

2004

## IT Legislative and Regulatory

Issues Agenda > > > > >



Higher Education  
Information Technology  
Alliance

**IT Legislative and Regulatory**

**Issues Agenda > > > > >**

2004

May 2004

Dear Colleague:

I am pleased to present the Higher Education Information Technology (HEIT) Alliance's *2004 Legislative and Regulatory Issues Agenda*. This document represents the higher education and library community's guiding public policy agenda on information technology (IT) for the current year. The HEIT Alliance is a coalition of 11 national higher education and library associations, whose members represent a broad array of stakeholders on college and university campuses, including presidents, business officers, chief-information officers, and librarians. The HEIT Alliance was established to help define and promote the organizations' collective interests in federal IT policy.

The HEIT Alliance hosts an annual forum that brings together alliance members, representatives from other higher-education associations, and campus representatives to share information and formulate positions on IT policy issues that impact higher education. This forum plays an important role in developing the annual issues agenda. At this year's meeting, a representative from the Department of Homeland Security discussed the challenges colleges and universities face in improving network security.

Information technology has become an integral part of campus operations, affecting students from their initial introduction to an institution via the campus website, to registering for classes on-line, monitoring financial account activity, and ultimately using IT in the learning environment through either distance courses or the classroom setting. Additionally, information technology plays an important role in enhancing a college or university's ability to fulfill its mission of teaching, research, and service. As a result, IT has become ubiquitous and seamless on campuses across the country. The *2004 Legislative and Regulatory Agenda* reflects the key influence of information technology on the everyday activities at colleges and universities.

This year's agenda is organized by six major topic areas: Cyberinfrastructure, Information Technology in the Learning Environment, Intellectual Property, Security and Privacy, Telecommunications, and Workforce Development. We hope this document is a useful tool for policymakers, campus officials, and other interested parties. For more information see the HEIT Alliance website at [www.heitalliance.org](http://www.heitalliance.org) or contact Hilary Goldmann at (202) 478-6086, or [hgoldmann@nasulgc.org](mailto:hgoldmann@nasulgc.org)

Sincerely,



Hilary Goldmann  
Coordinator, HEIT Alliance

#### **HEIT ALLIANCE MEMBERS**

American Association of Community Colleges  
American Association of State Colleges and Universities  
American Council on Education  
Association of American Universities  
Association of Research Libraries  
EDUCAUSE  
Internet2  
National Association of College and University Business Officers  
National Association of Independent Colleges and Universities  
National Association of State Universities and Land-Grant Colleges  
University Continuing Education Association



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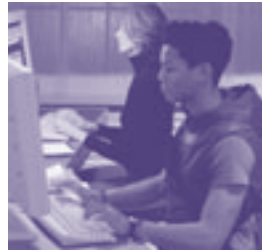
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# I. Cyberinfrastructure

*Prepared by Gary Bachula, Internet2  
Sue Fratkin, Consultant, EDUCAUSE & Internet2*

Described as bringing a revolution to the way scientific research will be conducted, “cyberinfrastructure” is an emerging concept that will redefine science and engineering in our nation’s research universities. Cyberinfrastructure consists of supercomputers, mass storage, high-performance next-generation networks, digital libraries and databases, sensors and effectors, middleware, application frameworks, collaboration tools, and services—all organized to serve individuals, teams, and organizations in ways that revolutionize what they can do, how they do it, and who participates.



A Blue-Ribbon Advisory Panel recommended that the National Science Foundation (NSF) establish and lead a large-scale, interagency program to create, deploy, and apply advanced cyberinfrastructure in our nation’s research universities. The panel recommended a program requiring new NSF funding of \$1 billion per year.

## Update from 2003

The panel’s report was issued on February 3, 2003, the same day that NSF released its 2004 budget request to Congress. Included in that request was \$20 million in the Computer and Information Science and Engineering (CISE) budget to begin a cyberinfrastructure initiative. In the final NSF 2004 appropriations bill, part of the omnibus appropriations bill signed into law in January 2004, Congress directed that “not less than \$20 million may be used for cyberinfrastructure initiatives.”

During 2003, CISE was reorganized into four new divisions, including the Division of Shared Cyberinfrastructure. On October 28, NSF outlined continuing steps to enhance cyberinfrastructure, including holding two workshops to solicit input from the academic community, organizing an NSF-wide Cyberinfrastructure Working Group, continuing funding of the Extensible Terascale Facility (the world’s largest, fastest, most comprehensive, distributed infrastructure for open scientific research), and continuing funding for NSF’s supercomputing centers.

## Current Status

In 2003, NSF sought to build a consensus within the National Science Foundation on cyberinfrastructure to support a wide range of scientific

disciplines. In 2004, the research community awaits the results of the agency-wide working group's deliberations, new funding initiatives in the Shared Cyberinfrastructure Division, and the results of the 2005 budget process. In order to fully implement the Advisory Panel's recommendations, significant new resources must be devoted to creating and deploying advanced cyberinfrastructure in our nation's research universities.

The NSF FY 2005 Budget Summary describes six 2005 "Major Investments" for the agency, including \$398.94 million for cyberinfrastructure. However, the publicly available budget materials do not break these numbers down into any detail; assign them to previous or existing programs or even NSF Directorates; or indicate where there would be increases, decreases, or new emphases.

**RECOMMENDATION:** The HEIT Alliance supports the recommendations of the Advisory Panel and urges the NSF, the Administration, and Congress to initiate a bold, large-scale, interagency, and internationally coordinated effort to deploy advanced cyberinfrastructure in our research universities.

## HEIT Alliance FY 2005 Funding Request

The Alliance supports major new investment in cyberinfrastructure and urges the NSF and Congress to make these investments both transparent, to allow scrutiny and debate, and a priority within the budget process.

### RESOURCES:

Report of the National Science Foundation Blue-Ribbon Advisory Panel on Cyberinfrastructure: <http://www.cise.nsf.gov/sci/reports/toc.cfm>

October 28, 2003: NSF Announces Continuing Steps to Enhance Cyberinfrastructure: <http://www.cise.nsf.gov/news/cybr/cybr2.cfm>

Mission of NSF CISE Division of Shared Cyberinfrastructure: <http://www.cise.nsf.gov/div/index.cfm?div=sci>

## Funding Recommendations

### *Information Technology Research (ITR)*

The Information Technology Research program at the National Science Foundation was created as a five-year effort that shifted from stressing fundamental research and education in the Computer and Information Science and Engineering directorate (CISE) to supporting broadly designed research focused on ubiquitous applications, the creation of new paradigms to achieve high levels of trust in cyberspace, and the development of new tools and methods to enhance national security and critical infrastructure protection in the other Directorates (Biological Sciences; Engineering; Geosciences;

Mathematics and Physical Sciences; Social, Behavioral, and Economic Sciences; and the Office of Polar Programs.) When the ITR program reaches its fifth year in FY 2005, it will be moved back into NSF's fundamental science and engineering core. As such it will likely affect the nation's IT capabilities and IT workforce by 2008.

FY 03 Funded:	\$213.7 million
FY 04 Funded:	\$218 million
President's request for FY 05:	\$178 million
HEIT Alliance Funding	
Recommendation for FY 05:	\$239.8 million

#### *National Middleware Initiative Project (NMI)*

The purpose of the NMI program at the NSF is to enable the advanced network community (research universities, government agencies, and industrial units) to collaborate in assembling the known and needed pieces of middleware and cyberinfrastructure for NMI. Middleware refers to the software that is common to multiple applications and builds on the network transport services to enable ready development of new applications and network services. Examples of middleware include system security software, such as digital signatures and authentication programs.

In 2003 CISE announced that the Advanced Networking Infrastructure (ANI) would be folded into the newly created Division of Shared Cyberinfrastructure. The NMI program, a huge success, will remain within the ANI.

FY 03 Funded:	\$7 million
FY 04 Funded:	\$23.06 million
President's request for FY 05:	\$22.90 million, a decrease of 0.7 percent or \$160,000
HEIT Alliance Funding	
Recommendation for FY 05:	\$25.36 million

#### *Networking and Information Technology Research and Development (NITRD)*

The NITRD program involves programs in 12 agencies addressing a broad range of IT research questions through coordinated efforts in partnership with industrial and academic researchers. The NSF, through the Interagency Working Group, serves as the lead agency for the program's components, which include high-end computing; human computer interaction and information management; large-scale networking; software design and productivity; high confidence software and systems; and social, economic, and workforce implications of IT.

NITRD remains as a cross-cutting activity with more than \$2 billion requested in the FY 05 budget. This program, under House Science Committee



jurisdiction, is slated for reauthorization this year, when its current authorization expires.

FY 03 Funded:	\$1.964 billion
FY 04 Funded:	\$2.023 billion
President's request FY 05:	\$2.008 billion
HEIT Alliance Funding	
Recommendation for FY 05:	\$2.682 billion

**RESOURCES:**

National Coordination Office for Information Technology Research and Development <http://www.nco@nitrd.gov>

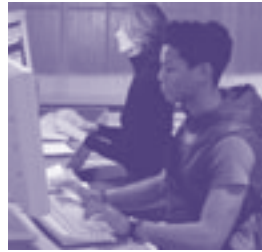
## II. Information Technology in the Learning Environment

*Prepared by Susan Hattan, NAICU*

*Richard Harpel, NASULGC*

*Christie Dawson, AASCU*

Information technology permeates every aspect of higher education from the conduct of instruction, research, and service, to the administrative infrastructure that supports the operation of complex campus environments. The World Wide Web and other technologies are important means of delivering academic coursework to a significant number of college students, particularly those who face time and geographic limitations. IT investments on campuses also have a major impact on the increase in college costs that has received so much national Congressional and media attention during the past year.



Federal policy makers have tended to focus primarily on K–12 IT issues. While there has been some federal investment in support of IT research, few programs target the higher-education learning environment. As colleges and universities respond to today's workforce and demographic needs and challenges, they have begun to reexamine their assumptions about the way faculty teach and students learn, and how knowledge is acquired and retained. Many innovative changes are being implemented through the use of advanced technologies, and additional federal support would do much to enhance these efforts.

In addition, several federal higher-education programs that need continued support are spread across several agencies and lack the benefit of a coherent approach to meeting the needs of higher education as a whole, either in focus or in level of funding. Indeed, some have been eliminated altogether in recent appropriations bills. With dwindling state support to public institutions, escalating IT costs, and increased demands for distance learning affecting all colleges and universities, federal support is more crucial than ever in providing resources and sound policy direction in this area.

### Update from 2003

The primary federal activity related to IT and higher-education's learning needs is through programs within the National Science Foundation and the Department of Education, and their related authorizing and appropriations committees in Congress. After passing several bills focusing on individual titles, the House Committee on Education and the Workforce introduced a consolidated bill to reauthorize the Higher Education Act on May 5, 2004. A hearing was held on this bill, H.R. 4283, the College Access & Opportunity Act of 2004; however, there is no date set to mark-up the bill. The Senate Committee on Health, Education, Labor, and Pensions has not yet introduced its bill.

## Current Status

### *Distance Education Demonstration Program*

The Washington-based higher education associations continue to support a new program, based on the Education Department's existing Distance Education Demonstration Program, that would permit institutions eligible for federal student aid to seek a waiver of certain "time and place" provisions now in the law. These provisions were enacted a decade ago to prevent fraud and abuse. The proposed new program would provide for a carefully monitored expansion of programs that use innovative means to deliver education programs, while ensuring continued program integrity.

### *Information Technology Title*

The higher education and library community also continues to support the enactment of a new Information Technology Title in the Higher Education Act, supporting the adaptation of technology in the curriculum to enable institutions of higher education to keep pace with rapid technological developments, meet the nation's pressing workforce needs, and respond to dramatic demographic changes in the student population.

Several studies have demonstrated that academic instruction and coursework at all levels of education often benefit from the incorporation of technology into curriculum design and delivery. However, the efficiencies and increased productivity from the often-enormous investments in infrastructure have sometimes fallen short of expectations. The full benefit of technology in the educational process is realized only by enhancing the technological skills of faculty and students, ensuring adequate system support, and providing the funds necessary to build a new academic framework around this new resource.

### *Minority-Serving Institutions*

A recent report, prepared by the Institute for Higher Education Policy, finds that Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal Colleges and Universities are in an unrivaled position to remedy the technological disenfranchisement of the nation's emerging majority populations but are hampered due to lack of stable financial resources and other concerns. The report, entitled "Serving the Nation: Opportunities and Challenges in the Use of Information Technology at Minority-Serving Colleges and Universities," says that while some minority-serving institutions have achieved impressive results in the application of information technology, far too many have urgent technology needs that cannot be addressed without significant support and guidance from the federal government, states, and the private sector.

## RECOMMENDATIONS:

- > The HEIT Alliance will continue to support a new program, based on the Education Department's existing Distance Education Demonstration Program, that would permit institutions eligible to receive federal student aid to seek a waiver of certain "time and place" provisions now in the law.
- > The Alliance will continue to support a new Information Technology Title in the Higher Education Act.
- > The Alliance will support enactment and funding of the "Digital and Wireless Network Technology Program Act of 2003," an unprecedented legislative effort to address the variety and scope of the information-technology needs of the nation's minority-serving institutions.

## RESOURCES:

"Serving the Nation: Opportunities and Challenges in the Use of Information Technology at Minority-Serving Colleges and Universities"  
<http://www.ihep.org/Pubs/PDF/ServingTheNation.pdf>

## Funding Recommendations

### DEPARTMENT OF EDUCATION PROGRAMS

#### *Community Technology Centers*

This program, moved to Title V, Part D, Subpart 11 of the Elementary Secondary Education Act (ESEA), authorizes institutions of higher education, state education agencies, local education agencies, nonprofits, and consortia to create or expand community technology centers to broaden access to information technology in distressed communities.

FY 03 Funded:	\$32.3 million
FY 04 Funded:	\$9.9 million
President's Request for FY 05:	\$0
HEIT Alliance Budget	
Recommendation for FY 05:	\$32.3 million

#### *Educational Technology State Grants*

The Enhancing Education Through Technology Act of 2001 was authorized as part of the Elementary and Secondary Education Act amendments of 2001. This program is the umbrella authorization for the department's technology efforts. The authorized level of spending is \$1 billion. The Secretary of Education distributes the Educational Technology Grants to the states by using a formula based on population and poverty. States keep five percent to assist local efforts and will award the remaining funds. Half these awards will be distributed by formula to local education agencies, and the remaining half will be distributed by competitive grants to local agencies or partnerships. Twenty-

five percent of the funds received by the local education agency or partnership are to be used for professional development activities. (Partnerships include a high-need local education agency, an institution of higher education, and either a business or an organization.)

FY 03 Funded:	\$696 million
FY 04 Funded:	\$691.8 million
President's FY 05 request:	\$691.8 million
HEIT Alliance Funding Recommendation for FY 05:	\$791 million, to achieve a \$100 million increase for each of the next three years to reach the authorized \$1 billion funding level.

#### *Preparing Tomorrow's Teachers to Use Technology*

This program supports institutions of higher education in better preparing tomorrow's teachers to incorporate technology into the classroom.

FY 03 Funded:	\$62 million
FY 04 Funded:	\$0
President's FY 05 Funding Request:	\$0
HEIT Alliance Funding Recommendation for FY 05:	\$62 million

### NATIONAL SCIENCE FOUNDATION

#### *Course, Curriculum and Laboratory Improvement*

This program funds efforts to improve the quality of science, mathematics, engineering, and technology education for all students, through targeting course content, curricula, and practices. There are three components of this program: Educational Materials Development, National Dissemination, and Adaptation and Implementation.

FY 04 Funded:	\$40.41 million
President's request for FY 05:	\$46.53 million
HEIT Alliance Funding Recommendation for FY 05:	Support the administration's request to increase funding by \$6.12 million



### *Noyce Scholarships*

This program awards scholarships to students to encourage mathematics, science, and engineering students to become teachers. Institutions of higher education will provide in-service and pre-service training and support for the program.

FY 03 Funded:	\$6.9 million
FY 04 Funded:	\$7.95 million
President's request for FY 05:	\$4 million
HEIT Alliance Funding Recommendation for FY 05:	Fund at its authorized level of \$25 million

### *Math and Science Partnerships (MSP)*

This program is designed to provide funds for states and local education agencies to partner with colleges and universities, particularly departments of science, technology, engineering and mathematics, to raise math and science standards. MSP will fund two categories of partnership activity: comprehensive awards for five years, with possible funding of up to \$7 million annually, and targeted awards for more specific science and math education initiatives, funded from \$100,000 to \$1.5 million per year for up to five years.

FY 03 Funded:	\$144.07 million
FY 04 Funded:	\$139.17 million
President's Request for FY 05:	Transfers the funds for the Math and Science Partnerships program from the NSF to the Department of Education
HEIT Alliance Funding Recommendation for FY 05:	Oppose transferring the MSP program to the Department of Education. Under the MSP program, the NSF awards competitive grants for modeling, testing, and identifying high-quality math and science activities. The Department of Education program is funded by a formula grant and focuses on dissemination of knowledge through teacher education and curriculum development. The current balance between these two programs works well and should be maintained.

# III. Intellectual Property

*Prepared by Prue Adler, ARL  
Richard Harpel, NASULGC  
John Vaughn, AAU*



## Digital Millennium Copyright Act

There is growing awareness among some members of Congress that the Digital Millennium Copyright Act (DMCA) tipped the scales too far in favor of copyright owners. The consequence for higher education and libraries is potentially reduced access to information and increased liability for uses of information previously permitted.

### *Update from 2003*

Several bills seek to restore balance to the copyright law. These include:

- > H.R. 107, the “Digital Media Consumers’ Rights Act of 2003,” introduced by Reps. Rick Boucher (D-VA), John Doolittle (R-CA), and Spencer Bachus (R-AL), would restore fair use in the networked environment to its comparable scope in the analog environment by amending the Section 1201 anti-circumvention provisions of the DMCA to provide for legal circumvention for noninfringing uses of technological protection measures (e.g., encryption) applied to digital copyrighted works. The bill also amends the Federal Trade Commission Act to prevent the sale of CDs with embedded copy or access protection technologies that are not so labeled.
- > S. 1621, the “Consumers, Schools, and Libraries Digital Rights Management Awareness Act of 2003,” introduced by Sen. Sam Brownback (R-KS), would clarify the subpoena powers of the DMCA by requiring owners of digital copyrighted material to file “John Doe” lawsuits in order to obtain identifying information about suspected violators of copyright from Internet service providers (including colleges and universities) where the information in question is not hosted on an ISP web site but is part of conduit traffic passing over the ISP’s network.
- > S.692, the “Digital Consumer Right to Know Act,” introduced by Sen. Ron Wyden (D-OR), would “require the Federal Trade Commission to issue rules regarding the disclosure of technological measures that restrict consumer flexibility to use and manipulate digital information and entertainment content.”

- > H.R. 1066, the “Benefit Authors without Limiting Advancement or Net Consumer Expectations” or the BALANCE Act, introduced by Rep. Zoe Lofgren (D-CA), would amend the DMCA to ensure consumers’ rights “to reproduce, store, adapt, or access” digital works they have legally acquired for personal and archival purposes. The bill also deals with shrink-wrap licenses, fair use, and digital first sale, and amends Section 1201 of the DMCA to provide for legal “circumvention [of protection measures in digital works] for noninfringing purposes.”

### *Current Status*

All bills have been introduced, but none have been marked up by the relevant committees and need strong support from the higher education and library community and allied groups.

**RECOMMENDATIONS:** The HEIT Alliance should continue to work with others in the library, education, public-interest, and commercial sectors to win their passage.

## **Digital Rights Management**

Digital rights management (DRM) refers to hardware and software technologies designed to protect, control, and manage the use of digital material, including digital copyrighted works. Some of these technologies have the effect of restricting or eliminating certain usage rights granted by law to copyrighted works. Legislation in this area cuts in both directions: legislation to restrict the capacity of DRM to limit user rights, and legislation designed to strengthen DRM, in some cases in ways inimical to the interests of users of copyrighted material. Both categories of legislation have potential impacts on the ability of higher-education institutions and libraries to access and use digital copyrighted works.

### *Current Status*

Two bills introduced in the 108<sup>th</sup> Congress respond to digital-rights management issues. These include:

- > In addition to clarifying the subpoena powers granted by the DMCA (as discussed above), S. 1621, introduced by Sen. Sam Brownback (R-KS), would give the private sector a year to create voluntary notice and labeling standards for digital media products that incorporate digital-rights management technology. Provisions in the bill would mandate that consumers, educational institutions, and libraries be informed concerning how digital-rights management would affect the use of digital media products. Manufacturers would be prevented from utilizing DRM that could restrict consumer resale of digital media products lawfully owned or if the consumer chose to donate to educational institutions and libraries.

- > H.R. 2517, the “Piracy Deterrence and Education Act of 2003,” was introduced by Reps. Lamar Smith (R-TX), Howard Berman (D-CA), and John Conyers (D-MI). The bill’s stated goal is “to enhance criminal enforcement of the copyright laws, educate the public about the application of copyright law to the Internet, and clarify the authority to seize unauthorized copyrighted works.” According to the bill, “it is important that Federal law enforcement agencies actively pursue criminals who steal the copyrighted works of others, and prevent such activity through enforcement and awareness.” The higher-education and library community is concerned that the bill could expand FBI and Justice Department enforcement and investigative powers and increase monitoring and reporting requirements on ISPs beyond those stipulated in the DMCA. Perhaps the most problematic provision of the bill is a requirement that the Department of Education work with the Justice Department to assure compliance of higher-education institutions with copyright law. Recent negotiations with the entertainment industry, which is the key proponent of this legislation, have produced agreed-upon changes to the bill that would address these concerns.

**RECOMMENDATION:** The HEIT Alliance should monitor the progress of these bills and work with member organizations to support useful provisions and modify problematic provisions in these bills.

## Database Legislation

Since 1996, selected large database producers, such as Reed Elsevier and Thomson, have aggressively pressed for additional intellectual property protection for databases. Databases are essential components of both education and research programs of higher education institutions. Legislation that would over-protect databases would have the effect of restricting access to data for educational and research purposes. Any database legislation that would be acceptable to users of databases should not restrict access to elements of databases—facts—that the U.S. Constitution places in the public domain. Successive versions of database protection legislation introduced since 1996 have over-protected databases, and the higher-education and library community have opposed them in conjunction with a broad coalition of both non-profit and commercial groups.

### *Update from 2003*

Following almost two years of discussion and negotiation, staffs of the House Committee on Energy and Commerce and the Committee on the Judiciary reached an apparent compromise last year. On October 8, Reps. Howard Coble (R-NC); Lamar Smith (R-TX); David Hobson (R-OH); Jim Greenwood (R-PA); W.J. Tauzin (R-LA), Chairman, Committee on Energy and Commerce; and Jim Sensenbrenner (R-WI), Chairman, Committee on Judiciary, introduced H.R. 3261, the “Database and Collections of Information Misappropriation

Act.” As with previous database bills, this legislation raised serious concerns about its implications for nonprofit and commercial constituencies, including educational institutions and libraries.

The Association of Research Libraries and the Association of American Universities joined the National Academy of Sciences and the National Academy of Engineering in opposing the legislation in testimony before members of the subcommittees of the Committees on Commerce and Judiciary. William Wulf, President of the National Academy of Engineering, in his statement before Congress on behalf of the higher education and library communities, urged the committees to revise the draft, saying “Congress should proceed cautiously in creating new protection regimes because, once created, a new protection regime is virtually impossible to dismantle.”

The House Subcommittee on Courts and Intellectual Property and the Committee on the Judiciary have since approved H.R. 3261. Prior to full committee markup, the Judiciary Committee added a provision that provided a broad exemption from liability for nonprofit higher-education institutions and research laboratories for use of databases for nonprofit research and education purposes. With the inclusion of this amendment, AAU, NASULGC, and ACE dropped their opposition to the legislation, although they do not support the bill and have proposed a number of improvements to it. Still opposed to the measure are the Association of Research Libraries and other organizations in the library, science, Internet, communication services, financial services, and public interest communities.

### *Current Status*

Recently, the House Energy and Commerce Subcommittee on Commerce, Trade and Consumer Protection marked up a narrowly focused database protection bill, H.R. 3872, that is supported by groups opposed to H.R. 3261. The Consumer Access to Information Act of 2004 provides that the misappropriation of a database “is an unfair method of competition and an unfair or deceptive practice in commerce.” The Subcommittee on Commerce, Trade and Consumer Protection and the Committee on Energy and Commerce approved H.R. 3872 on March 2. In addition, the Committee on Energy and Commerce reported unfavorably H.R. 3261, the Committee on Judiciary’s database protection legislation.

**RECOMMENDATIONS:** There are differing views within the higher education and library communities on database protection legislation. The HEIT Alliance should monitor this legislation and play an appropriate role in assuring that any database legislation that moves forward reflects the interests of both groups.



## Peer-To-Peer File Sharing

The unauthorized downloading and uploading of music, movies, software and other copyrighted works using peer-to-peer (P2P) technologies such as KaZaA, Grokster, and Morpheus continue to pose a problem for colleges and universities. The P2P technologies themselves are not unlawful, and legitimate uses of P2P technologies in support of education and research are rapidly developing. Nonetheless, the unauthorized sharing of copyrighted works, a worldwide phenomenon, is of great concern to copyright owners and has generated continued attention by the media and in Congress. The challenge for higher education is to find ways to reduce or eliminate unauthorized file sharing without constricting legitimate uses of P2P technologies.

### *Update from 2003*

In December 2002, members of the higher education community joined with members of the entertainment industry to form the Joint Committee of the Higher Education and Entertainment Communities. This group has undertaken a number of initiatives to address the problem of campus P2P file sharing. The Education Task Force of the Joint Committee has produced a paper discussing the legal aspects of P2P file sharing and is about to release a second paper on campus policies and practices governing file sharing. The Joint Committee's Technology Task Force has conducted two requests for information from the commercial sector, the first concerning network management technologies that may be useful in the management of campus computer networks, the second concerning the availability of legitimate online music delivery services. The Joint Committee is seeking to promote pilot projects between higher education institutions and online delivery services to displace unauthorized P2P file sharing with legitimate alternatives adapted to the campus environment.

The Legislative Task Force of the Joint Committee was organized to provide a forum in which members of the higher education and entertainment communities could discuss legislative issues and seek to resolve differences in specific legislation. A number of bills have been introduced recently that address various aspects of the distribution of copyrighted digital content, including P2P file sharing. H.R. 2517, the Piracy Deterrence and Education Act of 2003, is intended to increase deterrence by the Department of Justice and the FBI of unauthorized file sharing and to educate society about copyright. In its original version, the bill raised concerns within the higher-education community about expansion of the investigative and enforcement powers of the Justice Department and FBI, imposition of new monitoring and reporting requirements for Internet service providers, and inappropriate involvement of the Department of Education in campus P2P policies and practices. Amendments to the legislation to address these problems have been developed and are supported by higher education, the Recording Industry Association of America, and the Motion Picture Association of America.

**RECOMMENDATION:** Unauthorized P2P file sharing remains a significant problem for colleges and universities. Alliance members are encouraged to facilitate development by colleges and universities of campus policies governing P2P file sharing appropriate to their local circumstances, and to monitor legislation for its implications for higher education.

## State Sovereign Immunity

The promotion of technology transfer programs in colleges and universities was established by the landmark Bayh-Dole Act of 1980. Since that time, the inventions, patents, and license agreements coming from federally funded research on our campuses not only have contributed mightily to the nation's economy, but also have helped America's higher education research community develop into the strongest in the world.

Recent Congressional concerns about intellectual property abuses by state and local public employees and agencies, however, have prompted proposed federal legislation that could eliminate altogether the benefits of technology transfer for state institutions. If these bills were to pass, public universities could face the very real possibility not only of the elimination of their technology transfer programs, but also of their collaborative research programs and their ability to recruit and retain high-quality faculty.

### *Update from 2003*

In June 2003, Sen. Patrick Leahy (D-VT) and Rep. Lamar Smith (R-TX) introduced identical bills in the Senate (S. 1191) and House of Representatives (H.R. 2344), the "Intellectual Property Protection Restoration Act of 2003." Recent U.S. Supreme Court decisions have held that the sovereign immunity clause of the 11th Amendment to the Constitution exempts state entities, including public universities and libraries, from liability under federal intellectual property laws. These bills would make the applicability of federal intellectual property protection laws to state entities, including public educational institutions, contingent upon states waiving their sovereign immunity from liability for intellectual property infringement by private parties.

### *Current Status*

Reports surfaced in January 2004 that the House Judiciary Committee might proceed to mark up H.R. 2344, prompting several discussions with committee staff concerning such action. Every indication appears to be that the press of other calendar items and legislation, along with a shortened election year session, makes it highly unlikely that this bill will be marked up.

**RECOMMENDATION:** The HEIT Alliance will continue to monitor both the House and Senate bills. Members of the HEIT Alliance will maintain close contact with other stakeholders in the issue, particularly the National

Conference of State Legislatures, the National Governors Association, and the National Association of Attorneys General.

**RESOURCES:**

<http://www.arl.org/info/frn/copy/copytoc.html>

<https://www.aau.edu/intellect/ipissues.html>

<http://www.acenet.edu/washington/legalupdate/2003/P2P.pdf>

<http://www.educause.edu/issues/rfi/>

<http://energycommerce.house.gov/108/Hearings/09232003hearing1086/Wulf1714.htm>

## IV. Security and Privacy

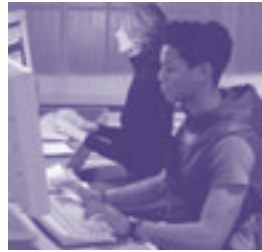
*Prepared by Rodney Petersen, EDUCAUSE*

Security and privacy are compelling public policy issues for the higher-education and the library community and our nation as a whole. The open, innovative values of colleges, universities, and libraries reflect those of the nation. Therefore, successful approaches to security and privacy in academic environments can serve as guideposts for the nation at large.

Cyber security is an important concern for the higher-education and library community not only because of the substantial—and increasing—liability that will be faced by institutions that fail to provide effective computer and network security, but also because of the rising cost of providing such security. The specter of liability combined with the possibilities of federal mandates should motivate institutions of higher education to voluntarily improve computer and network security. The alternative may be new legislation or regulations that impose unacceptable requirements or expenses on educational institutions, as well as some that potentially threaten the fundamental values of the academy.

New innovations in science and technology are expected to enhance the security of our homeland, and universities are a source of new knowledge and subsequent technologies. Institutions of higher education also continue to educate and train future leaders, innovators, and the technical workforce. Consequently, the relationships that are emerging between academia, government, and industry are critical to the government's homeland security strategy, which is premised on public-private partnerships.

Steps to improve homeland security are also accompanied by a corresponding set of privacy concerns and the need for appropriate safeguards to prevent excessive government intrusion. Efforts to combat terrorism and the corresponding patriotism that immediately followed the events of 9/11 led to new laws and government actions that have the potential to diminish personal freedoms and, in some cases, conflict with the values of higher education. Continued vigilance is required to craft a legal environment that improves homeland security without unnecessarily limiting freedoms or invading the privacy expectations of citizens.



## Update from 2003

### *National Cyber Security Division*

The U.S. Department of Homeland Security (DHS) was established in March 2003. In response to criticisms that cyber security was not a high enough priority within the new agency, the National Cyber Security Division was established in July as part of the Information Assurance and Infrastructure Protection directorate. The first director of the division, Amit Yoran, was named in September. The establishment of the U.S. Computer Emergency Readiness Team (US-CERT) in September, in partnership with Carnegie Mellon University's Computer Emergency Readiness Team, was also a major milestone for DHS.

### *National Cyber Security Summit*

The National Cyber Security Summit was held in December 2003 and organized by the private sector. The purpose of the summit was to establish task forces that would develop recommendations to DHS's National Cyber Security Division for realization of the goals identified in the National Strategy. Five task forces were created: 1) awareness, 2) information security governance, 3) early warning, 4) technical standards and common criteria, and 5) security across the software development life cycle. The EDUCAUSE/Internet2 Computer and Network Security Task Force participated in the summit and had a representative on each of the five task forces.

### *Corporate Information Security Working Group*

The House Committee on Government Reform's Subcommittee on Technology, Information Policy, Intergovernmental Relations and the Census, under the leadership of Rep. Adam Putnam (R-FLA), held hearings in fall 2003, following a series of viruses and worms that exposed the vulnerabilities of the government and private sector to attack. In October, under the threat of new legislation, Putnam created a Corporate Information Security Working Group to recommend steps that the private sector could take to improve cyber security without government mandates. The working group's efforts are proceeding parallel to similar deliberations by the Summit task forces; therefore, higher education is closely monitoring the outcome of these two activities.

### *Identity Theft*

Identify theft emerged as a serious concern during 2003. During the 2003 calendar year, the Federal Trade Commission (FTC) received nearly 215,000 reports of identity theft, up from 162,000 the previous year. Identity theft represented 42 percent of all complaints received by the FTC, reflecting a growing trend. Several recent incidents have highlighted the susceptibility of college and university data collections to theft. At the University of Texas, New York University, and elsewhere, security flaws have revealed students' Social Security numbers and other personally identifiable information. Federal legislation signed in December made it easier for victims of identity theft to



report crimes and for consumers to get copies of their credit histories; many states have passed or are debating legislation related to this issue.

### *NSF Cyber Trust Program*

In December 2003, the National Science Foundation announced a Cyber Trust solicitation that would distribute awards based upon funds received from the Cyber Security Research & Development Act the previous year. The purpose of the Cyber Trust program is to improve national cyber security and achieve the “Cyber Trust vision.” That vision is to 1) advance the relevant knowledge base; 2) creatively integrate research and education for the benefit of technical specialists and the general populace; and 3) integrate the study of technology with the policy, economic, institutional, and usability factors that often determine its deployment and use. Accordingly, the Foundation will support a collection of projects that reflects these goals.

## **Current Status**

Collaborative efforts among government, industry, higher education, and libraries to promote voluntary ways to improve cyber security without government mandates will be critical in the coming months. The success of those efforts will largely be determined by the extent of participation by the higher education and library community and their industry counterparts. Additionally, the introduction of new cyber threats and vulnerabilities may also influence the outcome.

### *Notification of Risk to Personal Data Act*

Sen. Dianne Feinstein (D-CA) has introduced a bill, the “Notification of Risk to Personal Data Act,” (S. 1350), that would require federal agencies and persons engaged in interstate commerce that possess electronic data containing personal information, to disclose any unauthorized acquisition of such information. The bill is modeled after a new California law that took effect in July 2003. While the higher education community agrees with the general premise and ethical obligation to notify individuals when their personal data has been exposed or compromised due to a computer security incident, the current approach to notify individuals on a case-by-case basis provides the greatest flexibility and discretion to institutions of higher education. However, due to questions about the application of the California law to colleges and universities in other states that provide services to residents of the state of California, a federal law may be desirable.

### *USA PATRIOT Act*

Numerous legislative proposals to amend the USA PATRIOT Act are likely to be debated in coming months as several of the provisions in the existing law are scheduled to sunset in December 2005.

#### RECOMMENDATIONS:

- > The HEIT Alliance should advocate legislative approaches and regulatory methods to protect an individual's privacy that are consistent with the higher education and library community's values. The Alliance will continue to monitor the application of the USA PATRIOT Act at institutions of higher education and at libraries.
- > The Alliance will continue to advocate a non-regulatory approach to cyber security for libraries and institutions of higher education and will continue to promote voluntary adoption of effective security practices and solutions. HEIT Alliance members will continue to collaborate with government and industry to improve cyber security across sectors.
- > The Alliance should collaborate with the research community to advocate for government policies that support academic freedom and do not unduly restrict the ability of faculty to conduct research on important topics related to security and privacy in unclassified settings. HEIT Alliance members will seek ways to address the constraints on research related to security and privacy imposed by the anti-circumvention provisions of the Digital Millennium Copyright Act.
- > The Alliance will continue to support the efforts of the EDUCAUSE/Internet2 Computer and Network Security Task Force to provide leadership and coordination of higher education's efforts

#### HEIT FUNDING RECOMMENDATIONS:

- > The HEIT Alliance will advocate the designation of appropriate funds for the National Institute for Standards in Technology (NIST), especially for the Computer Security Resource Center.
- > The Alliance will monitor and support programs and budget allocations of the National Science Foundation that will help to improve cyber security and protect privacy interests in the college and university setting.
- > The HEIT Alliance will support new allocations of funds for the U.S. Department of Homeland Security, including the Science & Technology Directorate and the National Cyber Security Division, that will further engage and draw upon the expertise of colleges and universities in protecting the nation's critical infrastructures.

#### RESOURCES:

American Association of University Professors Report: "Academic Freedom and National Security In a Time of Crisis"  
<http://www.aaup.org/statements/REPORTS/Post9-11.pdf>

Association of Computing Machinery  
<http://www.acm.org/usacm/crypto/>

Computer Research Association Conference on “Grand Research Challenges in Information Security and Assurance”  
<http://www.cra.org/Activities/grand.challenges/security/home.html>

EDUCAUSE/Internet2 Computer and Network Security Task Force  
<http://www.educause.edu/security>

Research and Educational Networking ISAC  
<http://www.ren-isac.net>

U.S. Department of Homeland Security, National Cyber Security Division  
<http://www.dhs.gov/dhspublic/display?content=916>

U.S. Department of Homeland Security, Science & Technology Directorate  
[http://www.dhs.gov/dhspublic/theme\\_home5.jsp](http://www.dhs.gov/dhspublic/theme_home5.jsp)

U.S. House of Representatives Select Committee on Homeland Security, Subcommittee on Cybersecurity, Science, Research & Development  
<http://hsc.house.gov/content.cfm?id=18>

U.S. Senate Committee on the Judiciary, Subcommittee on Terrorism, Technology, and Homeland Security  
<http://judiciary.senate.gov/subcommittees/technology.cfm>

U.S. Department of Education, web page on student identity theft  
<http://www.ed.gov/misused/>

National Cyber Security Partnership  
<http://www.cyberpartnership.org/>

#### **PATRIOT ACT RESOURCES:**

A comparison of proposed PATRIOT ACT legislation  
<http://www.educause.edu/policy/resources/patriot.pdf>

Association of Research Libraries resources  
<http://www.arl.org/info/frn/other/ATL.html>

## V. Telecommunications

*Prepared by James Hermes, AACCC  
Garret Sern EDUCAUSE*



### Broadband

Affordable access to high-speed Internet connectivity, regardless of the technology being employed, is essential for the higher-education and library community to provide faculty, researchers, and students with the ability to access information and collaborate via distance/distributed learning. Broadband networks have the capacity to provide students with the opportunity to access media-rich education resources. Increasingly, lifelong learners and the disabled are among those students who rely on residential broadband connections in lieu of being able to physically participate in a traditional classroom or library setting. Students attending colleges and universities located in rural and underserved urban areas are in danger of falling behind their peers if their school does not have the network facilities essential for high-end research and collaboration.

Moreover, we must recognize that the Internet will replace most of conventional telecom from a technical and policy/legislative/regulatory point of view, and we must plan accordingly as a nation. Information-technology leaders in higher education have long been active in planning and deploying advanced network facilities. It is crucial that the voice of higher education, often the innovators of Internet technologies, makes itself more strongly heard during this transition period, advocating the affordable deployment and accessibility of advanced communication services so that all Americans may benefit from the resources of a “Broadband America.”

### *Update from 2003*

Several bills were introduced that focused on grant proposals and tax incentives to stimulate broadband deployment in underserved and rural areas; however, no significant broadband legislation was passed last year. The long-term ramifications of the FCC Triennial Review (and subsequent court deliberations), relieving incumbent carriers from having to unbundle their existing and new ultra-high speed fiber-optic networks to competitive local exchange carriers at wholesale prices, will be carefully monitored. Building out these networks in what has become known as “fiber to the home” services is seen as a viable solution for connecting homes to high-speed networks.

### *Current Issues*

A growing number of communities and municipalities have started building fiber networks where carriers refuse or have not yet built out. At issue is whether municipalities fall under the definition of “any entity” under section 253 of the Telecommunications Act of 1996, which prohibits state and local regulations from restricting entities from providing telecommunications services. Many higher education institutions and their surrounding communities, particularly those located in remote areas, are partnering to provide affordable telecommunications services where commercial carriers refuse to deploy. The Supreme Court heard oral arguments on this issue in January 2004 and is expected to render a decision this year.

Internet-Protocol applications, most notably Voice over Internet Protocol (VOIP), relies on a broadband network platform. The increasing popularity of VOIP services among telecom consumers may act as a driver for the deployment of broadband networks. The primary issue before the FCC right now is whether VOIP<sup>1</sup> technology should be classified as a telecommunications service and therefore require providers to pay access fees for terminating calls and pay into the universal service fund. Public-safety requirements (E911) and law-enforcement concerns about the Communications Assistance for Law Enforcement Act (CALEA) will also be high priorities for the commission. The Commission is currently seeking public comments on these issues.

### **RECOMMENDATIONS:**

- > HEIT Alliance members will continue to promote broadband legislation that will encourage telecommunication providers to deploy networks in underserved areas.
- > Alliance members will support the right of local communities to build out their own fiber networks if the private sector is not providing access to affordable broadband services.
- > Alliance members will continue to support policies that promote technological innovation in ensuring affordable deployment of broadband networks, while still meeting the required social obligations such as E911.
- > Alliance members will support defining IP-Enabled services, including VOIP as an information service.

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<sup>1</sup> VOIP is a digitized, packetized method of carrying voice conversations over TCP-IP based networks. Implementations of VOIP may be either “closed,” meaning the entire conversation is over Internet links, or “open,” meaning the conversation occurs partly on an Internet link and partly on conventional public switched network facilities.

#### RESOURCES:

Federal Communications Commission  
<http://www.fcc.gov/broadband/>

Federal Communications Commission Voice Over Internet Protocol Website  
<http://www.fcc.gov/voip/>

National Telecommunications and Information Administration  
<http://www.ntia.doc.gov>

EDUCAUSE Amicus Brief Before the Supreme Court in Support of Community Networks  
<http://www.educause.edu/asp/doclib/abstract.asp?ID=NET0315>

### Instructional Television Fixed Service

The Instructional Television Fixed Service (ITFS) is a television service licensed exclusively to educational institutions that has traditionally been used to broadcast video to specific reception sites within range of the transmitter. Historically, the most common use of ITFS has been to deliver video of classes to remote sites. ITFS has existed for more than 40 years and is the only portion of the electromagnetic spectrum licensed exclusively to education providers. Rules changes governing the ITFS spectrum over the last several years have encouraged ITFS licensees to lease excess spectrum capacity to commercial entities, usually in exchange for compensation and other considerations that help the institutions more fully develop their distance-education offerings. Rules changes have also paved the way for ITFS to transform from a one-way, analog service to a two-way digital service capable of delivering broadband services. Many institutions, along with corporate partners, are in the midst of this transformation. For many institutions, ITFS is a key element of their distance-education plans, as well as a way to extend broadband capabilities to their local communities.

#### *Update from 2003*

Since last year, the FCC has embarked on rulemaking to establish new technical rules for the operation of ITFS and its partner corporate services. In this rulemaking, however, the FCC has also raised the possibility that ITFS licenses would be transferable to non-educational entities, including commercial interests. Key elements of the ITFS community, including many members of the HEIT alliance, have objected to this proposal, arguing that this would be the first step in the eventual demise of ITFS because control of the spectrum by educational institutions is key to the relationships with corporate lessees that help to develop the spectrum. In this same rulemaking, the New America Foundation and other organizations have proposed either reallocating half of the ITFS spectrum for unlicensed wireless uses or allowing unlicensed wireless technologies to use this spectrum simultaneously with ITFS licensees.

The current rulemaking follows on the heels of a successful campaign in 2001 in which the educational community fought off attempts to reallocate the ITFS spectrum for cellular telephone services.

### *Current Status*

The FCC plans to rule in this proceeding in the spring of 2004.

**RECOMMENDATION:** The HEIT Alliance should oppose proposals to make non-educational entities eligible for ITFS licenses, reallocate a portion of the ITFS spectrum to other uses, or other proposals that may interfere with ITFS licensees' use of the spectrum. The higher-education community, along with other ITFS licensees, must better catalog its current and planned uses of the ITFS spectrum to help this effort.

### **RESOURCE:**

National ITFS Association  
<http://itfs.org/>

### *Funding*

U.S. Department of Commerce Technology Opportunities Program (TOP)  
Part of Commerce's National Telecommunications and Information Administration, TOP promotes expanding the availability and use of advanced telecommunications for public and nonprofit entities. TOP funds model programs that demonstrate innovative uses of network technology and works to ensure that information about these projects is widely disseminated, especially to rural and underserved communities.

FY 03 Funded:	\$15.5 million
FY 04 Funded:	\$15 million
President's request for FY 05:	\$ 0
HEIT Alliance	
Recommendation for FY 05:	Work with the Leadership Conference on Civil Rights to support continued funding for the TOP program.

### **RESOURCES:**

National Telecommunications and Information Administration  
<http://www.ntia.doc.gov/>

Leadership Conference on Civil Rights  
<http://www.lccr.org>



## Public Telecommunications Facilities Program (PTFP)

Also part of the NTIA, this program funds efforts to bring educational and cultural programs to the American public using broadcasting and non-broadcasting telecommunications technologies. Educational and instructional projects are included in the non-broadcasting technology segment of the program that supports new telecommunications facilities. This program has funded satellite networks to deliver instructional programming to new service areas, typically through entities at the higher education level and often for advanced courses in math and a broad range of sciences.

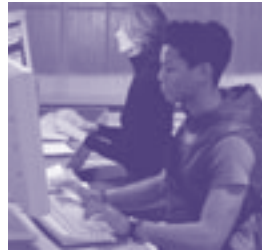
### *Funding*

FY 03 Funded:	\$43.5 million
FY 04 Funded:	\$20 million
President's request for FY 05:	\$3 million to fund existing grants and administrative costs.
HEIT Alliance Recommendation for FY 05:	\$55 million, the same as the American Public Television Stations' request for FY 05.

# VI. Workforce Development

*Prepared by James Hermes, AACC  
Rodney Petersen, EDUCAUSE*

Workforce development continues to be one of the top concerns of the information-technology industry and every other industry that employs information-technology professionals, including higher education. Current and projected shortages in many of these areas pose a significant challenge to higher education to produce the workers needed at all levels, from skill-specific certificates to doctoral degrees. Institutions and the government have placed a special emphasis on educating greater numbers of underrepresented populations in information technology and other fields. The demographic evolution projected to occur over the next few decades in the American workforce demands that more minority students receive training in high-technology fields if this country is to maintain its leadership in these fields. Federal support for workforce development in the information-technology area is spread across a patchwork of programs, many of which are not specific to information technology, but have a significant impact in this area nonetheless.



## Update from 2003

Several significant developments have occurred in federal workforce-development programs over the past year, and 2004 promises to bring more such changes. Two broad-based workforce-development programs are in the process of being reauthorized by Congress: the Carl D. Perkins Vocational and Technical Education Act (Perkins Act) and the Workforce Investment Act (WIA). The Perkins Act funds program improvements in technical education programs at the K–12 and community-college levels, including funds for equipment, curriculum, and professional development, and support for special student populations in information technology and other programs. WIA authorizes the federal workforce-development system responsible for job placement, training, and retraining of unemployed and other individuals, some of whom receive training to enter in information-technology fields. In addition to these two reauthorizations, President Bush recently announced a \$250 million community-college program for job training in fields with significant worker shortages. This initiative will likely include information-technology programs.

The National Science Foundation administers several programs aimed at workforce development in high-technology fields, including information technology. Some of these programs enjoyed relative success in their FY 2004 appropriations. The Advanced Technological Education (ATE) program funds programs at community colleges aimed at producing skilled technicians in fields

including information technology. Cyber security is an emerging focus of the ATE program, as well. The ATE program received an increase of over \$2 million in FY 04, for a total of \$45.5 million. The Science, Technology, Engineering and Mathematics Talent Expansion Program (STEP), which aims to increase the number of undergraduates entering those fields, increased to \$25 million in FY 2004. Another important NSF program, the Computer Science, Engineering and Mathematics Scholarships program, which provides scholarships for needy students, is in danger of ending after FY 2004. The program is funded by fees paid by employers for H-1B visas, and the authorization for the fee expired at the end of FY 2003.

The National Security Administration's National Centers of Academic Excellence in Information Assurance Education (CAEIAE) program, established in November 1998, helps NSA partner with colleges and universities across the nation to promote higher education in information assurance (IA). Under this program, four-year colleges and graduate-level universities apply to NSA to be designated as Centers of Academic Excellence in IA Education. Each applicant must pass a rigorous review demonstrating its commitment to academic excellence in IA education. Recipients receive formal recognition from the U.S. government, as well as prestige and publicity, for their role in securing our nation's information systems. Students attending CAEIAE schools are eligible to apply for scholarships and grants through the Department of Defense Information Assurance Scholarship Program and the Federal Cyber Service Scholarship for Service Program. CAEIAE institutions also serve as regional centers of IA expertise and have begun to provide more programs aimed at retooling and retaining current federal and state information-technology personnel.

The Department of Labor administers another program funded by H-1B visa fees, the H-1B Skill Training Grants. These grants are awarded to local workforce investment boards in partnership with other community organizations and business-led consortia. These partnerships often include institutions of higher education, particularly community colleges.

## Current Status

Congress is in the final stages of reauthorization of the Workforce Investment Act, which should be considered by a conference committee this year. Congress is set to undertake reauthorization of the Perkins Act, which may or may not be completed in 2004.

NSF's Advanced Technological Education (ATE) program and the Science, Technology, Engineering and Mathematics Talent Expansion Program (STEP) programs have each been slated for cuts in the administration's FY 2005 budget. The ATE program would be reduced to \$38.16 million and the STEP program to \$15 million. Congress will address appropriations for these programs when it considers the VA, HUD and Independent Agencies

appropriations bill. The Senate subcommittee with authority over this legislation recently held a hearing at which both the chairman and ranking member decried the administration's proposed cuts to NSF education programs.

#### RECOMMENDATIONS:

- > The HEIT Alliance supports changes in the reauthorizations of the Perkins Act and Workforce Investment Act that encourage enhanced postsecondary participation in vocational education and job training programs, and the proposed community-college job-training initiative.
- > Alliance members will advocate continued funding of the Computer Science, Engineering and Mathematics Scholarships program beyond expiration of H-1B user fees.
- > Alliance members will support continued funding and enhancement of NSA Centers of Academic Excellence in Information Assurance Education, as well as the NSF's Scholarship for Service program.

## Funding Recommendations

### NATIONAL SCIENCE FOUNDATION

#### *Advanced Technological Education*

This program funds efforts to improve undergraduate and secondary technology education through support for curriculum development; the preparation and professional development of college faculty and secondary school teachers; internships and field experiences for faculty, teachers, and students; and other activities.

FY 03 Funded:	\$42.88 million
FY 04 Funded:	\$45.5 million
President's request for FY 05:	\$38.16 million
HEIT Alliance Funding Recommendation for FY 05:	\$50 million

#### *Federal Cyber Service: Scholarship for Service*

This program seeks to increase the number of qualified students entering computer-security and information-assurance programs through scholarships and institutional awards designed to foster the development of these disciplines at colleges and universities.

FY 03 Funded:	\$30.1 million
FY 04 Funded:	\$16.1 million
President's request for FY 05:	\$16.2
HEIT Alliance Funding Recommendation for FY 05:	\$30.1 million to return program to FY 03 funding level

*Mathematics Talent Expansion Program (STEP)*

The STEP program provides grants to colleges and universities to increase the number of undergraduate math and science majors.

FY 03 Funded:	\$21.85 million
FY 04 Funded:	\$24.85 million
President's request for FY 05:	\$15 million
HEIT Alliance	
Recommendation for FY 05:	\$30 million

*The Carl D. Perkins Vocational and Technical Education Act*

The Perkins program funds program improvements in technical-education programs at the K–12 and community-college levels, including funds for equipment, curriculum and professional development, and support for special student populations in information technology and other programs

FY 03 Funded:	\$1.31 billion
FY 04 Funded:	\$1.32 billion
President's request for FY 05:	\$1 billion
HEIT Alliance Funding	
Recommendation for FY 05:	\$1.6 billion

**RESOURCES:**

U.S. Department of Education Office of Adult and Vocational Education  
<http://www.ed.gov/about/offices/list/ovae/>

U.S. Department of Labor Employment and Training Administration  
<http://www.doleta.gov>

Information Technology Association of America—Workforce and Education  
<http://www.ita.org/workforce/index.cfm>

The Computing Technology Industry Association (CompTIA) —  
Workforce Development  
<http://www.comptia.org/sections/workforce/default.asp>

CompTIA's TechCareer Compass  
<http://tcc.comptia.org/>

International Information Systems Security Certification Consortium (ISC2)  
<http://www.isc2.org>

Microsoft Corporation—Workforce Development  
<http://www.microsoft.com/education/?ID=WorkforceDevelopment>

NSA Centers of Academic Excellence in Information Assurance Education  
<http://www.nsa.gov/ia/academia/caeiae.cfm>

NSF Advanced Technological Education Program; the Computer Science,  
Engineering and Mathematics Scholarships Program; and the Science,  
Technology, Engineering and Mathematics Talent Expansion Program  
<http://www.ehr.nsf.gov/ehr/DUE/>

NSF Federal Cyber Service: Scholarship for Service  
<http://www.ehr.nsf.gov/ehr/DUE/programs/sfs/>

American Association of Community College's Report on the Community  
College Role in Cybersecurity Education  
[http://www.aacc.nche.edu/Content/NavigationMenu/ResourceCenter/  
Projects\\_Partnerships/OtherInitiatives/Cybersecurity/Cybersecurity.htm](http://www.aacc.nche.edu/Content/NavigationMenu/ResourceCenter/Projects_Partnerships/OtherInitiatives/Cybersecurity/Cybersecurity.htm)

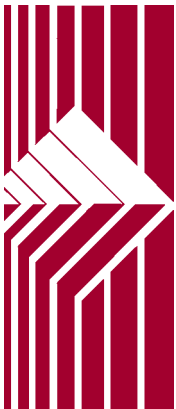
## VII. HEIT Alliance Funding Priorities by Agency

Department/Agency * Program Name	FY 03 Funding	FY 04 Funding	FY 05 President's Budget Request	FY 05 HEIT Alliance Budget Recommendation
<b>DOC</b> <i>Technology Opportunities Program</i>	\$15.5 M	\$15 M	\$0	\$15.5 M
<b>DOC</b> <i>Public Telecommunications Facilities Program</i>	\$43.5 M	\$20 M	\$3 M	\$55 M
<b>DOED</b> <i>Community Technology Centers</i>	\$32.3 M	\$9.9 M	\$0	\$32.3 M
<b>DOED</b> <i>Educational Technology State Grants</i>	\$696 M	\$691.8 M	\$691.8 M	\$791 M
<b>DOED</b> <i>Preparing Tomorrows Teachers to Use Technology</i>	\$62 M	\$0	\$0	\$62 M
<b>DOL</b> <i>Perkins Vocational and Technical Education Act</i>	\$1.31 B	\$1.32 B	\$1 B	\$1.6 B
<b>NSF</b> <i>Information Technology Research</i>	\$213.7 M	\$218 M	\$178 M	\$239.8 M
<b>NSF</b> <i>National Middleware Initiative</i>	\$7 M	\$23.06 M	\$22.9 M	\$25.36 M
<b>Networking and IT Research and Development</b>	\$1.964 B	\$2.023 B	\$2.008 B	\$2.682 B
<b>NSF</b> <i>Course, Curriculum and Laboratory Improvement</i>	N/A	\$40.41 M	\$46.53 M	\$46.53 M
<b>NSF</b> <i>Noyce Scholarships</i>	\$6.9 M	\$7.95 M	\$4 M	\$25 M
<b>NSF</b> <i>Math-Science Partnerships</i>	\$144.07 M	\$139.17 M	Transfers funding to DOED	Maintain program at NSF
<b>NSF</b> <i>Advanced Technological Education</i>	\$42.88 M	\$45.5 M	\$38.16 M	\$50 M
<b>NSF</b> <i>Federal Cyber Service: Scholarship for Service</i>	\$30.1 M	\$16.1 M	\$16.2 M	\$30.1 M
<b>NSF</b> <i>Mathematics Talent Expansion Program (STEP)</i>	\$21.85 M	\$24.85 M	\$15 M	\$30 M

Cyberinfrastructure – The HEIT Alliance supports the recommendations of the NSF Blue-Ribbon Advisory Panel to create a \$1 billion cyberinfrastructure program and urges the Administration and Congress to initiate a bold, large-scale interagency and internally coordinated effort to deploy advanced cyberinfrastructure in our research universities.

\* Agency key:   DOED   Department of Education  
                       DOC    Department of Commerce  
                       DOL    Department of Labor  
                       NSF    National Science Foundation





## **NASULGC**

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