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# ALA Washington Newsletter

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## Contents:

Appropriations, FY 1992	p. 1
Libraries	p. 1
ACTION NEEDED	p. 2
National Library of Medicine	p. 2
Government Printing Office	p. 2
National Endowment for the Humanities	p. 2
Postal	p. 3
ACTION NEEDED	p. 3
Library of Congress: Deacidification Funds	p. 3
ACTION NEEDED	p. 4
Higher Education Act Reauthorization	p. 5
Copyright: Unpublished Materials	p. 5

Minority Scholarships	p. 6
Abortion Information	p. 6
Library Program Grant Notice	p. 6
Grant Deadlines and Regs: Workplace Literacy	p. 7
<b>Tables:</b>	
House-passed Library Funding, FY92	p. 2
Selected NEH Programs	p. 3
LC: Proposed Total Resources, FY92	p. 4
Department of Education Library Programs	p. 7
<b>Attachments:</b>	
Status of Legislation Chart, dated 6/27/91	
Fact Sheet Analysis: Committee-Reported NREN Bills	

## Appropriations, FY 1992

**Libraries.** The House passed the FY 1992 Labor-HHS-Education Appropriations Bill (HR 2707) by a vote of 353-74 on June 26. An amendment by Rep. Robert Walker (R-PA) to cut amounts in the bill by 5.9 percent was soundly defeated, 55-366. Amounts for library programs in HR 2707 are shown in Table 1.

The House Appropriations Committee, meeting on June 20, apparently made no changes in the recommendations of the L-HHS-ED Appropriations Subcommittee, which acted on June 6 in closed session and embargoed the results. The bill would cut LSCA II public library construction by \$5 million in order to provide an expanded program of librarian training. Subcommittee support for LSCA II has not been as strong as in the Senate, where champions such as Sen. Mark Hatfield (R-OR) have influenced construction funding.

The committee firmly and impressively rejected the Administration proposal to consolidate the Higher Education Act II-B library career training program with other graduate assistance programs by increasing II-B training funds by \$4,349,000. The committee report (H. Rept. 102-121) indicates that "because of information indicating a significant shortage of librarians in the late 1990's as a result of retirements, the Committee has recommended a significant increase for this program." Thanks for this increase, which would bring the II-B

training total to \$5 million, are due to Chairman William Natcher (D-KY). Rep. Louis Stokes (D-OH) also indicated at hearings his concern about the shortage of librarians.

The committee would also provide \$500,000 for first-time funding of the HEA VI-A section 607 provision in the international education title, thanks to Rep. Robert Mrazek (D-NY). This provision authorizes grants to institutions of higher education or public or nonprofit, private library institutions or consortia of such institutions for the acquisition of, and provision of access to, periodicals published outside the United States.

The committee report indicated its reasons for funding section 607:

...While it was true in the past that the vast majority of the important information necessary to maintain our competitiveness in an increasingly global economy was published in English in periodicals available within the United States, this is no longer the case. This change affecting the availability of information is placing American students and scholars at a disadvantage. Therefore, the Committee believes that an urgent need now exists for our research libraries to collect the growing number of foreign periodicals published in foreign languages outside of the United States.

The Committee expects that this program will begin an effort to provide all American students and scholars access to the numerous resources available worldwide. In this regard, the Committee recommends that consideration be given to funding research libraries with comprehensive foreign materials collections that are open and accessible free of charge to the public and have demonstrated a commitment to sharing the resources of their collections with other institutions and individual scholars.

committee will mark up on July 11, with action by the Senate Appropriations Committee immediately afterward. Note that this date falls during the White House Conference on Library and Information Services, and is the same date as the congressional hearing scheduled in connection with the WHCLIS.

**National Library of Medicine.** Within the National Library of Medicine budget, the committee included funding for the NLM role in the high-performance computing initiative which includes the National Research and Education Network. NLM, according to the report,

“will award grants to connect medical institutions to a high-speed network and to train scientists in the use of new computer capabilities.” The NLM total of \$99,565,000 in HR 2707 includes \$14,691,000 for the Medical Library Assistance Act and \$10,466,000 for biotechnology information.

**Government Printing Office.** The House passed HR 2506, Legislative Branch Appropriations Act, 1992, on June 5 (H. Rept. 102-82). The bill provides \$26,327,000 for expenses of the Superintendent of Documents necessary to provide for the cataloging and indexing of government publications and their distribution to the public, members of Congress, other government agencies, and designated depository

and international exchange libraries. Statutory language provides that “travel expenses, including travel expenses of the Depository Library Council to the Public Printer, shall not exceed \$117,000.” On June 12, the Senate Appropriations Committee approved the same amount as the House. The Government Printing Office had requested \$27,371,000.

**National Endowment for the Humanities.** The House passed the FY '92 Interior and Related Agencies Appropriations Bill (HR 2686) on June 25, with a total of \$178,200,000 for the National Endowment for the Humanities, the same amount as in the President's budget. The ALA Washington Office submitted statements to Interior Appropriations Subcommittees in April in support of adequate funding for NEH programs.

The House did not change the cut proposed by the Administration for Humanities Projects in Libraries. The \$4 million increase for the Office of Preservation represents additional funds for the National Heritage Preservation program (to stabilize collections of material culture),

**Table 1. House-passed Library Funding, FY92 (amounts in thousands)**

Program	FY91 Approps.	FY92 Admin. Req.	FY92 Hse. Cmte.
LSCA I, PL services	\$ 83,898	\$35,000	\$ 83,898
II, PL construction	19,218	0	14,218
III, interlibrary cooperation	19,908	0	19,908
IV, Indian library services	(2% of appropriations for I, II, and III)		
V, foreign lang. materials	976	0	976
VI, library literacy	8,163	0	8,163
HEA II-B, library training	651	0†	5,000
II-B, library research	325	0	325
II-C, research libraries	5,855	0	5,855
II-D, college library tech.	3,904	0	3,904
VII, sec. 607 foreign jrnls.	0	0	500
ESEA Ch. 2 school block grant	469,408	462,577	477,600
NCLIS	732	911	750
National Center for Ed. Statistics	63,524	80,060	78,000
National Library of Medicine	91,408	100,554	99,565

†Proposed for consolidation with other graduate assistance programs.

**ACTION NEEDED:** While the Senate L-HHS-ED Appropriations Subcommittee has championed the LSCA II public library construction program in the past, restoration of these funds for FY '92 should not be taken for granted. ALA does not support cutting one program to fund another. The House bill provides an increase of \$2.4 billion for education (consistent with the House budget resolution with the Ford amendment). Other interests in the bill, which did not fare as well, are pressing Senators to add funds for their programs. Last fall's budget agreement makes the Senate subcommittee options extremely limited.

LSCA II supporters should contact members of the Senate Labor-HHS-Education Appropriations Subcommittee immediately—see the February newsletter issue or Legislative Day kits for names—to urge restoration of LSCA II public library construction funds to at least the FY '91 level of \$19,218,000. Provide examples of what LSCA II assistance has accomplished, or indicate the number of projects awaiting funding. The Senate sub-

raising it from the \$4.2 million requested to \$8.2 million. The remaining \$16.7 million is for preservation of library and archival materials, \$1 million below the level envisioned for FY '92 in the original NEH multiyear plan, but \$100,000 more than the Administration's FY '92 request for brittle books preservation. Compared with the budget request, the House bill includes an increase of \$600,000 for microfilming of brittle books, but a decrease of \$500,000 for training of preservation personnel. Selected NEH programs are shown in Table 2.

Table 2. Selected NEH Programs (amounts in thousands)

Program	FY91	FY92	
	Approps.	Admin. Request	FY92 House
<b>NEH TOTAL</b>	\$170,004	\$178,200	\$178,200
Humanities Projects in Libraries and Archives	2,785	2,375	2,375
Office of Preservation	22,581	20,800	24,900
Research Grants	18,503	19,900	19,500
Challenge Grants	15,071	16,050	12,050

Under funds for National Park Service construction projects, HR 2686 included \$2 million to restore the former Chicago Public Library Central Building, now the Chicago Cultural Center, as a national landmark. Rep. Dan Burton (R-IN) offered an amendment to delete the \$2 million. The amendment was vigorously opposed by Interior Appropriations Subcommittee Chairman Sidney Yates (D-IL), and was defeated 104-318. ALA takes no position on such institution-specific federal projects, but reports on this one because of the roll-call vote on the amendment. (See the June 25 *Congressional Record*, pp. H4960-63.)

The House also defeated an amendment by Rep. Philip Crane (R-IL) to eliminate all funding for the National Endowment for the Arts (by a vote of 66-361), and defeated an amendment by Rep. Cliff Stearns (R-FL) to cut NEA appropriations by five percent (by a vote of 196-228).

**Postal.** On June 18, the House passed HR 2622, the Treasury-Postal Service Appropriations Bill for FY '92. The bill included the full \$649.5 million needed to maintain preferred postal rates at current levels, a significant step given the Administration request of only \$182,778,000, and a congressional budget resolution that did not assume full funding. The Senate Treasury-Postal Service Appropriations Subcommittee met June 25 and recommended only \$383 million, an action approved the following day by the full Senate Appropriations Committee. A floor amendment may be offered to restore postal revenue forgone funds, but no details are available at this writing.

**ACTION NEEDED:** Contact all Senators immediately to urge restoration in HR 2622 of the postal revenue forgone appropriations to the \$649.5 million passed by the House—the level needed to keep preferred postal rates at current levels, thus avoiding a second increase in one year for libraries, schools, and nonprofit groups. □

### Library of Congress: Deacidification Funds

The House passed the FY 1992 Legislative Branch Appropriations Bill (HR 2506) on June 5 by a vote of 308-110. The bill includes a 7.3 percent increase for LC, or a total of \$327,456,000 (including authority to obligate \$23,279,000 in receipts). LC had requested an 18 percent increase. The House-passed amount includes very little beyond increases required to maintain current services. The Congressional Reference Service and the National Library Program for the Blind and Physically Handicapped would receive slightly less than their estimated baseline level. Major increases include \$5.2 million, including ten positions, for the first year of high-volume book deacidification operations, and \$1 million for automation. However, the committee requested more detail on the LC resystemization plan before any of the \$1 million is spent for automation.

The Senate Appropriations Committee approved its version of HR 2506 on June 12 with two significant changes from the House bill—an extra \$1 million for automation, but almost \$5 million less for mass book deacidification. The Senate committee deleted \$4,780,000 of the \$5,200,000 provided by the House on the grounds that the project has unobligated funds from previous years available, and that because of a one-year period between award of a contract and actual production, the funds are not needed in FY '92. Nevertheless, the Senate committee in its report (S. Rept. 102-81) “wishes to underscore its unqualified commitment to the successful execution of this program and expects the Library to include the necessary funding for this project as appropriate in future budget requests.”

The House Appropriations Committee justified the increase for deacidification in a tight budget year in its report (H. Rept. 102-82).

The deacidification process has been under development for 18 years, including the original concept development and research stages. The Library of Congress has been a world leader in this area because of the need to protect the priceless knowledge base contained in libraries or other document depositories from deterioration due to the acid content of 20th century book paper. The Committee has nurtured this effort, and has provided the necessary funds. Otherwise, the \$10.8 million obligated to date from appropriated funds would be wasted and over 15 million Library of

base for CDS card catalogs and would be hard pressed to find an affordable substitute." □

### Higher Education Act Reauthorization

Sen. Claiborne Pell (D-RI) on June 6 introduced, at its request, the Administration legislative proposal for reauthorization of the Higher Education Act. The bill, S. 1246, would repeal HEA title II library programs. In its place, a new title II, National Graduate Fellowships Program, would revise the current HEA IX Graduate Programs. The Administration section-by-section analysis of its proposal explains its position on library programs.

Section 201(a) of the bill would repeal Title II of the Act, which authorizes the Secretary to provide assistance for academic library and information technology enhancement. The Library Career Training program (authorized under section 222 of current law) would be consolidated with other graduate fellowship programs under the Act, thus allowing the study of library and information sciences to compete with other fields of study for Federal fellowship assistance. The remaining library programs currently authorized in Title II of the Act no longer need to receive Federal assistance. These programs have met their goals of alleviating the shortage of college libraries and of demonstrating the uses of new information technologies. Further, non-Federal sources of funds are available to support these types of activities.

While the explanation above mentions the current II-B library career training program as one of those to be consolidated with other graduate assistance programs, library science is not mentioned at all in the legislative language of the new consolidation. Areas of national need are spelled out as biology, chemistry, computer science, engineering, foreign language or area studies, geosciences, mathematics, physics, or "any other area that the Secretary determines is appropriate...." In addition, within the proposed graduate consolidation, preference would be given to continuing assistance for recipients of the current Foreign Language and Area Studies Fellowship Program, the Patricia Roberts Harris Fellowship Program, the Jacob K. Javits Fellows Program, and the Graduate Assistance in Areas of National Need Program, but not the II-B library fellowship program.

The Administration bill would repeal the section 607 provision authorizing \$1 million for acquisition of foreign periodicals under the HEA VI international education programs. The bill would also authorize set-asides of program funds for the administrative costs of peer review (up to 0.5 percent of annual appropriations for each program) and for evaluations and studies of the effectiveness of programs (up to \$10 million per year for student aid programs and \$5 million per year for all other HEA

programs combined, but not to exceed five percent of any program's annual appropriation). □

### Copyright: Unpublished Materials

The House Subcommittee on Intellectual Property and Judicial Administration held hearings May 30 and June 6 on title I of HR 2372, which is intended to clarify fair use of unpublished material. (See the May 29 *ALA Washington Newsletter* for background on this bill.) In his opening statement, Chairman William Hughes (D-NJ) said, "Just as it is in the public interest to encourage creation by offering economic incentives to authors and inventors, it is also in the public interest to permit limited free use of protected material."

All six witnesses on May 30 were strongly in favor of the bill. Author and journalist Kati Marton said that publishers are fearful of lawsuits, and are setting strict limits on using unpublished material. "Not surprisingly, a substantial number of books are being withheld from publication, at the author's behest, rather than allow them to be gutted to meet the demands of the new rule governing 'fair use' of unpublished materials." Kenneth Vittor, speaking on behalf of the Magazine Publishers of America, said that quotes formed the backbone of investigative reporting, and that the new rule of law places quotations off limits. James Burger, on behalf of the Computer and Business Equipment Manufacturers Association, and William Neukom, on behalf of the Software Publishers Association, expressed their concern that decompilation of software programs would allow widespread piracy, and said that the legislation is a good compromise to protect their rights.

Rep. Dan Glickman (D-KS) asked how the issue of fair use related to privacy. First amendment lawyer Floyd Abrams, representing the Authors Guild, replied that the legislation did not provide greater access—if papers were closed, then they were closed, but that if people did not want their papers read, they should not give them to libraries. Rep. Barney Frank (D-MA) also raised the question of privacy, saying that if you put something in a library, you waived the right of privacy unless it was sealed.

The six witnesses at the June 6 hearing were more mixed in their views toward the legislation. Register of Copyrights Ralph Oman said that this measure was a great improvement over last year's bills, and that if the committee decided that legislation was needed, he would support it. Scott Turow, lawyer and author of *Presumed Innocent*, did not object to the bill, but did not find it necessary. He argued that if an author did not choose to publish material, another individual did not have the right to publish it. If fair use were broadened, authors would not be as likely to donate materials to libraries, and might destroy their works rather than risk being extensively quoted. Catholic

University law professor Shira Perlmutter also felt the bill was unnecessary.

Robert Waggoner of the International Association of Broadcast Monitors said that his organization supported HR 2372, but that it did not address the concerns of broadcast news monitoring services and their use of copyrighted broadcast news programs. A recent court case held that broadcast news monitoring was not a fair use, in part because it is a commercial activity. He urged that "news reporting monitoring" be added to the list of purposes for which a use is presumptively fair.

August W. Steinhilber, of the Educators' Ad Hoc Committee on Copyright Law (a coalition in which ALA participates), said his organization supported last year's legislation, and does not oppose HR 2372. He expressed concern that the bill is geared toward commercial interests, and stated that fair use can apply to unpublished material other than that used in a publication, such as in student research. He cautioned that unpublished materials currently available for public inspection in universities or libraries should not be inadvertently subjected to any new legal restriction. Along with a June 26, 1990, ALA Council resolution (CD #93), ALA and the Association of Research Libraries resubmitted for this hearing record a July 1990 joint statement to support clarifying fair use of unpublished materials. □

### Minority Scholarships

The Office for Civil Rights in the Department of Education has published a notice requesting public comments on a series of questions on the use and legality of scholarships and financial aid programs that consider race or national origin as a factor in the award process. Most of the nine areas of inquiry include multiple questions, some asking for factual information, some requiring opinion-type answers, and some posing policy alternatives. See the May 30 *Federal Register* (56 FR 24383-84). Comments are due July 15. Further information: Jeanette J. Lim (292-732-1637).

Last December, the assistant secretary of education for civil rights, Michael L. Williams, stated that most minority scholarships were illegal under title VI of the Civil Rights Act, which bars discrimination on the basis of race or national origin in programs receiving federal assistance. ALA wrote to protest that interpretation, as did many other groups. Shortly after taking office, Secretary of Education Lamar Alexander initiated a review of the issue, and said departmental policy would be determined by the review. The request for comments is part of that process. □

### Abortion Information

In passing the Labor-HHS-Education Appropriations Bill for FY 1992 on June 26 by a vote of 353-74, the

House approved a provision to block regulations that prohibit federally funded health clinics from counseling women on abortion. The amendment was offered during House Appropriations Committee consideration of HR 2707 on June 20 by Rep. John Porter (R-IL), and approved on a bipartisan vote of 35-20. The freedom of speech implications of the regulations troubled many in Congress, no matter what their position on abortion, despite the threat of a Presidential veto.

The amendment would prohibit the use of appropriated funds to enforce the 1988 regulations, but is effective only for fiscal year 1992, and does not overturn the recent Supreme Court decision. On May 23, the Court, in *Rust v. Sullivan*, upheld federal regulations which bar employees of federally funded family planning clinics from discussing abortion with their patients. If asked about abortion, employees must say that "the project does not consider abortion an appropriate method of family planning." ALA had joined with the Freedom to Read Foundation and others in filing before the Supreme Court an *amicus* brief supporting health-care providers who challenged the regulations as unconstitutional. The decision was seen as a serious blow to First Amendment rights.

In the Senate, the Labor and Human Resources Committee approved on June 6 in a 12-5 vote a bill introduced by Sen. John Chafee (R-RI) to overturn the Supreme Court decision. S. 323 (S. Rept. 102-86) would clarify that the prohibition on using federal funds for abortion should not be interpreted to suppress information to women assisted under title X of the Public Health Service Act. The bill requires that pregnant women who request information must receive nondirective counseling and referrals concerning all legal and medical options, including prenatal care and delivery, infant care, foster care or adoption services, and pregnancy termination. A similar bill, HR 392, has been introduced by Rep. Henry Waxman (D-CA), who chairs a House health panel.

A further ramification of the *Rust v. Sullivan* decision is that it might be applied to other government-funded programs where free inquiry, scholarship, and research are involved, making viewpoint discrimination legitimate when consistent with agencies' governing statutes. ALA is participating in an informal coalition with other groups to try to head off this possibility. □

### Library Program Grant Notice

The Department of Education has published a notice inviting applications for new awards for the discretionary grant programs under the Library Services and Construction Act and the Higher Education Act title II. Brief information is given below, but see the June 12 *Federal Register* (56 FR 27156-58) for more detail. □

**Table 4. Department of Education Library Programs**

Program	Application Available	Application Deadline	Contact*
LSCA IV, Indian library services, basic grants; special project grants	8/15/91 2/10/92	10/01/91 4/03/92	Beth Fine Beth Fine
LSCA V, foreign language materials acquisition	12/06/91	3/09/92	Linda Loeb Carol C. Lyons
LSCA VI, library literacy program	9/06/91	11/08/91	Carol C. Lyons Barbara Humes
HEA II-B, library career training fellowships	8/23/91	10/10/91	Yvonne Carter
HEA II-C, research library grants	8/19/91	10/28/91	Louise Sutherland Linda Loeb
HEA II-D, college library tech. and coop. grants	11/01/91	1/17/92	Neal Kaske
* For all contacts, please call 202-219-1315.			

**Grant Deadlines and Regs: Workplace Literacy**

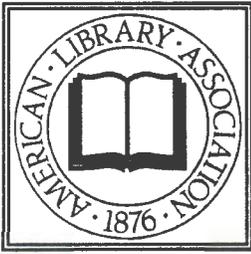
The Department of Education is inviting applications for grants under the National Workplace Literacy Program. Deadline, July 19. This program provides assistance for demonstration projects that teach literacy skills needed in the workplace through exemplary education partnerships between business, industry, or labor organizations and educational organizations. Partnerships must include at least one member from (a) a business, industry, or labor organization, or private industry council, and (b)

a state or local educational agency, institution of higher education, or school (including an area vocational school, an employment and training agency, or a community-based organization). An estimated 70 grants, ranging from \$50,000 to \$400,000, will be available. For a complete description and application package, see the June 4 *Federal Register*, pp. 25578-97. Further information: Nancy Smith Brooks (202-732-2269), or Sara Newcomb (202-732-2390). □

STATUS OF LEGISLATION OF INTEREST TO LIBRARIANS

102nd Congress, 1st Session Convened: January 3, 1991 Chart Date: June 27, 1991	House					Senate					Final Action		
	Introduced	Hear-ings	Rept. by Subc.	Comm. Rept. No.—H.Rept 102-	Floor Actn.	Introduced	Hear-ings	Rept. by Subc.	Comm. Rept. No.—S.Rept 102-	Floor Actn.	Conf. Rept.—H.Rept 102-	Final Pass.	Pub. Law—PL 102-
Abortion information	HR 392					S 323			86				
AMERICA 2000 Excellence in Education Act	HR 2460	•				S 1141	•						
Civil rights bills	HR 1	•		40	•	S 574							
Communications...Modernization Act	HR 2546					S 1200							
Congressional Budget Resolution, FY92	HConRes 121	•		32	•	SConRes 29	•		40	•	69	•	none
Copyright—federally funded software	HR 191												
Copyright—repeal five-year review	HR 1612					S 756	•						
Copyright—unpublished materials	HR 2372	•				S 1035							
Fairness Doctrine	HR 530					S 217	•						
Family and Medical Leave Act	HR 2		•			S 5	•		68				
Freedom of Information Act amendments	HR 1423												
Federal Ethics reform	HR 325					S 242	•		29				
Higher Education Act reauthorization		•				S 1150	•						
HEA amendments of '91 (admin. bill)						S 1246							
HEA II-B—Sarbanes' bill						S 1099							
LSCA VI—Sarbanes' bill						S 420							
Literacy bills	HR 751		•	23	•	S 2	•		43				
Medical Library Assistance Act reauthorization	HR 2507	•											
National Research and Education Network	HR 656	•	•	66		S 272	•		57				
NREN—Dept. of Energy bill						S 343	•		64				
Paperwork Reduction Act reauthorization						S 1044, 1139	•						
Privacy Act amendments of 1991	HR 2443												
Volunteer liability	HR 911					S 1343							
<b>Appropriations, FY 1992</b>													
Agriculture	HR 2698	•		119	•	HR 2698	•						
Commerce, State	HR 2608	•	•	106	•	HR 2608	•						
Interior and Related Agencies	HR 2686	•	•	116		HR 2686	•						
Labor-HHS-Education	HR 2707	•	•	121	•	HR 2707	•						
Legislative Branch	HR 2506	•	•	82	•	HR 2506	•		81				
Treasury, Postal Service	HR 2622	•	•	109	•	HR 2622	•	•					
VA, HUD, Independent Agencies	HR 2519	•	•	94	•	HR 2519	•						

For free copies of bills, reports, and laws, write: House Document Rm., B-18 Annex No. 2, Washington, DC 20515; Senate Document Rm., B-04 Hart, Washington, DC 20510.



## **ALA Washington Office Analysis NATIONAL RESEARCH AND EDUCATION NETWORK Status of Legislation as of June 6, 1991**

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June 1991

### **Committee-Reported NREN Bills *Analysis and Excerpts***

Three versions of the High-Performance Computing Act of 1991, which would create a National Research and Education Network, are out of committee and technically ready for floor action. However, the two Senate bills are expected to be merged before a floor vote.

S. 272 and HR 656 are very similar bills to establish a National High-Performance Computing Program and a National Research and Education Network. S. 343 also authorizes such a program and network, but concentrates on Department of Energy high-performance computing activities.

- S. 272, introduced by Sen. Albert Gore Jr. (D-TN). Ordered reported by Senate Commerce, Science, and Transportation Committee March 19, 1991. S. Rept. 102-57 issued May 16, 1991.
- HR 656, introduced by Rep. George Brown, Jr. (D-CA). Ordered reported by House Science, Space, and Technology Committee May 8, 1991. H. Rept. 102-66 Part 1 issued May 15, 1991.
- HR 656 referred to House Education and Labor Committee and ordered reported on May 16, 1991. H. Rept. 102-66 Part 2 issued May 22, 1991.
- S. 343, introduced by Sen. J. Bennett Johnston (D-LA). Ordered reported by Senate Energy and Natural Resources Committee May 9, 1991. S. Rept. 102-64 issued May 23, 1991.

#### **Library Interest**

S. 272 and HR 656 as reported include some improvements suggested by the American Library Association and the Association of Research Libraries in testimony and recommended amendments and report language, as well as some elements suggested by a Partnership for the NREN (20 education, library, and computing organizations, including ALA, ARL, the American Association of Law Libraries, the Chief Officers of State Library Agencies, the Coalition for Networked Information, EDUCOM, and the Special Libraries Association).

Improvements in one or both bills include NREN connections to all 50 states; libraries linked to the NREN as both access points for users and information service providers; additional references to education as a whole; collaboration with potential users, including libraries; the possibility of using the network as a dissemination vehicle for federal databases and information; and specifying library and information science in research, education, and training components. In addition, report language for one or both bills recognizes the role of libraries; calls for balancing the rights of copyright proprietors with rights of users, including provision for fair use; and says future planning should ensure low-cost, predictable network access for schools and libraries.

While many management and implementation issues are not spelled out in the legislation, the committee reports on the bills provide useful background on the NREN and illuminate congressional intent. Therefore, numerous excerpts are included in this analysis.

### Importance of NREN

Committee reports on all the bills include sections on the importance of high-performance computing and the benefits of high-speed computer networks. Excerpts follow.

In addition to providing links with large computer centers, such networks can carry electronic mail between individuals around the country, allowing researchers to exchange papers, data, and video images. The NREN also would allow researchers to retrieve huge volumes of data (e.g. satellite images) from data bases and to share their own data with others. A multi-gigabit network, like the NREN, would allow scientists and engineers to control and collect data from research facilities (e.g. particle accelerators and radio telescopes) from thousands of miles away, reducing the need for expensive, time-consuming travel. Furthermore, such a national high-speed network would allow researchers around the country to collaborate over the network as effectively as they could face-to-face, leading to the creation of what has been termed a National Collaboratory. [*P. 3, S. Rept. 102-57 on S. 272*]

There is more to high-performance computing than high-performance computers. To allow the scientific and technical community to tap the power of computers and to extract knowledge from enormous data bases requires the existence of a high-capacity, national data network. Such a network will remove geographical constraints on collaboration among scientists, on use of central facilities, such as supercomputers, and on access to specialized data bases. Although all future uses are not yet seen, the implications of a national high-capacity network are not limited to research and development....

Establishment of a national network will not involve the laying of wires and cables. Instead, it will consist of the development of a new generation of software and switches which will facilitate the transmission of data through existing fiber optic cables. The goal of the network is to achieve a dramatic increase in the speed at which data is transmitted from a current ceiling of approximately 1.5 million bits of information per second to more than one billion bits per second and to extend access from the universities, laboratories and hospitals

which are currently served by high-performance computer networks to any researcher with a personal computer. [*Pp. 7-8, H. Rept. 102-66, Part 1, on HR 656*]

Recently, some agencies have pooled funds to support a shared national backbone called the Internet to connect existing networks. The need to connect the users of the networks is the primary reason for the Internet. Just as telephones would be of little use if only a few people had them, a network's usefulness comes with the ability of each network to reach the desks, labs, and homes of its users. Networks expand access to computing resources, data and instruments and allow users to communicate with each other. The payoff comes from connecting people, information, and resources. [*P. 6, S. Rept. 102-64 on S. 343*]

### Management of HPC Program and NREN

The bills require the President to develop and implement a National High-Performance Computing Plan. S. 272 does this through the Federal Coordinating Council on Science, Engineering, and Technology. HR 656 anticipates that FCCSET would continue to be the forum for interagency planning and coordination, but does not mandate a FCCSET role. S. 343 leaves it up to the President to implement the program.

The bills authorize establishment of a National Research and Education Network. Under S. 272 and HR 656, the National Science Foundation will manage the NREN, although several agencies will have roles in such areas as research and development, software development, and technology development. The National Institute of Standards and Technology is charged with developing various standards, including standards for interoperability and common user interfaces. S. 343 does not designate a lead agency or specific agency roles, but provides that the Department of Energy or other federal or nonfederal networks may connect to the network "in a way that allows autonomy within each component network..."

In S. 272, FCCSET is to establish a mechanism to coordinate deployment of the NREN and to oversee operation and evolution, including determining conditions for access to the NREN. S. Rept. 102-57 adds that the "management structure of the Internet continues to evolve and will change as more participants, especially from the private sector, become involved." In HR 656, the HPC Program is to estab-

lish (through interagency consensus mechanisms and incorporating advisory panel views) policies for management and access to the NREN, provide oversight for NREN operation, and ensure connectivity among federal computer networks. NSF is to manage the NREN following this policy guidance.

### Administration Views

The bills have adopted goals and strategies for the program that are roughly in line with proposals from the Administration, as reported by the Office of Science and Technology Policy and proposed in the President's FY '92 budget. Some of the activities mandated by the bills are already underway. However, legislation would assure a five-year commitment, and provide direction and mandates.

The Administration believes that separate legislation is unnecessary, and has made known its concerns with pending bills. In April, the Office of Science and Technology Policy indicated that legislation should not include detailed specifications of the functions of the HPC Program or the assignment of agency responsibilities, and that it should not mandate a specific interagency coordination process. As a result, the House Science, Space, and Technology Committee removed most specific agency roles in HR 656 and put the director of OSTP in charge of coordination, but kept NSF as the lead agency to manage the NREN. Administration concerns will also affect the ongoing negotiations to merge S. 272 and S. 343.

### Authorization Levels

To fund development of the network and high-performance computing research, S. 272 authorizes about \$1 billion over five years (FY 1992-96) for the National Science Foundation, the National Aeronautics and Space Administration, and the National Institute of Standards and Technology. In addition to these agencies, HR 656 adds the Environmental Protection Agency, the Department of Energy, and the Department of Education, and authorizes about \$2.9 billion over five years. S. 343 authorizes "such funds as may be necessary" over the five-year period for the Department of Energy.

### Agencies Participating

The annual report on the HPC Program is to include the relevant programs and activities of specified federal agencies and departments. The list in S. 272 includes the National Science Foundation, the Department of Commerce (particularly the National Institute of Standards and Technology, the Nation-

al Oceanic and Atmospheric Administration, and the National Telecommunications and Information Administration), the National Aeronautics and Space Administration, the Department of Defense (particularly the Defense Advanced Research Projects Agency), the Department of Energy, the Department of Health and Human Services (particularly the National Institutes of Health and the National Library of Medicine), the Department of the Interior (particularly the U.S. Geological Survey), the Department of Education, the Department of Agriculture (particularly the National Agricultural Library), the Library of Congress, and other appropriate agencies and departments. HR 656 added the Environmental Protection Agency, but dropped references to the Education Department, LC, and NAL. However, the Education and Labor Committee restored an Education Department role.

### Department of Education Role

The Department of Education has a role to play in the HPC Program in educating computer and computational scientists, in training users of high-performance computing, and in developing and promoting the use of educational applications of high-performance computing, especially high-speed computing. In particular, the Committee encourages the Department of Education, through its library programs, to initiate and fund projects that promote linkages between existing library and information science networks and the NREN. The benefits of this enhanced resource sharing among the networks are: improved end-user document delivery; improved interlibrary resource-sharing and electronic interlibrary loans; and improved communication between users on the NREN and users outside the NREN. [*P. 19, S. Rept. 102-57 on S. 272*]

The Committee on Education and Labor was provided sequential referral of H.R. 656 because of the legislation's potential impact on education. During the bill's earlier consideration by the Committee on Science, Space and Technology, a number of useful provisions were included which will permit the participation of education institutions at all levels and of libraries in the National Research and Education Network. Our Committee reinforces the important role of these institutions.

The long-term application of the Network to classroom education may not be decided for years to come. However, it is extremely impor-

tant that this goal be an integral objective of the Program and Network from day one. Much research, planning and thought must be undertaken to make computers an effective, integral part of education in the classroom. The Committee urges sensitivity on the part of the planners of the Network toward that objective.

During its consideration of H.R. 656, the Committee on Education and Labor adopted three amendments to the Science, Space and Technology Committee reported bill. The first amendment includes "educators" among those who would be able to receive information services over the network established by the bill. The second amendment permits Department of Education research grant recipients to use grant funds to pay for computer networking expenses associated with the Program. The third amendment provides the Secretary of Education the authority to undertake a research program (\$1.5 million authorized in FY 1992) in the use of computational sciences by libraries, school facilities and education research groups. These amendments will further enhance the ability of educators and librarians to participate in the benefits which will be provided through the National Research and Education Network. [*Pp. 2-3, H. Rept. 102-66, Part 2, on HR 656*]

### National Libraries

National libraries, like the Library of Congress, the NLM, and the National Agricultural Library, have long been at the leading edge of automation of library functions, creation and standardization of bibliographic and information data bases, and electronic transmittal of information about their holdings to libraries across the country via library networks. The National Agricultural Library, the Library of Congress, and the NLM are now experimenting with electronic formats for entire portions of their collections and exploring uses of the Internet. The advent of the NREN will permit new opportunities for the research and scholarly communities to benefit from these information resources in performing research and in the creation of new knowledge that will improve the U.S. economic competitiveness. [*P. 20, S. Rept. 102-57 on S. 272*]

The Committee is particularly interested in the work being done at the NLM and elsewhere

to use national computer networks for the sharing of biomedical research information. For instance, the NLM's Medline system provides references and abstracts from the medical literature to doctors throughout the country, providing an invaluable service, especially to doctors in rural areas far from major libraries.

...it is envisioned that within the Department of Health and Human Services, NIH and the NLM will establish the appropriate mechanisms to ensure the development of a biomedical component of the NREN and promote and facilitate the use of the NREN by the biomedical research community. [*Pp. 18-19, S. Rept. 102-57 on S. 272*]

### Access to NREN

Both S. 272 and HR 656 provide that the NREN "shall link research and educational institutions, government, and industry, in every State." In almost identical language, the bills add that federal agencies are to "work with State and local agencies, libraries, educational institutions and organizations, and private network service providers" to ensure that researchers, educators, and students have access to the Network. Furthermore, both bills state that, to the extent practicable, the NREN is to provide access "to electronic information resources maintained by libraries, research facilities, publishers, and affiliated organizations." S. Rept. 102-57 adds: "Access policies clearly would be determined by whoever owns or controls such resources." S. 272 goes on to say that within the federal government, "the National Science Foundation shall have primary responsibility for connecting colleges, universities, and libraries to the Network."

In the future, high-performance computing will be utilized increasingly by the education and library communities. Supercomputers can store and sort through huge quantities of data, and with optical disk storage systems it is possible to store entire libraries of information electronically and retrieve them in seconds. The Library of Congress and other libraries are starting to develop the technology needed for "digital libraries" of books, journals, images, music, and videos—all stored in digital form and accessible over computer networks. The high-performance computing hardware and software developed pursuant to S. 272 as reported would facilitate creation of such digital libraries, and the NREN would provide

easy access to them. [Pp. 6-7, S. Rept. 102-57 on S. 272]

...Because of the importance of telecommunications to rural areas, it is essential that the NREN extend to colleges and universities in less-populated areas so that these areas can develop the infrastructure and expertise needed to reap all the benefits of high-speed networking. Although it will be several years before fiber optic cable is laid in many rural areas, satellite communications technology like that developed for NASA's Advanced Communications Technology Satellite (ACTS) and other systems could be used to provide high-speed communications links to the NREN in the interim. [P. 7, S. Rept. 102-57 on S. 272]

NREN must be implemented to link research institutions and educational institutions, government, and industry in every state and to provide broad access to researchers, educators and students. The NREN is required to provide users with access to high-performance computing systems, computer data bases, other research facilities and libraries. In general, the Committee intends that NREN provide broadly available access to users and provide for users a wide range of information services, as described in section 6(e) of the amendment. [P. 14, H. Rept. 102-66, Part 1, on HR 656]

Section 6(b) requires broad access by researchers, educators, and students to NREN and requires NREN to provide access for users to computers and other research facilities, data bases, and libraries. Also, to the extent practicable, NREN is required to provide access to information resources maintained by libraries, research facilities, publishers, and affiliated organizations. [P. 16, H. Rept. 102-66, Part 1, on HR 656]

The Committee would like to emphasize that all States and U.S. territories are eligible to participate in the National Research and Education Network as described in Section 6 of the bill, whether or not they are physically contiguous with the continental U.S.

In addition, the Committee wants to ensure that rural colleges, researchers, and students have equal access to high-performance computer networks and to this Act's programs.

Therefore, we request the General Accounting Office (GAO) to conduct a study on the accessibility of high-performance computer networks at colleges, schools and libraries in rural areas. For the purposes of this study, we suggest the GAO examine these institutions located in communities with a population of less than 20,000. [P. 3, H. Rept. 102-66, Part 2, on HR 656]

The NREN will provide network access to research and educational institutions at all levels and locations. NREN will be able to interconnect the Nation's educational infrastructure to its knowledge and information centers. Elementary schools, high schools, 2- and 4-year colleges and universities will be able to link together with research centers and laboratories. They will all be able to share access to libraries, databases, and diverse scientific instruments such as supercomputers, telescopes, and particle accelerators. [P. 10, S. Rept. 102-64 on S. 343]

#### Input from Nonfederal Parties

In S. 272, the network is to "be designed, developed, and operated in collaboration with potential users in government, industry, and the education community." S. Rept. 102-57 adds that this includes "researchers, librarians, educators, and information services providers."

HR 656 requires the OSTP Director to "establish a High-Performance Computing Advisory Panel consisting of non-Federal members, including representatives of the research, education, and library communities, network providers, and industry, who are specially qualified to provide the Director with advice and information in high-performance computing. The Director shall consider the recommendations of the Panel in reviewing and revising the Program."

The Committee affirms the importance of obtaining a broad based consensus for the development and implementation of the HPC Program. Membership of the Panel, which includes representatives from the research, education and library communities, and network providers, will ensure that a wide range of views are obtained. The Committee interprets "library communities" to include university, state, regional or local libraries...

...The Committee expects the Director to introduce the views of the Panel into the

interagency deliberations regarding the HPC Program. The role of the Panel will strengthen the relationship between the policy makers and the user/provider communities, foster cooperation, and assist in the rapid development of a user friendly national network. [Pp. 21-22, H. Rept. 102-66, Part 1, on HR 656]

Section 5(a) stipulates that the NREN be designed in collaboration with all potential users of the NREN. Potential users of the NREN include the computer and telecommunication industries, the education community, researchers, librarians, Federal agencies and information service providers. A number of potential users of the NREN have expressed concern that they lack a voice in the design and operation of the NREN. This stems from the fact that the Federal Network Council does not have any representatives from outside the Federal Government. The only input the Council receives comes from the advisory body which does not contain representatives from all of the potential constituencies of the NREN. While many of the users of the NREN are known today, not all are. So, rather than specify who is to help in the design and operation, the amendment simply directs that all potential users be represented. However, the requirement is only generic in nature. It does not require every potential user to be consulted, only appropriate representatives of the various types of potential users need to be consulted.

The Federal Network Council is a body that will likely evolve. It is the understanding of the Committee that at some point in the future the Council will evolve into a body having direct representation from all of the NREN constituencies rather than just being a Federal body. So, the constituencies currently only having input through the advisory body will have a more direct voice in the operation of the NREN. The amendment gives the President the authority to create such a Council or any other management entity the President believes necessary to create and operate the NREN. One very important reason that each of the constituencies be represented is that many of them will be providing part of the networking services that form the NREN. [P. 14, S. Rept. 102-64 on S. 343]

### Commercialization

S. 272 specifies that "the Network shall be phased into commercial operation as commercial networks can meet the networking needs of American researchers and educators." A report is due to Congress within a year of enactment on "plans for the eventual commercialization of the Network." HR 656 dropped these provisions, but both S. 272 and HR 656 have similar language regarding working closely with industry and fostering competition.

Subsection (d) [of section 5] requires that the NREN be established in a manner that fosters and maintains competition within the telecommunications industry and promotes the deployment of interconnected high-speed data networks by the private sector. Accordingly, to the maximum extent practicable, operating facilities for the NREN should be procured on a competitive basis from private industry, and the NREN shall be phased into commercial operation as commercial networks can meet the networking needs of American researchers and educators. In addition, the agencies deploying the NREN are to promote research and development leading to deployment of commercial data communications and telecommunications standards.

One way to meet the goals enumerated in subsections (c) and (d) is to develop and operate the NREN in much the same way as NSFNET, which is a national computer network connecting the four NSF supercomputer centers and over 500 colleges and universities. NSF funds the high-speed (1.5 million bits per second), interstate NSFNET "backbone" which connects the supercomputer centers and other facilities. Regional networks, both private and nonprofit, connect the backbone to individual colleges and universities which in turn have their own local campus networks. The NSFNET backbone is managed by ANS, Advanced Networks and Services, a not-for-profit corporation created by MCI Telecommunications, IBM, and MERIT, a consortium of Michigan universities. ANS provides fiber optic telephone lines and computer hardware as well as technical expertise. This kind of industry-government-academia partnership provides for the rapid development of networking technology and its rapid dissemination. [P. 22, S. Rept. 102-57 on S. 272]

The establishment of NREN will require a joint effort by the Federal Government and the private sector. Further, the Committee expects NREN to evolve so that the role of the private sector increases. The Committee expects the establishment of NREN to be achieved through the purchase of telecommunications services from commercial vendors in a manner similar to that of predecessor networks, such as NSFNET and ARPANET. The bill requires that the process for deploying NREN maintain and encourage competition and private sector investment in high-speed data networking within the telecommunications industry. Also, the bill expressly limits to research and development purposes the purchase of switches, optical fiber, or any other networking hardware by the Federal Government in support of the NREN. The installation of local area networks at federal facilities is not prohibited. [P. 22, H. Rept. 102-66, Part 1, on HR 656]

The intent of the amendment is to accelerate the development of networks by the private sector and not replace private sector functions. Section 5(e) and (f) accomplish this. Section 5(e) requires that commercial network services be purchased whenever feasible. Section 5(f) stipulates that the NREN be designed in a manner that fosters competition and private sector investment. Only when standard commercial services are inadequate should customized services be contracted for. Even then, the private sector can often meet these customized needs. However, if private sector services are inadequate, the amendment in no way precludes agencies from designing and operating portions of the NREN themselves. The amendment simply requires that the private sector be used as much as possible in designing and operating the NREN. [Pp. 14-15, S. Rept. 102-64 on S. 343]

#### **Fees for Maintenance and Use**

"To encourage use of the Network by commercial information and network service providers," S. 272 provides that "where technically feasible, the Network shall have accounting mechanisms which allow, where appropriate, users or groups of users to be charged for their usage of the Network and copyrighted materials available over the Network." S. 272 also requires reports to Congress within a year of enactment on "effective mechanisms for providing

operating funds for the maintenance and use of the Network, including user fees, industry support, and continued Federal investment;...how commercial information service providers could be charged for access to the Network;...how Network users could be charged for such commercial information services..."

An important aspect of the planning process for NREN is to devise effective mechanisms for providing operating funds for maintenance and use of NREN. The Committee expects attention to be given to developing accounting schemes to allow NREN users to be charged, where appropriate and technically feasible. In formulating possible charging policies, consideration should be given to the importance of maintaining access to NREN for research and education purposes by users who may not be recipients of Federal research grants or contracts. Therefore, provision for low-cost, predictable network access should be included in the future evolution of NREN to ensure that, for example, schools and libraries are not excluded. [Pp. 22-23, H. Rept. 102-66, Part 1, on HR 656]

#### **Grant Funds for Networking Expenses**

S. 272 and HR 656 authorize specific agencies to allow federal research grant funds to be used to pay for computer networking expenses. Agencies specified are NSF, NASA, EPA, and the Departments of Energy, Defense, Commerce, Interior, Agriculture, and Health and Human Services. HR 656 adds the Department of Education, and S. 272 includes "other agencies as appropriate."

...appropriate agencies are authorized...to allow recipients of Federal research grants to pay for computer networking expenses. Currently, most Federal agencies forbid grant recipients from using grant money for any type of telecommunications expenses. Providing funding for computer networking would increase the productivity of researchers, who are increasingly dependent upon computers and computer networks to manipulate, search, store, and share their data. [Pp. 23-24, S. Rept. 102-57 on S. 272]

#### **Privacy and Security**

Computer systems used to process classified information are exempt from the provisions of all the

bills. In general, the bills require the NREN to be designed and operated in a manner that ensures continued application of laws related to security and privacy. S. 272 requires a report to Congress within a year of enactment on "appropriate policies to ensure the security of resources available on the Network and to protect the privacy of users of networks." HR 656 requires the HPC Program to address security issues to protect national networks and information resources available through networks, and define and implement a security plan.

### Federal Databases

In S. 272, the HPC Plan is to identify how agencies and departments can collaborate to "distribute Federal agency data bases and information." Similar language in HR 656 was dropped at the full committee level.

While S. 272 will provide for new mechanisms for improving the dissemination of data bases of Federal Government information, this legislation does not change Federal information dissemination policies. The legislation neither requires nor forbids any agency to develop or disseminate to the public any particular information products or service. Information policy statutes, regulations, and directives continue to govern the objectives, procedures, and conditions of information dissemination by agencies and departments. [Pp. 24-25, S. Rept. 102-57 on S. 272]

The OSTP Director is charged in the bill with coordinating the activities of federal agencies and departments in promoting the development of information services that could be provided by NREN. The intention is that both federally generated, unclassified data bases, as well as data bases and services from private sector sources be included....

The types of unclassified federal data bases available on NREN are not specified in the bill except for scientific data bases, which in general are intended to be accessible. The bill neither requires nor forbids any agency or department to develop or disseminate to the public any particular information product or service. The Committee expects information services to be provided by agencies in accordance with applicable federal statutes, regulations and directives governing information dissemination activities. [Pp. 23-24, H. Rept.

102-66, Part 1, on HR 656]

### Information Services

Under both S. 272 and HR 656, NSF is to promote development of information services that could be provided over the NREN. The almost identical language says that these services include, but are not limited to, provision of directories of users and services on computer networks, databases of unclassified federal data (HR 656 says "scientific data"), training of users of databases and networks, access to commercial information services, and technology to support computer-based collaboration.

...NSF also is to promote development of information services that could be provided over the NREN. NSF will help provide access to "digital libraries" of video programming, books and journals stored in electronic form, and other computer data. NSF can provide access to the NREN for commercial and non-profit information service providers and to other Federal agencies which maintain electronic data bases. Thus, NREN users will have access to commercial information services like Lexus-Nexis and Dialog, with appropriate mechanisms for charging customers of these services. [P. 24, S. Rept. 102-57 on S. 272]

### Copyright Protection

To encourage use of the NREN by commercial information and network service providers, mechanisms for charging for the use of copyrighted material available over the NREN are to be implemented, where technically feasible. These mechanisms should be developed and implemented in collaboration with private-sector information providers, as soon as possible. They need not (and, preferably, should not) await completion of the OSTP Director's report on commercial access, copyright and related issues....These mechanisms should not be implemented without due consideration of both the rights of authors and the rights of users of copyrighted material, and specifically, of the fair use of copyrighted works for teaching, scholarship, or research. The institution of charging mechanisms will be technically difficult when gigabit networking technology is in its infancy, but the inability to install such mechanisms should not delay the deployment of a gigabit network. [P. 22, S. Rept. 102-57 on S. 272]

The bill also requires that NREN have accounting mechanisms to allow charging for use of copyrighted materials. The Committee stresses the importance of protection of copyright in order to attract data base publishers and other private sector information providers to make products and services available on NREN. The Committee expects copyright protections for authors and publishers to be balanced with the rights of users of copyrighted material, including provision for fair use of copyrighted works for teaching, scholarship or research. [P. 23, H. Rept. 102-66, Part 1, on HR 656]

### Librarians

The Committee notes the important role libraries play in assisting users with access to information and observes that the skills of librarians in organizing and finding information will be important for ensuring that students, small businesses, independent researchers and others are able to access resources on NREN. The Committee strongly encourages the agencies participating in the HPC Program to include libraries in plans for information dissemination on NREN, particularly as access points to NREN and in demonstration projects for providing information resources. [P. 24, H. Rept. 102-66, Part 1, on HR 656]

### Education and Training

In S. 272, the HPC Plan is to identify how agencies and departments can collaborate to "provide for educating and training additional undergraduate and graduate students in software engineering, computer science, library and information science, and computational science." Similar language in HR 656 was dropped at the full committee level.

...NSF shall expand its traditional role in supporting basic research in universities and colleges, and in training scientists and engineers in computer science, computational science, library and information sciences, and electrical engineering. [P. 24, S. Rept. 102-57 on S. 272]

NSF also is to provide for orientation and training of users of networks and data bases, by providing training software on networks and by providing experts to guide and teach users of networks. While this legislation does not provide the funding needed to create, upgrade, or maintain electronic data bases, it will fund the development of the technology and standards needed to build and improve such data bases and make them more accessible and easy-to-use. [P. 24, S. Rept. 102-57 on S. 272]

