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#### ABSTRACT

The Senate Committee on Labor and Human Resources reports favorably on Senate Bill 1040 (S. 1040) and recommends its passage as amended. S. 1040 is designed to provide leadership at the federal level to promote effective uses of technology to improve teaching and learning and to promote equal access to educational opportunities for all. It establishes a framework and future direction for the infusion of high-quality technology in support of the Goals 2000 legislation and other initiatives. An Office of Educational Technology is established and directed to undertake a long-term plan for educational technology. The remainder of the bill describes a series of grants to assist states in developing comprehensive technology plans and to encourage research. The legislation also provides funds for establishing consortia for educators and nonprofit providers to develop training, technical assistance, and information dissemination to advance technology in education. Proposed amendments are modifications to the language and some simplifications that do not affect the bill's emphasis on the role of technology as a major tool for education. (SLD)

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# Calendar No. 379

SENATE

REPORT 103-234

#### TECHNOLOGY FOR EDUCATION ACT OF 1994

MARCH 9 (legislative day, FEBRUARY 22), 1994.—Ordered to be printed

Mr. KENNEDY, from the Committee on Labor and Human Resources, submitted the following

### REPORT

together with

#### ADDITIONAL AND MINORITY VIEWS

[To accompany S. 1040]

The Committee on Labor and Human Resources, to which was referred the bill (S. 1040) to support the improvement of education and develop a technologically literate citizenry capable of competing internationally by establishing a comprehensive system supporting the National Goals and educational standards by developing appropriate technology-enhanced curriculum, instruction, and administrative support resources and services, having considered the same, reports favorably thereon with an amendment in the nature of a substitute and recommends that the bill as amended do pass.

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#### I. SUMMARY OF THE BILL

S. 1040 is designed to provide leadership at the Federal level to promote the effective uses of technology in order to improve teaching and learning and to promote equal access to educational opportunities for all students. It is also designed to provide assistance to the neediest schools so that they can begin to address their technology requirements and accomplish their educational goals.

The bill establishes a framework and future direction for the infusion of high-quality technology into our educational system in support of the systemic education reform established in the Goals 2000 legislation, and in other initiatives undertaken by the states. The bill establishes an Office of Educational Technology in the Department of Education and directs the Secretary to undertake certain leadership activities, including the preparation of a long-range national plan for the development and dissemination of educational technology. The remainder of the bill is comprised of a series of grants to the education community, to the private sector and to consortia composed of both groups. The first type of grant is designed to assist states in developing comprehensive technology plans for the acquisition and use of the technology necessary to improve learning and instruction from kindergarten through high school. The second type of grant is designed to help consortia, established pursuant to this legislation, to (1) develop professional training in the use of educational technology, (2) assist states by providing technical assistance in the use of technology, (3) disseminate information concerning technology sources and programs, and (4) develop innovative and engaging technology products for the classroom. The third type of grant is designed to encourage research into educational applications of advanced technologies and telecommunications networks. The bill includes the reauthorization of the Star Schools program and places its administration within the Office of Educational Technology.

The bill provides a coherent, systemic approach to improving student achievement through technology and encourages planning at the local level. The planning is meant to be comprehensive, covering every aspect of technology affecting educational improvement, including a description of the type of technology to be acquired and how it will be integrated into the curriculum, of professional development opportunities and how such training will improve instruction, and of technical assistance available and how that assistance will enable all schools to participate on a more nearly equal basis.

The legislation also provides funds for consortia consisting of both educators and non-profit providers to develop professional training, technical assistance, and dissemination of information with respect to technology sources and programs. The primary focus of the consortia's services mirrors the focus of the bill as a whole: the improvement of student performance and professional instruction through the use of state-of-the-art technology.

Other consortia supported by the legislation will develop educational technology products under a set of guidelines, the primary concern of which is the quality of educational outcomes. In addition, the legislation encourages the development of applications of advanced technologies for educational purposes and the develop-



ment of telecommunications networks for the transmission of educational information that will eventually link all schools.

The legislation reauthorizes and continues the Star Schools program, one of the earliest and most successful educational programs involving technology. The Star Schools program is education legislational education and the star Schools program is education legislation.

lation that S. 1040 intends to emulate and extend.

S. 1040 as reported by the Committee includes modifications to the Technology for Education legislation as originally introduced. The changes to the education titles streamline the organization and language of the bill and simplify certain portions. The Committee believes that these changes enhance the original bill and continue the bill's emphasis on the role of technology as a major tool for education.

#### II. BACKGROUND AND NEED FOR LEGISLATION

After reviewing testimony, reports and other available information, the Committee concludes that an informed, carefully planned use of technology is critical to improving student achievement and to providing all students with better access to educational opportunities. The high academic standards which the Goals 2000: Educate America legislation (S. 1150 and H.R. 1804) seeks to establish cannot be met by many students without the assistance of educational technology. Furthermore, American workers and citizens of the future must be familiar with and able to use technology in a variety of settings.

Despite the pervasive impact of technology on other segments of society, many students never interact with modern technologies in their classrooms. As a result, many students lack access to educational opportunities through which they can gain skills necessary to function effectively in the modern work place. The local bank uses technology far more advanced than the technology in schools in its community. America's schools, with out-dated, often second-hand equipment and classrooms without telephone lines, much less adequate wiring, are truly the technological stepchildren of

society.

States and localities across the Nation have attempted to respond to the need to teach children with the latest innovative technology and provide them with the tools they will use in college, in work, and in their daily lives. The Star Schools program was one of the first to link schools electronically. There are a growing number of electronic networks available for school children so that they can communicate with other students here and abroad. States like California, Florida, and Texas have developed statewide programs to link schools and to produce coherent technology plans. Distance-learning projects make it possible for students in some small rural schools to take courses the local schools do not offer.

Yet, because technology and electronic infrastructure are expensive, technology threatens to become another source of inequality among schools and districts across the country. Thus, while there are many technology-based projects and activities underway throughout America, most students and teachers still do not have access to sustained and comprehensive applications of telecommunications and educational technologies. The lack of knowledge or professional development on the part of both teachers and



administrators often renders the most well-meaning equipment purchases less than useful. Computers stand in classrooms unused, in boxes unopened. The technology products and systems in place are often not compatible with one another, making it almost impossible for teachers and learners to gain regular access to the world's information services. Further, there is no national vision for a telecommunications and educational technology infrastructure that will assure equal opportunity for all teachers and learners to take advantage of the nation's technology capacities and resources. It is time to develop such a vision congruent with efforts now underway to establish a National Information Infrastructure together with the nation's focus on setting high academic standards for all students through legislation such as Goals 2000: Educate America Act and similar initiatives in a number of States.

The evidence garnered from States and localities in the forefront of technology sets the stage for the Technology for Education bill. Educational technology throughout the United States must be an integral part of instruction. Students must learn to use computers and develop new information with the latest electronic tools. Teachers must be able to teach with the full range of inter-active materials possible. Administrators must become active partners and positive leaders in the transition to a new form of education. Producers of electronic products must be encouraged to invest in qual-

ity educational products.

### III. HISTORY OF LEGISLATION

On May 27, 1993, Senator Bingaman on behalf of himself, Senator Kennedy, Senator Cochran, and Senator Harkin, introduced the Technology for Education bill as S. 1040. It was referred to the

Committee on Labor and Human Resources.

Following introduction of S. 1040, the Committee conducted two hearings and one forum on the bill. The first technology hearing was held July 21, 1993, before the full Committee on Labor and Human Resources. A field hearing, chaired by Senator Bingaman, was held in Albuquerque, New Mexico, on August 18, 1993. A forum on Technology in Education, chaired by Senator Kennedy and attended by Deputy Secretary of Education Madeleine Kunin, was held in Boston at West Roxbury High School on January 6, 1994. At all three events numerous educators and technology experts testified concerning the need for extending the benefits of technology to all students in the United States.

S. 1040 was considered at an executive session of the Committee of Labor and Human Resources on February 23, 1994. At that time, Senator Bingaman proposed an amendment in the nature of a substitute, which incorporated the bill original six titles in modified form but eliminated the National Commission on Technology in Education and the sections on school library and media

services. It reorganized and streamlined the original bill.

Titles I and II of S. 1040, as amended, were passed as part of the Goals 2000: Educate America Act on February 8, 1994. The two titles have been retained in S. 1040 pending final enactment of the Goals 2000 legislation. The first title creates the Office of Educational Technology in the Department of Education and a director for that office and charges the director with the responsibility of



producing a national plan for educational technology. The second title creates State technology task forces to create statewide technology

nology plans.

Title III of S. 1040, as amended, provides for funding of state grants to local educational agencies to enable the poorest school districts in America to acquire technological capabilities through the purchase of appropriate technology and the provision of professional development. The title also provides technical support along with information and resource dissemination for the effective use of technology through regional consortia.

of technology through regional consortia.

Title IV of S. 1040, as amended, funds the development of high-quality, curriculum-based software and other supporting materials by consortia of private industry and businesses in partnership with educational institutions. The title also supports development of instructional broadcasting and video instructional programming. It

extends the authorization of the Star Schools program.

Title V of S. 1040, as amended, funds research on applications of advanced technologies for educational use and supports the development of high performance educational computing and tele-

communications networks.

Title VI of S. 1040 directs the Secretary of Education to study feasible methods for the sustained and adequate funding of elementary and secondary schools so that they may acquire and maintain appropriate educational technologies. The section also provides for the participation of private school students in the benefits of the bill.

#### IV. HEARINGS

A hearing on S. 1040 was held by the Committee on Labor and Human Resources on July 21, 1993. At that hearing, which focused on classroom success via technology and demonstrations of classroom opportunities via technology, the following individuals provided testimony:

The Julie Stogsdill, Project Coordinator of the Buddy System Project, Indiana; Ann Marie Ryan, High School Restructuring Coordinator, Boston Public Schools; Dr. Jerry L. Kitchings, Principal, Hayes Cooper Center, Mississippi; Geraldine Dirks Teacher, Philip Royball, Student, Pojoaque High School, New Mexico;

Valerie Wilford, Executive Director, Illinois Valley Library

System;

Public Television:

Stan Johnson, Teacher, Jacqueline Fisher, Student,

Lateff Abney, Student, Thomas Jefferson High School;

Software Publisher's Association:

John Kernan, Chairman, Josten's Learning Corporation; W. H. Gerald Caldwell, Jr., EduQuest Marketing Programs and Support Director;

Jeffrey H. Orloff, Manager, National Programs Market-

ing for Apple;

Modern Educational Technology Center (METEC):

Rick Lane, Co-founder METEC, GTE Government Systems;



Michael S. Swetman, Director, GTE Informations Processing Systems;

Valerie Thames, Teacher; and Audrey Hillman, Student.

A field hearing on S. 1040 was held in Albuquerque, NM, on August 18, 1993, and focused on the benefits derived by technology in improving education. The following individuals provided testimony:

Benito Casados, Executive Director of Educational Systems

for the GALAXY Classroom Project;

Christina Esquibel, Chapter 1 Teacher, Tierra Amarilla Ele-

mentary School, Tierra Amarilla, NM;

Donna Fullerton, Las Cruces Take Home Computer Program, Partners in Learning Program;

Dora Galvez, Parent, Belinda Galvez, Student, and Erika

Ewbank, Reading Teacher at Washington Elementary;

David Caffey, and Mike Chambers, San Jon, Clovis Community College;

Jane Brighton, Teacher, Angelica DePaula, Student, Kathy Valencia, Student, Tom Tischler, Student, and Arden Coleston, Interpreter, New Mexico School for the Deaf, on behalf of the Media Literacy Project;

Lucy Holloway, Josten's Learning; Consuelo Gonzales, Teacher, Justin Lathrop, Student, Frank Cox, Student, and Cameron Stoker, Student, the Academy of Communications,

Arts, and Technology at Santa Fe High.

A forum on S. 1040 was held in Boston on January 6, 1994. At the forum, which focused on the advantages of the use of technology in education as well as on the need for a coherent plan and increased funding for technological development in schools, the following individuals provided testimony:

Tom Plati, Director of Libraries and Educational Tech-

nologies, Wellesley Public Schools;

Najwa Abdul-Tawwab, Teacher, Boston Public Schools;

Brigid Sullivan, Vice President for Special Telecommunications and Children's Programming WGBH-TV, Boston;

James Souza, Instructor, Machine Tech Program, Greater New Bedford Regional Vocational Technical High School;

Adam Linn, former Student, Boston Public Schools;

John Richards, Manager, Educational Technologies Department, Bolt, Beranek and Newman;

Paul Jennings, Superintendent, Williamstown Public

Schools;

Patty Knox, Teacher, Lawrence Public Schools;

Nancy Roberts, Professor and Director of Graduate Programs in Computers in Education, Lesley College;

Diana Nunnaley, Director, Chapter One Computer Coopera-

tive Center;

Inabeth Miller, Executive Director, Massachusetts Corpora-

tion for Educational Telecommunications;

Ann Grady, Teacher and Project Director of the Elementary and Middle School Math and Technology Project, Boston Public Schools;

Nelson Bolen, Associate Technical Director, MITRE Corporation; and



John Phillipo, Executive Director, Center for Educational Leadership and Technology.

#### V. TABULATION OF VOTES CAST IN COMMITTEE

S. 1040 was brought up for mark-up at the full Committee on Labor and Human Resources on February 23, 1994. At that time, Senator Bingaman offered an amendment in the nature of a substitute, which included modified versions of the education titles of the bill as introduced. The bill as amended was reported favorably from the Committee by a voice vote.

#### VI. COMMITTEE VIEWS

#### TITLE I-LEADERSHIP IN EDUCATIONAL TECHNOLOGY

The Committee believes that significant barriers exist to the effective use of technology to improve access to educational opportunities and student achievement. Among other things, there is inadequate coordination among schools and government agencies to assist educators in selecting and using technologies. Efforts to integrate technology into the schools have also suffered from a lack of information about technologies and inadequate training for personnel. Adding to the problem is the fact that the Federal Government has not asserted the leadership needed to provide that coordination, information and training. Moreover, there exists little coordination within the Department of Education itself or among Federal agencies and departments with respect to educational applicants of technology.

In order to overcome these barriers, the Committee believes that it is essential that there be a central, Federal office responsible for fashioning a national vision and strategy for the integration of technology into education, for providing the needed coordination and information, for assisting States in their planning for the use of educational technology and for coordinating with other Federal agencies to maximize the benefits of their technological initiatives for education. In addition, the Committee believes that without a separate office in the Department of Education with the responsibility to oversee the national educational technology policy and assert the interests of education in the national debate on technology policy, the technology revolution and the "information highway" will pass by K-12 education, jeopardizing the Nation's auture. The Committee intends that the Office of Educational Technology take a leadership role both within the Department and on behalf of the Department with other Federal agencies and departments to coordinate and encourage the development and use of educational technology to improve student learning. The Director of the Office of Educational Technology is to report directly to the Secretary in order to assure that technology is accorded a high priority by the Department.

The Secretary, through the Office, will prepare the national long-range technology plan and will act as a liasion with other rederal agencies and departments, such as the Department of Energy and the National Science Foundation, in the development and identification of technology which can be used to enhance education. The Secretary, through the Office, will also undertake other leadership



activities either directly or by grant or contract, including the preparation of a biannual report. There is authorized to be appropriated \$5 million for the fiscal year 1994 and such sums as may be necessary for each of the fiscal years 1995 through 1998 to carry out the purposes of the section.

TITLE II—STATE PLANNING FOR IMPROVING STUDENT ACHIEVEMENT THROUGH INTEGRATION OF TECHNOLOGY INTO THE CURRICULUM

The Technology for Education bill authorizes the Secretary of Education to award grants for State plans for improving student achievement through the integration of technology into the K-12 curriculum. Improving education, not acquiring technology, is the

purpose of S. 1040.

The Committee intends that the State technology plans be developed through a grassroots process. The primary objective of this title is the improvement of schools by thoughtful statewide planning. Each State's technology plan should be closely tied to the State's Goals 2000 reform plan to promote the development of an integrated, coherent system that will use the latest technology to improve teaching and learning. The Committee legislation creates a method for each State to develop its own systemic technology plan.

It is the intention of the Committee that individual States create and implement such plans in 1 or 2 years. The plans must empha-

size student achievement and equity as primary goals.

The Committee is cognizant of the fact that technology is not the answer to all of our Nation's education problems, but it is merely a tool for better communication, instruction, and student achievement. To that end, each task force developing a State technology plan should consist of both experts in technology and representatives of the community and the schools.

In setting plan requirements, the Committee has set forth a wide range of components to encourage States to provide a firm foundation for student achievement and the maximum integration of tech-

nology to improve achievement of all students.

TITLE III—SCHOOL TECHNOLOGY RESOURCES, TECHNICAL SUPPORT, AND PROFESSIONAL DEVELOPMENT

Section 302 of this title provides funds to States to assist them in the acquisition of technology resources, and section 303 establishes a grant program to regional consortia to encourage high

quality, on-going professional development.

The Committee is aware that many schools have acquired computers over the last decade. However, the Committee is also aware that many of those computers are out-dated and that students are not receiving the benefits of the new educational technologies now available. The Committee also recognizes the important role school libraries and media centers can play in providing access to technologies. Section 302 would authorize for appropriation \$200 million for fiscal year 1995 and such sums as may be necessary for the succeeding 4 fiscal years for the purpose of making grants for the acquisition of state-of-the art technologies or connections to technologies in accordance with statewide technology plans. Funds will be allocated to States based on the Chapter 1 formula. States are



directed to allocate those funds to local educational agencies having the greatest percentages of disadvantaged students and those most in need of technology. Schools in isolated or rural areas will likely have great need for technology to link them to the greater resources available in more densely populated areas. Awards will be made only to States that have a systemic State technology plan approved by the Secretary in accordance with such criteria as the Secretary may adopt. The Committee anticipates that many States will have submitted State plans, including State technology plans, under the Goals 2000: Educate America Act, but it is not a requirement for a grant under this section that a State have a Goals plan.

The Committee is aware that many schools have used funding acquired under Chapter 2 of the Elementary and Secondary Education Act of 1965 to acquire computers and other technologies. Many such purchases, however, have not been made as part of a systematic approach to integrating technology into instruction. The Committee intends to encourage the thoughtful, long-range planning for the acquisition and deployment of technology in support of improving teaching and learning. By requiring planning and stressing the need for interoperability and support for improved teaching and learning, the Committee is seeking to ensure that the Federal

investment in technology is not wasted.

LEA's may apply to their respective States for allocations of funds received under section 302, which applications must include a local long-range technology plan and other items. The Committee recognizes that some LEA's may have difficult formulating an application in accordance with the requirements of this bill. Accordingly the bill provides that States must identify those districts having the greatest percentage of children in poverty and need for technical assistance in preparing an application and offer that technical assistance to those districts desiring assistance. The Committee intends that these grants be made for the acquisition of such technology as the LEA's may identify in their long-range technology plans. It is hoped that LEA's will recognize the importance of using these funds to acquire appropriate linkages and communications connections within schools and between and among schools and other resources, such as libraries, since it is those linkages that give schools access to the benefits of the information and communications revolution which is occurring outside of the schools.

The Committee understands that a major barrier to the realization of the benefits of educational technology in many schools is that many teachers and librarians have not been trained in the uses of computers, educational software or other technologies. Not only is training lacking in teacher preparation courses, there are inadequate opportunities for practicing teachers and librarians to learn about developments in educational technology. Section 303 authorizes for appropriation \$50 million for fiscal year 1995 and such sums as may be necessary for the succeeding 4 fiscal years to provide grants to consortia for professional development in the area of educational technology. The professional development grants will help provide teacher and librarian training in the uses of educational technology through workshops or through distance learning techniques. The consortia will also be required to develop



and provide technical assistance to schools and to disseminate information concerning educational technology. Consortia may consist of one or more State educational agencies, institutions of higher education or nonprofit organizations. Every State must be served by at least one consortium, and the Secretary will award grants in such a way as to accomplish that distribution of service. In making grant awards to consortia, the Secretary should provide, to the maximum extent possible, that the consortia receiving grants will, when taken altogether, serve all States within the United States. A given consortium may direct its services toward particular types of school systems, rather than toward regional coverage, so long as, in awarding the total number of grants available in any fiscal year, the Secretary considers the regional coverage that will be achieved by the totality of consortia receiving grants.

# TITLE IV—EDUCATIONAL TECHNOLOGY PRODUCT DEVELOPMENT, PRODUCTION, AND DISTRIBUTION

In reviewing impediments to the goal of full integration of technology into the kindergarten through high school curriculum in order to increase student learning and achievement, the Committee found three primary obstacles. First, many schools lack the resources to purchase updated equipment. Second, teachers and school administrators do not have access to quality and ongoing training programs allowing the technology to be used for its maximum benefit. Third, high quality, curriculum-specific software and other technology resources are not readily available for use in the classroom. The last obstacle is especially troubling given the fact that the video game industry generated profits in excess of \$5 billion last year but spent very little on educational technology.

Title IV of this Act addresses the third concern regarding availability of high quality technology resources in the classroom by authorizing the new Educational Technology Product Development program and reauthorizing the Star Schools Program Assistance Act.

Section 402 authorizes \$50 million to be appropriated in fiscal year 1995, and such sums as may be necessary for the 4 succeeding fiscal years to support the development of (1) curriculum-based learning resources using state-of-the-art technologies and (2) instructional television programming that ensures maximum access by education institutions. The Secretary, through the Office of Educational Technology, is authorized to make grants on a competitive basis to eligible consortia to develop, produce and distribute technology products specifically designed for use in the kindergarten through twelfth grade classroom. An eligible consortium for purposes of applying for a grant under this section consists of a State or local educational agency and a business, industry or telecommunications entity. Additional partners which may be added include a public or private nonprofit organization, a postsecondary institution or both.

In awarding grants under this section, the Secretary must give priority to those applications which propose to develop programs or systems that (1) may be adapted and applied nationally at a reasonable cost over a broad technology platform; (2) raise the achievement levels of all students, particularly students who are not real-



izing their potential; (3) are developed in consultation with classroom teachers; (4) are developed in consultation and collaboration with education entities to ensure relevance to the voluntary national content standards, the voluntary national student performance standards and State curriculum frameworks; and (5) may be adapted for use by adults in need of literacy services, including English as a second language and preparation for a high school diploma or its equivalent.

The Secretary may require a recipient of a grant or contract to share in the cost of activities in the form of cash or in kind con-

tributions.

Through this legislation, the Committee is striving to help provide students and teachers with tools in the classroom to enhance learning and achievement and ensure that teachers receive the training required to make the technology worthwhile. Achieving the National Education Goals and helping States reach academic content standards in core subjects figure largely in the motivation behind this legislation. The technology products and programming developed under this section are intended to help further student achievement in core subject areas and to be consistent with national content standards in these subject areas as they are developed and certified. This does not mean the products developed should be textbooks converted to software. The Committee intends for this program to support the development of creative, exciting, entertaining products that engage students in an interactive learning process.

With those criteria in mind, applicants wishing to be considered for funding under this section must provide a description of how the proposed program or system will (1) improve the achievement levels of students; (2) promote professional development of teachers and administrators, including the provision of materials designed specifically for this purpose; (3) be tested, evaluated and distributed; (4) serve a significant number or percentage of economically disadvantaged students; (5) be disseminated to a wide audience of learners; and (6) provide closed captioning or descriptive video,

where appropriate.

The Committee intends for the Secretary to disseminate information about products developed under this section as soon as reasonably possible to State and local educational agencies, and other organizations or individuals through print and electronic media that are accessible to the education community at large. Particular emphasis should be given to making this information available to classroom teachers.

Applicants for grants under this section must describe their arrangements concerning the title to the products developed, their usage and marketing rights. The Committee intends for the Secretary to review the arrangement for fairness to the educational agencies, bearing in mind the need to provide private firms the in-

centive to develop the products described in this section.

Sec. 403 extends the Star Schools Program Assistance Act for 5 additional years and authorizes \$35 million in fiscal year 1995 and such sums as may be necessary for the 4 succeeding years to carry out provisions of this title. The Committee continues to be impressed by the work of the Star Schools consortia which provide ac-



cess to top-quality instructional programming to every geographic region of the country, with a particular emphasis on those students in areas of the United States experiencing teacher shortages. Classes in subjects such as advanced mathematics, science, and foreign language continue to be of the highest quality. Through Star Schools satellite linkages students in remote rural areas as well as underserved urban areas are afforded opportunities to participate in classes taught by some of the nation's best teachers. Without the Star Schools linkup these would not be available, and many students would miss out on the opportunity to fulfill course requirements to gain admittance to post secondary education.

The Committee is encouraged by efforts of the various consortia to offer two-way interactive programming including full motion video, data transfers, and online computer networking. It has found that interactivity and exchanges among students enrich learning opportunities. The Committee encourages consortia to continue to explore and experiment with interactivity between students and

teachers.

The Committee considered the Administration's Star Schools reauthorization proposal submitted as part of the "Improving America's Schools Act of 1993" (S. 1513) and decided to make modifications in the existing Star Schools Program Assistance Act, (20 U.S.C. 4081 et seq.) rather than make the dramatic shift in focus suggested by the Administration's proposal. The Committee found the Administration's shift away from multi-state consortia to single State or community networks troublesome. The Committee believes the economies of scale and diversity offered by distance service to be the heart of the existing Star Schools program and thus rejected this change. Further, changes adopted as part of the Star Schools Amendments of 1991 broadened the target audience to include those with disabilities, limited English proficiency, and adults with literacy needs, while keeping the priority for schools serving a large number or percentage of Chapter 1 students. The Committee be-lieves that funding constraints dictate a targeting of Federal support rather than opening the program to all students, as recommended by the Administration. However, the Committee did view favorably a few recommendations of the Administration and adopted a new section on Leadership and Evaluation Activities at their request.

Significant changes the Committee makes in the amendments of 1994 include (1) adding maintenance and operation of equipment as an allowable expense; (2) encouraging the use of live, interactive instructional programming for students in the classroom and teachers for training purposes; (3) adding the development and acquisition of preservice and inservice teacher training programs as an allowable expense; (4) changing the grant award from 2 years to 5 years, and allowing each grantee to be eligible for one additional 5-year period. Current grantees are eligible for the first and, if selected competitively, the second 5-year grant periods; (5) changing the maximum grant award from \$10 million to \$5 million per year; (6) encouraging closed captioning and descriptive video, as appropriate; (7) encouraging the provision of parent education programs during and after the school day which reinforce the student's course of study and actively involve parents in the learning proc-



ess; and (8) a new "Leadership and Evaluation Activities" section

that replaces similar sections in the current act.

The new "Leadership and Evaluation Activities" section allows the Secretary to reserve 5 percent of the total appropriation for the Star Schools Program Assistance Act to conduct evaluations of distance learning activities, including activities not assisted under this title. Leadership activities include disseminating information and other activities to enhance the quality of distance learning activities nationwide.

# TITLE V—EDUCATIONAL APPLICATIONS OF ADVANCED TECHNOLOGIES AND NETWORKS

For the most part, those involved in the development of advanced technologies have not considered potential applications to education of those technologies. Developers of high performance computing and telecommunications networks have not sufficiently considered the needs of elementary and secondary education. Title V provides direction and support for the inclusion of education in advanced

technology development and implementation.

Section 502 of this title authorizes \$20 million for fiscal year 1995 and such sums as may be necessary for each of the succeeding fiscal 4 years to support research on potential applications of advanced technologies to education. The Committee intends that more than one grant be awarded and that the Secretary give due consideration in making such grants to diversity of grantees, both in terms of the type of organizations (profit and non-profit organi-

zations) and to their geographic location.

To address the need for inclusion of elementary and secondary school needs in the development of new high performance computing and telecommunications networks, section 503 of this title authorizes the appropriation of \$7,500,000 for each of fiscal years 1995 and 1996 and \$10 million for fiscal year 1997 to support the development of an electronic network for the dissemination of education information throughout the United States. Development is to be accomplished through a series of grants, first for the identification of requirements, then for the development of specifications, and finally for the development of a prototype system. Existing networks or developing networks are to be used to the extent possible. The Committee intends that the term "educational information" be read broadly to include communications between and among schools, information about educational research, information about effective technology-enhanced programs, resources and services, professional development materials and curriculum materials. In the course of the development of the prototype an overall assessment of the impact of the technology on the educational process is to be made. Among the directions to the Secretary in this section is the mandate to represent the needs and interest of elementary and secondary schools in the Federal planning and development of a national information infrastructure. The Committee regards this as a particularly important duty of the Secretary and intends that the Office of Educational Technology take an active role in discharging this duty, particularly with respect to issues such as designating rights of way for educational purposes and special rates for educational services.



#### TITLE VI-MISCELLANEOUS

The Committee has concluded that technology provides a cost-effective way to improve teaching and learning and to provide equal access to educational resources to all students. Nevertheless, the Committee is aware that the initial investment required to bring effective educational technology to all classrooms may be great. Accordingly section 601 directs the Secretary to conduct a study of how schools can obtain adequate and ongoing funding, in addition to that provided for in this section, for the acquisition and maintenance of educational technology. The Committee would like the Secretary to consider, among other things, the appropriateness of expanding existing Federal loan guarantee programs to include guarantees of loans to State or local educational agencies for this purpose.

#### VII. REGULATORY IMPACT STATEMENT

The Committee has determined that there will be minimal increases in the regulatory burden imposed by this bill.

#### VIII. COST ESTIMATE

U.S. Congress, CONGRESSIONAL BUDGET OFFICE, Washington, DC, February 28, 1994.

Hon. EDWARD M. KENNEDY, Chairman, Committee on Labor and Human Resources, U.S. Senate, Washington, DC.

DEAR MR. CHAIRMAN: The Congressional Budget Office has prepared the enclosed cost estimate for S. 1040, the Technology for Education Act of 1994, as ordered reported by the Senate Committee on Labor and Human Resources on February 23, 1994.

Enactment of S. 1040 would not affect direct spending or receipts. Therefore, pay-as-you-go procedures would not apply to this

bill.

If you wish further details on this estimate, we will be pleased to provide them.

Sincerely,

ROBERT D. REISCHAUER, Director.

Enclosure.

#### CONGRESSIONAL BUDGET OFFICE COST ESTIMATE

Bill number: S. 1040.

2. Bill title: Technology for Education Act of 1994.

3. Bill status: As ordered reported by the Senate Committee on

Labor and Human Resources on February 23, 1994.
4. Bill purpose: To support systemic improvement of education and the development of a technologically literate citizenry and internationally competitive work force by establishing a comprehensive system through which appropriate technology-enhanced curriculum, instruction, and administrative support resources and services are provided to schools throughout the United States.

5. Estimated cost to the Federal Government:



15

#### FEDERAL GOVERNMENT COSTS

(By fiscal year, in millions of dollars)

	1994	1995	1996	1997	1998	1999
Activities under the Training Technology Transfer Act of 1988						
A. Abanashan at announce and		3	3	3	3	3
		ī	3	3	3	3
Leadership in Educational Technology.		•		J	•	
Authorization of appropriations	5	5	5	5	6	
Estimated outlays	ĭ	Ā	5	5	5	2
State planning for improving student achievement through integra-	•	7	,	,	•	•
tion of technology into the curriculum						
Authorization of appropriations	10	10				
1994 appropriation	5	10				
Difference	5					
Estimated outlays	(i)	4	. 8	2	(1)	
School technology resource grants	(1)	4	·	2	(-)	•
Authoriza of appropriations		200	205	211	217	222
Estimated outlays		24	161	201	210	216
Regional technical support and professional development			101	201	210	210
Authorization of appropriations		50	51	53	54	56
Estimated outlays		6	40	50	53	54
Educational technology product development		U	40	30	33	٦,
Authorization of appropriations	50	51	53	54	56	
Estimated outlays	11	41	51	53	54	43
Star schools	• • • • • • • • • • • • • • • • • • • •	41	31	33	34	4.
Authorization of appropriations		35	36	37	38	39
Estimated outlays		4	28	35	37	38
Research on educational applications of advanced technologies		*	20	33	37	30
Authorization of appropriations		20	21	21	22	22
Estimated outlays		9	19	21	21	2
High performance educational computing and telecommunications		,	13	21	21	2.
networks						
Authorization of appropriations		8	8	10		
Estimated outlays		3	7	9	6	٠.
Bill total		3	′	9	0	
Authorization of appropriations	65	382	382	205	205	343
1994 appropriation			302	395	395	34.
Difference	5					
	60 12	97	222	270	200	276
Estimated outlays ,	17	9/	322	379	390	379

Less than \$500,000

Note Details may not add to totals because of rounding

The costs of this bill fall within budget function 500.

#### Basis of estimate

S. 1040 authorizes appropriations for a variety of activities, including: grants to states and local educational agencies; grants and contracts with states and private organizations, or consortia that include public and private members; and federal oversight. The bill authorizes specific amounts for fiscal year 1994 appropriations for some activities, and for fiscal year 1995 appropriations for others. For most activities, such sums as may be necessary are authorized for the four fiscal years succeeding the year for which specific amounts are provided. CBO estimates authorizations for these later years by adjusting the specific amounts for projected inflation. Outlays are estimated by considering historical spending patterns for these and similar programs. Estimated outlays assume full appropriation of authorized amounts.

Titles I and II of the bill, which include the authorizations for activities under the Training Technology Transfer Act of 1988, Leadership in Educational Technology, and State Planning for Improv-



ing Student Achievement through Integration of Technology into the Curriculum, are also included in the Goals 2000: Educate America Act. Currently, the Congress is working towards a conference agreement on this legislation. The remainder of this section

discusses the details of each activity authorized by S. 1040.

Activities under the Training Technology Transfer  $Ac^*$ . S. 1040 authorizes appropriations of \$3 million for fiscal year 1995 for the Training Technology Transfer Act of 1988, and such sums as may be necessary for fiscal years 1996 through 1999. The purpose of the Act is to facilitate the transfer of education and training software from federal agencies to the public and private sectors. The primary activity is a clearinghouse of education-related software. The bill also moves the Office of Technology Transfer from the Office of Educational and Research and Improvement to the Office of Educational Technology, which would be created by the bill.

Leadering in educational technology. S. 1040 authorizes appropriations of \$5 million in 1994 and such sums as may be necessary through fiscal year 1998 for federal leadership activities in the Department of Education. To coordinate such activities, the bill would create an Office of Educational Technology in the Department of Education. Authorized activities would include: development of a national long-range educational technology plan; technical assistance; and research, development, and evaluation of educational technology. The Secretary could award grants or enter into con-

tracts, or undertake activities directly.

State planning for improving student achievement through integration of technology in the curriculum. The bill authorizes appropriations of \$10 million in fiscal year 1994 and such sums as may be necessary in 1995 for grants to state educational agencies to be used for integrating state-wide educational technology plans into their state plans under the Goals 2000: Educate America Act. Funds would be allocated on the same basis as funds are to be allocated under a provision of the Goals 2000 bill. In October 1993 Congress appropriated \$5 million for fiscal year 1994 for this activity, pending authorizing legislation. Therefore, the effect of S. 1040 is to authorize additional appropriations of \$5 million in fiscal year 1994. CBO estimates the authorization level for fiscal year 1995 to be \$10 million.

School technology resource grants. S. 1040 authorizes appropriations of \$200 million in fiscal year 1995 and such sums as may be necessary through 1999 for grants to states to help local educational agencies that have a high percentage of children in poverty improve the agencies' technological capabilities. Funds would be distributed in the same ratio as the funds appropriated under chapter I of title I of the Elementary and Secondary Education Act.

Regional technical support and professional development. The bill also authorizes appropriations of \$50 million in 1995 and such sums as may be necessary through 1999 for competitive grants to regional educational technical assistance consortia. Consortia would be composed of state educational agencies, institutions of higher education, non-profit organizations, or a combination of the above. The regional consortia would be distributed geographically so that each region of the United States could be served. Regional consortia would provide technical assistance, professional develop-



ment, and information dissemination for state and local edu-

cational agencies.

Educational technology product development. For educational technology product development, the bill authorizes appropriations of \$50 million in fiscal year 1994 and such sums as may be necessary through 1998. The Secretary would award competitive grants to eligible consortia to assist in the development, production, and distribution of educational technology. Each eligible consortium would include a state or local educational agency and a business, industry, or telecommunications entity. Institutions of higher education and non-profit organizations could also be included in a consortium. The Secretary of Education could require a grant recipient to share in the cost of the project.

Star schools. S. 1040 reauthorizes the Star Schools Program at \$35 million in fiscal year 1995 and such sums as may be necessary in 1996 through 1999. Under this program, the Education Department would continue to award grants to telecommunications partnerships for educational and instructional audiovisual facilities, equipment, and programming. The federal share of the project could not exceed 75 percent. Under the Star Schools Program, the Secretary also may provide assistance to state-wide or local tech-

nology networks.

Research on educational applications of advanced technologies. The bill authorizes appropriations of \$20 million in 1995 and such sums as may be necessary through 1999 for grants and contracts

to develop educational applications of advanced technology.

High performance educational computing and telecommunications networks. S. 1040 authorizes appropriations of \$7.5 million for fiscal years 1995 and 1996 and \$10 million for 1997 for the Secretary, in collaboration with other federal agencies, to develop an electronic network for the dissemination of educational information throughout the United States.

- 6. Pay-as-you-go considerations: The Balanced Budget and Emergency Deficit Control Act of 1985 sets up procedures for legislation affecting direct spending or receipts through 1998. CBO estimates that enactment of S. 1040 would not affect direct spending or receipts. Therefore, pay-as-you-go procedures would not apply to this bill.
- 7. Estimated cost to State and local governments: Of the \$382 million authorized by S. 1040 for 1995, \$210 million is for formula grants to states. States and local governments incur no costs for these programs. The remainder of the funds are for competitive grants or federal activities. Some of the competitive grants require matching funds. Therefore, a state or local government could incur costs if it received one of these particular competitive grants directly or as part of a consortium.
  - 8. Estimate comparison: None.9. Previous CBO estimate: None.
  - 10. Estimate prepared by: Dorothy Rosenbaum.
- 11. Estimate approved by: C.G. Nuckols, Assistant Director for Budget Analysis.



#### IX. SECTION-BY-SECTION ANALYSIS

Section 1. This section indicates that Titles I through VI of the bill maybe cited as the "Technology for Education Act of 1994."

Section 2. Section 2 of the bill states the findings about the use of technology in education: (1) technology can assist in the reform of the nation's schools envisioned in the Goals 2000 legislation; (2) new uses of technology can enable teachers to change and to improve teaching practices in order to challenge each student; (3) presently, technology in education is not sufficiently available because of inadequate and inequitable funding from school district to school district, the lack of modern wiring and absence of telephone connections between and within school buildings, and a dearth of products and services to meet the needs of schools in the marketplace; (4) technology can operate as a bridge between the school and the community to aid in the education of students; (5) technology is increasingly becoming the key to a literate citizenry and a competent work force; (6) the Department of Education must take a leadership role in providing technology for those schools unable to acquire it themselves and act as a facilitator in a nationwide technology plan; (7) Federal funds can help districts most in need obtain technology, train their teachers to use it, and attract the interest of product developers; (8) technology needs Federal leadershi to assure that the whole system is interoperable and open to schools; (9) the Federal Government should assure that those school districts that most need technological help get it; (10) both teachers and administrators will receive the necessary training in technology and actively support its productive use; and (11) new technologies have increased the gap between schools and work force preparation.

Section 3. Section 3 states that the purpose of the Act is to meet the needs of the Nation's schools technologically by (1) providing equal access to the larger information infrastructure so that schools can achieve the goals established by the Goals 2000 Act; (2) assisting States and local districts to acquire professional development, necessary equipment and technical support necessary in educating all their students; (3) allowing schools to address the needs of their students from kindergarten through high school and the needs of the community through adult literacy programs; (4) encouraging the development of educational programming to assist instruction in the core subjects; (5) attracting the attention of product developers so that they join with education providers to develop the best products possible for classroom use; (6) avoiding duplication and incompatibility in the development of educational electronic networks; and (7) assuring that educational technology is consistent

with the established national policy for technology.

Section 4. Section 4 defines (1) the term "all students" to mean students from every background and with every level of ability; (2) the term "information infrastructure" to mean the network of systems in use to connect all citizens electronically nationwide; (3) the terms "interoperable" and "interoperability" to mean the ability to communicate, exchange data, and assure the largest accessibility for all students; (4) the term "Office to mean the Office of Educational Technology; (5) the term "public telecommunications en-



tity" to mean a public broadcast station or non-commercial telecommunications entity; (6) the term "technology" to mean the latest, most advanced technology services and products in the broadest, most inclusive sense; and (7) the term "instructional programming" to mean the latest, most advanced communications in the broadest, most inclusive sense.

#### TITLE I-LEADERSHIP IN EDUCATIONAL TECHNOLOGY

Section 101. Section 101 of the bill states the purpose of Title I is to promote achievement of the National Education Goals through (1) leadership in the infusion of technology nationally to schools and school systems; coordination of technological development throughout governmental entities, communities and industry by the development of guidelines to include those schools now excluded from technological development because of lack of access; and coordination of Federal programs to promote the use of technology; (2) demonstration of technology's potential impact on teaching and learning; (3) support of State and local technology efforts; (4) demonstration of technology's role in improving education and educational opportunities for all students; (5) provision for the information necessary for professional personnel to make informed decisions about their investments in technology; (6) promotion of high quality staff development for the whole spectrum of the professional staff in school districts; (7) assistance in the development of technology to promote other Federal programs like Chapter 1 and vocational education; and (8) collection and dissemination of educational uses of technology to enable schools to utilize the latest and most effective methods of improving instruction.

Section 102. Section 102 provides that the Secretary of Education, in consultation with appropriate agencies and with the possible assistance of funds from joint projects with other agencies, develop a national long-range technology plan. The contents of the plan include encouragement of the effective use of technology so that all students might achieve challenging educational standards; the support of an overall national policy that develops a plan for educational uses of the national information infrastructure and ensures that national policies facilitate the use of educational technology; the coordination of Federal, State and local agencies in facilitating educational technology; the promotion of higher achievement for all students, increased access for children from low-income families, implementation of State systemic reform strategies, application of technological advances, and increased opportunities for professional development through the use of technology; and establishment of guidelines for the exchange of data and effective

uses of technology in statewide plans.

Section 103. Section 103 establishes an Office of Educational Technology, managed by a new Director of Educational Technology, within the Department of Education. The functions of the office are to support a national policy in the use of technology for achieving the National Education Goals and standards and opportunities for all students, providing national leadership for policy development, infusing all programs and functions of the Department of Education with appropriate uses of technology, supporting the overall national technology policy of the Federal Government, and select-



ing, appointing and employing the staff necessary to carry out the functions of the office.

Section 104. Section 104 uses funds under this title to set up competitive grants, subject to peer review, to aid technical assistance providers, to consult with various representatives in industry and education, to research and develop guidelines and applications to facilitate efficiency and innovation, to facilitate the use of technology to achieve the national goals, to develop strategies for using technology in education and model programs to demonstrate the effective use of technology and its effect on equity, to research and benefits of technology in education and to disseminate the resulting information, and to collaborate with other agencies when appropriate.

Section 105. The non-Federal share required under this section

shall not exceed 50 percent of the cost of the activities.

Section 106. Section 106 transfers the Office of Training Technology Transfer to the Office of Educational Technology from the Office of Educational Research and Improvement, and appropriates \$3 million in 1995 and such sums as may be necessary to continue the support of the Office of Training Technology Transfer.

Section 107. Section 107 authorizes \$5 million for fiscal year 1994, and such sums as may be necessary for fiscal years 1995

through 1998, to carry out the activities under this title.

TITLE II—STATE PLANNING FOR IMPROVING STUDENT ACHIEVEMENT THROUGH INTEGRATION OF TECHNOLOGY INTO THE CURRICULUM

Section 201. Section 201 of the bill authorizes the Secretary of Education to award a grant to any State educational agency that develops a statewide technology plan in conjunction with a systemic reform plan under the Goals 2000 legislation. The grants are to be awarded in accordance with the same formula as that used for reform plans under the Goals legislation, with the minimum each State receives being the greater of 1.5 percent of the amount appropriated or \$75,000. No State educational agency may receive

funds under this section for more than two years. The objectives of this section are to promote student achievement at all schools, especially those with a high percentage of disadvantaged students, to develop a technology support system statewide, and to promote shared uses of equipment, including activities during after-school hours for adults. The State technology plans are to be developed by a task force that includes experts and integrates the program into the State improvement plan. The task force is to collaborate with State government and educational leaders to identify the technology necessary for improving instruction and learning. Requirements for the State plan include professional development, technical assistance, and dissemination of programs, funding estimates and assessment of impact on student achievement. The task force will describe how the State educational agency will cooperate with outside agencies, promote the acquisition of interoperable equipment, use the existing infrastructure, meet the needs of low-income children, and review the plan periodically. This section authorizes \$10 million for 1994, and such sums as may be necessary for 1995, for the activities of this title.



# TITLE III—SCHOOL TECHNOLOGY RESOURCES, TECHNICAL SUPPORT, AND PROFESSIONAL DEVELOPMENT

Section 301. Section 301 of the bill sets forth as the purposes of this title (1) grants to States to provide funds to local school districts for the purchase and maintenance of educational technology equipment and development of resources and training and (2) grants to regional consortia to provide professional development and technical assistance to integrate technology throughout the

curriculum from kindergarten through high school.

Section 302. Section 302 authorizes the Secretary to award grants to State educational agencies with systemic, statewide technology plans approved by the Secretary pursuant to such criteria as the Secretary may adopt. These grants will be used by the States to provide funds to local educational agencies with the highest percentages of disadvantaged children that also have the greatest need for technology, and such grants shall be made upon approval of applications by the local educational agencies. Grants will be used by the local educational agencies to purchase resources, install linkages for connectivity, integrate technology into the curriculum, provide professional development and administrative and technical support, provide effective technologies for instruction, and provide literacy services with the explicit purpose of improving both teaching and learning.

The funding formula for grants to States follows that under Chapter 1 of Title 1 of the Elementary and Secondary Education Act of 1965, with the stipulation that no State shall receive less than one-half of one percent of the amount appropriated in this section. No more than 5 percent of any grant may be used for State

administrative costs or technical assistance.

The Committee recognizes the valuable role that State literacy resource centers can provide in fostering maximum use of technology by the entire community. This includes the use of technology by the adult literacy students after school hours. The Committee encourages the State literacy resource centers and the State

educational agencies to collaborate closely for this purpose.

Local educational agencies may use the funds under this title to acquire linkages for accessibility both within and among schools, to obtain continuing professional development and to formulate longrange plans for the implementation of technology. Local applications for the grants should be consistent with that locality's statewide technology plan. At a minimum, each plan must include (1) a description of the technology to be acquired with attention to the interoperability of the entire system, (2) an explanation of how the technology will enrich the curriculum and improve teaching and learning, (3) an explanation of how the school will collaborate with existing literacy programs during hours when school is not in session, (4) a description of how professional development will be handled, (5) a list of sources of training and technical assistance, (6) an explanation of how supporting sources will be acquired, (7) projected costs and a timetable for implementing the local plan, (8) and a plan for the coordination of technology from other grant sources.



The local technology plan must also describe the involvement of the community in the development of the plan and the ways that the technologies acquired under the plan will promote the ability of all students to reach challenging standards and to facilitate improved teaching practices and curriculum resources. Finally, the plan must provide an ongoing process to evaluate how the technologies will be integrated into the total curriculum and improve student learning. \$200 million is authorized for 1995, and such sums as may be necessary for the 4 succeeding years, for the provisions of this section.

Section 303. Section 303 of the bill directs the Office of Educational Technology to provide regional technical support and professional development through competitive grants to regional consortia.

The consortia are to be comprised of State educational agencies, non-profit organizations and colleges or universities that will, in cooperation with the State and local educational agencies, develop a program for the region to provide professional development, information resource dissemination, and technical assistance. At least 80 percent of any consortium's grant funds must be used for professional development as opposed to technical assistance.

The technical assistance provided to schools, local educational agencies, and State educational agencies under this section includes the dissemination of information on available computer hardware and software, on the suitability of technologies to particular school needs, and on creative applications of technology in the classroom or school library media center as well as assistance in identifying technology-enhanced materials to support State curriculum. Professional development funds provided to schools under this section will be used (1) to create intensive school year and summer workshops to train teachers and librarians through the use of distance education, including satellite teleconferences, onsite training, and video conferences; (2) to provide training resources that are relevant to the needs of the community and aligned with the needs of the teachers and students; and (3) to establish a repository of professional development resources and assistance providers, with both followup assistance and preservice training.

The consortia will also provide information and resource dissemination to assist State education and local educational agencies in formulating their technology plans, assistance in developing resources, and coordination of activities among relevant partners for all of the services provided to the schools. There are authorized \$50 million in 1995, and such sums as may be necessary for each of the 4 succeeding years, for the provisions in this section.

# TITLE IV—EDUCATIONAL TECHNOLOGY PRODUCT DEVELOPMENT, PRODUCTION, AND DISTRIBUTION

Sec. 401. Statement of Purpose. It is the purpose of this Title to support development, production, and distribution of technology-enhanced curriculum, and instruction and administrative support resources.

Sec. 402. Educational Technology Product Development. This section supports the development of curriculum-based learning resources using state-of-the-art technologies to improve student



learning and the development of long-term comprehensive instruc-

tional programming and support resources.

The Secretary is authorized to award grants to pay the Federal share of developing these products. Each consortium eligible for a grant shall include a State or local educational agency and a business, industry or telecommunications entity, and may include a public or private nonprofit organization, and/or a postsecondary institution.

The Secretary shall give priority to applications describing programs or systems that are developed (1) to be adapted and applied nationally at reasonable cost; (2) to raise achievement levels of students; (3) in consultation with classroom teachers; (4) through consultation and collaboration with education entities to ensure relevance to national and State content and performance standards; and (5) for use by adults in need of literacy services.

The Secretary may require grantees to share in the cost of activities assisted under this section in the form of cash and in-kind con-

tributions.

Each consortium d siring assistance under this section shall submit an application which shall include (1) a description of how the program will improve the achievement levels of students; (2) a description of how activities assisted under this section will promote professional development of teachers and administrators; (3) a description of the product's design, and how it will be developed, field tested, evaluated, and distributed, where appropriate; (4) an assurance that the program or system shall effectively serve a significant number or percentage of economically disadvantaged students; (5) plans for dissemination to a wide audience of learners; and (6) provisions for closed captioning and descriptive video, where appropriate.

The Secretary shall disseminate information about products developed pursuant to this section to State and local educational agencies and other organizations or individuals through print and

electronic media.

Any royalties paid to any State or local educational agency as a result of assistance provided under this section shall be used by such agency for further development of curriculum-based learning resources authorized by this section.

There are authorized to be appropriated \$50 million in fiscal year 1995, and such sums as may be necessary for each of the 4 suc-

ceeding fiscal years to implement this section.

Sec. 403. The Star Schools Program. The Star Schools Program Assistance Act (20 U.S.C. 4081 et seq.) is amended.

Sec. 901. Title.

Sec. 902. Purpose. It is the purpose of this section to encourage improved instruction in mathematics, science, and foreign languages, as well as other subjects, such as literacy skills and vocational education, and to assist underserved populations, including disadvantaged, illiterate, limited-English proficient, and disabled, through a Star Schools program under which grants are made to eligible telecommunications partnerships to (1) develop, construct, acquire, maintain and operate telecommunications audio and visual facilities and equipment; (2) develop and acquire educational and



instructional programming; and (3) obtain technical assistance for

the use of such facilities and instructional programming.

Sec. 903. Grants Authorized. The Secretary, through the Office of Technology, is authorized to make grants to pay the Federal share of the cost of (1) development, construction, acquisition, maintenance and operation of telecommunications facilities and equipment; (2) development and acquisition of live, interactive instructional programming; (3) development and acquisition of preservice and inservice teach: training programs; (4) establishment of teleconferencing facilities and resources for broadcasting interactive training to teachers; (5) obtaining technical assistance; and (6) the coordination of the design and connectivity of telecommunication networks to reach the greatest number of schools.

The Secretary shall award grants for a period of 5 years. Grants

can be renewed for one additional 5 year period.

There are authorized to be appropriated \$35 million for fiscal years 1995, and such sums as may be necessary for each of the 4 succeeding fiscal years.

A grant made to an eligible telecommunications partnership

under this title shall not exceed \$5 million in any 1 fiscal year.

Not less than 25 percent of the funds available under this section shall be used for the cost of instructional programming. Not less than 25 percent of the funds available under this section shall be for the cost of facilities and equipment. Not less than 50 percent of the funds available to the Secretary in any fiscal year under this section shall be services to local educational agencies eligible for assistance under Chapter 1 of Title I of the Elementary and Secondary Education Act of 1965.

The Federal share for any fiscal year may not exceed 75 percent. The Secretary may waive the matching requirement for good cause. The Department of Education shall coordinate with other Federal

agencies.

Each entity receiving a grant is encouraged to provide closed cap-

tioning and descriptive video shall be provided, where appropriate. Sec. 904. Eligible Telecommunications Partnerships. In order to be eligible for a grant, a partnership shall consist of (1) a public agency or corporation established for the purposes of developing , and operating telecommunications services to enhance educational opportunities and representing the interests of elementary and secondary schools which are eligible for assistance under Chapter 1 of Title I of the Elementary and Secondary Education Act of 1965 or (2) a partnership that will provide telecommunications services and which includes three or more of the following, one of which shall be an agency described in (A) or (B): (A) a local educational agency serving a significant number of elementary and secondary schools that are eligible for assistance under Chapter 1 of Title I of the Elementary and Secondary Education Act of 1965 or elementary and secondary schools operated for Indian children by the Department of the Interior under section 1005 (d) of such Act; (B) a State educational agency; (C) an institution of higher education or a State higher educational agency; (D) a teacher training center or academy which (i) provides teacher preservice and inservice training and (ii) receives Federal financial assistance or has been approved by a State agency; or (E)(i) a public or private entity with experi-



ence and expertise in the planning and operation of a telecommunications service including entities involved in telecommunications through satellite, cable, telephone or computers or (ii) a public broadcasting entity with such experience; and (F) a public or private elementary or secondary school.

An eligible telecommunications partnership shall be organized on

a statewide or multistate basis.

Sec. 905. Applications Each applicant desiring a grant shall submit a proposal that includes (1) a description of the facilities and equipment and technical assistance for which assistance is sought; (2) in the case of instructional programming, a description of the types of programming which will be developed; (3) evidence that the partnership has engaged in sufficient survey and analysis of the area to be served to ensure that the services offered will address those needs in the courses to be offered; (4) a description of the teacher training programs to be offered; (5) an assurance that the Federal investment in facilities and equipment will be protected; (6) an assurance that a significant portion of the activities funded under this section will be made available to schools or local educational agencies eligible under Chapter 1 of Title I of the Elementary and Secondary Education Act of 1965; (7) a description of how traditionally underserved students will participate; (8) an assurance that funds will supplement not supplant funds otherwise available for the purposes of this section; (9) a description of how funds received under this section will be coordinated with funds received under sec. 302 of this Act, if appropriate; (10) a description of the activities or services for which assistance is sought; and (11) any additional assurances the Secretary may require.

The Secretary in approving applications under this section, shall give priority to applications which demonstrate that (1) courses offered will provide significant opportunities to participants, particularly underserved populations and areas with scarce resources and limited access to such courses; (2) the eligible partnership has secured the direct cooperation and involvement of public and private educational institutions, State and local government, and industry in planning the network; (3) the eligible partnership will serve the broadest range of institutions; (4) a significant number of educational institutions have agreed to participate; (5) the eligible partnership will have substantial academic and teaching capabilities; (6) the eligible partnership will provide a comprehensive range of courses for educators to better enable them to serve students with different levels of skills, integrate the technology into the existing school curriculum, and provide instruction for parents; (7) the eligible partnership will serve a multistate area; (8) the eligible parternship gives priority to provision of services to isolate areas; (9) a telecommunications entity will participate in the partnership and will donate equipment or in kind services for telecommunications linkages; and (10) the eligible partnership will meet the needs of groups of individuals traditionally excluded from careers in mathematics and science because of discrimination, inaccessibility, or economically disadvantaged backgrounds.

The Secretary shall assure an equitable distribution of grants under this section.



Sec. 906. Leadership and Evaluation Activities. The Secretary may reserve not more than 5 percent in each fiscal year for na-

tional leadership, evaluation, and peer review activities.

Sec. 907. Administrative Provisions, In order to be eligible for a second 5 year grant period, eligible partnerships must demonstrate that they will continue to provide services in the subject areas and geographic areas assisted with funds in the previous 5 year grant cycle and will use new grant funds to provide expanded services.

Sec. 908. Other Assistance. The Secretary through the Office of

Educational Technology may provide assistance to a statewide telecommunications network and on a competitive basis provide assistance to a local educational agency or consortium thereof to estab-

lish technology demonstration programs.

Sec. 909. Definitions. (1) the term "educational institution" means an institution of higher education, a local educational agency, or a State educational agency; (2) the term institution of higher education" has the same meaning given that term by Section 1201 of the Higher Education Act of 1965; (3) the term "local educational agency" has the same meaning given that term by Section 1471 of the Elementary and Secondary Education Act of 1965; (4) the term "instructional programming" means courses of instruction and training which have been prepared in audio and visual form on tape, disc, film, live, and presented by means of telecommunications devices: (5) the term "public broadcasting entity" has the cations devices; (5) the term "public broadcasting entity" has the same meaning given that term by section 397 of the Communications Act of 1934; (6) the term "Secretary" means the Secretary of Education; (7) the term "State educational agency" has the same meaning given that term under Section 1471 of the Elementary and Secondary Education Act of 1965; and (8) the term "State" means each of the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, the Republic of Palau, and the Commonwealth of the Northern Mariana Islands.

#### TITLE V-EDUCATION APPLICATION AND ADVANCED TECHNOLOGIES AND NETWORKS

Section 501 sets out the purposes of Title V: (1) to provide direction and support for the conduct of research on advanced education technologies; (2) to provide support for long-term comprehensive educational application of advanced high performance computer and communication and video technologies in support of the National Education Goals; (3) to ensure that high performance computing and telecommunications networks are developed with due consideration to the needs of elementary and secondary education; (4) to facilitate educational uses of such technologies, and to provide access to classrooms and libraries in elementary and secondary school classrooms; and (5) to assess the effectiveness of technology in education programs.

Section 502 provides for grants or contracts for research projects intended to develop educational applications of advanced technologies, consistent with the overall national technology policy established by the President. Entities desiring assistance must submit to the Secretary an application defining the scope and content



of the subject matter of the research and relevance of such advanced technology to such content; describe the potential market for the hardware and software developed under the section; and assess the applications of the advanced technology. The section authorizes for appropriation \$20 million for fiscal 1995 and such sums as may be necessary for each of the 4 succeeding fiscal years, to

carry out this section.

Section 503. This section provides that the Secretary will support the development of an electronic network for the dissemination of educational information throughout the United States. In carrying out this function, the Secretary is directed to coordinate activities with other dissemination activities assisted by the Department, to consult with educators, State and local educational agencies, telecommunications providers and other appropriate education entities; to provide access to the existing Department of Energy FEDIX/MOLIS Information System about excess equipment within the Federal Government that are available to transfer to elementary and secondary schools; and to make use of existing or neveloping networks to the extent possible.

The Secretary is authorized to identify high performance computing and telecommunications network requirements for education, develop specifications for the implementation of such requirements for education, develop specifications for the implementation of such requirements within any national telecommunications network, establish prototype operations on existing networks, represent the needs and interests of elementary and secondary schools in the Federal planning and development of a national information infrastructure and, finally, identify policy issues that impact on the ability of the public schools to make effective use of the emerging information highways and make recommendations to the Secretary and

Congress regarding such issues.

The Secretary is further authorized to solicit to proposals and make grants, through the Office of Educational Technology, to identify educational high performance computing and telecommunications network requirements, to design and develop specifications which may be used to ensure educational access to any national educational high performance computing and telecommunications network and for prototype operations on existing networks in order to validate and further develop the educational specifications which will facilitate use of existing or planned educational high performance communicating and telecommunications networks by kindergarten through twelfth grade students, teachers, librarians, administrators, and parents.

Requirements grants must be awarded within 6 months of the enactment of the Act; design specification grants awarded within 18 months of such date; and grants for prototype operations within

30 months of such date.

There are authorized to be appropriated \$7.5 million for each of fiscal years 1995 and 1996 and \$10 million for fiscal year 1998 for the purposes of this section.

#### TITLE VI-MISCELLANEOUS

Section 601 directs the Secretary to conduct a study to evaluate, and report to Congress on, the feasibility of several alternative



models for providing sustained and adequate funding for schools throughout the United States so that schools are able to acquire and maintain technology-enhanced curriculum, instruction, and administrative support resources and services. The report is to be presented to Congress not later than one year after the date of enactment of the Act. Funds for this purpose shall be provided from amounts appropriated pursuant to Section 231(d) of the Goals 2000: Educate America Act.

Section 602 provides for entities receiving assistance under the Act to make provision for private school children, teachers and administrators to participate in the purposes and benefits of the Act. If by reason of State law any entity receiving assistance under the Act is prohibited from providing for such participation or such entity is determined by the Secretary to have failed to provide for such participation, the Secretary shall arrange for the provision of

such services.



# X. ADDITIONAL VIEWS OF SENATOR HATCH

I concur with the reservations expressed by Senator Kassebaum with respect to enacting a new authorization for over \$360 million in the first year and for the statutory institutionalization of yet another agency at the Department of Education. I particularly object to the new authorization in the wake of President Clinton's budget recommendation that eliminates Chapter 2 as a flexible block grant. Ironically, schools were able to use Chapter 2 funds to meet

a variety of needs, including technology.

Few would disagree that technology has an important role in education reform. I support technological inroads, especially as they impact on elucation. The educational software industry has made significant strides in innovative approaches to pedagogy, curriculum development, and classroom application. My concerns with this bill have nothing to do with our commitment to bring technological reforms into the classroom. On the contrary, I am concerned that the limits imposed by this legislation will curtail and stifle the very innovative, creative thinking that brought us these techno-

logical inroads in the first place.

I am very proud of the significant contributions made by our software companies in Utah. Yet, when they started out, they didn't have an approved systemic plan to reform the way wordprocessers worked. They didn't have to devote considerable time and research to convincing government bureaucrats that what they were attempting would change our work habits and environments for the better. They were free to design and implement ideas based on a totally unique and individual set of criteria. It is the ability to try out different approaches, to take controlled risks, to allow different schools and different states to adopt the initiatives that work for them that I fear this bill will curtail.

I am skeptical, however, that this legislation will truly enhance the use of technology in the classroom in the way that the sponsors

believe and hope it will.

The reasons for my doubts derive from the peculiar relationship between S. 1040 and S. 1150, the Goals 2000: Educate America Act. Title I and II of S. 1040 have also been incorporated in the Goals 2000 bill.

As I understand it, in S. 1040, Title I outlines the organizational changes and establishes the Office of Educational Technology within the Department of Education. Title II authorizes grants to States for planning the uses and dissemination of educational technology. Title III provides grants to States to enhance the availability and effective use of technology in schools.

However, grants available under Title II are to "assist each State to plan effectively for improved student learning in all schools through the use of technology as an integral part of the State improvement plan described in Section 306 of the Goals 2000: Edu-



cate America Act." [S. 1040, Sec. 201(a)] Under Title II, States can get planning grants only if their State plan includes "a systemic statewide plan to increase the use of state-of-the-art technologies that enhance elementary and secondary student learning and professional development in support of the National Education Goals and challenging standards." [S. 1040, Sec. 201(b)(1)] Thus, the link between S. 1040 and the Goals 2000 legislation is clearly spelled out.

I understand that it was the intention of the sponsors of S. 1040 to divorce the provisions of Title III, which constitutes the greatest proportion of funding in S. 1040, from Goals 2000. I applaud that

position.

But, I admit to being confused by the cross references to the purposes and provisions of Goals 2000. For example, the committee report for S. 1040 states that, "Awards will be made only to States that have a systemic State technology plan approved by the Secretary in accordance with such criteria as the Secretary may adopt. The Committee anticipates that many States will have submitted State plans, including State technology plans, under the Goals 2000: Educate America Act, but it is not a requirement for a grant under this section that a State have a Goals plan." Yet, in order to receive funding under Title III, a State must submit "a systemic statewide plan that meets such criteria as the Secretary may establish." [S. 1040, Sec. 302, (a)(1)].

The question, as I see it, is whether the Secretary can divorce himself from the criteria required to evaluate applications for planning grants under Title II in order to award grants for implementation under title III. While the sponsors desire that the Title III programs remain separate—an outcome I support—I am not sure that the planning process can successfully be separated from the program component as a practical matter. What different criteria will

be "established by the Secretary" for Title III?

Isn't it logical to assume that the design of S. 1040 was intended to establish Title II to make funds available to States to develop plans and title III to provide funding to implement these plans.

I hope that schools all over the country will benefit from the advances made in the area of technology, and I do not doubt that some very good things could come out of this legislation. I also appreciate the acknowledgement in the committee report that, "Schools in isolated or rural areas will likely have great need for technology to link them to the greater resources available in more densely populated areas." This is the case in my home State of Utah, and I am grateful to the committee for their sensitivity to this issue. There is much to appreciate in Title III. And, if I did not also have concerns about the budget and creation of a permanent office within the department, I might have been persuaded to support the 'oill if it were only Title III.

But, I question whether a brand new office is needed at the Federal level to promote what educators already know is beneficial to students. I question the wisdom of canceling the Chapter 2 block grant program in order to authorize a program with a much narrower focus. And, I question whether this legislation, through its connection to national standards—a connection that is explicit in Title II—will not in fact drive educational technology development



instead of spreading the benefits of technology to education. The latter, in my view, encourages creativity and innovation; the former boxes it in. As much as "teaching to the test," this legislation could result in "development for the standard."

Too many requirements in Federal programming-or even uncertainty about requirements-may actually jeopardize the future of technology in the classroom. I believe we need the freest possible environment for our Nation's scientists and engineers to develop technologies for the future as well as the subsequent applications of those technologies. I am concerned that legislating such a narrow path for the application of technology in education could actually result in slower progress in this area. I am sure that my colleagues on the committee and in the Senate share my concern that this not occur.

ORRIN HATCH.



#### XI. MINORITY VIEWS

Although we recognize the value of technology as a teaching tool

in education, we do not support S. 1040.

Our main concern about this bill is that it creates a number of new categorical programs—adding up to \$367.5 million worth of new spending in the first year alone. Budget constraints dictate that we should be improving the education programs that we already have, rather than assuming new obligations. We also oppose adding to the Federal bureaucracy by creating a new Office of Educational Technology in the Department of Education.

The bill would provide a new \$200 million grant program for school districts to purchase computers and other technology as well as a new \$50 million grant program for professional development and technical assistance to train teachers how to use technology in schools. We support federal support for these activities, but would note that all State education agencies and school districts currently

receive Chapter 2 funds which are used for these purposes.

This bill would also authorize research to develop technology applications for the classroom. However, language in the Office of Educational Research and Improvement (OERI) bill recently passed in the Senate would authorize and provide funding for OERI to do such research.

In short, we do not see the need to commit substantial amounts of new funds to support new programs which duplicate activities

being undertaken in existing Federal initiatives.

ORRIN G. HATCH. NANCY LANDON KASSEBAUM.



#### XII. CHANGES IN EXISTING LAW

In compliance with rule XXVI paragraph 12 of the Standing Rules of the Senate, the following provides a print of the statute or the part or section thereof to be amended or replaced (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

DEPARTMENT OF EDUCATION ORGANIZATION ACT

#### SHORT TITLE: TABLE OF CONTENTS

SECTION 1. This Act may be cited as the "Department of Education Organization Act".

#### TITLE I—GENERAL PROVISIONS

FEDERAL INTERAGENCY COMMITTEE ON EDUCATION

SEC. 215. (a) \* \* \*

### OFFICE OF EDUCATION TECHNOLOGY

SEC. 216. There shall be in the Department of Education an Office of Educational Technology, to be administered by the Director of Educational Technology. The Director of Educational Technology shall report directly to the Secretary and shall perform such additional functions as the Secretary may prescribe. Such Office shall be established in accordance with section 405A of the General Education Provisions Act.

### GENERAL EDUCATION PROVISIONS ACT

SHORT TITLE; APPLICABILITY; DEFINITIONS; APPROPRIATIONS

SEC. 400. (a) \* \* \*

OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

SEC. 405. (a)(1) \* \* \*

(33)

SEC. 405A. OFFICE OF EDUCATIONAL TECHNOLOGY.

(a) ESTABLISHMENT.—The Secretary shall establish an Office of Educational Technology (hereafter in this section referred to as the "Office").

(b) FUNCTIONS OF THE OFFICE.—The Director of the Office of Educational Technology (hereafter in this section referred to as the "Di-

rector"), through the Office, shall—

(1) in support of the overall national technology policy and in consultation with other Federal departments or agencies which the Director determines appropriate, provide leadership to the Nation in the use of technology to promote achievement of the National Education Goals and to increase opportunities for all students to achieve challenging State content and challenging State student performance standards;

(2) review all programs and training functions administered by the Department and recommend policies in order to promote increased use of technology and technology planning throughout

all such programs and functions;

(3) review all relevant programs supported by the Department to ensure that such programs are coordinated with and support the national long-range technology plan developed pursuant to this Act; and

(4) perform such additional functions as the Secretary may

require.

(c) PERSONNEL.—The Director is authorized to select, appoint, and employ such officers and employees as may be necessary to carry out the functions of the Office, subject to the provisions of title 5, United States Code (governing appointments in the competitive service), and the provisions of chapter 51 and subchapter III of chapter 53 of such title (relating to classification and General Schedule pay rates.

(d) EXPERTS AND CONSULTANTS.—The Secretary may obtain the services of experts and consultants in accordance with section 3109

of title 5, United States Code.

# TITLE IX-STAR SCHOOLS PROGRAM

#### SHORT TITLE

[SEC. 901. This title may be cited as the "Star Schools Program Assistance Act".

#### **ISTATEMENT OF PURPOSE**

[Sec. 902. It is the purpose of this title to encourage improved instruction in mathematics, science, and foreign languages as well as other subjects such as literacy skills and vocational education and to serve underserved populations including the disadvantaged, illiterate, limited-English proficient, and disabled through a star schools program under which grants are made to eligible telecommunications partnerships to enable such eligible telecommunications partnerships to develop, construct, and acquire telecommunications audio and visual facilities and equipment, to develop and acquire instructional programming, and to obtain tech-



nical assistance for the use of such facilities and instructional programming.

#### [PROGRAM AUTHORIZED

[SEC. 903. (a) GENERAL AUTHORITY.—(1) The Secretary is authorized, in accordance with the provisions of this title, to make grants to eligible telecommunications partnerships for the Federal share of the cost of the development, construction, and acquisition of telecommunications facilities and equipment, of the development and acquisition of instructional programming, and of technical assistance.

(2) The Secretary shall award grants pursuant to paragraph (1)

for a period of 2 years.

[(3] Grants awarded pursuant to paragraph (1) may be awarded for an additional 2-year period in accordance with section 907.

(b) AUTHORIZATION OF APPROPRIATIONS.—(1) there is authorized to be appropriated \$50,000,000 for fiscal year 1992 and such sums as may be necessary in fiscal year 1993.

(2) Funds appropriated pursuant to this subsection shall remain

available until expended.

(c) LIMITATIONS.—(1) A grant made to an eligible telecommunications partnership under this title may not exceed \$10,000,000 in any one fiscal year.

(2)(A) Not less than 25 percent of the funds available to the Secretary in any fiscal year under this Act shall be used for the cost

of instructional programming.

(B) Not less than 25 percent of the funds available to the Secretary in any fiscal year under this title shall be used for tele-

communications facilities and equipment.

(3) Not less than 50 percent of the funds available in any fiscal year under this title shall be used for the cost of facilities, equipment, teacher training or retraining, technical assistance, or programming, for local educational agencies which are eligible to receive assistance under chapter 1 of title I of the Elementary and Secondary Education Act of 1965.

(d) FEDERAL SHARE.—(1) The Federal share for any fiscal year

shall be 75 percent.

(2) The Secretary may reduce or waive the requirements of the non-Federal share required under paragraph (1) of this subsection

upon a showing of financial hardship.

(e) COORDINATION.—The Department of Education, the National Science Foundation, the Department of Agriculture, and any other Federal agency operating a telecommunications network for educational purposes shall coordinate the activities assisted under such programs.

# ELIGIBLE TELECOMMUNICATIONS PARTNERSHIPS

SEC. 904. (a) GENERAL RULE.—In order to be eligible for grants under this title, an eligible telecommunications partnership shall consist of-

(1) a public agency or corporation established for the purpose of developing and operating telecommunications networks to enhance educational opportunities provided by educational institutions, teacher training centers, and other entities, except



that any such agency or corporation shall represent the interests of elementary and secondary schools which are eligible to participate in the program under chapter 1 of title I of the Elementary and Secondary Education Act of 1965; or

(2) a partnership which includes three or more of the following, and at least one of which shall be an agency described in subparagraph (A) or (B), and which will provide a

telcommunications network:

[(A) a local educational agency, which has a significant number of elementary and secondary schools which are eligible for assistance under chapter 1 of title I of the Elementary and Secondary Education Act of 1965 or elementary and secondary schools operated for Indian children by the Department of the Interior eligible under section 1005(d) of the Elementary and Secondary Education Act of 1965.

(B) a State educational agency,

[(C) an institution of higher education or a State higher education agency

(D) a teacher training center or academy which—

(i) provides teacher preservice and inservice train-

(ii) receives Federal financial assistance or has

been approved by a State agency,

I(E)(i) a public or private entity with experience and expertise in the planning and operation of a telecommunications network, including entities involved in telecommunications through satellite, cable, telephone, or computer; or

[(ii) a public broadcasting entity with such experience,

- **[(F)** a public or private elementary or secondary school. (b) Special Rule.—An eligible telecommunications partnership must be organized on a statewide or multistate basis.
  - (c) Special Statewide Network.—

[(1) IN GENERAL.—The Secretary may fund one statewide telecommunications network under this title if such network—

[(A) provides two-way full motion interactive video and

audio communications;

(B) links together public colleges and universities and

secondary schools throughout the State; and

[(C) meets any other requirements determined appro-

priate by the Secretary.

[(2) STATE CONTRIBUTION.—A statewide telecommunications network funded under paragraph (1) shall contribute (either directly or through private contributions) non-Federal funds equal to not less than 50 percent of the cost of such network.

#### APPLICATIONS

[SEC. 905. (a) APPLICATION REQUIRED.—Each eligible telecommunications partnership which desires to receive a demonstration grant under this title may submit an application to the Secretary, at such time, in such manner, and containing or accom-



panied by such information as the Secretary may reasonably require.

(b) CONTENTS OF APPLICATION.—Each such application shall—

(1) describe the telecommunications facilities and equipment and technical assistance for which assistance is sought which may include—

(A) the design, development, construction, and acquisition of State or multistate educational telecommunications

networks and technology resource centers;

[(B) microwave, fiber optics, cable, and satellite transmission equipment, or any combination thereof:

(C) reception facilities;

(D) satellite time;

(E) production facilities;

I(F) other telecommunications equipment capable of

serving a wide geographic area;

[(G) the provision of training services to instructors who will be using the facilities and equipment for which assistance is sought in using such facilities and equipment, and integrating programs into the class curriculum; and

(H) the development of educational programming for

use on a telecommunications network;

[(2) in the case of an application for assistance for instructional programming, describe the types of programming which will be developed to enhance instruction and training and provide assurances that such programming will be designed in consultation with professionals who are experts in the applica-

ble subject matter and grade level;

[(3) demonstrate that the eligible telecommunications partnership has engaged in sufficient survey and analysis of the area to be served to ensure that the services offered by the telecommunications partnership will increase the availability of courses of instruction in mathemat is, science, and foreign languages, (in accordance with section 907) as well as the other subjects to be offered;

(4) describe the training policies for teachers and other school personnel to be implemented to ensure the effective use of the telecommunications facilities and equipment for which

assistance is sought;

[(5) provide assurances that the financial interest of the United States in the telecommunications facilities and equipment will be protected for the useful life of such facilities and

equipment;

I(6) provide assurances that a significant portion of any facilities, equipment, technical assistance, and programming for which assistance is sought for elementary and secondary schools will be made available to schools of local educational agencies which have a high percentage of children counted for the purpose of chapter 1 of title I of the Elementary and Secondary Education Act of 1965;

\$\(\begin{align\*}(7)\) describe the manner in which traditionally under-served students (such as students who are disadvantaged, limited-English proficient, disabled, or illiterate) will participate in the benefits of the telecommunications facilities, equipment, tech-



nical assistance, and programming assisted under this title and will use existing telecommunications equipment, where available;

[(8) provide assurances that the applicant will use the funds to supplement and not supplant funds otherwise available for the purpose of this title;

(9) describe the activities or services for which assistance is

sought, including activities and services such as-

(A) providing facilities, equipment, training, services, and technical assistance described in paragraphs (1), (2), (4) and (7);

(B) making programs accessible to individuals with disabilities through mechanisms such as closed captioning and description video services:

(C) linking networks together, for example, around an

issue of national importance such as elections;

(D) sharing curriculum materials between networks; (E) providing teacher and student support services;

I(F) incorporating community resources such as libraries

and museums into instructional programs;

(G) providing teacher training to early childhood development and Head Start teachers and staff;

(H) providing teacher training to vocational education

teachers and staff; and

(I) providing programs for adults at times other than the regular school day in order to maximize the use of telecommunications facilities and equipment.

[(10) provide such additional assurances as the Secretary

may reasonably require.

(c) APPROVAL OF APPLICATION: PRIORITY.—The Secretary shall, in approving applications under this title, give priority to applications which demonstrate that—

[(1) a concentration and quality of mathematics, science, and foreign language resources which, by their distribution through the eligible telecommunications partnership, will offer significant new educational opportunities to network participants, particularly to traditionally underserved populations and areas with scarce resources and limited access to courses in mathematics, science, and foreign languages;

(2) the eligible telecommunications partnership has secured the direct cooperation and involvement of public and private educational institutions, State and local government, and in-

dustry in planning the network;

(3) the eligible telecommunications partnership will serve the broadest range of institutions, including, in the case of elementary and secondary schools, those elementary and secondary schools having significant numbers of children counted for the purposes of chapter 1 of title I of the Elementary and Secondary Education Act of 1965, programs providing instruction outside of the school setting, institutions of higher education, teacher training centers, research institutes, and private industry;



(4) a significant number of educational institutions have agreed to participate or will participate in the use of the tele-

communications system for which assistance is sought;

[(5) the eligible telecommunications partnership will have substantial academic and teaching capabilities including the capability of training, retraining, and inservice upgrading of teaching skills;

(6) the eligible telecommunications partnership will—

I(A) provide a comprehensive range of courses for educators with different skill levels to teach instructional strategies for students with different skill levels;

(B) provide training to participating educators in ways to integrate telecommunications courses into the existing

school curriculum; and

(C) include instruction for students, teachers, and par-

[(7) the eligible telecommunications partnership will serve a

multistate area;

[(8) a telecommunications entity (such as a satellite, cable, telephone, computer, or public or private television station) will participate in the partnership and will donate equipment or inkind services for telecommunications linkages; and

(9) the eligible telecommunications partnership will, in providing services with assistance sought under this Act, meet the needs of groups of individuals traditionally excluded from careers in mathematics and science because of discrimination, inaccessibility, or economically disadvantaged backgrounds.

(d) GEOGRAPHIC DISTRIBUTION.—In approving applications under this title, the Secretary shall assure an equitable geographic

distribution of grants.

# DISSEMINATION OF COURSES AND MATERIALS UNDER THE STAR SCHOOLS PROGRAM

[Sec. 906. (a) Report.—Each eligible telecommunications partnership awarded a grant under this title shall report to the Secretary a listing and description of available courses of instruction and materials to be offered by educational institutions and teacher training centers which will be transmitted over satellite, specifying the satellite on which such transmission will occur and the time of such transmission.

(b) DISSEMINATION OF COURSES OF INSTRUCTION.—The Secretary shall compile and prepare for dissemination a listing and description of available courses of instruction and materials to be offered by educational institutions and teacher training centers equipped with satellite transmission capabilities, as reported to the

Secretary under subsection (a) of this section.

(c) DISSEMINATION TO STATE EDUCATION AGENCIES.—The Secretary shall distribute the list required by subsection (b) of this section to all State educational agencies.

### CONTINUING ELIGIBILITY

[Sec. 907. (a) In General.—In order to be eligible to receive an additional grant under section 903(a)(3) in any fiscal year, an eligible telecommunications partnership shall demonstrate in the appli-



cation submitted pursuant to section 905 that such partnership will-

I(1) continue to provide services in the subject areas and geographic areas assisted with funds received under this title in previous fiscal years; and

1(2) use all such grant funds to provide expanded services

(A) increasing the number of students, schools or school districts served by the courses of instruction assisted under this title in previous fiscal years;

(B) providing new courses of instruction; or

(C) serving new populations of underserved individuals, such as children or adults who are disadvantaged, have limited-English proficiency, are disabled, are illiterate, lack high school diplomas or their equivalent.

(b) Special Rules.—Grant funds received pursuant to the application of subsection (a) shall be used to supplement and not supplant services provided by the recipient under this title in previous

fiscal years.

#### **EVALUATION**

[Sec. 908. (a) In General.—From amounts appropriated pursuant to the authority of section 903(b), the Secretary shall reserve the greater of not more than \$500,000 or 5 percent of such appropriations to conduct an independent evaluation by grant, contract or cooperative agreement, of the Star Schools Assistance Program.

(b) REPORT.—The Secretary shall prepare and submit an interim report on the evaluation described in subsection (a) not later than January 1, 1993 and shall prepare and submit a final report on such evaluation not later than Jan 1, 1993.

(c) EVALUATION.—Such evaluation shall—

(1) a review of the effectiveness of telecommunications part-

nerships and programs after Federal funding ceases;

(2) an analysis of non-Federal funding sources, including funds leverage by Star Schools funds and the permanency of such funding;

[(3) an analysis of how Star Schools grantees spend funds

appropriated under this Act;

I(4) a review of the subject matter, content effectiveness, and success of distance learning through Star Schools program funds, including an in-depth study of student learning outcomes as measured against stated course objectives of distance learning courses offered by Star Schools grantees;

(5) a comprehensive review of in-service teacher training programs through Star Schools programming, including the number of teachers trained, time spent in training programs, and a comparison of the effectiveness of such training and con-

ventional teacher training programs;
[(6) an analysis of Star School projects that focus on teacher certification and other requirements and the resulting effect on the delivery of instructional programming;

(7) the effects of distance learning on curricula and staffing

patterns at participating schools;



(8) the number of students participating in the Star Schools program and an analysis of the socioeconomic characteristics of students participating in Star Schools programs, including a review of the differences and effectiveness of programming and services provided to economically and educationally disadvantaged and minority students;

(9) an analysis of the socioeconomic and geographic characteristics of schools participating in Star Schools projects, including a review of the variety of programming provided to dif-

ferent schools: and

[(10) the impact of dissemination grants under section 910 on the use of technology-based programs in local educational agencies.

# FEDERAL ACTIVITIES

I SEC. 909. The Secretary may assist grant recipients under this title in acquiring satellite time, where appropriate, as economically as possible.

## DISSEMINATION GRANTS

SEC. 910. (a) IN GENERAL.—The Secretary shall make grants under this section to telecommunications partnerships funded by the Star Schools Program and to other eligible entities to enable such partnerships and entities to provide dissemination and technical assistance to State and local educational agencies not presently served by telecommunication partnerships.

(b) Special Rule.—The Secretary shall make grants under this section in any fiscal year in which the amount appropriated for this title exceeds the amount appropriated for this title in fiscal year

1991 by not less than 10 percent.

(c) RESERVATION.—In any fiscal year in which the Secretary awards grants under this section in accordance with subsection (b), the Secretary shall reserve not less than 5 percent but not more than 10 percent of the amount appropriated under this title for such fiscal year to award such grants.

(d) APPLICATIONS,-

(1) IN GENERAL.—Each telecommunications partnership and other eligible entity that desires to receive a grant under this section shall submit an application to the Secretary, at such time, in such manner, and containing or accompanied by such information as the Secretary may reasonably require.

(2) CONTENTS.—Each application described in paragraph (2) shall contain assurances that the telecommunications partnership or other eligible entity shall provide technical assistance to State and local educational agencies to plan and implement

technology-based systems, including-

(A) information regarding successful distance learning resources for States, local educational agencies, and

schools:

(B) assistance in connecting users of distance learning, regional educational service centers, colleges and universities, the private sector, and other relevant entities;



(C) assistance and advice in the design and implementation of systems to include needs assessments and technology design; and

[(D) support for identification of possible connections, and cost-sharing arrangements for users of such systems.

(e) DEFINITION.—For purposes of this section, the term "eligible entity" means a federally funded program or an institution of higher education that has demonstrated expertise in educational applications of technology and provides comprehensive technical assistance to educators and policy makers at the local level.

## **I**DEFINITIONS

[Sec. 911. As used in this title—

[(1) the term "educational institution" means an institution of higher education, a local educational agency, and a State educational agency;

[(2) the term "institution of higher education" has the same meaning given that term under section 1201(a) of the Higher

Education Act of 1965;

(3) the term "local educational agency" has the same meaning given that term under section 1471(10) of the Elementary

and Secondary Education Act of 1965;

[(4) the term "instructional programming" means courses of instruction, and training courses, and materials for use in such instruction and training which have been prepared in audio and visual form on tape, disc, film, or live, and presented by means of telecommunications devices;

[(5) the term "public broadcasting entity" has the same meaning given that term in section 397 of the Communications

Act of 1934;

[(6) the term "Secretary" means the Secretary of Education;

[(7) the term "State educational agency" has the same meaning given that term under section 1471(16) of the Elementary

and Secondary Education Act of 1965; and

[(8) the term "State" means each of the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Federated States of Micronesia, the Republic of the Marshall Islands, Palau, and the Commonwealth of the Northern Mariana Islands.]

## SEC. 901. PURPOSE.

It is the purpose of this title to encourage improved instruction in mathematics, science, and foreign languages as well as other subjects, such as literacy skills and vocational education, and to serve underserved populations, including the disadvantaged, illiterate, limited-English proficient, and disabled, through a star schools program under which grants are made to eligible telecommunication partnerships to enable such partnerships to—

(1) develop, construct, acquire, maintain and operate telecommunications audio and visual facilities and equipment;

(2) develop and acquire educational and instructional programming; and



(3) obtain technical assistance for the use of such facilities and instructional programming.

#### SEC. 902. GRANTS AUTHORIZED.

(a) AUTHORITY.—The Secretary, through the Office of Educational Technology, is authorized to make grants, in accordance with the provisions of this title, to eligible telecommunications partnerships to pay the Federal share of the cost of—

(1) the development, construction, acquisition, maintenance and operation of telecommunications facilities and equipment;

(2) the development and acquisition of live, interactive in-

structional programming;

(3) the development and acquisition of preservice and inservice teacher training programs based on established research regarding teacher-to-teacher mentoring, effective skill transfer, and ongoing, in-class instruction;

(4) the establishment of teleconferencing facilities and re-

sources for broadcasting interactive training to teachers;

(5) obtaining technical assistance; and

(6) the coordination of the design and connectivity of telecommunications networks to reach the greatest number of schools.

(b) DURATION.—

(1) IN GENERAL.—The Secretary shall award grants pursuant to subsection (a) for a period of 5 years.

(2) RENEWAL.—Grants awarded pursuant to subsection (a)

may be renewed for 1 additional 5-year period.

(c) AUTHORIZATION OF APPROPRIATIONS.—

- (1) In GENERAL.—There are authorized to be appropriated \$35,000,000 for fiscal year 1995, and such sums as may be necessary for each of the 4 succeeding fiscal years, to carry out this title.
- (2) AVAILABILITY.—Funds appropriated pursuant to the authority of subsection (a) shall remain available until expended. (d) LIMITATIONS.—
  - (1) AMOUNT.—A grant made to an eligible telecommunications partnership under this title shall not exceed \$5,000,000 in any 1 fiscal year.

(2) RESERVATIONS.—

(A) FACILITIES AND EQUIPMENT.—Not less than 25 percent of the funds available to the Secretary in any fiscal year under this title shall be used for instructional pro-

gramming.

(B) LOCAL EDUCATIONAL AGENCIES ELIGIBLE FOR CHAPTER 1 ASSISTANCE.—Not less than 25 percent of the funds available to the Secretary in any fiscal year under this title shall be used for the cost of facilities, equipment, teacher training or retraining, technical assistance, or programming, for local educational agencies which are eligible to receive assistance under chapter 1 of title I of the Elementary and Secondary Education Act of 1965.

(e) FEDERAL SHARE.—

(1) IN GENERAL.—The Federal share for any fiscal year shall be not more than 75 percent.



(2) WAIVER.—The Secretary may reduce or waive the requirements of the non-Federal share required under paragraph (1)

for good cause, as determined by the Secretary.

(f) COORDINATION.—The Department of Education, the National Science Foundation, the Department of Agriculture, and any other Federal department or agency operating a telecommunications network for educational purposes, shall coordinate the activities assisted under this title with the activities of such department or agency relating to a telecommunications network for educational purposes.

(g) CLOSED CAPTIONING AND DESCRIPTIVE VIDEO.—Each entity re-

ceiving funds under this title is encouraged to provide-

(1) closed captioning of the verbal content of such program, where appropriate, to be broadcast by way of line 21 of the vertical blanking interval, or by way of comparable successor technologies: and

(2) descriptive video of the visual content of such program, as

appropriate.

## SEC. 903. ELIGIBLE TELECOMMUNICATIONS PARTNERSHIPS.

(a) IN GENERAL.—In order to be eligible for a grant under this title, an eligible telecommunications partnership shall consist of-

(1) a public agency or corporation established for the purposes of developing and operating telecommunications services to enhance educational opportunities provided by educational institutions, teacher training centers, and other entities, except that any such agency or corporation shall represent the interest of elementary and secondary schools which are eligible for assistance under chapter 1 of title I of the Elementary and Secondary Education Act of 1965; or

(2) a partnership that will provide a telecommunications services and which includes 3 or more of the following entities, at least 1 of which shall be an agency described in subparagraph

(A) or (B):

(A) a local educational agency serving a signifcant number of elementary and secondary schools that are eligible for assistance under chapter 1 of title 1 of the Elementary and Secondary Education Act of 1965 or elementary and secondary schools operated for Indian children by the Department of Inferior under section 1005(d) of such Act;

(B) a State educational agency;

(C) an institution of higher education or a State higher education agency;

(D) a teacher training center or academy which—

(i) provides teacher preservice and inservice training;

(ii) receives Federal financial assistance or has been approved by a State agency; or

(E)(i) a public or private entity with experience and expertise in the planning and operation of a telecommunications service, including entities involved in telecommunications through satellite, cable, telephone or computers; or (ii) a public broadcasting entity with such experience.

(b) Special Rule.—An eligible telecommunications partnership

shall be organized on a statewide or multistate basis.



#### SEC. 904. APPLICATIONS.

(a) APPLICATION REQUIRED.—Each eligible telecommunications partnership which desires to receive a grant under section 902 shall submit an application to the Secretary, at such time, in such manner, and containing or accompanied by such information as the Secretary may reasonably require.

(6) CONTENTS OF THE APPLICATION.—Each application submitted

pursuant to subsection (a) shall-

(1) describe the telecommunications facilities and equipment and technical assistance for which assistance is sought, which may include—

(A) the design, development, construction, acquisition, maintenance and operation of State or multistate educational telecommunications networks and technology resource centers;

(B) microwave, fiber optics, cable, and satellite trans-

mission equipment or any combination thereof;

(C) reception facilities;

(D) satellite time;(E) production facilities:

(F) other telecommunications equipment capable of serv-

ing a wide geographic area;

(G) the provision of training services to instructors who will be using the facilities and equipment for which assistance is sought, including training in using such facilities and equipment and training in integrating programs into the classroom curriculum; and

(H) the development of educational programming for use

on a telecommunications network;

(2) in the case of an application for assistance for instructional programming, describe the types of programming which will be developed to enhance instruction and training and provide assurances that such programming will be designed in consultation with professionals (including classroom teachers) who are experts in the applicable subject matter and grade level;

(3) demonstrate that the eligible telecommunications partnership has engaged in sufficient survey and analysis of the area to be served to ensure that the services offered by the eligible telecommunications partnership will increase the availability of courses of instruction in mathematics, science, and foreign languages, as well as other subjects to be offered;

(4) describe the training policies for teachers and other school personnel to be implemented to ensure the effective use of telecommunications facilities and equipment for which assistance

is sought;

(5) provide assurances that the financial interest of the United States in the telecommunications facilities and equipment will be protected for the useful life of such facilities and equipment;

(6) provide assurances that a significant portion of any facilities and equipment, technical assistance, and programming for which assistance is sought for elementary and secondary schools will be made available to schools or local educational



agencies which have a high percentage of children eligible to be counted under chapter 1 of title I of the Elementary and Sec-

ondary Education Act of 1965;

(7) describe the manner in which traditionally underserved students, such as students who are disadvantaged, limited-English proficient, disabled, or illiterate will participate in the benefits of the telecommunications facilities, equipment, technical assistance, and programming assisted under this title;

(8) provide assurances that the applicant will use the funds provided under this title to supplement and not supplant funds

otherwise available for the purposes of this title;

(9) if any member of the consortia is receiving assistance under section 302 of the Technology for Education Act of 1994, describe how funds received under this title will be coordinated with funds received for educational technology in the classroom under section 302 of such Act;

(10) describe the activities or services for which assistance is

sought, including activities and services such as-

(A) providing facilities, equipment, training, services, and technical assistance described in paragraphs (1), (2), (4) and (7):

(B) making programs accessible to individuals with disabilities through mechanisms such as closed captioning

and descriptive video services;

(C) linking networks together, for example, around an issue of national importance, such as national elections;

(D) sharing curriculum resources between networks and development of program guides which demonstrate cooperative, cross-network listing of programs for specific curriculum areas;

(E) providing teacher and student support services including classroom and training support materials which permit student and teacher involvement in the live interactive distance learning telecasts;

(F) incorporating community resources, such as libraries

and museums, into instructional programs;

(G) providing teacher training to early childhood development and Head Start teachers and staff;

(H) providing teacher training to vocational education

teachers and staff;

(I) providing teacher training on proposed or established voluntary national content standards in mathematics and science and other disciplines as such standards are developed:

(J) providing programs for adults at times other than the regular school day in order to maximize the use of tele-

communications facilities and equipment; and

(K) providing parent education programs during and after the regular school day which reinforce the student's course of study and actively involve parents in the learning process; and

(11) include such additional assurances as the Secretary may

reasonably require.



(c) APPROVAL OF APPLICATION; PRIORITY.—The Secretary, in approving applications under this title, shall give priority to applica-

tions which demonstrate that—

(1) a concentration and quality of mathematics, science, and foreign languages resources which, by their distribution through the eligible telecommunications partnership, will offer significant new educational opportunities to network participants, particularly to traditionally underserved populations and areas with scarce resources and limited access to courses in mathematics, science, and foreign languages.

(2) the eligible telecommunications partnership has secured the direct cooperation and involvement of public and private educational institutions, State and local government, and in-

dustry in planning the network;

(3) the eligible telecommunications partnership will serve the broadest range of institutions, including in the case of elementary and secondary schools, those elementary and secondary schools having a significant number of students eligible to be counted under chapter 1 of title I of the Elementary and Secondary Education Act of 1965, programs providing instruction outside of the school setting, institutions of higher education, teacher training centers, research institutes, and private industry;

(4) a significant number of educational institutions have agreed to participate or will participate in the use of the tele-

communications system for which assistance is sought;

(5) the eligible telecommunications partnership will have substantial academic and teaching capabilities, including the capability of training, retraining, and service upgrading of teaching skills and the capability to provide professional development leading to comprehensive effective instructional strategies, outcomes-based curriculum and parenting practices;

(6) the eligible telecommunications partnership will—

(A) provide a comprehensive range of courses for educators to teach instructional strategies for students with different skill levels;

(B) provide training to participating educators in ways to integrate telecommunications courses into existing school

curriculum; and

(C) provide instruction for students, teachers, and parents;

(7) the eligible telecommunications partnership will serve a

multistate area;

(8) the eligible telecommunications partnership will give priority to the provision of equipment and linkages to isolated areas;

(9) a telecommunications entity (such as a satellite, cable, telephone, computer, or public or private television stations) will participate in the partnership and will donate equipment or in kind services for telecommunications linkages; and

(10) the eligible telecommunications partnership will, in providing services with assistance under this title, meet the needs of groups of individuals traditionally excluded from careers in



mathematics and science because of discrimination, inacces-

sibility, or economically disadvantaged backgrounds.

(d) Geographic Distribution.—In approving application under this title, the Secretary shall assure an equitable geographic distribution of grants under this title.

## SEC. 905. LEADERSHIP AND EVALUATION ACTIVITIES.

(a) RESERVATION.—From the amount appropriated pursuant to the authority of section 902(c)(1) in each fiscal year, the Secretary may reserve not more than 5 percent of such amount for national leadership, evaluation, and peer review activities.

(b) METHOD OF FUNDING.—The Secretary may fund the activities described in subsection (a) directly or through grants, contracts, and

cooperative agreements.

(c) Uses of Funds.—

(1) LEADERSHIP.—Funds reserve for leadership activities under subsection (a) may be used for—

(A) disseminating information, including lists and descriptions of services available from recipients; and

(B) other activities designed to enhance the quality of dis-

tance learning activities nationwide.

(2) EVALUATION.—Funds reserved for evaluation activities under subsection (a) may be used to conduct independent evaluations of the activities assisted under this title and of distance learning in general, including—

(A) analyses of distance learning efforts, including such efforts that are assisted under this title and such efforts

that are not assisted under this title; and

((B) comparisons of the effects, including student outcomes, of different technologies in distance learning efforts.

(3) PEER REVIEW.—Funds reserved for peer review activities under subsection (a) may be used for peer review of—

(A) applications for grants under this title; and

(B) activities assisted under this title.

#### SEC. 906. ADMINISTRATIVE PROVISIONS.

(a) CONTINUING ELIGIBILITY.—

(1) In GENERAL.—In order to be eligible to receive a grant under this title in any fiscal year after the first fiscal year in which an eligible telecommunications partnership receives a grant under this title, such partnership shall demonstrate in the application submitted pursuant to section 904 that such partnership will—

(A) continue to provide services in the subject areas and geographic areas assisted with funds received under this

title in the previous fiscal year; and

(B) use all such grant funds to provide expanded services by—

(i) increasing the number of students, schools or school districts served by the courses of instruction assisted under this title in the previous fiscal year;

(ii) providing new courses of instruction; and

(iii) serving new populations of underserved individuals, such as children or adults who are disadvantaged, have limited-English proficiency, are disabled,



are illiterate, or lack high school diplomas or their

equivalent.

(2) Special Rules.—Grant funds received pursuant to the application of paragraph (1) shall be used to supplement and not supplant services provided by the recipient under this title in the previous fiscal year.

(b) FEDERAL ACTIVITIES.—The Secretary may assist grant recipients under this title in acquiring satellite time, where appropriate.

as economically as possible.

#### SEC. 907. OTHER ASSISTANCE.

(a) SPECIAL STATEWIDE NETWORK .--

- (1) IN GENERAL.—The Secretary, through the Office of Educational Technology, may provide assistance to a statewide telecommunications network under this subsection if such network-
  - (A) provides 2-way full motion interactive video and audio communications;

(B) links together public colleges and universities and

secondary schools throughout the State; and

(C) meets any other requirements determined appropriate

by the Secretary.

- (2) STATE CONTRIBUTION.—A statewide telecommunications network assisted under paragraph (1) shall contribute, either directly or through private contributions, non-Federal funds equal to not less than 50 percent of the cost of such network. (b) SPECIAL LOCAL NETWORK.
  - (1) IN GENERAL.—The Secretary may provide assistance, on a competitive basis, to a local educational agency or consortium thereof to enable such agency or consortium to establish a high technology demonstration program.

(2) PROGRAM REQUIREMENTS.—A high technology demonstra-

tion program assisted under paragraph (1) shall—
(A) include 2-way full motion interactive video, audio

and text communications;

- (B) link together elementary and secondary schools, colleges, and universities;
  - (C) provide parent participation and family programs;

(D) include a staff development program; and

(E) have a significant contribution and participation

from business and industry.

- (3) Special Rule.—Each high technology demonstration program assisted under paragraph (1) shall be of sufficient size and scope to have an effect on meeting the National Education Goals.
- (4) MATCHING REQUIREMENT.—A local educational agency or consortium receiving a grant under paragraph (1) shall provide, either directly or through private contributions, non-Federal matching funds equal to not less than 50 percent of the amount of the grant.

## SEC. 908. DEFINITIONS.

As used in this title-



(1) the term "educational institution" means an institution of higher education, a local educational agency, or a State edu-

cational agency;
(2) the term "institution of higher education" has the same meaning given that term by section 1201 of the Higher Edu-

cation Act of 1965;

(3) the term "local educational agency" has the same meaning given that term by section 1471 of the Elementary and Second-

ary Education Act of 1965;

(4) the term "instructional programming" means courses of instruction, training courses, and resources used in such in-struction and training, which have been prepared in audio and visual form on tape, disc, film, live, and presented by means of telecommunications devices;

(5) the term "public broadcasting entity" has the same meaning given that term by section 397 of the Communication Act

of 1934:

(6) the term "Secretary" means the Secretary of Education; (7) the term "State educational agency" has the same meaning given that term under section 1471 of the Elementary and

Secondary Education Act of 1965; and

(8) the term "State" means each of the several States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Republic of the Mar-shall Islands, the Federated States of Micronesia, the Republic of Palau, and the Commonwealth of the Northern Mariana Islands.

SEC. 5091. SHORT TITLE.

This part may be cited as the "Training Technology Transfer Act of 1988"

SEC. 6108. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated \$3,000,000 for fiscal year 1995, and such sums as may be necessary for each of the fiscal years 1996 through 1999, to carry out this chapter.

## TITLE 5—U.S. CODE

GOVERNMENT ORGANIZATION AND EMPLOYEES

SEC, 5315. POSITIONS AT LEVEL IV.

Director of the Office of Educational Technology.

SEC. 5093. OFFICE OF TRAINING TECHNOLOGY TRANSFER.

(a) OFFICE ESTABLISHED.—There is established in the Office of Educational Research and Improvement Office of Educational Technology of the Department of Education an Office of Training



Technology Transfer. The Office shall be headed by a Director, who shall be appointed by the Secretary of Education. The Director shall be compensated at the rate provided for GS-16 of the General Schedule under section 5332 of Title 5.

