY INNOVATION ACT OF 1980, AS AMENDED[1]

(Public Law 96-480, As Amended by Public Law 99-382 (August 14, 1986) Public Law 99-502 (October 20, 1986) and by Public Law 100-__ (August 23, 1988)

An Act

To promote United States technological innovation for the achievement of national economic, environmental, and social goals, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Stevenson-Wydler Technology Innovation Act of 1980".

SEC. 2. FINDINGS. (15 U.S.C. §3701)

The Congress finds and declares that:

(1) Technology and industrial innovation are central to the economic, environmental, and social well-being of citizens of the United States.

(2) Technology and industrial innovation offer an improved standard of living, increased public and private sector productivity, creation of new industries and employment opportunities, improved public services and enhanced competitiveness of United States products in world markets.

(3) Many new discoveries and advances in science occur in universities and Federal laboratories, while the application of this new knowledge to commercial and useful public purposes depends largely upon actions by business and labor. Cooperation among academia, Federal laboratories, labor, and industry, in such forms as technology transfer, personnel exchange, joint research projects, and others, should be renewed, expanded, and strengthened.

(4) Small businesses have performed an important role in advancing industrial and technological innovation.

(5) Industrial and technological innovation in the United States may be lagging when compared to historical patterns and other industrialized nations.

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[1]Changes made by the Omnibus Trade and Competitiveness Act of 1988, Pub. L. No. 100-418, §§ 5115(b), 5122, 5152, and 5162, are in underlined italics. References to the Act as codified have not been updated.

Note: the symbol "AA" indicates amendments made by the NIST Authorization Act.

(6) Increased industrial and technological innovation would reduce trade deficits, stabilize the dollar, increase productivity gains, increase employment, and stabilize prices.

(7) Government antitrust, economic, trade, patent, procurement, regulatory, research and development, and tax policies have significant impacts upon industrial innovation and development of technology, but there is insufficient knowledge of their effects in particular sectors of the economy.

(8) No comprehensive national policy exists to enhance technological innovation for commercial and public purposes. There is a need for such a policy, including a strong national policy supporting domestic technology transfer and utilization of the science and technology resources of the Federal Government.

(9) It is in the national interest to promote the adaptation of technological innovations to State and local government uses. Technological innovations can improve services, reduce their costs, and increase productivity in State and local governments.

(10) The Federal laboratories and other performers of federally funded research and development frequently provide scientific and technological developments of potential use to State and local governments and private industry. These developments, including inventions, computer software, and training technologies, should be made accessible to those governments and industry. There is a need to provide means of access and to give adequate personnel and funding support to these means.

(11) The Nation should give fuller recognition to individuals and companies which have made outstanding contributions to the promotion of technology or technological manpower for the improvement of the economic, environmental, or social well-being of the United States.

SEC. 3. PURPOSE. (15 U.S.C. § 3702)

It is the purpose of this Act to improve the economic, environmental, and social well-being of the United States by-

(1) establishing organizations in the executive branch to study and stimulate technology;

(2) promoting technology development through the establishment of cooperative centers;

(3) stimulating improved utilization of federally funded technology developments, including inventions, software, and training technologies, by State and local governments and the private sector;

(4) providing encouragement for the development of technology through the recognition of individuals and companies which have made outstanding contributions in technology; and

(5) encouraging the exchange of scientific and technical personnel among academia, industry, and Federal laboratories.

SEC. 4. DEFINITIONS. (15 U.S.C. § 3703)

As used in this Act, unless the context otherwise requires, the term-

(1) 'office' means the Office of Technology Policy AA established under section 5 of this Act.

(2) 'Secretary' means the Secretary of Commerce.

(3) 'Under Secretary' means the Under Secretary of Commerce for Technology appointed under section 5(b)(1). AA

(4) 'Centers' means the Cooperative Research Centers established under section 6 or section 8 of this Act (15 U.S.C. § 3705, 3707).

(5) 'Nonprofit institution' means an organization owned and operated exclusively for scientific or educational purposes, no part of the net earnings of which inures to the benefit of any private shareholder or individual.

(6) 'Federal laboratory' means any laboratory, any federally funded research and development center, or any center established under section 6 or section 8 of this Act (15 U.S.C. §§ 3705, 3707) that is owned, leased, or otherwise used by a Federal agency and funded by the Federal Government, whether operated by the Government or by a contractor.

(7) 'Supporting agency' means either the Department of Commerce or the National Science Foundation, as appropriate.

(8) 'Federal agency' means any executive agency as defined in section 105 of title 5, United States Code, and the military departments as defined in section 102 of such title.

(9) 'Invention' means any invention or discovery which is or may be patentable or otherwise protected under title 35,

United States Code, or any novel variety of plant which is or may be protestable under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

(10) 'Made' when used in conjunction with any invention means the conception or first actual reduction to practice of such invention.

(11) 'Small business firms' means a small business concern as defined in section 2 of Public Law 85-536 (15 U.S.C. § 632) and implementing regulations of the Administrator of the Small Business Administration.

(12) 'Training technology' means computer software and related materials which are developed by a Federal agency to train employees of such agency, including but not limited to software for computer-based instructional systems and for interactive video disc systems.

(13) 'Clearinghouse' means the Clearinghouse for State and Local Intiatives on Productivity, Technology, and Innovation established by section 6.

SEC. 5. COMMERCE AND TECHNOLOGICAL INNOVATION. (15 U.S.C. § 3704)

(a) ESTABLISHMENT. - There is established in the Department of Commerce a Technology Administration, which shall operate in accordance with the provisions, findings, and purposes of this Act. The Technology Administration shall include-

(1) the National Institute of Standards and Technology;
(2) the National Technical Information Service; and
(3) a policy analysis office, which shall be known as the Office of Technology Policy. AA

(b) UNDER SECRETARY AND ASSISTANT. - The President shall appoint, by and with the advice and consent of the Senate, to the extent provided for in appropriations Acts-
(1) an Under Secretary of Commerce for Technology, who shall be compensated at the rate provided for level III of the Executive Schedule in section 5314 of title 5, United States Code; and
(2) An Assistant Secretary of Commerce for Technology Policy, who shall serve as policy analyst for the Under Secretary. AA

(c) DUTIES. - The Secretary, through the Under Secretary, as appropriate, shall
(1) manage the Technology Administration and supervise its agencies, programs, and activities;
(2) conduct technology policy analyses to improve United States industrial productivity, technology, and innovation, and cooperate with United States industry in the improvement of its productivity, technology, and ability to compete successfully in world markets;

(3) carry out any functions formerly assigned to the Office of Productivity, Technology, and Innovation;

(4) assist in the implementation of the Metric Conversion Act of 1975; AA

(5) determine the relationships of technological developments and international technology transfers to the output, employment, productivity, and world trade performance of United States and foreign industrial sectors;

(6) determine the influence of economic, labor and other conditions, industrial structure and management, and government policies on technological developments in particular industrial sectors worldwide;

(7) identify technological needs, problems, and opportunities within and across industrial sectors that, if addressed, could make a significant contribution to the economy of the United States;

(8) assess whether the capital, technical and other resources being allocated to domestic industrial sectors which are likely to generate new technologies are adequate to meet private and social demands for goods and services to promote productivity and economic growth;

(9) propose and support studies and policy experiments, in cooperation with other Federal agencies, to determine the effectiveness of measures with the potential of advancing United States technological innovation;

(10) provide that cooperative efforts to stimulate industrial innovation be undertaken between the Under Secretary and other officials in the Department of Commerce responsible for such areas as trade and economic assistance; AA

(11) encourage and assist the creation of centers and other joint initiatives by State or local governments, regional organizations, private businesses, institutions of higher education, nonprofit organizations, or Federal laboratories to encourage technology transfer, to stimulate innovation, and to promote an appropriate climate for investment in technology-related industries;

(12) propose and encourage cooperative research involving appropriate Federal entitites, State or local governments, regional organizations, colleges or universities, nonprofit organizations, or private industry to promote the common use of resources, to improve training programs and curricula, to stimulate interest in high technology careers, and to encourage the effective dissemination of technology skills within the wider community;

(13) consider government measures with the potential of advancing United States technological innovation and exploiting innovations of foreign origin; and

(14) Publish the results of studies and policy experiments.

(d) JAPANESE TECHNICAL LITERATURE ("JAPANESE TECHNICAL LITERATURE ACT"). -

(1) In addition to the duties specified in sub-section (c) of this section, the Secretary and the Under Secretary shall establish, and through the National Technical Information Service and with the cooperation of such AA

other offices within the Department of Commerce as the Secretary considers appropriate, maintain a program (including an office in Japan) which shall, on a continuing basis-

(A) monitor Japanese technical activities and developments;

(B) consult with businesses, professional societies, and libraries in the United States regarding their needs for information on Japanese developments in technology and engineering;

(C) acquire and translate selected Japanese technical reports and documents that may be of value to agencies and departments of the Federal Government, and to businesses and researchers in the United States; and

(D) coordinate with other agencies and departments of the Federal Government to identify significant gaps and avoid duplication in efforts by the Federal Government to acquire, translate, index, and disseminate Japanese technical information.

Activities undertaken pursuant to subparagraph (C) of this paragraph shall only be performed on a cost-reimbursable basis. Translations referred to in such subparagraph shall be performed only to the extent that they are not otherwise available from sources within the private sector in the United States.

(2) Beginning in 1986, the Secretary shall prepare annual reports regarding important Japanese scientific discoveries and technical innovations in such areas as computers, semiconductors, biotechnology; and robotics and manufacturing. In preparing such reports, the Secretary shall consult with professional societies and businesses in the United States. The Secretary may, to the extent provided in advance by appropriations Acts, contract with private organizations to acquire and translate Japanese scientific and technical information relevant to the preparation of such reports.

(3) The Secretary also shall encourage professional societies and private businesses in the United States to increase their efforts to acquire, screen, translate, and disseminate Japanese technical literature.

(4) In addition, the Secretary shall compile, publish, and disseminate an annual directory which lists-

(A) all programs and services in the United States that collect, abstract, translate, and distribute Japanese scientific and technical information; and

(B) all translations of Japanese technical documents performed by agencies and departments of the Federal Government in the preceding 12 months that are available to the public.

(5) The Secretary shall transmit to the Congress, within 1 year after August 14, 1986, a report on the activities of the Federal Government to collect, abstract, translate, and distribute declassified Japanese scientific and technical information.

(e) REPORT.- The Secretary shall prepare and submit to the President and Congress, within 3 years after the date of enactment of this Act, (i.e. October 21, 1983) a report on the progress, findings, and conclusions of activities conducted pursuant to sections 5, 6, 8, 11, 12, and 13 of this Act (as then in effect) and recommendations for possible modifications thereof.

SEC. 6. CLEARINGHOUSE ON STATE AND LOCAL INITIATIVES (15 U.S.C. § ____, as added by § 5122(a) of Pub. L. 100-418)

(a) ESTABLISHMENT.- There is established within the Office of Productivity, Technology, and Innovation a Clearinghouse for State and Local Initiatives on Productivity, Technology, and Innovation. The Clearinghouse shall serve as a central repository of information on initiatives by State and local governments to enhance the competitiveness of American business through the stimulation of productivity, technology, and innovation and Federal efforts to assist State and local governments to enhance competitiveness.

(b) RESPONSIBILITIES.- The Clearinghouse may--

(1) establish relationships with State and local governments, and regional and multistate organizations of such governments, which carry out such initiatives;

(2) collect information on the nature, extent, and effects of such initiatives, particularly information useful to the Congress, Federal agencies, State and local governments, businesses, and the public throughout the United States;

(3) disseminate information collected under paragraph (2) through reports, directories, handbooks, conferences, and seminars;

(4) provide technical assistance and advice to such governments with respect to such initiatives, including assistance in determining sources of assistance from Federal agencies which may be available to support such initiatives;

(5) study ways in which Federal agencies, including Federal laboratories, are able to use their existing policies and programs to assist State and local governments, and regional and multistate organizations of such governments, to enhance the competitiveness of American business;

(6) make periodic recommendations to the Secretary, and to other Federal agencies upon their request, concerning modifications in Federal policies and programs which would improve Federal assistance to State and local technology and business assistance programs;

(7) develop methodologies to evaluate State and local programs, and, when requested, advise State and local governments, and regional and multistate organizations of such governments, as to which programs are most effective in enhancing the competitiveness of American business through the stimulation of productivity, technology, and innovation; and

(8) make use of, and disseminate, the nationwide study of State industrial extension programs conducted by the Secretary.

(c) CONTRACTS.- In carrying out subsection (b), the Secretary may enter into contracts for the purpose of collecting information on the nature, extent, and effects o initiatives.

(d) TRIENNIAL REPORT.- The Secretary shall prepare and transmit to the Congress once each 3 years a report on initiatives by State and local governments to enhance the competitiveness of American businesses through the stimulation of productivity, technology, and innovation. The report shall include recommendations to the President, the Congress, and to Federal agencies on the appropriate Federal role in stimulating State and local efforts in this area. The first of the reports shall be transmitted to the Congress before January 1, 1989.[3]

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[3]Section 5122(a)(1) of Pub. L. No. 100-418 redesignated sections 6 through 19 of the current law as sections 7 through 20 to reflect the addition of a this new section 6 to the Act.

SEC. Z. COOPERATIVE RESEARCH CENTERS. (15 U.S.C. § 3705)

(a) ESTABLISHMENT.- The Secretary shall provide assistance for the establishment of Cooperative Research Centers: Such Centers shall be affiliated with any university, or other nonprofit institution, or group thereof, that applies for nd is awarded a grant or enters into a cooperative agreement under this section. The objective of the Centers is to enhance technological innovation through-

(1) the participation of individuals from industry and universities in cooperative technological innovation activities;

(2) the development of the generic research base, important for technological advance and innovative activity, in which individual firms have little incentive to invest, but which may have significant economic or strategic importance, such as manufacturing technology;

(3) the education and training of individuals in the technological innovation process;

(4) the improvement of mechanisms for the dissemination of scientific, engineering, and technical information among universities and industry;

(5) the utilization of the capability and expertise, where appropriate, that exists in Federal laboratories; and

(6) the developments of continuing financial support from other mission agencies, from State and local government, and from industry and universities through, among other means, fees, licenses, and royalties

(b) ACTIVITIES.- The activities of the Centers shall include, but need not be limited to-

(1) research supportive of technological and industrial innovation including cooperative industry-university research;

(2) assistance to individuals and small businesses in the generation, evaluation and development of technological ideals supportive of industrial innovation and new business ventures;

(3) technical assistance and advisory services to industry, particularly small businesses; and

(4) curriculum development, training, and instruction in invention, entrepreneurship, and industrial innovation. Each Center need not undertake all of the activities under this subsection.

(c) REQUIREMENTS.- Prior to establishing a Center, the Secretary shall find that-

(1) consideration has been given to the potential contribution of the activities proposed under the Center to productivity, employment, and economic competitiveness of the United States;

(2) a high likelihood exists of continuing participation, advice, financial support, and other contributions from the private sector;

(3) the host university or other nonprofit institution has a plan for the management and evaluation of the activities proposed within the particular Center, including:

(A) the agreement between the parties as to the allocation of patent rights on a nonexclusive, partially exclusive, or exclusive license basis to an inventions conceived or made under the auspices of the Center, and

(B) the consideration of means to place the Center, to the maximum extent feasible, on a self-sustaining basis;

(4) suitable consideration has been given to the university's or other nonprofit institution's capabilities and geographical location; and

(5) consideration has been given to any effects upon competition of the activities proposed under the Center.

(d) PLANNING GRANTS.- The Secretary is authorized to make available nonrenewable planning grants to universities or nonprofit institutions for the purpose of developing a plan required under subsection (c)(3).

(e) RESEARCH AND DEVELOPMENT UTILIZATION.- In the promotion of technology from research and development efforts by Centers under this section, chapter 18 of title 35, United States Code, shall apply to the extent not inconsistent with this section.

SEC. 8. GRANTS AND COOPERATIVE AGREEMENTS. (15 U.S.C. § 3706)

(a) IN GENERAL.- The Secretary may make grants and enter into cooperative agreements according to the provisions of this section in order to assist any activity consistent with this Act, including activities performed by individuals. The total amount of any such grant or cooperative agreement may not exceed 75 percent of the total cost of the program.

(b) ELIGIBILITY AND PROCEDURE.- Any person or institution may apply to the Secretary for a grant or cooperative agreement available under this section. Application shall be made in such form and manner, and with such content and other submissions, as the *Assistant Secretary*[4] shall prescribe. The Secretary shall act upon each such application within 90 days after the date on which all required information is received.

(c) TERMS AND CONDITIONS.-

(1) Any grant made, or cooperative agreement entered into, under this section shall be subject to the limitations and provisions set forth in paragraph (2) of this subsection, and to such other terms, conditions, and requirements as the Secretary deems necessary or appropriate.

(2) Any person who receives or utilizes any proceeds of any grant made or cooperative agreement entered into under this section shall keep such records as the Secretary shall by regulation prescribe as being necessary and appropriate to facilitate effective audit and evaluation, including records which fully disclose the amount and disposition by such recipient of such proceeds, the total cost of the program or project in connection with which such proceeds were used, and the amount, if any, of such costs which was provided through other sources.

SEC. 9. NATIONAL SCIENCE FOUNDATION COOPERATIVE RESEARCH CENTERS. (15 U.S.C. § 3707)

(a) ESTABLISHMENT AND PROVISIONS.- The National Science Foundation shall provide assistance for the establishment of Cooperative Research Centers. Such Centers shall be affiliated with a university, or other nonprofit institution, or a group thereof. The objective of the Centers is to enhance

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[4] § 5115(b) of Pub. L. No. 100-418 substituted "Assistant Secretary" for "Director."

technological innovation as provided in section 6(a) through the conduct of activities as provided in section 6(b).[5]

(b) PLANNING GRANTS.- The National Science Foundation is authorized to make available nonrenewable planning grants to universities or nonprofit institutions for the purpose of developing the plan, as described under section 6(c)(3).

(c) TERMS AND CONDITIONS.- Grants, contracts, and cooperative agreements entered into by the National Science Foundation in execution of the powers and duties of the National Science Foundation under this Act shall be governed by the National Science Foundation Act of 1950 and other pertinent Acts.

SEC. 10. ADMINISTRATIVE ARRANGEMENTS. (15 U.S.C. § 3708)

(a) COORDINATION.- The Secretary and the National Science Foundation shall, on a continuing basis, obtain the advice and cooperation of departments and agencies whose missions contribute to or are affected by the programs established under this Act, including the development of an agenda for research and policy experimentation. These departments and agencies shall include but not be limited to the Departments of Defense, Energy, Education, Health and Human Services, Housing and Urban Development, the Environmental Protection Agency, National Aeronautics and Space Administration, Small Business Administration, Council of Economic advisers, Council on environmental Quality, and Office of Science and Technology Policy.

(b) COOPERATION.- It is the sense of the Congress that departments and agencies, including the Federal laboratories, whose missions are affected by, or could contribute to, the programs established under this Act, should, within the limits of budgetary authorizations and appropriations, support or participate in activities or projects authorized by this Act.

(c) ADMINISTRATIVE AUTHORIZATION.-

(1) Departments and agencies described in subsection (b) are authorized to participate in, contribute to, and serve as resources for the Centers and for any other activities authorized under this Act.

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[5]Note: The 1987 pocket part to U.S.C.A. incorrectly deleted the last 2 sentences of section 8(a). Public Law 99-502 provided only that the last sentence be stricken (§ 9 (e)(2)(B).

(2) The Secretary and the National Science Foundation are authorized to receive moneys and to receive other forms of assistance from other departments or agencies to support activities of the Centers and any other activities authorized under this Act.

(d) COOPERATIVE EFFORTS.- The Secretary and the National Science Foundation shall, on a continuing basis, provide each other the opportunity to comment on any proposed program of activity under section *7, 9, 11, 15, 17 or 18*[6] of this Act (15 U.S.C. §§ 3705, 3707, 3710, 3710d, 3711a or 3712) before funds are committed to such program in order to mount complementary efforts and avoid duplication.

[SEC.10. NATIONAL INDUSTRIAL TECHNOLOGY BOARD. (15 U.S.C. §3709) -- Repealed by Pub. L. No. 99-502, § 9(a)]

[FEDERAL TECHNOLOGY TRANSFER ACT OF 1986]

SEC *11*. UTILIZATION OF FEDERAL TECHNOLOGY. (15 U.S.C. § 3710)

(a) POLICY. --

(1) It is the continuing responsibility of the Federal Government to ensure the full use of the results of the Nation's Federal investment in research and development. To this end the Federal Government shall strive where appropriate to transfer federally owned or originated technology to State and local governments and to the private sector.

(2) Technology transfer, consistent with mission responsibilities, is a responsibility of each laboratory science and engineering professional.

(3) Each laboratory director shall ensure that efforts to transfer technology are considered positively in laboratory job descriptions, employee promotion policies, and evaluation of the job performance of scientists and engineers in the laboratory.

(b) ESTABLISHMENT OF RESEARCH AND TECHNOLOGY APPLICATION OFFICES.- Each Federal laboratory shall establish an Office of Research and Technology Applications. Laboratories having existing organizational structures which perform the functions of this section may elect to combine the Office of Research and

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[6] § 5122(c) of Pub. L. No. 100-418 redesignated the reference to sections "6, 8, 10, 14, 16, or 17" as "7, 9, 11, 15, 17, or 18" to reflect the addition of a new section 6 by § 5122 (a)(2).

shall provide one or more full-time equivalent positions

Technology Applications within the existing organization. The staffing and funding levels for these offices shall be determined between each Federal laboratory and the Federal agency operating or directing the laboratory, except that (1) each laboratory having 200 or more full-time equivalent scientific, engineering, and related technical positions as staff for its Office of Research and Technology Applications, and (2) after September 30, 1981, each FEderal agency which operates or directs one or more Federal laboratories shall make available not less than 0.5 percent of the agency's research and development budget to support the technology transfer function at the agency and at its laboratories, including support of the Offices of Research and Technology Applications.

Furthermore, individuals filling positions in an Office of Research and Technology Applications shall be included in the overall laboratory/agency management development program so as to ensure that highly competent technical managers are full participants in the technology transfer process.

The agency head may waive requirement set forth in clause (2) of the preceding sentence. If the agency head waives such requirement, the agency head shall submit to Congress at the time the President submits the budget to Congress an explanation of the reasons for the waiver and alternate plans for conducting the technology transfer function at the agency.

(c) FUNCTIONS OF RESEARCH AND TECHNOLOGY APPLICATIONS OFFICE.- It shall be the function of each Office of Research and Technology Applications-

(1) to prepare application assessments for selected research and development projects in which that laboratory may have potential commercial applications.

(2) to provide and disseminate information on federally owned or originated products, processes, and services having potential application to State and local governments and to private industry;

(3) to cooperate with and assist the National Technical Information Service, the Federal Laboratory Consortium for Technology Transfer, and other organizations which line the research and development resources of that laboratory and the local government and private industry;

(4) to provide technical assistance to State and local government officials; and

(5) to participate, where feasible, in regional, State, and local programs designed to facilitate or stimulate the transfer of technology for the benefit of the

region, State or local jurisdiction in which the Federal laboratory is located.

Agencies which have established organizational structures outside their Federal laboratories which have as their principal purpose the transfer of federally owned or originated technology to State and local government and to the private sector may elect to perform the functions off this subsection in such organizational structures. No Office of Research and Technology Applications or other organizational structures performance the functions of this subsection shall substantially compete with similar services available in the private sector.

(d) DISSEMINATION OF TECHNICAL INFORMATION.- The National Technical Information Service shall-

(1) serve as a central clearinghouse for the collection, dissemination and transfer of information on federally owned or originated technologies having potential application to State and local governments and to private industry;

(2) utilize the expertise and services of the National Science Foundation and the Federal Laboratory Consortium for Technology Transfer; particularly in dealing with State and local governments;

(3) receive requests for technical assistance from State and local governments, respond to such request with published information available to the Service, and refer such requests to the Federal Laboratory consortium for Technology Transfer to the extent that such request require a response involving more than the published information available to the Service:

(4) funding, at the discretion of the Secretary, for Federal laboratories to provide the assistance specified in subsection (c)(3);

(5) use appropriate technology transfer mechanisms such as personnel exchanges and computer-based systems; *and*

(6) maintain a permanent archival repository and clearinghouse for the collection and dissemination of nonclassified scientific, technical, and engineering information.[7]

(e) ESTABLISHMENT OF FEDERAL LABORATORY CONSORTIUM FOR TECHNOLOGY TRANSFER -.

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[7] § 5162(c)(3) of Pub. L. No. 100-418 added a new paragraph (6) to this subsection.

(1) There is hereby established the Federal Laboratories Consortium for technology Transfer (hereinafter referred to as the 'Consortium)' which, in cooperation with Federal laboratories and the private sector, shall-

(A) develop and (with the consent of the Federal laboratory concerned) administer techniques, training courses, and materials concerning technology transfer to increase the awareness of Federal laboratory employees regarding the commercial potential of laboratory technology and innovations;

(B) furnish advice and assistance requested by Federal agencies and laboratories for use in their technology transfer programs (including the planning of seminars for small business and other industry);

(C) provide a clearinghouse for requests, received at the laboratory level, for technical assistance from States and units of local governments, businesses, industrial development organizations not-for-profit organizations including universities. Federal agencies and laboratories, and other persons and,

(i) to the extent that such requests can be responded to with published information available to the National Technical Information Service, refer such requests to that Service, and

(ii) otherwise refer these requests to the appropriate Federal laboratories and agencies;

(D) facilitate communication and coordination between Offices of Research and Technology Applications of Federal laboratories;

(E) utilize (with the consent of the agency involved) the expertise and services of the National Science Foundation, the Department of Commerce, the National Aeronautics and Space Administration, and other Federal agencies, as necessary.

(F) with the consent of any Federal laboratory, facilitate the use by such laboratory of appropriate technology transfer mechanisms such as personnel exchanges and computer-based systems;

(G) with the consent of any Federal laboratory, assist such laboratory to establish programs using

technical volunteers to provide technical assistance to communities related to such laboratory;

(H) facilitate communication and cooperation between Offices of Research and Technology Applications of Federal laboratories and regional, State, and local technology transfer organizations;

(I) when requested, assistant colleges or universities, business, nonprofit organizations, State or local governments, or regional organizations to establish programs to stimulate research and to encourage technology transfer in such areas as technology program development, curriculum design, long-term research planning, personnel needs projections, and productivity assessments; and

(J) seek advice in each Federal laboratory consortium region from representatives of State and local governments, large and small business, universities, and other appropriate persons on the effectiveness of the program (and any such advice shall be provided at no expense to the Government).

(2) The membership of the Consortium shall consist of the Federal laboratories described in clause (1) of subsection (b) and such other laboratories as may choose to join the Consortium. The representatives to the Consortium shall include a senior staff member of each Federal laboratory which is a member of the Consortium and representative appointed from each federal agency with one or more member laboratories.

(3) The representatives to the Consortium shall elect a Chairman of the Consortium.

(4) The Director of the *National Institute of Standards and Technology*[8] shall provide the Consortium, on a reimbursable basis, with administrative services, such as office space, personnel, and support services of the *Institute* as requested by the Consortium and approved by such Director.

(5) Each Federal laboratory or agency shall transfer technology directly to users or representatives of users, and shall not transfer technology directly to the Consortium. Each Federal laboratory shall conduct and transfer technology only in accordance with the practices

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[8] As renamed by § 5115(b)(2) of Pub. L. No. 100-418.

and policies of the Federal agency which owns, leases, or otherwise uses such Federal Laboratory.

(6) Not later than one year after the date of the enactment of this subsection, (i.e. Oct 20, 1987) and every year thereafter, the Chairman of the Consortium shall submit a report to the President, to the appropriate authorization and appropriation committees of both House of the Congress, and to each agency with respect to which a transfer of funding is made (for the fiscal year of years involved) under paragraph (7), concerning the activities of the Consortium and the expenditures made by it under this subsection during the year for which the report is made.

(7) (A) Subject to subparagraph (B), an amount equal to *0.008 percent of the budget of each Federal agency from any Federal source, including related overhead, that is to be utilized by or on behalf of*[9] the laboratories of such agency for a fiscal year referred to in subparagraph (B)(ii) shall be transferred by such agency to the National Bureau of Standards at the beginning of the fiscal year involved. Amounts so transferred shall be provided by the Bureau to the Consortium for the purpose of carrying out activities of the Consortium under this subsection.

(B) A transfer shall be made by any Federal agency under subparagraph (A), for any fiscal year, only if -

(i) the amount to transferred by that agency (as determined under such subparagraph) would exceed $10,000; and

(ii) such transfer is made with respect to the fiscal year 1987, 1988, 1989, 1990, or 1991.

(C) The heads of Federal agencies and their designees, and the directors of Federal laboratories, may provide such additional support for operations of the Consortium as they seem appropriate.

(8) (A) The Consortium shall use 5 percent of the funds provided in paragraph technology transfer. To carry out such projects, the Consortium may arrange for grants or awards to, or enter into agreements with

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[9] § 5162(b) of Pub. L. No. 100-418 substituted "0.008 percent of the budget of each Federal agency from any federal source, including related overhead, that is to be utilized by or on behalf of" for "0.005 percent of that portion of the research and development budget of each Federal agency that is to be utilized by."

nonprofit State, local or private organizations or entities whose primary purposes are to facilitate cooperative research between the Federal laboratories and organizations not associated with the Federal laboratories, to transfer technology from the Federal laboratories, and to advance State and local economic activity.

(B) The demonstration projects established under subparagraph (A) shall serve as model programs. Such projects shall be designed to develop programs and mechanisms for technology transfer from the Federal laboratories which may be utilized by the States and which will enhance Federal, State and local programs for the transfer of technology.

(C) Application for such grants, awards, or agreements shall be in such form and contain such information as the Consortium or its designee shall specify.

(D) Any person who receives or utilizes any proceeds of a grant or award made, or agreements entered into, under this paragraph shall keep such records as the Consortium or its designee shall determine are necessary and appropriate to facilitate effective audit and evaluation, including records which fully disclose the amount and disposition of such proceeds and the total cost of the project in connection with which such proceeds were used.

(f) AGENCY REPORTING. -- Each Federal agency which operates or directs one or more Federal laboratories shall report annually to the Congress, as part of the agency's annual budget submission, on the activities performed by that agency and its Federal laboratories pursuant to the provisions of this section.

(g) FUNCTIONS OF THE SECRETARY. -

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(1) The Secretary, <u>through the Under Secretary, and</u> in consultation with other Federal agencies, may:

(A) make available to interested agencies the expertise of the Department of Commerce regarding the commercial potential of inventions and methods and options for commercialization which are available to the Federal laboratories, including research and development limited partnerships;

(B) develop and disseminate to appropriate agency and laboratory personnel model provisions for use on a

voluntary basis in cooperative research and development arrangements; and

(C) furnish advice and assistance, upon request, to Federal agencies concerning their cooperative research and development programs and projects.

(2) Two years after the date of enactment of this subsection (i.e., October 20, 1988) and every two years thereafter, the Secretary shall submit a summary report to the president and the Congress on the use by the agencies and the Secretary of the authorities specified in this Act. Other Federal agencies shall cooperate in the report's preparation.

(3) Not later than one year after the date of the enactment of the Federal Technology Transfer Act of 1986. (i.e., October 20, 1987) the Secretary shall submit to the President and the Congress a report regarding-

(A) Any copyright provisions or other types of barriers which tend to restrict or limit the transfer of federally funded computer software to the private sector and to State and local governments, and agencies of such State and local governments, and agencies of such State and local governments; and

(B) the feasibility and cost of compiling and maintaining a current and comprehensive inventory of all federally funded training software.

(h) None of the activities or functions of the National Technical Information Service which are not performed by contractors as of September 30, 1987, shall be contracted out or otherwise transferred from the Federal Government unless such transfer is expressly authorized by statute, or unless the value of all work performed under contract and related contracts in each fiscal year does not exceed $250,000.[10]

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[10] § 5163(c)(1) of Pub. L. No. 100-418 added a new subsection (h) to this section. In addition, § 5163(c)(2) provides:

"The Secretary of Commerce shall report the Secretary's recommendations for improvements in the National Technical Information Service (including methods for automating document distribution and inventory control), and any statutory changes required to make such improvements, to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Science, Space, and Technology of the House of Representatives by January 31, 1989.

§ 5163(d) also establishes within the Department of Commerce a Commerce, Science, and Technology Fellowship Program with the stated purpose of providing a select group of employees of the executive branch of the Government with the opportunity of learning how the legislative branch and other parts of the executive branch function through work experiences of up to one year. The Secretary of Commerce shall report to the Congress within six months after the date of enactment (i.e., February 23, 1989) of this Act on the

SEC. 12. COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS. (15 U.S.C. § 3710a)

(a) GENERAL AUTHORITY. - Each Federal agency may permit the director of any of its Government-operated Federal laboratories-

(1) to enter into cooperative research and development agreements on behalf of such agency (subject to subsection (c) of this section) with other Federal agencies; units of State or local government; industrial organizations (including corporations, partnerships, and limited partnerships, and industrial development organizations); public and private foundations; nonprofit organizations (including universities); or other persons including licensees of inventions owned by the Federal agency); and

(2) to negotiate licensing agreements under section 207 of title 35, United States Code, or under other authorities for Government-owned inventions made or other intellectual property developed at the laboratory and other inventions or other intellectual property of Federal employees that may be voluntarily assigned to the Government. AA

(b) ENUMERATED AUTHORITY. - Under agreements entered into pursuant to subsection (a)(i), a Government-operated Federal laboratory may (subject to subsection.) -

(1) accept, retain, and use funds, personnel, services, and property from collaborating parties and provide personnel, services, and property to collaborating parties;

(2) grant or agree to grant in advance, to a collaborating party, patent licenses or assignments, or options thereto, in any invention made in whole or in part by a Federal employee under the agreement, retaining a nonexclusive, nontransferable, irrevocable, paid-up license to practice the invention or have the invention practiced throughout the world by or on behalf of the Government and such other rights as the Federal laboratory deems appropriate;

(3) waive, subject to reservation by the Government of a nonexclusive, irrevocable, paid-up license to practice the invention or have the invention practiced throughout the world by or on behalf of the Government, in advance, in whole or in part, any right of ownership which the Federal Government may have to any subjection invention made under

the agreement by a collaborating party or employee of a collaborating party;

(4) determine rights in other intellectual property developed under an agreement entered into under subsection (a)(1); and AA

(5) to the extent consistent with any applicable agency requirements and standards of conduct, permit employees or former employees of the laboratory to participate in efforts to commercialize inventions they made while in the service of the United States.

(c) CONTRACT CONSIDERATIONS. -

(1) A Federal agency may issue regulations on suitable procedures for implementing the provisions of this section; however, implementation of this section shall not be delayed until issuance of such regulations.

(2) The agency is permitting a Federal laboratory to enter into agreements under this section shall be guided by the purposes of this Act.

(3) (A) Any agency using the authority given it under subsection (a) shall review employee standards of conduct for resolving potential conflicts of interest to make sure they adequate establish guidelines for situations likely to arise through the use of this authority, including but not limited to cases where present or former employees or their partners negotiate licenses or assignments titles to inventions or negotiate cooperative research and development agreements with federal agencies (including the agency with which the employee involved is or was formerly employed).

(B) If, in implementing subparggraph (A), an agency is unable to resolve potential conflicts of interest within its current statutory framework, it shall propose necessary statutory changes to be forwarded to its authorizing committees in Congress.

(4) The laboratory director in deciding what cooperative research and development agreements to enter into shall-

(A) give special consideration to small business firms, and consortia involving shall business firms; and

(B) give preference to business units located in the United States which agree that products embodying inventions made under the cooperative research and development agreement or produced through the use of such inventions will be manufactured substantially in

the United States and, in the case of any industrial organization or a foreign company or government as appropriate, take into consideration whether or not such foreign government permits United States agencies, organizations, or other persons to enter into cooperative research and development agreements and licensing agreements.

(5) (A) If the head of the agency or his designee desires an opportunity to disapprove or require the modification of any such agreement, the agreement shall provide a 30-day period within which such action must be taken beginning on the date the agreement is presented to him or her by the head of the laboratory concerned.

(B) In any case in which the head of an agency or his designee disapproves or requires the modification of an agreement presented under this section, the head of the agency or such designee shall transmit a written explanation of such disapproval or modification to the head of the laboratory concerned.

(6) Each agency shall maintain a record of all agreements entered into under this section.

(d) DEFINITION.- As used in this section-

(1) the term 'cooperative research and development agreement' means any agreement between one or more Federal laboratories and one or more non-Federal parties under which the Government, through its laboratories, provides personnel, services, facilities, equipment, or other resources with or without reimbursement (but not funds to non-Federal parties) and the non-Federal parties provide funds, personnel, services, facilities, equipment, or other resources toward the conduct of specified research or development efforts which are consistent with the missions of the laboratory; except that such term does not include a procurement contract or cooperative agreement as those terms are used in sections 6303, 6304, and 6305 of title 31, United States Code; and

(2) the term 'laboratory' means a facility or group of facilities owned, leased, or otherwise used by a Federal agency, a substantial propose of which is the performance of research, development, or engineering by employees of the Federal Government.

(e) DETERMINATION OF LABORATORY MISSIONS.- For purposes of this section, an agency shall make separate determinations of the mission or missions of each of its laboratories.

(f) RELATIONSHIP TO OTHER LAWS. - Nothing in this section is intended to limit or diminish existing authorities of any agency.

SEC. 13. REWARDS FOR SCIENTIFIC ENGINEERING AND TECHNICAL PERSONNEL OF FEDERAL AGENCIES (15 U.S.C. § 3710b)

The head of each Federal agency that is making expenditures at a rate of more than $50,000,000 per fiscal year for research and development in its Government-operated laboratories shall use the appropriate statutory authority to develop and implement a cash awards program to reward its scientific, engineering, and technical personnel for -

(1) inventions, innovations, computer software, or other outstanding scientific or technological contributions of value to the United States due to commercial applications or due to contributions to missions of the Federal agency or the Federal Government, or AA

(2) exemplary activities that promote the domestic transfer of science and technology development within the Federal Government and result in utilization of such science and technology by American industry or business, universities, State or local governments, or other non-Federal parties.

SEC. 14. DISTRIBUTION OF ROYALTIES RECEIVED BY FEDERAL AGENCIES (15 U.S.C. § 3701c)

(a) IN GENERAL. -

(1) Except as provided in paragraphs (2) and (4), any royalties or other income received by a Federal agency from the licensing or assignment of inventions under agreements entered into under Section ii and inventions of Government operated Federal laboratories licensed under section 207 of title 35, United States Code, or under any other provision of law, shall be retained by the agency whose laboratory produced the invention and shall be disposed of as follows:

(A) (i) The head of the agency or his designee shall pay at least 15 percent of the royalties or other income the agency receives on account of any invention to the inventor (or co-inventors) if the inventor (or each such co-inventor) has assigned his or her rights in the invention to the United States. This clause shall take effect on the date of the enactment of this section (October 20, 1986) AA

unless the agency publishes a notice in the Federal Register within 90 days of such date indicating its election to file a Notice of proposed Rule-making pursuant to clause (ii).

(ii) An agency may promulgate, in accordance with section 553 of title 5, United States Code, regulations providing for an alternative program for sharing royalties with inventors under clause (i). Such regulations must-- AA

(I) guarantee a fixed minimum payment to each such inventor, each year that the agency receives royalties from that inventor's invention;

(II) provide a percentage royalty share to each such inventor, each year that the agency receives royalties from that inventor's invention in excess of a threshold amount;

(III) provide that total payments to all such inventors shall exceed 15 percent of total agency royalties in any given fiscal year; and

(IV) provide appropriate incentives from royalties for those laboratory employees who contribute substantially to the technical development of a licensed invention between the time of the filing of the patent application and the licensing of the invention.

(iii) An agency that has published its invention to promulgate regulations under clause (ii) may elect not to pay inventors under clause (i) until the expiration of two years after the date of the enactment of this Act (i.e. October 20, 1988) or until the date of the promulgation of such regulations, whichever is earlier. If an agency makes such an election and after two years the regulations have not been promulgated, the agency shall make payments (in accordance with clause (i) of at least 15 percent of the royalties involved, retroactive to the date of the enactment of this Act. (October 20, 1986) If promulgation of the regulations occurs within two years after the date of the enactment of this Act,

payments shall be made in accordance with such regulations, retroactive to the date of the enactment of this Act. The agency shall retain its royalties until the inventor's portion is paid under either clause (i) or (ii). Such royalties shall not be transferred to the agency's Government-operated laboratories under subparagraph (B) and shall not revert to the Treasury pursuant to paragraph (2) as a result of any delay caused by rulemaking under this subparagraph.

(B) The balance of the royalties or other income shall be transferred by the agency to its government-operated laboratories, with the majority share of the royalties or other income from any invention going to the laboratory where the invention occurred and the funds so transferred to any such laboratory may be used or obligated by that laboratory during the fiscal year in which they are received or during the succeeding fiscal year-

(i) for payment of expenses incidental to the administration and licensing of inventions by that laboratory or by the agency with respect to inventions which occurred at that laboratory, including the fees or other costs for the services of other agencies, persons, or organizations for invention management and licensing services;

(ii) to reward scientific, engineering, and technical employees of that laboratory;

(iii) to further scientific exchange among the government-operated laboratories of the agency; or

(iv) for education and training of employees consistent with the research and development mission and objectives of the agency, and for other activities that increase the licensing potential for transfer of the technology of the Government-operated laboratories of the agency.

Any of such funds not so used or obligated by the end of the fiscal year succeeding the fiscal year in which they are received shall be paid into the Treasury of the United States.

(2) If, after payments to inventors under paragraph (1), the royalties received by an agency in any fiscal year exceed 5 percent of the budget of the Government-operated

laboratories of the agency for that year, 75 percent of the budget of the Government-operated laboratories of the agency for that year, 75 percent of such excess shall be paid to the Treasury of the United States and the remaining 25 percent may be used or obligated for the purposes described in clauses (i) through (iv) of paragraph (1)(B) during that fiscal year or the succeeding fiscal year. Any funds not so used or obligated shall be paid into the Treasury of the United States.

(3) Any payment made to an employee under this section shall be in addition to the regular pay of the employee and to any other awards made to the employee, and shall not affect the entitlement of the employee to any regular pay, annuity, or award to which he is otherwise entitled or for which he is otherwise eligible or limit the amount thereof. Any payment made to an inventor as such shall continue after the inventor leaves the laboratory or agency. Payments made under this section shall not exceed $100,000 per year to any one person, unless the President approves a larger award (with the excess over $100,000 being treated as a Presidential award under section 4504 of title 5, United States Code).

(4) A federal agency receiving royalties or other income as a result of invention management services performed for another Federal agency or laboratory under section 207 of title 35, United States Code, *may* retain such royalties or income to the extent required to offset the payment of royalties to inventors under clause (i) of paragraph (1)(A), costs and expenses incurred under clause (i) of paragraph (1)(B), and the cost of foreign patenting and maintenance for *any invention of the other agency*.[11] All royalties and other income remaining after payment of the royalties, costs, and expenses described in the preceding sentence shall be transferred to the agency for which the services were performed, for distribution in accordance with clauses (i) through (iv) of paragraph (1)(B).

(b) CERTAIN ASSIGNMENTS.- If the invention involved was one assigned to the Federal agency-

(1) by a contractor, grantee, or participant in a cooperative agreement with the agency, or

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[11] § 5162(a) of Pub. L. No. 100-418 substituted "may" for "shall" in the first sentence of the paragraph, and substituted "any invention of the other agency" for "such invention performed at the request of the other agency or laboratory."

(2) by an employee of the agency who was not working in the laboratory at the time the invention was made.

the agency unit that was involved in such assignment shall be considered to be a laboratory for purposes of this section.

(c) REPORTS.-

(1) In making their annual budget submissions Federal agencies shall submit, to the Congress, summaries of the amount of royalties or other income received and expenditures made (including inventor awards) under this section.

(2) The Comptroller General five years after the date of the enactment of this section, (i.e. October 20, 1991) shall review the effectiveness of the various royalty-sharing programs established under this section and report to the appropriate committees of the house of Representatives and the Senate, in a timely manner, his findings, conclusions, and recommendations for improvements in such programs.

SEC. 15. EMPLOYEE ACTIVITIES (15 U.S.C. § 3701d)

(a) IN GENERAL.- If a Federal agency which has the right of ownership to an invention under this Act does not intend to file for a patent application or otherwise to promote commercialization of such invention, the agency shall allow the inventor, if the inventor is a Government employee or former employee who made the invention during the course of employment with the Government, to retain title to the invention (subject to reservation by the Government of a nonexclusive, nontransferable, irrevocable, paid-up license to practice the invention or have the invention practiced throughout the world by or on behalf of the Government). In addition, the agency may condition the inventor's right to title on the timely filing of a patent application in cases when the Government determines that it has or may have a need to practice the invention.

(b) DEFINITION.- For purposes of this section, Federal employees include 'special Government employees' as defined in section 202 of title 18, United States Code.

(c) RELATIONSHIP TO OTHER LAWS.- Nothing in this section is intended to limit or diminish existing authorities of any agency.

SEC. 16. NATIONAL TECHNOLOGY MEDAL. (15 U.S.C. § 3711)

(a) ESTABLISHMENT.- There is hereby established a National Technology Medal, which shall be of such design and materials and bear such inscriptions as the President, on the basis of recommendations submitted by the Office of Science and Technology Policy, may prescribe.

(b) AWARD.- The President shall periodically award the medal, on the basis of recommendations received from the Secretary or on the basis of such other information and evidence as he deems appropriate, to individuals or companies, which in his judgment are deserving of special recognition by reason of their outstanding contributions to the promotion of technology or technological manpower for the United States.

(c) PRESENTATION. - The presentation of the award shall be made by the president with such ceremonies as he may deem proper.

SEC. 17. MALCOLM BALDRIGE NATIONAL QUALITY AWARD. (15 U.S.C. § 3711a)

(a) ESTABLISHMENT.- There is hereby established the Malcolm Baldrige National Quality Award, which shall be evidenced by a medal bearing the inscriptions "Malcolm Baldrige National Quality Award" and "The Quest for Excellence." The medal shall be of such design and materials and bear such additional inscriptions as the Secretary may prescribe.

(b) MAKING AND PRESENTATION OF AWARD.-

(1) The President (on the basis of recommendations received from the Secretary), or the Secretary, shall periodically make the award to companies and other organizations which in the judgment of the President or the Secretary have substantially benefited the economic or social well-being of the United States through improvements in the quality of their goods or services resulting from the effective practice of quality management, and which as a consequence are deserving of special recognition.

(2) The presentation of the award shall be made by the President of the Secretary which such ceremonies as the President of the Secretary may deem proper.

(3) An organization to which an award is made under this section, and which agrees to help other American organizations improve their quality management, may publicize its receipt of such award and use the award in its advertising, but it shall be ineligible to receive another such award in the same category for a period of 5 years.

(c) CATEGORIES IN WHICH AWARD MAY BE GIVEN.-

(1) Subject to paragraph (2), separate awards shall be made to qualifying organizations in each of the following categories--

(A) Small businesses.

(B) Companies or their subsidiaries.

(C) Companies which primarily provide services.

(2) The Secretary may at any time expand, subdivide, or otherwise modify the list of categories within which awards may be made as initially in effect under paragraph (1), and may establish separate awards for other organizations including units of government, upon a determination that the objectives of this section would be better served thereby; except that any such expansion, subdivision, modification, or establishment shall not be effective unless and until the secretary has submitted a detailed description thereof to the Congress and a period of 30 days has elapsed since that submission.

(3) Not more than two awards may be made within any subcategory in any year (and no award shall be made within any category or subcategory if there are no qualifying enterprises in that category or subcategory).

(d) CRITERIA FOR QUALIFICATION.-

(1) An organization may qualify for an award under this section only if it--

(A) applies to the Director of the *National Institute of Standards and Technology*[12] in writing for the award,

(B) permits a rigorous evaluation of the way in which its business and other operations have contributed to improvements in the quality of goods and services, and

(C) meets such requirements and specifications as the Secretary, after receiving recommendations from the Board of Overseers established under paragraph (@)(B) and the Director of the *National Institute for*

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[12] § 5115(b)(2) redesignated NBS as NIST.

Standards and Technology, determines to be appropriate to achieve the objectives of this section.

In applying the provisions of subparagraph (C) with respect to any organization, the Director of the *National Institute for Standards and Technology* shall rely upon an intensive evaluation by a competent board of examiners which shall review the evidence submitted by the organization and, through a site visit, verify the accuracy of the quality improvements claimed. The examination should encompass all aspects of the organization's current practice of quality management, as well as the organization's provision for quality management in its future goals. The award shall be given only to organizations which have made outstanding improvements in the quality of their goods or services (or both) and which demonstrate effective quality management through the training and involvement of all levels of personnel in quality improvement.

(2) (A) The Director of the *National Institute of Standards and Technology* shall, under appropriate contractual arrangements, carry out the Director's responsibilities under subparagraphs (A) and (B) of paragraph(1) through one or more broad-based nonprofit entities which are leaders in the field of quality management and which have a history of service to society.

(B) The Secretary shall appoint a board of overseers for the award, consisting of at least five persons selected for their preeminence in the field of quality management. This board shall meet annually to review the work of the contractor or contractors and make such suggestions for the improvement of the award process as they deem necessary. The board shall report the results of the award activities to the Director of the *National Institute of Standards and Technology* each year, along with its recommendations for improvement of the process.

(e) INFORMATION AND TECHNOLOGY TRANSFER PROGRAM.- The Director of the *National Institute of Standards and Technology* shall ensure that all program participants receive the complete results of their audits as well as detailed explanations of all suggestions for improvements. The Director shall also provide information about the awards and the successful quality improvement strategies and programs of the award-winning participants to all participants and other appropriate groups.

(f) FUNDING.- The Secretary is authorized to seek and accept gifts from the public and private sources to carry out this program under this section. If additional sums are needed

to cover the full cost of the program, the Secretary shall impose fees upon the organizations applying for the award in amounts sufficient to provide such additional sums.

(g) REPORT.- The Secretary shall prepare and submit to the President and the Congress, within 3 years after August 20, 1987, a report on the progress, findings, and conclusions of activities conducted pursuant to this section along with recommendations for possible modifications thereof.

SEC. 18. PERSONNEL EXCHANGES. (15 U.S.C. § 3712)

The Secretary and the National Science Foundation, jointly, shall establish a program to foster the exchange of scientific and technical personnel among academia, industry, and Federal laboratories. Such program shall include both (1) federally supported exchanges and (2) efforts to stimulate exchange without Federal funding.

SEC. 19. AUTHORIZATION OF APPROPRIATIONS. (15 U.S.C. § 3713)

(a) *(1) There is authorized to be appropriated to the Secretary for purposes of carrying out sections 5, 11(g), and 16 of this Act not to exceed $3,400,000 for the fiscal year ending September 30, 1988.*

(2) Of the amount authorized under paragraph (1) of this subsection, $2,400,000 is authorized only for the Office of Productivity, Technology, and Innovation; $500,000 is authorized only for the purpose of carrying out the requirements of the Japanese technical literature program established under section 5(d) of this Act; and $500,000 is authorized only for the patent licensing activities of the National Technical Information Service.

(b) *In addition to the authorization of appropriations provided under subsection (a) of this section, there is authorized to be appropriated to the Secretary for the purposes of carrying out section 6 of this Act not to exceed $500,000 for the fiscal year ending September 30, 1988, $1,000,000 for the fiscal year ending September 30, 1989, and $1,500,000 for the fiscal year ending September 30, 1990.*[13]

(c) Such sums as may be appropriated under the subsection (a) and (b) shall remain available until expended.

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[13] As provided in § 5152 of Pub. L. No. 100-418.

(d) To enable the National Science Foundation to carry out its powers and duties under this Act only such sums may be appropriated as the Congress may authorize by law.

SEC. 20. SPENDING AUTHORITY (15 U.S.C. § 3714)

No payments shall be made or contracts shall be entered into pursuant to the provisions of this Act (other than sections 11, 12, and 13) (15 U.S.C. §§ 3710a, 3710b, and 3710c) except to such extent or in such amounts as are provided in advance in appropriation Acts.