

**STEVENSON-WYDLER TECHNOLOGY INNOVATION  
ACT OF 1980**

[As Amended Through P.L. 110–315, Enacted August 14, 2008]

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”. [15 U.S.C. 3701 note]

**SEC. 2. [15 U.S.C. 3701] FINDINGS.**

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.

(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, which include 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 wellbeing of the United States.

**SEC. 3. [15 U.S.C. 3702] PURPOSE.**

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 research 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. [15 U.S.C. 3703] DEFINITIONS.**

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

(1) “Secretary” means the Secretary of Commerce.

(2) “Centers” means Cooperative Research Centers established under section 7 or 9 of this Act.

(3) “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.

(4) “Federal laboratory” means any laboratory, any federally funded research and development center, or any center established under section 7 or 9 of this Act that is owned, leased, or otherwise used by a Federal agency and funded by the Fed-

eral Government, whether operated by the Government or by a contractor.

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

(6) "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, as well as any agency of the legislative branch of the Federal Government.

(7) "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 protectable under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

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

(9) "Small business firm" 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.

(10) "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.

(11) "Clearinghouse" means the Clearinghouse for State and Local Initiatives on Productivity, Technology, and Innovation established by section 6.

**SEC. 5. [15 U.S.C. 3704] EXPERIMENTAL PROGRAM TO STIMULATE COMPETITIVE TECHNOLOGY.**

(a) PROGRAM ESTABLISHMENT.—

(1) IN GENERAL.—Beginning in fiscal year 1999, the Secretary shall establish a program to be known as the Experimental Program to Stimulate Competitive Technology (referred to in this subsection as the "program"). The purpose of the program shall be to strengthen the technological competitiveness of those States that have historically received less Federal research and development funds than those received by a majority of the States.

(2) ARRANGEMENTS.—In carrying out the program, the Secretary shall—

(A) enter into such arrangements as may be necessary to provide for the coordination of the program through the State committees established under the Experimental Program to Stimulate Competitive Research of the National Science Foundation; and

(B) cooperate with—

(i) any State science and technology council established under the program under subparagraph (A); and

(ii) representatives of small business firms and other appropriate technology-based businesses.

(3) GRANTS AND COOPERATIVE AGREEMENTS.—In carrying out the program, the Secretary may make grants or enter into cooperative agreements to provide for—

- (A) technology research and development;
- (B) technology transfer from university research;
- (C) technology deployment and diffusion; and
- (D) the strengthening of technological capabilities through consortia comprised of—
  - (i) technology-based small business firms;
  - (ii) industries and emerging companies;
  - (iii) universities; and
  - (iv) State and local development agencies and entities.

(4) REQUIREMENTS FOR MAKING AWARDS.—

(A) IN GENERAL.—In making awards under this subsection, the Secretary shall ensure that the awards are awarded on a competitive basis that includes a review of the merits of the activities that are the subject of the award.

(B) MATCHING REQUIREMENT.—The non-Federal share of the activities (other than planning activities) carried out under an award under this subsection shall be not less than 25 percent of the cost of those activities.

(5) CRITERIA FOR STATES.—The Secretary shall establish criteria for achievement by each State that participates in the program. Upon the achievement of all such criteria, a State shall cease to be eligible to participate in the program.

(b)<sup>1</sup> COORDINATION.—To the extent practicable, in carrying out subsection (a), the Secretary shall coordinate the program with other programs of the Department of Commerce.

(c) MINORITY SERVING INSTITUTION DIGITAL AND WIRELESS TECHNOLOGY OPPORTUNITY PROGRAM.—

(1) IN GENERAL.—The Secretary shall establish a Minority Serving Institution Digital and Wireless Technology Opportunity Program that awards grants, cooperative agreements, and contracts to eligible institutions to enable the eligible institutions in acquiring, and augmenting the institutions' use of, digital and wireless networking technologies to improve the quality and delivery of educational services at eligible institutions.

(2) APPLICATION AND REVIEW PROCEDURES.—

(A) IN GENERAL.—To be eligible to receive a grant, cooperative agreement, or contract under this subsection, an eligible institution shall submit an application to the Secretary at such time, in such manner, and containing such information as the Secretary may require. Such application, at a minimum, shall include a description of how the funds will be used, including a description of any digital and wireless networking technology to be acquired, and a description of how the institution will ensure that digital and wireless networking technology will be made accessible to, and employed by, students, faculty, and adminis-

<sup>1</sup>Margin so in law.

trators. The Secretary, consistent with subparagraph (C) and in consultation with the advisory council established under subparagraph (B), shall establish procedures to review such applications. The Secretary shall publish the application requirements and review criteria in the Federal Register, along with a statement describing the availability of funds.

(B) **ADVISORY COUNCIL.**—The Secretary shall establish an advisory council to advise the Secretary on the best approaches to encourage maximum participation by eligible institutions in the program established under paragraph (1), and on the procedures to review applications submitted to the program. In selecting the members of the advisory council, the Secretary shall consult with representatives of appropriate organizations, including representatives of eligible institutions, to ensure that the membership of the advisory council includes representatives of minority businesses and eligible institution communities. The Secretary shall also consult with experts in digital and wireless networking technology to ensure that such expertise is represented on the advisory council.

(C) **REVIEW PANELS.**—Each application submitted under this subsection by an eligible institution shall be reviewed by a panel of individuals selected by the Secretary to judge the quality and merit of the proposal, including the extent to which the eligible institution can effectively and successfully utilize the proposed grant, cooperative agreement, or contract to carry out the program described in paragraph (1). The Secretary shall ensure that the review panels include representatives of minority serving institutions and others who are knowledgeable about eligible institutions and technology issues. The Secretary shall ensure that no individual assigned under this subsection to review any application has a conflict of interest with regard to that application. The Secretary shall take into consideration the recommendations of the review panel in determining whether to award a grant, cooperative agreement, or contract to an eligible institution.

(3) **AWARDS.**—

(A) **LIMITATION.**—An eligible institution that receives a grant, cooperative agreement, or contract under this subsection that exceeds \$2,500,000 shall not be eligible to receive another grant, cooperative agreement, or contract under this subsection.

(B) **CONSORTIA.**—Grants, cooperative agreements, and contracts may only be awarded to eligible institutions. Eligible institutions may seek funding under this subsection for consortia, which may include other eligible institutions, a State or a State educational agency, local educational agencies, institutions of higher education, community-based organizations, national nonprofit organizations, or businesses, including minority businesses.

(C) **PLANNING GRANTS.**—The Secretary may provide funds to develop strategic plans to implement grants, coop-

erative agreements, or contracts awarded under this subsection.

(D) INSTITUTIONAL DIVERSITY.—In awarding grants, cooperative agreements, and contracts to eligible institutions, the Secretary shall ensure, to the extent practicable, that awards are made to all types of institutions eligible for assistance under this subsection.

(E) NEED.—In awarding funds under this subsection, the Secretary shall give priority to the eligible institution with the greatest demonstrated need for assistance.

(4) AUTHORIZED ACTIVITIES.—An eligible institution may use a grant, cooperative agreement, or contract awarded under this subsection—

(A) to acquire equipment, instrumentation, networking capability, hardware and software, digital network technology, wireless technology, and infrastructure to further the objective of the program described in paragraph (1);

(B) to develop and provide training, education, and professional development programs, including faculty development, to increase the use of, and usefulness of, digital and wireless networking technology;

(C) to provide teacher education, including the provision of preservice teacher training and in-service professional development at eligible institutions, library and media specialist training, and preschool and teacher aid certification to individuals who seek to acquire or enhance technology skills in order to use digital and wireless networking technology in the classroom or instructional process, including instruction in science, mathematics, engineering, and technology subjects;

(D) to obtain capacity-building technical assistance, including through remote technical support, technical assistance workshops, and distance learning services; or

(E) to foster the use of digital and wireless networking technology to improve research and education, including scientific, mathematics, engineering, and technology instruction.

(5) INFORMATION DISSEMINATION.—The Secretary shall convene an annual meeting of eligible institutions receiving grants, cooperative agreements, or contracts under this subsection to foster collaboration and capacity-building activities among eligible institutions.

(6) MATCHING REQUIREMENT.—The Secretary may not award a grant, cooperative agreement, or contract to an eligible institution under this subsection unless such institution agrees that, with respect to the costs incurred by the institution in carrying out the program for which the grant, cooperative agreement, or contract was awarded, such institution shall make available, directly, or through donations from public or private entities, non-Federal contributions in an amount equal to 25 percent of the grant, cooperative agreement, or contract awarded by the Secretary, or \$500,000, whichever is the lesser amount. The Secretary shall waive the matching requirement for any institution or consortium with no endowment, or an en-

dowment that has a current dollar value lower than \$50,000,000.

(7) ANNUAL REPORT AND ASSESSMENTS.—

(A) ANNUAL REPORT REQUIRED FROM RECIPIENTS.—Each eligible institution that receives a grant, cooperative agreement, or contract awarded under this subsection shall provide an annual report to the Secretary on its use of the grant, cooperative agreement, or contract.

(B) INDEPENDENT ASSESSMENTS.—

(i) CONTRACT TO CONDUCT ASSESSMENTS.—Not later than 6 months after the date of enactment of this subsection, the Secretary shall enter into a contract with the National Academy of Public Administration to conduct periodic assessments of the program established under paragraph (1). The assessments shall be conducted once every 3 years during the 10-year period following the date of enactment of this subsection.

(ii) EVALUATIONS AND RECOMMENDATIONS.—The assessments described in clause (i) shall include—

(I) an evaluation of the effectiveness of the program established under paragraph (1) in improving the education and training of students, faculty, and staff at eligible institutions that have been awarded grants, cooperative agreements, or contracts under the program;

(II) an evaluation of the effectiveness of the program in improving access to, and familiarity with, digital and wireless networking technology for students, faculty, and staff at all eligible institutions;

(III) an evaluation of the procedures established under paragraph (2)(A); and

(IV) recommendations for improving the program, including recommendations concerning the continuing need for Federal support.

(iii) REVIEW OF REPORTS.—In carrying out the assessments under this subparagraph, the National Academy of Public Administration shall review the reports submitted to the Secretary under subparagraph (A).

(iv) REPORT TO CONGRESS.—Upon completion of each assessment under this subparagraph, the Secretary shall transmit the assessment to Congress along with a summary of the Secretary's plans, if any, to implement the recommendations of the National Academy of Public Administration.

(8) DEFINITIONS.—In this subsection:

(A) DIGITAL AND WIRELESS NETWORKING TECHNOLOGY.—The term “digital and wireless networking technology” means computer and communications equipment and software that facilitates the transmission of information in a digital format.

(B) ELIGIBLE INSTITUTION.—The term “eligible institution” means an institution that is—

(i) a part B institution, as defined in section 322(2) of the Higher Education Act of 1965 (20 U.S.C. 1061(2)), an institution identified in subparagraph (A), (B), or (C) of section 326(e)(1) of such Act (20 U.S.C. 1063b(e)(1)(A), (B), or (C)), or a consortium of institutions described in this clause;

(ii) a Hispanic-serving institution, as defined in section 502(a)(5) of the Higher Education Act of 1965 (20 U.S.C. 1101a(a)(5));

(iii) a Tribal College or University, as defined in section 316(b)(3) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b)(3));

(iv) an Alaska Native-serving institution, as defined in section 317(b) of the Higher Education Act of 1965 (20 U.S.C. 1059d(b));

(v) a Native Hawaiian-serving institution, as defined in section 317(b) of the Higher Education Act of 1965 (20 U.S.C. 1059d(b));

(vi) a Predominately Black Institution, as defined in section 318 of the Higher Education Act of 1965 (20 U.S.C. 1059e);

(vii) a Native American-serving, nontribal institution, as defined in section 319 of the Higher Education Act of 1965 (20 U.S.C. 1059f);

(viii) an Asian American and Native American Pacific Islander-serving institution, as defined in section 320 of the Higher Education Act of 1965 (20 U.S.C. 1059g); or

(ix) a minority institution, as defined in section 365 of the Higher Education Act of 1965 (20 U.S.C. 1067k), with an enrollment of needy students, as defined in section 312(d) of the Higher Education Act of 1965 (20 U.S.C. 1058(d)).

(C) INSTITUTION OF HIGHER EDUCATION.—The term “institution of higher education” has the meaning given the term in section 101 of the Higher Education Act of 1965 (20 U.S.C. 1001).

(D) LOCAL EDUCATIONAL AGENCY.—The term “local educational agency” has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

(E) MINORITY BUSINESS.—The term “minority business” includes HUBZone small business concerns (as defined in section 3(p) of the Small Business Act (15 U.S.C. 632(p))).

(F) MINORITY INDIVIDUAL.—The term “minority individual” means an American Indian, Alaskan Native, Black (not of Hispanic origin), Hispanic (including persons of Mexican, Puerto Rican, Cuban, and Central or South American origin), or Pacific Islander individual.

(G) STATE.—The term “State” has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).



(H) STATE EDUCATIONAL AGENCY.—The term “State educational agency” has the meaning given the term in section 9101 of the Elementary and Secondary Education Act of 1965 (20 U.S.C. 7801).

**SEC. 6. [15 U.S.C. 3704a] CLEARINGHOUSE FOR STATE AND LOCAL INITIATIVES ON PRODUCTIVITY, TECHNOLOGY, AND INNOVATION.**

(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, regional and multistate organizations of such 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 of 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 these reports shall be transmitted to the Congress before January 1, 1989.

**SEC. 7. [15 U.S.C. 3705] COOPERATIVE RESEARCH CENTERS.**

(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 and 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 development 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 business in the generation, evaluation and development of technological ideas 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 and 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. [15 U.S.C. 3706] GRANTS AND COOPERATIVE AGREEMENTS.**

(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 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. [15 U.S.C. 3707] NATIONAL SCIENCE FOUNDATION COOPERATIVE RESEARCH CENTERS.**

(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 technological innovation as provided in section 7(a) through the conduct of activities as provided in section 7(b).

(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 7(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. [15 U.S.C. 3708] ADMINISTRATIVE ARRANGEMENTS.**

(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 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.

(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 20 of this Act before funds are

committed to such program in order to mount complementary efforts and avoid duplication.

**SEC. 11. [15 U.S.C. 3710] UTILIZATION OF FEDERAL TECHNOLOGY.**

(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 APPLICATIONS 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 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 shall provide one or more full-time equivalent positions as staff for its Office of Research and Technology Applications, and (2) each Federal agency which operates or directs one or more Federal laboratories shall make available sufficient funding, either as a separate line item or from 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.

(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 is engaged and which in the opinion of the 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 link the research and development resources of that laboratory and the

Federal Government as a whole to potential users in State and 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 of this subsection in such organizational structures. No Office of Research and Technology Applications or other organizational structures performing 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 requests with published information available to the Service, and refer such requests to the Federal Laboratory Consortium for Technology Transfer to the extent that such requests require a response involving more than the published information available to the Service;

(4) provide 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.

(e) ESTABLISHMENT OF FEDERAL LABORATORY CONSORTIUM FOR TECHNOLOGY TRANSFER.—(1) There is hereby established the Federal Laboratory 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, assist colleges or universities, businesses, 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;

(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); and

(K) work with the Director of the National Institute on Disability and Rehabilitation Research to compile a compendium of current and projected Federal Laboratory technologies and projects that have or will have an intended or recognized impact on the available range of assistive technology for individuals with disabilities (as defined in section 3 of the Assistive Technology Act of 1998), including technologies and projects that incorporate the principles of universal design (as defined in section 3 of such Act), as appropriate.

(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 a senior 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 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 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, 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 Houses of the Congress, and to each agency with respect to which a transfer of funding is made (for the fiscal year or 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. Such report shall include an annual independent audit of the financial statements of the Consortium, conducted in accordance with generally accepted accounting principles.

(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 the laboratories of such agency for a fiscal year referred to in subparagraph (B)(ii) shall be transferred by such agency to the National Institute of Standards at the beginning of the fiscal year involved. Amounts so transferred shall be provided by the Institute 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 the amount so transferred by that agency (as determined under such subparagraph) would exceed \$10,000.

(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 deem appropriate.

(f) AGENCY REPORTS ON UTILIZATION.—

(1) IN GENERAL.—Each Federal agency which operates or directs one or more Federal laboratories or which conducts activities under sections 207 and 209 of title 35, United States Code, shall report annually to the Office of Management and Budget, as part of the agency's annual budget submission, on



the activities performed by that agency and its Federal laboratories under the provisions of this section and of sections 207 and 209 of title 35, United States Code.

(2) CONTENTS.—The report shall include—

(A) an explanation of the agency's technology transfer program for the preceding fiscal year and the agency's plans for conducting its technology transfer function, including its plans for securing intellectual property rights in laboratory innovations with commercial promise and plans for managing its intellectual property so as to advance the agency's mission and benefit the competitiveness of United States industry; and

(B) information on technology transfer activities for the preceding fiscal year, including—

(i) the number of patent applications filed;

(ii) the number of patents received;

(iii) the number of fully-executed licenses which received royalty income in the preceding fiscal year, categorized by whether they are exclusive, partially-exclusive, or non-exclusive, and the time elapsed from the date on which the license was requested by the licensee in writing to the date the license was executed;

(iv) the total earned royalty income including such statistical information as the total earned royalty income, of the top 1 percent, 5 percent, and 20 percent of the licenses, the range of royalty income, and the median, except where disclosure of such information would reveal the amount of royalty income associated with an individual license or licensee;

(v) what disposition was made of the income described in clause (iv);

(vi) the number of licenses terminated for cause; and

(vii) any other parameters or discussion that the agency deems relevant or unique to its practice of technology transfer.

(3) COPY TO SECRETARY; ATTORNEY GENERAL; CONGRESS.—The agency shall transmit a copy of the report to the Secretary of Commerce and the Attorney General for inclusion in the annual report to Congress and the President required by subsection (g)(2).

(4) PUBLIC AVAILABILITY.—Each Federal agency reporting under this subsection is also strongly encouraged to make the information contained in such report available to the public through Internet sites or other electronic means.

(g) FUNCTIONS OF THE SECRETARY.—(1) The Secretary, 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) REPORTS.—

(A) ANNUAL REPORT REQUIRED.—The Secretary, in consultation with the Attorney General and the Commissioner of Patents and Trademarks, shall submit each fiscal year, beginning 1 year after the enactment of the Technology Transfer Commercialization Act of 2000, a summary report to the President, the United States Trade Representative, and the Congress on the use by Federal agencies and the Secretary of the technology transfer authorities specified in this Act and in sections 207 and 209 of title 35, United States Code.

(B) CONTENT.—The report shall—

(i) draw upon the reports prepared by the agencies under subsection (f);

(ii) discuss technology transfer best practices and effective approaches in the licensing and transfer of technology in the context of the agencies' missions; and

(iii) discuss the progress made toward development of additional useful measures of the outcomes of technology transfer programs of Federal agencies.

(C) PUBLIC AVAILABILITY.—The Secretary shall make the report available to the public through Internet sites or other electronic means.

(3) Not later than one year after the date of the enactment of the Federal Technology Transfer Act of 1986, 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

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

(h) DUPLICATION OF REPORTING.—The reporting obligations imposed by this section—

(1) are not intended to impose requirements that duplicate requirements imposed by the Government Performance and Results Act of 1993 (31 U.S.C. 1101 note);

(2) are to be implemented in coordination with the implementation of that Act; and

(3) are satisfied if an agency provided the information concerning technology transfer activities described in this section in its annual submission under the Government Performance and Results Act of 1993 (31 U.S.C. 1101 note).

(i) RESEARCH EQUIPMENT.—The Director of a laboratory, or the head of any Federal agency or department, may loan, lease, or give research equipment that is excess to the needs of the laboratory,

agency, or department to an educational institution or nonprofit organization for the conduct of technical and scientific education and research activities. Title of ownership shall transfer with a gift under this section.

**SEC. 12. [15 U.S.C. 3710a] COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENTS.**

(a) **GENERAL AUTHORITY.**—Each Federal agency may permit the director of any of its Government-operated Federal laboratories, and, to the extent provided in an agency-approved joint work statement or, if permitted by the agency, in an agency-approved annual strategic plan, contractor-operated 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 (in the case of a Government-owned, contractor-operated laboratory, subject to subsection (c) of this section) for inventions made or other intellectual property developed at the laboratory and other inventions or other intellectual property that may be voluntarily assigned to the Government.

(b) **ENUMERATED AUTHORITY.**—(1) Under an agreement entered into pursuant to subsection (a)(1), the laboratory may 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 laboratory employee under the agreement, or, subject to section 209 of title 35, United States Code, may grant a license to an invention which is federally owned, for which a patent application was filed before the signing of the agreement, and directly within the scope of the work under the agreement, for reasonable compensation when appropriate. The laboratory shall ensure, through such agreement, that the collaborating party has the option to choose an exclusive license for a pre-negotiated field of use for any such invention under the agreement or, if there is more than one collaborating party, that the collaborating parties are offered the option to hold licensing rights that collectively encompass the rights that would be held under such an exclusive license by one party. In consideration for the Government's contribution under the agreement, grants under this paragraph shall be subject to the following explicit conditions:

(A) A nonexclusive, nontransferable, irrevocable, paid-up license from the collaborating party to the laboratory to practice the invention or have the invention practiced throughout the world by or on behalf of the Government. In the exercise of such license, the Government shall not publicly disclose trade secrets or commercial or financial information that is privileged or confidential within the meaning of section 552(b)(4) of title 5, United States Code, or which would be con-

sidered as such if it had been obtained from a non-Federal party.

(B) If a laboratory assigns title or grants an exclusive license to such an invention, the Government shall retain the right—

(i) to require the collaborating party to grant to a responsible applicant a nonexclusive, partially exclusive, or exclusive license to use the invention in the applicant's licensed field of use, on terms that are reasonable under the circumstances; or

(ii) if the collaborating party fails to grant such a license, to grant the license itself.

(C) The Government may exercise its right retained under subparagraph (B) only in exceptional circumstances and only if the Government determines that—

(i) the action is necessary to meet health or safety needs that are not reasonably satisfied by the collaborating party;

(ii) the action is necessary to meet requirements for public use specified by Federal regulations, and such requirements are not reasonably satisfied by the collaborating party; or

(iii) the collaborating party has failed to comply with an agreement containing provisions described in subsection (c)(4)(B).

This determination is subject to administrative appeal and judicial review under section 203(2) of title 35, United States Code.

(2) Under agreements entered into pursuant to subsection (a)(1), the laboratory shall ensure that a collaborating party may retain title to any invention made solely by its employee in exchange for normally granting the Government a nonexclusive, non-transferable, irrevocable, paid-up license to practice the invention or have the invention practiced throughout the world by or on behalf of the Government for research or other Government purposes.

(3) Under an agreement entered into pursuant to subsection (a)(1), a laboratory may—

(A) accept, retain, and use funds, personnel, services, and property from a collaborating party and provide personnel, services, and property to a collaborating party;

(B) use funds received from a collaborating party in accordance with subparagraph (A) to hire personnel to carry out the agreement who will not be subject to full-time-equivalent restrictions of the agency;

(C) to the extent consistent with any applicable agency requirements or standards of conduct, permit an employee or former employee of the laboratory to participate in an effort to commercialize an invention made by the employee or former employee while in the employment or service of the Government; and

(D) 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 subject invention made under the agreement by a collaborating party or employee of a collaborating party.

(4) A collaborating party in an exclusive license in any invention made under an agreement entered into pursuant to subsection (a)(1) shall have the right of enforcement under chapter 29 of title 35, United States Code.

(5) A Government-owned, contractor-operated laboratory that enters into a cooperative research and development agreement pursuant to subsection (a)(1) may use or obligate royalties or other income accruing to the laboratory under such agreement with respect to any invention only—

(A) for payments to inventors;

(B) for purposes described in clauses (i), (ii), (iii), and (iv) of section 14(a)(1)(B); and

(C) for scientific research and development consistent with the research and development missions and objectives of the laboratory.

(6)(A) In the case of a laboratory that is part of the National Nuclear Security Administration, a designated official of that Administration may waive any license retained by the Government under paragraph (1)(A), (2), or (3)(D), in whole or in part and according to negotiated terms and conditions, if the designated official finds that the retention of the license by the Government would substantially inhibit the commercialization of an invention that would otherwise serve an important national security mission.

(B) The authority to grant a waiver under subparagraph (A) shall expire on the date that is five years after the date of the enactment of the Floyd D. Spence National Defense Authorization Act for Fiscal Year 2001. The expiration under the preceding sentence of authority to grant a waiver under subparagraph (A) shall not affect any waiver granted under that subparagraph before the expiration of such authority.

(C) Not later than February 15 of each year, the Administrator for Nuclear Security shall submit to Congress a report on any waivers granted under this paragraph during the preceding year.

(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 in 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 standards of conduct for its employees for resolving potential conflicts of interest to make sure they adequately 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 of 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 subparagraph (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 small 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 other person subject to the control of 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 presented by the director of a Government-operated laboratory, 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 by the director of a Government-operated laboratory 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.

(C)(i) Any non-Federal entity that operates a laboratory pursuant to a contract with a Federal agency shall submit to the agency any cooperative research and development agreement that the entity proposes to enter into and the joint work statement if required with respect to that agreement.

(ii) A Federal agency that receives a proposed agreement and joint work statement under clause (i) shall review and approve, request specific modifications to, or disapprove the proposed agreement and joint work statement within 30 days after such submission. No agreement may be entered into by a Government-owned, contractor-operated laboratory under this section before both approval of the agreement and approval of a joint work statement under this clause.

(iii) In any case in which an agency which has contracted with an entity referred to in clause (i) disapproves or requests the modification of a cooperative research and development agreement or joint work statement submitted under that clause, the agency shall transmit a written explanation of such disapproval or modification to the head of the laboratory concerned.

(iv) Any agency that has contracted with a non-Federal entity to operate a laboratory may develop and provide to such laboratory one or more model cooperative research and development agreements for purposes of standardizing practices and procedures, re-

solving common legal issues, and enabling review of cooperative research and development agreements to be carried out in a routine and prompt manner.

(v) A Federal agency may waive the requirements of clause (i) or (ii) under such circumstances as the agency considers appropriate.

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

(7)(A) No trade secrets or commercial or financial information that is privileged or confidential, under the meaning of section 552(b)(4) of title 5, United States Code, which is obtained in the conduct of research or as a result of activities under this Act from a non-Federal party participating in a cooperative research and development agreement shall be disclosed.

(B) The director, or in the case of a contractor-operated laboratory, the agency, for a period of up to 5 years after development of information that results from research and development activities conducted under this Act and that would be a trade secret or commercial or financial information that is privileged or confidential if the information had been obtained from a non-Federal party participating in a cooperative research and development agreement, may provide appropriate protections against the dissemination of such information, including exemption from subchapter II of chapter 5 of title 5, United States Code.

(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, intellectual property, 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, intellectual property, 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;

(2) the term “laboratory” means—

(A) a facility or group of facilities owned, leased, or otherwise used by a Federal agency, a substantial purpose of which is the performance of research, development, or engineering by employees of the Federal Government;

(B) a group of Government-owned, contractor-operated facilities (including a weapon production facility of the Department of Energy) under a common contract, when a substantial purpose of the contract is the performance of research and development, or the production, maintenance, testing, or dismantlement of a nuclear weapon or its components, for the Federal Government; and

(C) a Government-owned, contractor-operated facility (including a weapon production facility of the Department of Energy) that is not under a common contract described

in subparagraph (B), and the primary purpose of which is the performance of research and development, or the production, maintenance, testing, or dismantlement of a nuclear weapon or its components, for the Federal Government,

but such term does not include any facility covered by Executive Order No. 12344, dated February 1, 1982, pertaining to the naval nuclear propulsion program;

(3) the term "joint work statement" means a proposal prepared for a Federal agency by the director of a Government-owned, contractor-operated laboratory describing the purpose and scope of a proposed cooperative research and development agreement, and assigning rights and responsibilities among the agency, the laboratory, and any other party or parties to the proposed agreement; and

(4) the term "weapon production facility of the Department of Energy" means a facility under the control or jurisdiction of the Secretary of Energy that is operated for national security purposes and is engaged in the production, maintenance, testing, or dismantlement of a nuclear weapon or its components.

(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.

(g) PRINCIPLES.—In implementing this section, each agency which has contracted with a non-Federal entity to operate a laboratory shall be guided by the following principles:

(1) The implementation shall advance program missions at the laboratory, including any national security mission.

(2) Classified information and unclassified sensitive information protected by law, regulation, or Executive order shall be appropriately safeguarded.

**SEC. 13. [15 U.S.C. 3710b] REWARDS FOR SCIENTIFIC, ENGINEERING, AND TECHNICAL PERSONNEL OF FEDERAL AGENCIES.**

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 application or due to contributions to missions of the Federal agency or the Federal government, or

(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. [15 U.S.C. 3710c] DISTRIBUTION OF ROYALTIES RECEIVED BY FEDERAL AGENCIES.**

(a) IN GENERAL.—(1) Except as provided in paragraphs (2) and (4), any royalties or other payments received by a Federal agency from the licensing and assignment of inventions under agreements entered into by Federal laboratories under section 12, and from the licensing of inventions of Federal laboratories under section 207 of title 35, United States Code, or under any other provision of law, shall be retained by the laboratory which produced the invention and shall be disposed of as follows:

(A)(i) The head of the agency or laboratory, or such individual's designee, shall pay each year the first \$2,000, and thereafter at least 15 percent, of the royalties or other payments, other than payments of patent costs as delineated by a license or assignment agreement, to the inventor or coinventors, if the inventor's or coinventor's rights are assigned to the United States.

(ii) An agency or laboratory may provide appropriate incentives, from royalties, or other payments, to laboratory employees who are not an inventor of such inventions but who substantially increased the technical value of such inventions.

(iii) The agency or laboratory shall retain the royalties and other payments received from an invention until the agency or laboratory makes payments to employees of a laboratory under clause (i) or (ii).

(B) The balance of the royalties or other payments shall be transferred by the agency to its laboratories, with the majority share of the royalties or other payments from any invention going to the laboratory where the invention occurred. The royalties or other payments so transferred to any laboratory may be used or obligated by that laboratory during the fiscal year in which they are received or during the 2 succeeding fiscal years—

(i) to reward scientific, engineering, and technical employees of the laboratory, including developers of sensitive or classified technology, regardless of whether the technology has commercial applications;

(ii) to further scientific exchange among the laboratories of the agency;

(iii) for education and training of employees consistent with the research and development missions and objectives of the agency or laboratory, and for other activities that increase the potential for transfer of the technology of the laboratories of the agency;

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

(v) for scientific research and development consistent with the research and development missions and objectives of the laboratory.

(C) All royalties or other payments retained by the agency or laboratory after payments have been made pursuant to subparagraphs (A) and (B) that is unobligated and unexpended at the end of the second fiscal year succeeding the fiscal year in which the royalties and other payments were received shall be paid into the Treasury.

(2) If, after payments to inventors under paragraph (1), the royalties or other payments received by an agency in any fiscal year exceed 5 percent of the budget 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 under paragraph (1)(B). 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 \$150,000 per year to any one person, unless the President approves a larger award (with the excess over \$150,000 being treated as a Presidential award under section 4504 of title 5, United States Code).

(4) A Federal agency receiving royalties or other payments 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 payments to the extent required to offset payments to inventors under clause (i) of paragraph (1)(A), costs and expenses incurred under clause (iv) of paragraph (1)(B), and the cost of foreign patenting and maintenance for any invention of the other agency. All royalties and other payments remaining after offsetting the payments to inventors, 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 paragraph (1)(B).

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

(1) by a contractor, grantee, or participant, or an employee of a contractor, grantee, or participant, in an agreement or other arrangement with the agency, or

(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.—The Comptroller General shall transmit a report to the appropriate committees of the Senate and House of Representatives on the effectiveness of Federal technology transfer programs, including findings, conclusions, and recommendations for improvements in such programs. The report shall be integrated with, and submitted at the same time as, the report required by section 202(b)(3) of title 35, United States Code.

**SEC. 15. [15 U.S.C. 3710d] EMPLOYEE ACTIVITIES.**

(a) **IN GENERAL.**—If a Federal agency which has ownership of or the right of ownership to an invention made by a Federal employee 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 obtain or retain title to the invention (subject to reservation by the Government of a nonexclusive, nontransferrable, 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. [15 U.S.C. 3711] NATIONAL TECHNOLOGY AND INNOVATION MEDAL.**

(a) **ESTABLISHMENT.**—There is hereby established a National Technology and Innovation 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 improvement of the economic, environmental, or social well-being of 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. [15 U.S.C. 3711a] MALCOLM BALDRIGE NATIONAL QUALITY AWARD.**

(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 qual-

ity management, and which as a consequence are deserving of special recognition.

(2) The presentation of the award shall be made by the President or the Secretary with such ceremonies as the President or 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.
- (D)<sup>1</sup> Health care providers.
- (E)<sup>1</sup> Education providers.
- (F) Nonprofit organizations.

(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) In any year, not more than 18 awards may be made under this section to recipients who have not previously received an award under this section, and no award shall be made within any category described in paragraph (1) if there are no qualifying enterprises in that category.

(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 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 (2)(B) and the Director of the National Institute of 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 of Standards and Technology shall rely upon an intensive evaluation by a competent board of examiners which shall review the evidence sub-

<sup>1</sup> Margins so in law.

mitted 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 non-profit 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 pre-eminence 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 public and private sources to carry out the 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. The Director is authorized to use appropriated funds to carry out responsibilities under this Act.

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

**SEC. 18. [15 U.S.C. 3711b] CONFERENCE ON ADVANCED AUTOMOTIVE TECHNOLOGIES.**

Not later than 180 days after the date of the enactment of this section, the Secretary of Commerce, through the Under Secretary of Commerce for Technology, in consultation with other appropriate officials, shall convene a conference of domestic motor vehicle manufacturers, parts suppliers, Federal laboratories, and motor vehicle users to explore ways in which cooperatively they can improve the competitiveness of the United States motor vehicle industry by developing new technologies which will enhance the safety and en-

ergy savings, and lessen the environmental impact of domestic motor vehicles, and the results of such conference shall be published and then submitted to the President and to the Committees on Science, Space, and Technology and Public Works and Transportation of the House of Representatives and the Committee on Commerce, Science, and Transportation of the Senate.

**SEC. 19. [15 U.S.C. 3711c] ADVANCED MOTOR VEHICLE RESEARCH AWARD.**

(a) **ESTABLISHMENT.**—There is established a National Award for the Advancement of Motor Vehicle Research and Development. The award shall consist of a medal, and a cash prize if funding is available for the prize under subsection (c). The medal shall be of such design and materials and bear inscriptions as is determined by the Secretary of Transportation.

(b) **MAKING AND PRESENTING AWARD.**—The Secretary of Transportation shall periodically make and present the award to domestic motor vehicle manufacturers, suppliers, or Federal laboratory personnel who, in the opinion of the Secretary of Transportation, have substantially improved domestic motor vehicle research and development in safety, energy savings, or environmental impact. No person may receive the award more than once every 5 years.

(c) **FUNDING FOR AWARD.**—The Secretary of Transportation may seek and accept gifts of money from private sources for the purpose of making cash prize awards under this section. Such money may be used only for that purpose, and only such money may be used for that purpose.

**SEC. 20. [15 U.S.C. 3712] PERSONNEL EXCHANGES.**

The Secretary, the Secretary of Energy, and the Director of 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 exchanges without Federal funding.

**SEC. 21. [15 U.S.C. 3713] AUTHORIZATION APPROPRIATIONS.**

(a)(1) There is authorized to be appropriated to the Secretary for the purposes of carrying out sections 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; 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.

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

(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. 22. [15 U.S.C. 3714] SPENDING AUTHORITY.**

No payments shall be made or contracts shall be entered into pursuant to the provisions of this Act (other than sections 12, 13, and 14) except to such extent or in such amounts as are provided in advance in appropriation Acts.

**SEC. 23. [15 U.S.C. 3715] USE OF PARTNERSHIP INTERMEDIARIES.**

(a) **AUTHORITY.**—Subject to the approval of the Secretary or head of the affected department or agency, the Director of a Federal laboratory, or in the case of a federally funded research and development center, the Federal employee who is the contract officer, may—

(1) enter into a contract or memorandum of understanding with a partnership intermediary that provides for the partnership intermediary to perform services for the Federal laboratory that increase the likelihood of success in the conduct of cooperative or joint activities of such Federal laboratory with small business firms, institutions of higher education as defined in section 1201(a) of the Higher Education Act of 1965 (20 U.S.C. 1141(a)), or educational institutions within the meaning of section 2194 of title 10, United States Code; and

(2) pay the Federal costs of such contract or memorandum of understanding out of funds available for the support of the technology transfer function pursuant to section 11(b) of this Act.

(b) **PARTNERSHIP PROGRESS REPORTS.**—The Secretary shall include in each triennial report required under section 6(d) of this Act a discussion and evaluation of the activities carried out pursuant to this section during the period covered by the report.

(c) **DEFINITION.**—For purposes of this section, the term “partnership intermediary” means an agency of a State or local government, or a nonprofit entity owned in whole or in part by, chartered by, funded in whole or in part by, or operated in whole or in part by or on behalf of a State or local government, that assists, counsels, advises, evaluates, or otherwise cooperates with small business firms, institutions of higher education as defined in section 1201(a) of the Higher Education Act of 1965 (20 U.S.C. 1141(a)), or educational institutions within the meaning of section 2194 of title 10, United States Code, that need or can make demonstrably productive use of technology-related assistance from a Federal laboratory, including State programs receiving funds under cooperative agreements entered into under section 5121(b) of the Omnibus Trade and Competitiveness Act of 1988 (15 U.S.C. 2781 note).