

Calendar No. 487

107TH CONGRESS }
2d Session }

SENATE

{ REPORT
107-207 }

**NTIA DIGITAL NETWORK TECHNOLOGY
PROGRAM ACT REPORT**

R E P O R T

OF THE

COMMITTEE ON COMMERCE, SCIENCE, AND
TRANSPORTATION

on

S. 414



JULY 9, 2002.—Ordered to be printed

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SENATE COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

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NTIA DIGITAL NETWORK TECHNOLOGY PROGRAM ACT

JULY 9, 2002.—Ordered to be printed

Mr. HOLLINGS, from the Committee on Commerce, Science, and
Transportation, submitted the following

R E P O R T

[To accompany S. 414]

The Committee on Commerce, Science, and Transportation, to which was referred the bill (S. 414) to amend the National Telecommunications and Information Administration Organization Act to establish a digital network technology program, and for other purposes, having considered the same, reports favorably thereon with amendments and recommends that the bill (as amended) do pass.

PURPOSE OF THE BILL

The purpose of the bill, as amended, is to establish a new grant program within the National Telecommunications and Information Administration (NTIA) of the Department of Commerce to provide not more than \$250 million for Fiscal Years 2003 through 2007 to help address the technology gap that exists at many Minority-Serving Institutions (MSIs), such as Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions, and Tribal Colleges.

BACKGROUND AND NEEDS

Because of the rapid advancement and growing dependence on technology, access to the Internet has become more critical to economic and educational advancement. The President's Information Technology Advisory Committee estimated in its February 2000 report, *Resolving the Digital Divide: Information, Access, and Opportunity*, that sixty percent of all jobs will require information technology skills. This report also found that jobs in the information technology industry pay significantly higher salaries than non-information technology-related jobs. Therefore, people who lack ac-

cess to information technology tools will be at an increasing disadvantage as they seek employment opportunities in the 21st Century. Consequently, it is crucial that all institutions of higher education provide their students with access to the most current information technology (IT).

Nonetheless, the testimony provided to the Committee's Subcommittee on Science, Technology, and Space at a February 27, 2002, hearing showed that MSIs lack basic IT infrastructure. For example, an October 2000 study completed by the Department of Commerce and the National Association for Equal Opportunity in Higher Education entitled, *Historically Black Colleges and Universities: An Assessment of Networking and Connectivity*, showed that while 95 percent of the 80 respondents to the survey have a campus network comprised of voice, data and voice, and/or data only, half of those HBCUs surveyed did not have computers available in the location most accessible to students—their dormitories. Additionally, the majority of HBCUs are not using high-speed connectivity to the Internet, and only 3 percent of these colleges and universities indicated that financial aid was available to help their students close the computer ownership gap.

LEGISLATIVE HISTORY

S. 414 was introduced on February 28, 2001, by Senator Cleland. Senators Hollings, Stevens, Inouye, Breaux, Miller, Reid, Kerry, Johnson, Mikulski, Akaka, Carnahan, Landrieu, Allen, Boxer, and Edwards are co-sponsors of the legislation.

The Subcommittee on Science, Space, and Technology held a hearing on S. 414 on February 27, 2002. Witnesses included Dr. Antonio Flores, President and CEO, Hispanic Association of Colleges and Universities; the Honorable William Gray, III, President and CEO, United Negro College Fund; Dr. Frederick S. Humphries, President and CEO, National Association for Equal Opportunity in Higher Education (NAFEO); Dr. Gerald "Carty" Monette, President, Turtle Mountain Community College and Chairman, Committee on Technology, American Indian Higher Education Consortium; Dr. Juliet V. García, President, University of Texas at Brownsville and Texas Southmost College; Dr. Marie V. McDemmond, President, Norfolk State University; Mr. George Sandoval, Network Administrator, Diné College; and the Honorable Louis Sullivan, MD, President, Morehouse School of Medicine, Immediate Past President, Atlanta University Center Council of Presidents and former Secretary of Health and Human Services during the Administration of President George H.W. Bush. These witnesses discussed the information technology resources needs of MSIs.

On May 16, 2002, the Committee met in open executive session and ordered S. 414 reported with an amendment. The amendment clarified the bill's intent and modified the authorization level to \$250 million for the period covering Fiscal Years 2003 through 2007.

ESTIMATED COSTS

In accordance with paragraph 11(a) of rule XXVI of the Standing Rules of the Senate and section 403 of the Congressional Budget

Act of 1974, the Committee provides the following cost estimate, prepared by the Congressional Budget Office:

S. 414—NTIA Digital Network Technology Program Act

Summary: S. 414 would establish a new grant program within the National Telecommunications and Information Administration's (NTIA's) Technology Opportunities Program in the Department of Commerce. Authorizations under the bill would total \$250 million over the 2003–2007 period, and CBO estimates that appropriation of the authorized levels would result in additional outlays of the same amount.

Enacting the bill would not affect direct spending or receipts; therefore, pay-as-you-go procedures would not apply.

S. 414 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform act (UMRA) and would impose no costs on state, local, or tribal governments.

Estimated cost to the Federal Government: The estimated budgetary impact of S. 414 is shown in the following table. The costs of this legislation fall within budget function 500 (education, training, employment, and social services). The estimate assumes that outlays will follow historical spending rates for similar competitive grant programs.

	By fiscal year, in millions of dollars—					
	2002	2003	2004	2005	2006	2007
SPENDING SUBJECT TO APPROPRIATION						
Digital network technology program:						
Estimated authorization level	0	250	0	0	0	0
Estimated outlays	0	18	115	68	50	0

Note.—Components may not sum to totals because of rounding.

S. 414 would create a new digital network technology grant program and authorize not more than \$250 million for the 2003–2007 period. CBO assumes the full amount is authorized in 2003. If the authorized amount is appropriated in 2003, outlays would increase by \$18 million in the first year and by \$250 million over the 2003–2006 period.

The Technology Opportunities Program awards grants to state and local government and nonprofit organizations to enhance the delivery of social services, such as education, through technology. S. 414 would create a new grant program for historically black colleges and universities, Hispanic-serving institutions, tribally controlled colleges or universities, Alaska Native-serving institutions, Native Hawaiian-serving institutions, and other institutions enrolling a substantial number of minority, low-income students.

Institutions would apply for grants to help them acquire equipment and instruction in digital network technologies. Grants would be awarded through a competitive process and the recipients would be required to provide matching funds.

Pay-as-you-go considerations: None.

Intergovernmental and private-sector impact: S. 414 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments. The bill would benefit public universities by authorizing \$250 million in grants for institutions of higher education, including public

universities, to strengthen their capacity to provide instruction in digital network technologies. Any costs incurred by states to participate in this program would be voluntary.

Estimate prepared by: Federal costs: Donna Wong; impact on state, local, and tribal governments: Elyse Goldman; impact on the private sector: Cecil McPherson.

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

REGULATORY IMPACT STATEMENT

In accordance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee provides the following evaluation of the regulatory impact of the legislation, as reported:

NUMBER OF PERSONS COVERED

The Committee believes that the bill would not subject any individuals or businesses affected by the legislation to any additional regulation.

ECONOMIC IMPACT

This legislation would not have an adverse economic impact on the Nation. It authorizes funding for information technology-related grants to MSIs.

PRIVACY

This legislation would not have a negative impact on the personal privacy of individuals.

PAPERWORK

This legislation would require each grant recipient to provide an annual report to the Secretary of Commerce (Secretary) on its use of the funding. In addition, S. 414 would require the Secretary, in consultation with the Secretary of Education, to review the annual reports and evaluate the digital network technologies program based on these reports and, at the end of the third year, conduct an evaluation describing the program's activities and assessing the short-range and long-range impact of those activities. Based on this evaluation, the Secretary would submit a report to Congress, within one year, which would include recommendations on the continuing need for Federal support of the program.

SECTION-BY-SECTION ANALYSIS

Section 1 would set forth the Short Title, "NTIA Digital Network Technology Program Act."

Section 2 would establish a program to address the technology gap that exists at many MSIs by amending the National Telecommunications and Information Administration Organization Act (47 U.S.C. 901 et seq.) by adding a new Part D, The Digital Network Technology Program as follows:

New Section 171 of Part D would direct the Secretary to establish a digital network technologies program within the NTIA's Technology Opportunities Program. The purpose of the digital network technologies program is to strengthen the ability of MSIs to

provide instruction in digital network technologies via grants, contracts or cooperative agreements between NTIA and an MSI.

New section 172 of Part D would set forth the specific activities that may be supported via a grant, contract or cooperative agreement under the digital network technologies program, including:

- (1) Acquiring equipment, instrumentation, networking capability, hardware and software, digital network technology, and infrastructure;
- (2) Developing and providing educational services;
- (3) Providing teacher education, library and media specialist training, and preschool and teacher aid certification to individuals seeking to acquire or enhance technology skills in order to use technology in the classroom or instructional process;
- (4) Implementing joint projects to provide education regarding technology in the classroom with a State or State education agency, local education agency, community-based organization, national non-profit organization, or business; or
- (5) Providing professional development to those with institutional responsibility for technology education.

New Section 173 of Part D would describe application and review procedures and provisions for peer review of applications. To be eligible for a grant, an MSI would submit an application to the Secretary to be reviewed by a peer-review panel established by the Secretary. In selecting the members for such panel, the Secretary may consult with appropriate cabinet-level officials, representatives of non-Federal organizations, and representatives of eligible institutions to ensure that the membership of such panel reflects membership of the minority higher education community, including Federal agency personnel and other individuals who are knowledgeable about issues regarding MSIs.

New section 174 of Part D, would require an applicant MSI to commit to non-Federal cost-sharing (directly or through donations from public or private entities) in the amount of the lesser of 25 percent or \$500,000. This cost-sharing would be waived for any institution or consortium with an endowment of less than \$50 million.

New Section 175 of Part D would make an institution that receives a grant that exceeds \$2,500,000 ineligible to receive another grant until every other eligible institution has received a grant through the Digital Network Technologies Program.

Under new section 176 of Part D each grant recipient would be required to provide an annual report to the Secretary on its use of the funding. In addition, this section would require the Secretary, in consultation with the Secretary of Education, to review the annual reports from the grant receipts and evaluate the digital network technologies program based on these reports. At the end of the third year, the Secretary would evaluate the activities undertaken by institutions and assess their short-range and long-range impact. The Secretary would be required to issue and submit the report to the Congress within one year after such evaluation. The report would include recommendations concerning the need for continued Federal support of the program.

Using the meaning of the terms as defined by the Higher Education Act of 1965, section 3 of the reported bill would define eligible institutions as HBCUs and consortia thereof; Hispanic-serving

institutions; Tribally controlled colleges or universities; Alaska Native-serving institutions; and Native Hawaiian-serving institutions. In addition, any institution determined by the Secretary, in consultation with the Secretary of Education, to have enrolled a substantial number of minority, low-income students during the previous academic year who received assistance under subpart I of part A of title IV of the Higher Education Act of 1965 for that year, would be eligible.

Section 4 would authorize appropriations of not more than \$250 million for the five year period covering fiscal years 2003 through 2007 to carry out Part D of the NTIA Organization Act.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, changes in existing law made by the bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new material is printed in *italic*, existing law in which no change is proposed is shown in roman):

NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION ORGANIZATION ACT

TITLE I—NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

SEC. 102. DEFINITIONS; FINDINGS; POLICY

[47 U.S.C. 901]

(a) DEFINITIONS.—In this title, the following definitions apply:

(1) The term “NTIA” means the National Telecommunications and Information Administration.

(2) The term “Assistant Secretary” means the Assistant Secretary for Communications and Information.

(3) The term “Secretary” means the Secretary of Commerce.

(4) The term “Commission” means the Federal Communications Commission.

(5) The term “Corporation” means the Communications Satellite Corporation authorized in title III of the Communications Satellite Act of 1962 (47 U.S.C. 731 et seq.).

(6) *The term “eligible institution” means an institution that is—*

(A) a historically Black college or university that is a part B institution, as defined in section 322(2) of the Higher Education Act of 1965 (20 U.S.C. 1061(2)), an institution described in section 326(e)(1)(A), (B), or (C) of that Act (20 U.S.C. 1063b(e)(1)(A), (B), or (C)), or a consortium of institutions described in this subparagraph;

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

(C) a tribally controlled college or university, as defined in section 316(b)(3) of the Higher Education Act of 1965 (20 U.S.C. 1059c(b)(3));

(D) an Alaska Native-serving institution under section 317(b) of the Higher Education Act of 1965 (20 U.S.C. 1059d(b));

(E) a Native Hawaiian-serving institution under section 317(b) of the Higher Education Act of 1965 (20 U.S.C. 1059d(b)); or

(F) an institution determined by the Secretary, in consultation with the Secretary of Education, to have enrolled a substantial number of minority, low-income students during the previous academic year who received assistance under subpart I of part A of title IV of the Higher Education Act of 1965 (20 U.S.C. 1070a et seq.) for that year.

(b) FINDINGS.—The Congress finds the following:

(1) Telecommunications and information are vital to the public welfare, national security, and competitiveness of the United States.

(2) Rapid technological advances being made in the telecommunications and information fields make it imperative that the United States maintain effective national and international policies and programs capable of taking advantage of continued advancements.

(3) Telecommunications and information policies and recommendations advancing the strategic interests and the international competitiveness of the United States are essential aspects of the Nation's involvement in international commerce.

(4) There is a critical need for competent and effective telecommunications and information research and analysis and national and international policy development, advice, and advocacy by the executive branch of the Federal Government.

(5) As one of the largest users of the Nation's telecommunications facilities and resources, the Federal Government must manage its radio spectrum use and other internal communications operations in the most efficient and effective manner possible.

(6) It is in the national interest to codify the authority of the National Telecommunications and Information Administration, an agency in the Department of Commerce, as the executive branch agency principally responsible for advising the President on telecommunications and information policies, and for carrying out the related functions it currently performs, as reflected in Executive Order 12046.

(c) POLICY.—The NTIA shall seek to advance the following policies:

(1) Promoting the benefits of technological development in the United States for all users of telecommunications and information facilities.

(2) Fostering national safety and security, economic prosperity, and the delivery of critical social services through telecommunications.

(3) Facilitating and contributing to the full development of competition, efficiency, and the free flow of commerce in domestic and international telecommunications markets.

(4) Fostering full and efficient use of telecommunications resources, including effective use of the radio spectrum by the

Federal Government, in a manner which encourages the most beneficial uses thereof in the public interest.

(5) Furthering scientific knowledge about telecommunications and information.

* * * * *

PART D—DIGITAL NETWORK TECHNOLOGY PROGRAM

SEC. 171. PROGRAM AUTHORIZED.

The Secretary shall establish, within the NTIA's Technology Opportunities Program a digital network technologies program to strengthen the ability of eligible institutions to provide capacity for instruction in digital network technologies by providing grants to, or executing contracts or cooperative agreements with, those institutions to provide such instruction.

SEC. 172. ACTIVITIES SUPPORTED.

An eligible institution shall use a grant, contract, or cooperative agreement awarded under this part—

(1) to acquire the equipment, instrumentation, networking capability, hardware and software, digital network technology, and infrastructure;

(2) to develop and provide educational services, including faculty development, to prepare students or faculty seeking a degree or certificate that is approved by the State, or a regional accrediting body recognized by the Secretary of Education;

(3) to provide teacher education, library and media specialist training, and preschool and teacher aid certification to individuals who seek to acquire or enhance technology skills in order to use technology in the classroom or instructional process;

(4) to implement a joint project to provide education regarding technology in the classroom with a State or State education agency, local education agency, community-based organization, national non-profit organization, or business, including minority business or a business located in HUB zones, as defined by the Small Business Administration; or

(5) to provide professional development to administrators and faculty of eligible institutions with institutional responsibility for technology education.

SEC. 173. APPLICATION AND REVIEW PROCEDURE.

(a) IN GENERAL.—To be eligible to receive a grant, contract, or cooperative agreement under this part, an eligible institution shall submit an application to the Secretary at such time, in such manner, and accompanied by such information as the Secretary may reasonably require. The Secretary, in consultation with the panel described in subsection (b), shall establish a procedure by which to accept such applications and publish an announcement of such procedure, including a statement regarding the availability of funds, in the Federal Register.

(b) PEER REVIEW PANEL.—The Secretary shall establish a peer review panel to aid the Secretary in establishing the application procedure described in subsection (a) and selecting applicants to receive grants, contracts, and cooperative agreements under section 171. In selecting the members for such panel, the Secretary may consult with appropriate cabinet-level officials, representatives of non-Fed-

eral organizations, and representatives of eligible institutions to ensure that the membership of such panel reflects membership of the minority higher education community, including Federal agency personnel and other individuals who are knowledgeable about issues regarding minority education institutions.

SEC. 174. MATCHING REQUIREMENT.

The Secretary may not award a grant, contract, or cooperative agreement to an eligible institution under this part unless such institution agrees that, with respect to the costs to be incurred by the institution in carrying out the program for which the grant, contract, or cooperative agreement was awarded, such institution will make available (directly or through donations from public or private entities) non-Federal contributions in an amount equal to $\frac{1}{4}$ of the amount of the grant, contract, or cooperative agreement awarded by the Secretary, or \$500,000, whichever is the lesser amount. The Secretary shall waive the matching requirement for any institution or consortium with no endowment, or an endowment that has a current dollar value lower than \$50,000,000.

SEC. 175. LIMITATION.

An eligible institution that receives a grant, contract, or cooperative agreement under this part that exceeds \$2,500,000, shall not be eligible to receive another grant, contract, or cooperative agreement under this part until every other eligible institution has received a grant, contract, or cooperative agreement under this part.

SEC. 176. ANNUAL REPORT AND EVALUATION.

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

(b) **EVALUATION BY SECRETARY.**—The Secretary, in consultation with the Secretary of Education, shall—

(1) review the reports provided under subsection (a) each year;

(2) evaluate the program authorized by section 171 on the basis of those reports; and

(3) conduct an evaluation at the end of the third year.

(c) **CONTENTS OF EVALUATION.**—The Secretary, in the evaluation, shall describe the activities undertaken by those institutions and shall assess the short-range and long-range impact of activities carried out under the grant, contract, or cooperative agreement on the students, faculty, and staff of the institutions

(d) **REPORT TO CONGRESS.**—The Secretary shall submit a report to the Congress based on the evaluation within 1 year after conducting the evaluation. In the report, the Secretary shall include such recommendations, including recommendations concerning the continuing need for Federal support of the program, as may be appropriate.