

economy. It would provide assistance so that the states, for example, would not be required to cut back their ongoing operations just when the federal government is trying to stimulate the economy through tax cuts and expenditure increases. The bill has been marked up in the subcommittee but no action has occurred in the full committee. Further action is likely later in the summer.

On the House side, Rep. L.H. Fountain (D-NC), chairman of the Government Operations Committee's Subcommittee on Intergovernmental Relations and Human Resources, plans to hold hearings in July to develop background information on "Fiscal Relations and the American Federal System." General revenue sharing and counter-cyclical assistance will be considered in the course of these hearings. See also section on REVENUE SHARING.

Japan-US Friendship Act

On June 13, the Senate passed by voice vote and sent to the House Committee on International Affairs a bill (S.824) that would provide for the use of certain funds to promote scholarly, cultural, and artistic activities between Japan and the United States. The measure, introduced February 25 by Sen. Jacob Javits (R-NY) with strong bipartisan cosponsorship, would create a trust fund with some of the proceeds from the Okinawa Reversion Agreement of 1971 and funds available in U.S. accounts in Japan which would be used for such purposes as support for major collections of Japanese books and libraries at U.S. colleges and universities located throughout the U.S. and support for studies including language studies in institutions of higher education or scholarly research in Japan and the U.S. designed to foster mutual understanding between the two countries. The Senate also passed this bill in the 93rd Congress, but no action occurred on the House side.

LSCA Regulations

In compliance with the Education Amendments of 1974 (PL 93-380) which added the requirement that a priority in funding under the Library Services and Construction Act must be given to areas with a high concentration of persons with limited English-speaking ability, the U.S. Office of Education issued proposed changes to the LSCA regulations in the March 20 Federal Register (p. 12671). Following a period for public comment, the regulation was published in final form in the June 12, 1975 Federal Register on p. 25013, along with a list of suggested sources the states might use to identify those individuals who were not born in the United States or whose native language is other than English, as well as individuals who come from an environment where a language other than English is dominant. The sources listed are: (1) census data on specific states in the 1970 Census of Population; (2) maps from the Geography Division, Bureau of the Census, 1970 - with states and counties color-coded to show minorities and ethnic groups by county; (3) bilingual data from state and local educational statistics; (4) bilingual data from state and local service agencies; and (5) the "Directory of Public Elementary and Secondary Schools in Selected Districts, Enrollment and Staff by Racial/Ethnic Groups," Fall 1972, DHEW Office of Civil Rights, OCR 74-5.

National Institute of Education

HR 5988, the administration's bill to extend the authorization for the National Institute of Education, was introduced on April 15 by Rep. John Brademas and 23 bipartisan co-sponsors at the request of the administration. S. 1498, the identical measure, was introduced in the Senate by Sen. J. Glenn Beall (R-Md.). Among priorities that would be established by the bill is improved dissemination to help make more effective the application of the results of educational research and development. The Education and Labor Committee, to which this bill was referred, plans to undertake a study of NIE in connection with its consideration of legislation to extend it. NIE was established by the Education Amendments of 1972 (PL 92-318) and was authorized to spend up to \$550 million over three years. Congressional appropriations have been far beneath the authorized ceiling. For example, in FY 1975 Congress voted to appropriate only \$70 million for NIE although the administration had requested \$134,500,000 for NIE that year.

Postal Rates

On July 6, 1975, the cost of postage goes up again, not for first class, but for both the library rate and the special fourth-class book rate. The Library rate, now 6¢ for the first pound and 3¢ for each additional pound, will become 7¢ for the first and 3¢ for succeeding pounds. The fourth-class book rate, now 18¢ for the first and 8¢ for additional, becomes 19¢ for the first pound and 9¢ for succeeding pounds.

Meanwhile, the Postal Rate Commission is deep into the proceedings of its second rate case which began in September 1973 when the U.S. Postal Service submitted requests for rate increases affecting all classes of mail. When finally concluded, perhaps later this summer or fall, postal rates will be in for even greater increases. The proceeding took a drastic turn on May 28, when the Commission's chief administrative law judge announced a recommended increase that would raise the book rate over a period of years to 40¢ for the first pound and 20¢ for each additional pound, which amounts to a 120 percent increase over the present first pound rate and 150 percent increase over the present additional pound rate. The judge recommended that the library rate be increased over a period of years to 29¢ for the first and 14¢ for each additional pound, which amounts to a 383 percent increase for the first pound rate and 363 percent for the additional pound rate, over the present first and succeeding pound rates.

The judge's recommendations are not final, and already ALA, the Association of American Publishers and others have filed statements with the Postal Rate Commission in strong opposition to the judge's initial decision. Among other things, if his decision were allowed to stand, it would cost a library 60¢ for postage alone to receive a 1½ pound book by mail from a publisher, and it would cost 43¢ for one library to send a 1½ pound book to another library or to a patron.

The next step is for the Postal Rate Commission to make its own recommendations on rate increases. In the first proceeding, the Commission turned down some of its law judge's recommended increases, but it recommended higher rates in other instances than had the judge. Once the Postal Rate Commission makes its recommendations in this proceeding, the matter will come before the Governors of the Postal Service. All of this will take a number of weeks or months. But one thing is clear: higher postal rates are in the offing.

Librarians in all types of libraries are urged to start keeping records of how much money is being spent for each class of postage. While this is bound to be time-consuming and laborious, it is extremely important that we begin to document specifically how continually rising postal costs are affecting library service in all parts of the country. Your help is urgently sought in keeping these records.

The House Postal Service Subcommittee, chaired by Rep. James Hanley (D-NY), began markup in mid-June of HR 2445, a bill sponsored by chairman Hanley that would, among other things, create a federal subsidy to the Postal Service in recognition of its public service functions. ALA testified in support of this bill a year ago and recommended additional amendments to strengthen it. Further subcommittee markup sessions are scheduled for early July. At this time, a bill sponsored by Rep. William Ford (D-Mich.), to clarify existing law with respect to second class mailing of college bulletins and catalogs and looseleaf publications, may also be considered by the Subcommittee.

Upon introduction of his bill June 19 (HR 7735), Mr. Ford who is a member of the Hanley Subcommittee noted that such publications have been routinely accepted as second class for many years. "In a reversal of long-accepted policy, however, the Postal Service has begun administrative proceedings, to revoke these privileges because college bulletins and catalogs and looseleaf publications, it claims, are not 'newspapers and other periodical publications' covered by second class." Sen. Thomas Eagleton (D-Mo.) introduced on June 25 a companion bill assuring continued second class mailing of college catalogues. His measure (S. 2015) has the bipartisan support of 29 cosponsors.

Privacy

The Privacy Act of 1974 (PL 93-579) requires federal agencies to publish in the Federal Register rules to implement the overall purposes of the act -- which is designed to permit an individual to determine what records pertaining to him are collected by federal agencies and to permit him to prevent such records from being used or made available for another purpose without his consent -- and (2) various notices, describing the systems of records they keep.

On June 19, the Office of the Federal Register issued a document entitled "Publication Guidelines for the Privacy Act of 1974," to assist federal agencies in complying with the publication requirements of the Act. See June 19, 1975 Federal Register (pp. 25988-26013) for details. The Privacy Act takes effect for the first time on September 27, 1975.

The 7-member Privacy Protection Study Commission, also authorized by the 1974 Privacy Act, was finally constituted on June 10 when President Ford announced his 3 appointments to the Commission. The other 4 members had already been appointed by the Speaker of the House and the President Pro Tempore of the Senate. Among other things, this Commission, which scheduled its first meeting for June 23, is to make a study of data-banks, automated data processing programs, and information systems of governmental, regional and private organizations in order to determine the standards and procedures in force for the protection of personal privacy while meeting the legitimate needs of government and society for information.

Public Broadcasting

Similar bills that would both authorize and appropriate funds for the Corporation for Public Broadcasting are now pending before the House and Senate Appropriations Committees (HR 6461 and S. 893), having been favorably reported respectively from the House Committee on Interstate and Foreign Commerce and the Senate Committee on Commerce.

The measures would provide authorization-appropriation ceilings starting at \$88 million for FY 1976 and increasing annually to \$160 million for FY 1980, with the amount appropriated in any given year tied to the amount of non-federal financial support received by the Corporation, stations, and other public broadcasting entities from state and local governmental and private sources. The federal appropriation would increase only as nationwide non-federal support grows for public broadcasting. The Corporation would be required to distribute from 40 to 50 percent of its annual appropriation directly to on-the-air noncommercial educational broadcasting stations (radio and television) for their programming, operation, and maintenance.

Both House and Senate bills would also authorize the Corporation for Public Broadcasting to engage in the development and use of non-broadcast communications technologies such as cable television and communications satellites for the distribution and dissemination of educational radio and television programs.

The House Committee on Interstate and Foreign Commerce, in its report on HR 6461 (H.Rept. 94-245 part 1), "recommends that the CPB carefully evaluate the report on Public Broadcasting and Education which has been submitted to it by the Advisory Council of National Organizations and seriously consider implementing appropriate recommendations, especially in the areas of early childhood and adult education." Librarians, too, will be interested in this 114-page book which was published in March 1975 and is available for \$1.50 from the Corporation for Public Broadcasting, 1111 16th Street, N.W., Washington, D.C. 20036. The American Library Association is a member of the CPB's Advisory Council of National Organizations, and served as a consultant to the adult education task force that helped to develop this report.

Public Service Employment (CETA VI), and Unemployment Assistance

Congress is now working to extend through FY 1976 the Emergency Jobs Program authorized by title VI of the Comprehensive Employment and Training Act (CETA VI). This program was enacted December 31, 1974 (PL 93-567) to combat growing national unemployment by creating transitional public service employment. It was an emergency one-year measure with \$2.5 billion authorized for the program in FY 1975.

With the Act due to expire June 30, 1975 (although there is money in the pipeline to continue the jobs program for the time being), the House Subcommittee on Manpower, Compensation, and Health and Safety, after 9 days of hearings, marked up on June 19 HR 2584 which is now awaiting further action in the full Education and Labor Committee. As approved by the subcommittee, the bill would extend CETA title VI through FY 1976 and authorize \$5 billion for the program.

Several substantive changes to the present program are recommended by the subcommittee. Among other things, private nonprofit organizations offering public services, local school boards, and other units of local government would be eligible employers of title VI employees, and potential employers would be required to compete for the manpower funds. This process was designed by the subcommittee to cut down on the political patronage that has accompanied the CETA VI programs in some areas. The subcommittee bill would require each prime sponsor to establish an advisory committee to evaluate applications submitted by a wide range of potential employers. The measure would also increase the present \$10,000 salary limitation to \$12,000 for up to one-third of the CETA VI employees in any given prime sponsor area. The existing salary limitation would apply to the remaining two-thirds.

On the Senate side, a number of bills have been introduced to extend CETA title VI, (S. 1695, S. 609, S. 767), and hearings have been concluded in the Subcommittee on Employment, Poverty, and Migratory Labor chaired by Sen. Gaylord Nelson (D-Wis.). Subcommittee mark-up of the legislation is expected during the month of July.

Both House and Senate have passed legislation (HR 6900) amending and extending two programs enacted by Congress last December to deal with the unemployment crisis: (1) the supplemental benefits program to aid the long-term unemployed who had exhausted their entitlements under the regular unemployment compensation program; and (2) the Special Unemployment Assistance program (SUA) (PL 93-567), which provides unemployment assistance benefits for workers who are not protected by any existing federal or state unemployment compensation. Conferees are expected to resolve differences between the two versions of HR 6900 either just before or after the July 4 recess.

Public Works

On May 20, the House passed by a vote of 313-86 the Local Public Works Capital Development and Investment Act of 1975 (HR 5247), which would authorize \$5 billion for local public works projects. Priority would be given to projects that can be started without delay in areas of high unemployment. Libraries are specifically cited in the committee report accompanying the bill (H.Rept. 94-203) as projects that would be eligible for funding under the measure. ALA in testimony submitted to the House Public Works and Transportation Committee supporting the bill had requested "that the Committee report explicitly state the eligibility of public libraries. This is essential because of a tendency on the part of the federal bureaucracy to narrowly define such terms as 'public facilities' to exclude public libraries. For example, much time and effort were recently required on the part of communities throughout the country as well as Members of Congress," ALA told the committee, "to correct community development block grant regulations which have erroneously excluded public libraries."

The Senate Public Works Subcommittee on Economic Development, chaired by Sen. Joseph Montoya (D-NM) held hearings on the House-passed bill in May along with S. 1587, a bill sponsored by Sen. Montoya that would provide increased authorizations for the Public Works and Economic Development Act and add new authorizations to PWEDA to increase the federal share for federally-assisted projects which can have immediate impact on economic activity. Subcommittee markup of S. 1587 was completed June 19 and the measure is now pending in the full Public Works Committee where further action is not expected until after the July 4 congressional recess. (See section on INTERGOVERNMENTAL RELATIONS for another approach to unemployment and recession being developed in the Government Operations Committee.

Revenue Sharing

On April 28, President Ford transmitted to Congress the proposed State and Local Fiscal Assistance Act Amendments of 1975 (H.Doc. 94-117), his recommendations for amendments to and extension of the general revenue sharing program which expires on December 31, 1976. "I strongly recommend," the President said, "that the Congress act to continue this highly successful and important new element of American Federalism well in advance of the expiration date, in order that State and local governments can make sound fiscal plans." President Ford went on to say that the general revenue sharing "program has been a resounding success." Since its enactment, he noted, general revenue sharing has provided nearly \$19 billion to 50 states and some 39,000 local governments -- "money which these governments could use as they saw fit to meet their priority needs."

The administration bill was then introduced in the House (HR 6558) by Rep. L.H. Fountain (D-NC), chairman of the Government Operations Subcommittee on Intergovernmental Relations and Human Resources which has jurisdiction over general revenue sharing; and in the Senate (S. 1625) by Senator William Hathaway (D-Me.), chairman of the Senate Finance Committee's Subcommittee on Revenue Sharing. In general, it would continue revenue sharing as it now exists, authorizing the program through September 30, 1982, and continuing the \$150 million annual increase provided in the existing law. From January 1, 1977 through September 30, 1982, the Ford proposal would authorize \$39.85 billion in general revenue sharing. This compares with \$30.2 billion authorized for the first 5 years of the program.

Sen. Hathaway's subcommittee held hearings on operating experiences under the general revenue sharing program in mid-May, and plans to hold additional hearings later. Upon introduction of the administration bill, Sen. Hathaway noted his opinion that "it is too early to draw a final conclusion about the advisability of renewing this program, or about what form that renewal should take. Although in the eyes of most local officials the program appears to be a success, the hearings we have already held before the Finance Committee's Subcommittee on Revenue Sharing have shown that many of those outside of local government circles were somewhat less than effusive in their praise of revenue sharing. I feel we need more hearings from a somewhat broader spectrum of witnesses before we can decide what should be done with this program."

Rep. Fountain's subcommittee has scheduled general background hearings for July to consider the topic of fiscal relations and the American federal system. Both general revenue sharing and counter-cyclical assistance will be considered in the course of these hearings which will not be focused on specific bills but upon broad issues. (See section on INTERGOVERNMENTAL RELATIONS for more information on counter-cyclical assistance.)

The Joint Economic Committee's Subcommittee for Fiscal Policy, chaired by Rep. Richard Bolling (D-Mo.) has also pursued the subject of revenue sharing. Hearings were held on June 24 and 25 to focus on evaluations of the present distribution formula of the State and Local Fiscal Assistance Act and on suggested alternatives. In announcing these hearings Rep. Bolling stated: "While there are many important issues related to the general revenue sharing program, none will receive or warrant as much consideration as the distribution formula. The question of which jurisdictions should be eligible, what criteria

should be used in allocating the funds and what incentives should be incorporated in the formula are central to the efficacy of the program."

In summary, while there is congressional action and considerable talk on revenue sharing, neither House nor Senate has taken systematic action to amend and extend the State and Local Fiscal Assistance Act.

The U.S. Office of Revenue Sharing recently published two pamphlets which provide some information on libraries and general revenue sharing. The first, dated February 1975, is entitled General Revenue Sharing: Reported Uses 1973-1974: A Tabulation and Analysis of Data from Actual Use Report 4. Among other things this 48-page booklet shows that some 34,000 units of state and local government have reported spending about \$82 million of their general revenue sharing dollars for public libraries in fiscal year 1974. Some \$36 million or 44 percent of the total went for capital expenditures, with the remaining \$56 million or 56 percent for operating and maintenance expenses. The library dollars represent about 1 percent of all revenue sharing received by state and local governments during this period.

The other report, dated March 1, 1975, is entitled Second Annual Report of the Office of Revenue Sharing. This 50-page booklet presents a table showing use of revenue sharing funds reported by states and local governments from January 1, 1972 when the general revenue sharing program began, through June 30, 1974. In this two-and-half-year period, the governmental units reported spending \$101 million of their general revenue sharing for libraries with \$6 million of this spent by the states, and \$95 million by local governments. Public safety, education, transportation, and environmental protection, health, and general governmental multi-purpose expenses received the bulk of revenue sharing dollars. Libraries fall at the bottom, with only about 1 percent of general revenue sharing.

Both reports are available from the Government Printing Office.

Taxation

A number of bills have been introduced in Congress this year dealing with tax deductions for charitable contributions to institutions such as libraries and museums. S. 1435 introduced by Sen. Jacob Javits (R-NY) on April 15, and HR 6057, an identical bill introduced April 16 by Rep. John Brademas (D-Ind.), would allow artists and authors to deduct 75 percent of the market value of their works donated to charitable institutions. The deduction would apply only to their art-related income. Explaining the rationale of his bill Sen. Javits said: "I believe that the value of important contributions of major works of art to our museums, libraries, universities, and other cultural institutions will far outweigh the modest revenue lost -- estimated at under \$10 million per year -- to the Federal Government." The Javits-Brademas bills were referred to the Senate Finance Committee and the House Ways and Means Committee. Neither Sen. Javits nor Rep. Brademas are members of these committees. Both introduced the same legislation in the last Congress, but no action was taken by the committees.

Other bills that would allow tax deductions for the donation of literary, musical or artistic works to cultural institutions such as libraries have been introduced by Rep. Edward Koch (D-NY) -- for example, HR 585, HR 6829 -- and these, too, have been referred to the Ways and Means Committee. However, Mr. Koch is not a member of the committee.

Meanwhile, hearings on tax reform began June 23 in the House Ways and Means Committee chaired by Rep. Al Ullman (D-Ore.), but the subject of charitable contribution deductions will not be considered in the first phase of these hearings scheduled to conclude by the end of July, with committee markup of a tax reform bill early in September. The hearings began with a general discussion of approaches to tax reform and to simplification and restructuring of the tax laws, presumably designed to assist the many new members of the Ways and Means Committee in familiarizing themselves with the complicated subject matter. Administration witnesses are scheduled to testify July 8 and 9, and members of the interested public later in July. Tax shelters and minimum tax, tax simplification, capital gains and losses, and extension of the individual tax reductions provided by the Tax Reduction Act of 1975 (PL 94-12), are among subjects to be covered in the first round of hearings.

The second phase of the hearings, scheduled now to begin in November after the committee has developed a bill from the first hearings, will cover a wide range of other subjects including tax-exempt organizations and private foundations, charitable contribution deductions, tax-exempt state and municipal bonds, and tax treatment of annuities. Details of the subjects to be covered in each of the hearings are provided in a committee print available from the House Ways and Means Committee entitled: "Press Release Announcing Panel Discussions, Testimony from the Administration, and Testimony from the Interested Public ... on Tax Reform Beginning on June 23, 1975."

In 1973 during Ways and Means Committee hearings on tax reform, ALA submitted testimony to the committee calling attention to the marked decline in manuscript donations that libraries have received since enactment of the Tax Reform Act of 1969 and urging restoration of the tax deduction based on fair market value which had previously been granted to authors who donated their manuscripts to qualified libraries and other nonprofit institutions. But pension reform and trade legislation took first priority with the Ways and Means Committee at that time and little tax reform work was accomplished in the 93rd Congress.

White House Conference on Library & Information Services

PL 93-568 specifies that the National Commission on Libraries and Information Science will plan and conduct the White House Conference, and a 28-member advisory committee is to be appointed to assist the Commission. The advisory committee is to be composed of:

- five persons appointed by the President Pro Tempore of the Senate
- five persons appointed by the Speaker of the House
- at least three members of the National Commission, appointed by the chairman
- no more than 15 persons appointed by the President of the United States

The following persons have been appointed to serve on the Advisory Committee:

- The Honorable Jacob Javits, U.S. Senator from New York
- J.C. Redd, businessman from Jackson, Mississippi
- John T. Short, president-elect, American Library Trustee Association of Avon, Connecticut
- Margaret Warden, state senator and library trustee, Great Falls, Montana
- Virginia Young, Chairman, Missouri Coordinating Board for Higher Education, Columbia, Missouri
- all appointed by the President Pro Tempore of the Senate

The Honorable William D. Ford, U.S. Representative from Michigan
Allie Beth Martin, director of Tulsa City-County Library, Tulsa, Oklahoma,
president-elect, American Library Association
Michael Arthur McCarroll, director of Lexington Books, a division of D.C.
Heath, Lexington, Massachusetts
Gene Shalit, of New York City, panelist on NBC's Today Show
Jean Hurley Simon, former member of Illinois Assembly, wife of U.S. Repre-
sentative Paul Simon, of Carbondale, Illinois
-- all appointed by the Speaker of the House

Louis A. Lerner, publisher, Lerner Home Newspapers, Chicago, Illinois
Bessie Boehm Moore, coordinator, Economic and Environmental Education,
State Department of Education, Little Rock, Arkansas
John E. Velde, Jr., businessman, Pekin, Illinois and Hollywood, California
-- all members of the National Commission on Libraries and Information
Science, appointed to the White House Conference Advisory Committee by
the NCLIS chairman

The President of the United States has not yet made his appointments to
the Advisory Council. See section on APPROPRIATIONS for WHCOLIS funding.

National Commission on Libraries and Information Science

Just as this report was going to press, the House of Representatives debated
and passed on June 25 the FY 1976 Labor-HEW appropriations bill (HR 8069) which
provides \$409,000 for the National Commission for FY 1976, the same amount the
Commission received for FY 1975 but a reduction of \$93,000 from the budget request.
The House Appropriations Committee said it "denied the request for four new positions
because it is not convinced that it is desirable to increase the existing staff of the
Commission." The Appropriations Committee recommendation was a blow to the Commission
which is counting upon its full budget request in order to hire additional staff
to conduct in-house research in preparation for the implementation phase of its
national program. The Senate Appropriations Committee is not expected to mark up
its version of the Labor-HEW bill until after the July 4 recess.

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Attachments: Funds for Library-Related Programs (table dated June 1975)
Status of Legislation Chart dated June 25, 1975

American Library Association
Washington Office
June 25, 1975

FY 1976 FUNDS FOR LIBRARY-RELATED PROGRAMS
(and Forward Funding for FY '77 where applicable),

	FY 1975 Appropriation	FY 1976 Budget ^{1/}	FY 1976 House ^{2/} Action	FY 1976 Senate ^{3/} Action
Elementary and Secondary Education Act				
Title I - Educationally Deprived Children	\$1,876,000,000	\$1,900,000,000 ^{1/}	\$2,050,000,000 ^{4/}	\$2,050,000,000
II - School Library Resources	95,250,000	- 0 - ^{1/}	- 0 - ^{4/}	- 0 -
III - Suppl. Education Centers & Guid.	120,000,000	- 0 - ^{1/}	- 0 - ^{4/}	- 0 -
IV-B - Libraries & Learning Resources	- 0 -	137,330,000 ^{1/}	147,333,000 ^{4/}	147,330,000
IV-C - Education Innovation and Support	- 0 -	172,888,000 ^{1/}	172,888,000 ^{4/}	172,888,000
V - State Education Departments	39,425,000	- 0 - ^{1/}	- 0 - ^{4/}	- 0 -
VII - Bilingual Education Act	85,000,000	70,000,000	95,270,000	100,270,000
IX - Ethnic Heritage	1,800,000	- 0 -	1,800,000	1,800,000
Educ. Handicapped Children (state grants)	100,000,000	50,000,000 ^{1/}	110,000,000 ^{4/}	110,000,000
Metric education	- 0 -	7,090,000	2,090,000	2,090,000
Gifted & talented	- 0 -	2,560,000	2,560,000	2,560,000
Women's educational equity	- 0 -	6,270,000	6,270,000	6,270,000
Career education	10,000,000	10,135,000	10,135,000	10,135,000
Library Services and Construction Act	51,749,000	10,000,000	51,749,000	51,749,000
Title I - Library Services	49,155,000	10,000,000	49,155,000	49,155,000
II - Public Library Construction	- 0 -	- 0 -	- 0 -	- 0 -
III - Interlibrary Cooperation	2,594,000	- 0 -	2,594,000	2,594,000
IV - Older Readers Services	- 0 -	- 0 -	- 0 -	- 0 -
Library Partnership Act (proposed)	- 0 -	20,000,000	- 0 -	- 0 -
National Defense Education Act				
Title III-A - Equip. & Minor Remodeling	21,750,000	14,125,000	- 0 - ^{4/}	- 0 -
VI - Language Development	11,300,000	8,640,000	11,300,000	15,300,000
Higher Education Act				
Title I - Community Service Program	14,250,000	- 0 -	10,000,000	14,250,000
II-A - College Library Resources	9,975,000	- 0 -	9,975,000	9,975,000
II-B - Library Training	2,000,000	- 0 -	- 0 -	2,000,000
- Research and Demonstrations	1,000,000	- 0 -	- 0 -	1,000,000
Titles II-A & B total	12,975,000	- 0 -	9,975,000	12,975,000
II-C - LC Acquisitions & Cataloging	9,365,000	9,748,000	9,653,391 ^{5/}	Pending
III - Developing Institutions	110,000,000	110,000,000	110,000,000	110,000,000
V-E - EPDA Fellowships (Higher Educ.)	2,100,000	- 0 -	- 0 -	- 0 -
VI-A - Undergrad. Equipment & Mats.	7,500,000	- 0 -	- 0 -	15,000,000
National Institute of Education	70,000,000	80,000,000	80,000,000	70,000,000
Postsecondary Educ. Innovation Fund	11,500,000	17,500,000	13,500,000	13,500,000
State Postsecondary Educ. Commissions	3,000,000	- 0 -	3,000,000	5,000,000
Adult Education Act (state grants)	67,500,000	67,500,000	71,500,000 ^{4/}	71,500,000
National Reading Improvement	22,000,000	12,000,000	12,000,000	22,000,000
Older Americans Act				
Title III - Community Programs	105,000,000	96,000,000	deferred ^{6/}	
IV - Training and Research	15,000,000	7,000,000	" ^{6/}	
IX - Community Service Employment	12,000,000	- 0 -	30,000,000 ^{7/}	30,000,000 ^{7/}
Educational Broadcasting Facilities	12,000,000	7,000,000	10,000,000	15,000,000
National Library of Medicine	22,515,000	22,482,000	22,482,000 ^{8/}	pending
Medical Library Assistance Act	6,333,000	6,333,000	6,333,000 ^{8/}	pending
Natl. Commission on Libraries and Information Sc.	409,000	502,000	409,000 ^{8/}	pending
National Center for Educ. Statistics	9,060,000	16,665,000	14,000,000	13,000,000
GPO Superintendent of Documents	36,765,000	36,976,000	36,765,700 ^{5/}	pending
Indian Education Act	42,000,000	42,055,000	pending ^{9/}	pending
Library of Congress	98,990,000	120,032,100	115,134,800 ^{5/}	pending
Arts and Humanities	159,000,000	175,000,000	pending ^{9/}	pending
White House Conference on Library and Information Services	- 0 -	- 0 -	- 0 -	3,500,000

- 1/ FY 1977 budget is shown instead, for forwarded funded programs such as ESEA IV.
- 2/ Unless otherwise noted, HR 5901 House-passed FY 1976 educ. approps. bill.
- 3/ Unless otherwise noted, HR 5901 as reported from Sen. Approps. Committee.
- 4/ FY 1977 approps. are included in HR 5901 for forwarded funded programs. FY 1976 funds were provided for these programs in FY 1975 supplemental (PL 93-554).
- 5/ HR 6950, FY 1976 legis. branch appropriations as passed by House.
- 6/ Appropriation deferred pending enactment of authorization.
- 7/ FY 1976 appropriation provided by continuing resolution.
- 8/ FY 1976 Labor-HEW approps. (HR 8069) as reported from House Approps. Committee.
- 9/ To be included in approps. for Interior & related agencies not yet introduced.

American Library Association
Washington Office
June 1975

STATUS OF LEGISLATION OF
INTEREST TO LIBRARIANS

94th Congress, 1st Session
Convened January 14, 1975

Chart Date: June 25, 1975

H O U S E

S E N A T E

FINAL ACTION

Appalachian Regional Dev. exten. Arts and Humanities extension Child and Family Services Congressional Budget Targets FY'76 Copyright Revision Criminal Code Revision Education of Handicapped exten. Folklife Center in LC Handicapped (Bill of Rights) Higher Educ. Amendments of '75 Intergovernmental Assistance Japan-US Friendship Act National Institute of Education National Science Foundation Older Americans Amnts. Postal Public Service Subsidy Public Broadcasting Public Service Employment (CETA VI) Public Works Revenue Sharing extension Tax - manuscript donations Telecommunications facili. & Demon. Transition Quarter Authorization Unemployment Assistance extension Women's Equal Educ. Opportunity	Introduced	Hearings	Reported by Subcommittee	Committee Report Number	Floor Action	Introduced	Hearings	Reported by Subcommittee	Committee Report Number	Floor Action	Conference Report	Final Passage	Public Law
Appalachian Regional Dev. exten.	HR 4073	x	x	202	x	HR 4073	x	x	77	x	198	x	na
Arts and Humanities extension	HR 7216	x	x	145	x	S 1800	x	x	168	x			
Child and Family Services	HR 2966	x	x	273	x	S 626	x	x	160	x			
Congressional Budget Targets FY'76	HCon Res 218	x	x	58	x	S Con Res 32	x	x	188	x			
Copyright Revision	HR 2223	x	x	67	x	S 22	x	x	111	x			
Criminal Code Revision	HR 3907	x	x	245	x	S 1	x	x	255	x			
Education of Handicapped exten.	HR 7217	x	x	66	x	S 6	x	x	55	x			
Folklife Center in LC	HR 6673	x	x	67	x	S 1618	x	x	188	x			
Handicapped (Bill of Rights)	HR 4005	x	x	203	x	S 462	x	x	160	x			
Higher Educ. Amendments of '75	HR 3470	x	x	245	x	S 824	x	x	188	x			
Intergovernmental Assistance	HR 3471	x	x	66	x	S 1359	x	x	111	x			
Japan-US Friendship Act	HR 6416	x	x	67	x	S 824	x	x	255	x			
National Institute of Education	HR 4556	x	x	66	x	S 1498	x	x	111	x			
National Science Foundation	HR 5988	x	x	67	x	S 1539	x	x	255	x			
Older Americans Amnts.	HR 4723	x	x	245	x	S 1425	x	x	111	x			
Postal Public Service Subsidy	HR 3922	x	x	245	x	S 1425	x	x	111	x			
Public Broadcasting	HR 2445	x	x	203	x	S 893	x	x	55	x			
Public Service Employment (CETA VI)	HR 6461	x	x	203	x	S 1695	x	x	55	x			
Public Works	HR 2584	x	x	203	x	S 1587	x	x	55	x			
Revenue Sharing extension	HR 5247	x	x	203	x	S 1625	x	x	55	x			
Tax - manuscript donations	HR 6558	x	x	203	x	S 1435	x	x	55	x			
Telecommunications facili. & Demon.	HR 6057	x	x	203	x	S 1257	x	x	55	x			
Transition Quarter Authorization	HR 4564	x	x	282	x	S 1874	x	x	200&208	x			
Unemployment Assistance extension	HR 6692	x	x	220	x	HR 6900	x	x	200&208	x			
Women's Equal Educ. Opportunity	HR 6900	x	x	220	x	S 1338	x	x	200&208	x			
APPROPRIATIONS													
Emergency Employment, FY 1975	HR 4481	x	x	52	x	HR 4481	x	x	91	x	201	x	VE TO
Second Supplemental, FY1975	HR 5899	x	x	141	x	HR 5899	x	x	137	x	239	x	94-32
Continuing Resolution, FY 1976	HJ Res 499	x	x	289	x	HJ Res 499	x	x	201	x	none	x	94-
Education, FY 1976	HR 5901	x	x	142	x	HR 5901	x	x	198	x			
HUD & Independent Agencies, FY 1976	HR 8070	x	x	313	x	HR 8070	x	x		x			
Labor-HEW, FY 1976	HR 8070	x	x	311	x	HR 8070	x	x		x			
Legislative Branch, FY 1976	HR 8069	x	x	311	x	HR 8069	x	x		x			
	HR 6950	x	x	208	x	HR 6950	x	x		x			

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ABSTRACT

The attitudes of medical school administrators toward six cost factors relevant to the production of sophisticated clinical programs in schools which offer, expect to offer, or do not expect to offer CAI (Computer Assisted Instruction) were identified and compared. The six cost factors were: (1) authorship, (2) incentives, (3) distribution, (4) replacement, (5) evaluation, and (6) training. The major hypothesis was that the attitudes of administrators in medical schools which offered, expected to offer, or did not expect to offer CAI toward the six cost factors would not differ significantly. The population of the study was composed of deans and dean appointees of 115 colleges of medicine in the United States. Survey research techniques were used to determine the attitudes of administrators towards the six cost factors. It was found that all of the groups of administrators had similar attitudes towards and were generally receptive to the relevance of the six factors. Additionally, they expressed uncertainty about the role of cost-effectiveness in the production of clinical programs. (SBM)

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THE ATTITUDES OF MEDICAL SCHOOL ADMINISTRATORS TOWARD COST FACTORS
RELATING TO COMPUTER-ASSISTED INSTRUCTION

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ABSTRACT

This study identified and compared the attitudes of medical school administrators toward six cost factors relevant to the production of sophisticated clinical programs in schools which offer, expect to offer, or do not expect to offer CAI. The six factors were: authorship, incentives, distribution, replacement, evaluation and training.

It was found that all three groups of administrators had similar attitudes toward and were generally receptive to the relevance of the six factors. Additionally, they expressed uncertainty about the role of cost-effectiveness in the production of clinical programs.

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INTRODUCTION

During the past decade, pioneer efforts in instructional computing in colleges of medicine have been catalyzed by administrators who were responsive to computer-assisted instruction (CAI) development. Initially, the thrust of the development function was construction of interactive computing systems: the major cost center was hardware. Today, the thrust of the development effort is provision of a repertoire of quality programs, particularly for clinical education: the major cost center is program production.

As with the development of early prototypic interactive systems, the success of current and future program production efforts is contingent upon substantial administrative support. Moreover, the economic dilemmas and accountability pressures facing medical education suggest that such commitment will not be forthcoming unless the medical school administrator perceives CAI as educationally effective, cost saving technology.

While some authorities predict that CAI will play a significant role in the future of medical education, others assert that widespread use of CAI in health science education, and higher education in general, will be contingent upon resolution of several human/technical problems. Studies by Levien, et. al. [1], Luskin [2], and Anastasio and Morgan [3], as well as commentaries by Stolurow [4], suggest that one of the greatest impediments to widespread use of CAI in education is the lack of high quality curriculum materials which exploit the unique capabilities of the computer--for example, CAI programs that utilize simulation, dialogue or inquiry mode to teach complex intellectual skills.

Other issues integrally related to course development include questions about who will author programs, incentives for faculty participation in program production, models for distribution, use of CAI in place of conventional modes of instruction, evaluation of the educational effectiveness of programs and training programs.

A major obstacle to accelerated use of CAI in medical education, particularly in clinical instruction, is the lack of explicit data on (1) cost factors which influence production of programs and (2) the attitudes of administrators toward pertinent cost considerations. The paucity of data in these areas hampers both instructional decision-making and the acquisition of administrative support for CAI development.

The major purpose of this study was to identify and compare the attitudes of medical school administrators toward six cost factors relevant to the production of sophisticated clinical programs in schools which offer, expect to offer, or do not expect to offer CAI. The six factors were: authorship, incentives, distribution, replacement, evaluation and training. CAI was defined as instructional programs utilizing dialogue, inquiry, or simulation models to teach complex intellectual skills pertinent to the mastery of the clinical encounter. In addition, the study was designed (1) to orient medical school administrators to cost considerations pertinent to the development of sophisticated clinical programs; (2) to provide a data base for obtaining administrative commitment to production of sophisticated clinical programs; and (3) to facilitate the planning of change in the field of CAI.

METHODOLOGY

The population of the study was composed of the deans and dean appointees of the 115 colleges of medicine located in the United States. Seventy-three per cent responded to the mailing; however, only 68 per cent of the respondents (79 total) actually completed the instrument. Of these 79, there were 48 in

the group presently offering CAI, 23 who intended to offer CAI, and 8 who did not anticipate offering CAI.

The characteristics of each group of administrators varied with group membership. For instance, two-thirds of the administrators in medical schools which already offered CAI had broad computer-related experience. They had authored programs, designed CAI software or hardware, directed CAI systems or data processing units, trained users, used the computer for administrative support and participated in curriculum design. Conversely, the administrators in medical schools expecting to offer CAI had limited computer-related experience. Administrators in medical schools which did not expect to offer CAI were least familiar with instructional computing.

Survey research techniques were used to determine the attitudes of administrators toward the six cost factors. Since no appropriate instrument existed, an attitude scale was constructed using the Likert Method of Summated Ratings. Implementation of this method included the following steps:

- collection of a preliminary pool of items related to the cost factors under investigation;
- content validation of the opinion pool by a jury of experts;
- construction and pilot administration of the preliminary scale; and
- performance of several item analyses to provide data for construction of an improved instrument and the final scale.

The final instrument was composed of 28 attitude statements or six subscales which corresponded to the aforementioned cost issues, four additional items and an identification field of three items. The reliability of each of the subscales, when stepped up to 40 items by the Spearman-Brown formula, ranged from .60 to .93. Table 1 summarizes the reliability indices.

insert Table 1 here

The objective of each of the six subscales is discussed below.

Authorship Subscale - Essentially, the authorship subscale was designed to identify what medical school administrators perceived as the most effective means of authoring programs. The subscale also addressed updating programs and prerequisites for faculty involvement in authorship of programs.

Incentives Subscale - The incentives subscale was designed to identify the attitudes of medical school administrators toward two kinds of incentives: professional recognition and released time.

Distribution Subscale - The purpose of the subscale was to determine the opinions of administrators of medical schools regarding (1) available information on CAI programs, (2) cost-effectiveness as a requirement for distribution of programs, (3) what organizational arrangement should be responsible for the distribution process, (4) what body should be responsible for the identification of programs which qualify for distribution, and (5) what standardization efforts would facilitate widespread distribution of programs.

Replacement Subscale - Replacement referred to the use of clinical programs in place of conventional approaches to instruction. The primary purpose of the subscale was to determine if administrators felt that cost-effectiveness, faculty acceptance, and a long lead time should be requirements for replacement. In addition, the subscale was designed to question the impact of CAI cost savings on the hiring of faculty.

Evaluation Subscale - The evaluation subscale contained four items related to the role of education in the total CAI effort and to which subsystems of the

university should participate in the evaluation process. Specifically, the subscale was designed to determine whether administrators felt that evaluation should be an integral part of the total production process (including initial planning activities and procedures related to design, development, implementation and maintenance) and whether students should participate in program assessment.

Training Subscale - The training subscale dealt with planned and systematic activities for orienting faculty members, administrators and other users to the information required for effective use of CAI or participation in various phases of the production process. It was designed to determine whether administrators of medical schools felt that development and diffusion of CAI would require special training programs. In addition, the subscale posed questions regarding what the content of such programs should include, what the major objective of the programs would be, and the role of computer scientists in training medical faculty to write programs.

RESULTS

The major hypothesis of the study was that the attitudes of administrators in medical schools which offered (Group 1), expected to offer (Group 2), or did not expect to offer (Group 3) CAI toward the six cost factors would not differ significantly.

Since the three groups were being compared on six dependent measures, multivariate analysis of variance (MANOVA) was used to test for equality of dispersion and centroids [5]. Because of the sizeable discrepancy between the N of Group 3 (8) and that of Groups 1 and 2 (48 and 23, respectively), the equality of dispersion among the three groups of administrators was computed to determine whether the variance-covariance matrix of Group 3 was significantly

different from that of the other two groups. The test for the equality of dispersion among the groups indicated that the populations of all three groups had similar variance-covariance matrices ($F=0.91$, $df=42/1352$, $p>.05$). The observed differences among centroids were not statistically significant ($F=0.75$, $df=12/142$, $p>.05$).

Generally, all three groups of administrators tended to agree that:

- faculty members should have primary responsibility for writing programs as part of a production team structure;
- new incentives such as professional recognition and released time would be required to encourage faculty participation in program production;
- distribution and replacement are cost issues which might or might not be relevant to production of programs;
- evaluation should be an essential element in the total production process; and
- training for faculty authors would be required if equality programs are to be developed.

Subscales

In this section, an abbreviated description of items is presented along with the associated data by group. Since the response continuum for the instrument contained five alternative positions--strongly agree, agree, uncertain, disagree, and strongly disagree--numerical values were assigned as 5, 4, 3, 2, and 1 respectively. Consequently, a favorable attitude was reflected in a value close to 5 and an unfavorable attitude in a value close to 1. A score of 3.0 reflected uncertainty.

The assumed midpoint of each interval (4.5, 3.5, 2.5, and 1.5) was used to determine the intensity of an attitude which fell between intervals. If an attitude fell beyond a midpoint, the next alternative response was used to

interpret the score. On the contrary, if an attitude fell below a midpoint, the preceding alternative response was used to interpret the score.

Table 2 summarizes the total means, standard deviations, and Likert-scale equivalent means for the three groups. In reporting the scores, the order of listing was consistently Group 1, Group 2, and Group 3 respectively.

insert Table 2 here

Authorship Subscale - The Likert-scale equivalent means for the total subscale were 3.68, 3.63, and 3.56. These scores suggested that administrators in all three types of institutions tended to believe that faculty members should have major responsibility for writing and updating the content of programs, and further, that faculty authors can best perform as part of a team of production specialists.

One item dealt with faculty orientation as a requirement for authorship. Groups 1 and 2 questioned broad faculty orientation to CAI as a requirement for faculty participation in the authorship process, whereas Group 3 tended to disagree. Perhaps the uncertainty suggested by these scores reflected the difficulties involved in finding persons with the appropriate authorship skills.

Incentives Subscale - In this instance the data suggested that administrators in all three groups recognized the inadequacy of existing reward systems and the need for new incentive systems if faculty members were to play an active role in program production. The Likert-scale equivalent means were 4.21, 3.97, and 4.12.

Two-thirds of the administrators in Group 1 had authored programs as well as participated in other aspects of CAI development. Since these administrators

were more aware of the time requirement for authoring programs—an estimated 50 to 200 development hours for one CAI hour—it was predicted that the administrators in Group 1 would have a higher regard for released time than administrators in Groups 2 and 3. Similarly, one might have guessed that administrators in schools which were planning to offer CAI (Group 2) would have had a more favorable attitude toward released time than administrators in Group 3. The descriptive statistics for the associated item suggested that administrators in Groups 1 and 3 tended to agree that released time would be a useful incentive for faculty participation in program production, while those in Group 2 tended to be uncertain. Consequently, contrary to prediction, the administrators in Group 3 had a more favorable attitude toward released time than either Group 1 or 2.

That this prediction appeared not to have been sustained may suggest that the heavy patient care and research responsibilities of clinical faculty militate against the use of released time as an incentive for faculty involvement in writing programs. In addition, the uncertainty evident in the scores of all three groups of administrators suggests that the administrators question the economic feasibility of obtaining released time during a period of general "belt-tightening."

Distribution Subscale - The Likert-scale equivalent means for the three groups of administrators were 3.47, 3.52, and 3.49. This suggests that all three groups of administrators questioned the relevance of distribution to production of sophisticated clinical programs. Here again, the uncertainty expressed by the participants may reflect the uncertainty in the field of CAI in the health professions generally about what cost specifications would promise effective diffusion of programs. One could use rational argument to predict that the current plight of medical education would force medical school

administrators to perceive cost-effectiveness as a major criterion for distribution. However, the results do not substantiate this: all three groups appeared uncertain about the matter.

A major hindrance to widespread distribution of programs is the lack of transportability of programs. CAI delivery systems and languages vary from institution to institution. Items dealing with transportability and standardization of languages addressed to this issue suggested that programs should be transferrable from hardware system to hardware system and that standardization of languages would enhance transferability of courseware.

The results indicated that the three groups of administrators favored the production of programs which could be used on various hardware systems to facilitate widespread distribution of programs. All three groups also appeared to agree that some standardization of languages would be a reasonable requirement for diffusion efforts.

Three items dealt with information dissemination, use of professional review boards for identifying programs which qualify for production, and rigorous testing of programs as a requirement for distribution. According to the results, Groups 1 and 3 appeared to question whether information dissemination had been a major obstacle to widespread distribution of programs while Group 2 tended to agree with the item. All three groups of administrators questioned whether professional review boards should play an evaluative role with respect to selection of programs which qualify for marketing; however, they appeared to agree that rigorous testing should precede distribution of programs.

In light of the financial state of most medical schools and the heavy time commitments of clinical faculty, it seemed reasonable to predict that administrators in the three sample groups would not have opposed private control of the dissemination function. However, the results of the item dealing with commercial

versus discipline-based control revealed that administrators in all three groups tended to be uncertain about the matter. The indecision of the groups may be related to the public versus private issue or, perhaps, to general uncertainty about the requirements for effective dissemination of a new technology.

Replacement Subscale - The Likert-scale equivalent means for the total scores obtained were 3.21, 3.32, and 3.27. In this instance, the mean scores for each sample group were closer to 3.0, the numerical value assigned for uncertainty, than 3.5, the numerical value assumed for the midpoint between the agreement-uncertainty interval. The scores demonstrate, then, that administrators in all three groups were uncertain about the role of replacement in the diffusion process.

Since replacement is predicated upon the acceptance of change, this was not a surprising finding. In addition, in light of the dichotomous nature of control in universities, the question becomes this: what kinds of changes in the decision-making apparatus of the medical school will be required to insure that the cost savings possible through use of sophisticated programs can be realized?

Two items addressed cost-effectiveness as a requirement for replacing traditional instruction and decelerating the rate of acquisition of new faculty as CAI cost savings resulted. There appeared to be conflicting viewpoints regarding both of these issues. That is, Groups 2 and 3 tended to support use of cost-effectiveness as a requirement for replacement, while Group 1 tended to be uncertain. In respect to faculty hiring policy, Groups 1 and 2 appeared to oppose deceleration of the rate of acquisition of new faculty, while Group 3 tended to be uncertain. Of course, the small size of N for Group 3 may have distorted the results for individual items.

Results of an item dealing with replacement versus the use of alternative resources suggested that clinical program be substituted for conventional modes

of instruction such as books, lectures, and demonstrations. Administrators in all three groups tended to be uncertain about this. However, the scores for Groups 1 and 3 were very close to 2.5, the midpoint for the disagree-uncertainty interval; whereas, for the total subscale, the scores for all three groups fell within the uncertainty-agree interval.

Evaluation Subscale - The Likert-scale equivalent means for the total scores obtained for the groups on the evaluation subscale were 4.24, 4.27, and 4.25. These results suggested that administrators in all three groups affirmed that evaluation was a critical issue. Specifically, the administrators tended to concur that evaluation should be a key concern for initial planning to implementation; that demonstration of the educational effectiveness of programs would accelerate administrative and faculty acceptance of programs; and that students should participate in the assessment of programs.

The level of agreement for evaluation probably reflected (1) the desire of medical administrators to prevent recurrence of the uncontrolled growth and development which precipitated the current fiscal dilemma in medical education and (2) their concern for the need to document the soundness of administrative/instructional decisions.

Training Subscale - All three groups of administrators felt that training programs were needed. The Likert-scale equivalent means were 3.82, 3.83, and 3.83.

Because CAI is a developing technology, modes and procedures for development and implementation are still unfolding. Since the authorship process for CAI is quite different from that for provision of traditional course materials, faculty members interested in participating in program production require orientation to the computer itself, as well as procedures for writing and formatting

content. The items dealing with training in programming languages, instructional theory, and the use of computer scientists with medical training as trainers of faculty raise questions about specific requirements for such training programs.

The results concerning programming languages and instructional theory suggest that the content of training programs should include them. It was also suggested that computer scientists with medical training can be effective trainers.

One item dealt with the fact that trivial uses of the computer exist because faculty are not sufficiently oriented to the capabilities of the computer as a teaching instrument. The mean scores for the groups suggested that all three groups of administrators tended to agree with this.

Additional items - Four items were excluded from the inferential analysis because they substantially weakened the reliabilities of the subscales. These items related to indefinite faculty control of programs, the role of students in the evaluation process, transferability as a criterion for professional recognition and the role of medical faculty in planning training programs.

Administrators in Groups 1 and 3 opposed indefinite control of programs by faculty authors; however, Group 2 tended to be uncertain. All three groups of administrators seemed to feel that students should be encouraged to author programs. One item recommended that only programs which were compatible with the hardware systems of a number of institutions should qualify for professional recognition. The results suggested that the administrators in Groups 1 and 3 were opposed to transferability as a requisite factor for professional recognition; however, Group 3 tended to be uncertain.

Regarding the item that addressed the role of medical faculty in planning training programs for faculty, it was interesting to note that all three groups of administrators were uncertain about this.

DISCUSSION

Although the computer-related experience of the administrators varied with group membership, all three groups had similar attitudes toward the relevance of all six cost factors to production of sophisticated clinical programs. This similarity in viewpoints may be due to any one or a combination of three factors: the tempering effect of broad CAI experience in a university setting; the newness of CAI in medical education and higher education generally; and the universality of cost issues such as rewards for research on teaching, evaluation, accountability and the "new depression" in higher education.

Tempering Effect of Prior CAI Experience - In light of the CAI experience of two thirds of the administrators in Group 1 and the existence of CAI efforts in their home institutions, it seemed reasonable to predict that the administrators in this group would have had significantly more favorable attitudes toward the cost factors under investigation than administrators in Groups 2 and 3. This prediction was not sustained.

An explanation for the similarity between the opinions of Group 1 and those of the remaining two groups may be that the broad experience of the administrators in Group 1 served as a tempering force. That is, the issue of development and diffusion of sophisticated clinical programs is fundamentally dependent on changes in policies, ideas and instructional management patterns. The difficulty involved in initiating these changes contributes to the rejection of innovations that deviate radically from classical modes of teaching-learning. When confronted with powerful conflict points such as lack of funds, the autonomy and disinterest of faculty members, irresponsive reward systems, rigid time and space patterns, inadequate time for development and lack of an established set of guidelines and procedures for both the course development and costing functions,

Group 1 administrators may have been forced into a choice based on practicality rather than ideology. Their assessment of the items in each subscale may have been tempered by what they perceived as the present economic, technical or institutional feasibility of the recommendations made. Consequently, as a group, the administrators may have responded conservatively to the authorship, distribution, replacement, and training subscales, with their Likert-scale equivalent mean scores falling between 3.0 and 4.0.

The Newness of CAI and Cost Estimation - Computer-assisted instruction, as well as use of cost estimation techniques such as cost-effectiveness and cost-benefit analysis, is an emerging technology in medical education and higher education generally. Hence, the newness of the technologies and the questions that the administrators may have raised about them because of their newness may have transcended the experience differential which characterized each group of administrators.

Although medical education has assumed a leadership role in CAI development for more than a decade, development efforts have been primarily exploratory in nature and limited to a few schools. Furthermore, most of the advances in interactive systems and program production have been generated by three schools: Ohio State University, the University of Illinois, and Harvard Medical School (Massachusetts General Hospital).

In addition, as an emerging technology CAI has not matured into an organized body of knowledge with a carefully defined structure based on tested assumptions and theories. Basic research related to (1) the nature of CAI, (2) learning theories such as reinforcement and transfer in CAI environments, and (3) viable models for processes such as production, marketing and evaluation in a University setting is needed. In addition, the issues of demonstrated effectiveness, control of programs, rewards and training have yet to be resolved.

Consequently, it is possible that the instability of computer-assisted instruction, both as a developing discipline and applied science, may have confused administrators as well as splintered their efforts to define the role of the computer in medical education.

Universality of Cost Issues - CAI is emerging in an era of transition in higher education. Universities are being confronted with unprecedented fiscal and social pressures. For example, the cost of education is rising significantly faster than income flow. The public is demanding that universities demonstrate fiscal restraint and managerial/instructional accountability while calling for instructional reform, timely delivery of broader community services, open access and affirmative action.

In essence, the university is being asked to demonstrate unity of purpose, administrative direction and use of management technologies which promise fiscal control and timely decision making. The nature of these pressures speaks to the inadequacy of the basic structure of the higher education establishment and probably dominates the thinking of most university administrators.

Since some of the cost issues in this study touched on some universal problems in higher education (e.g., regards for teacher effectiveness and basic research on teaching, managerial and instructional accountability), it is possible that the administrators were responding to these considerations rather than to cost as it relates to production of sophisticated programs.

IMPLICATIONS FOR CAI DEVELOPMENT AND PLANNING

The challenge of the medical school administrator is not only to maintain the organization but to generate fiscal and instructional renewal based on documentation of need and validation of the legitimacy of decisions. The ultimate challenge to the medical school administrator is to create an organizational

spirit responsive to opportunities for innovation.

CAI practitioners and theorists in medical education assert that it offers a unique opportunity for broad-based innovation and cost-reduction— if a repertoire of challenging course materials is made available. The development and diffusion of clinical programs, however, will ultimately depend upon the sensitivity of the medical school administrator to (1) the capabilities of the computer as an educationally effective, cost-saving technology and (2) the dynamics of the process of innovation.

The results of this study imply (1) that medical school administrators are sensitive to cost factors essential to the development of sophisticated clinical programs and (2) that they are probably ready to listen to arguments for use or expanded use of programs in clinical education. However, the results also suggest that administrators are uncertain about three basic issues: distribution, replacement, and cost-effectiveness.

The uncertainty of the administrators with respect to distribution probably reflects the lack of a stable body of practices and procedures related to the marketing function. The implication here is that experts in the field of CAI should address this area or that the state of the art of course development suggest that distribution should be a future concern. Yet, it is encouraging that the administrators recognize that transferability of programs, rigorous testing, and some standardization of languages would facilitate diffusion efforts.

The indecision of the administrators regarding replacement probably reflects the tendency in higher education to add on change in instructional programs rather than to reallocate resources in support of the most promising instructional approaches. The implication of this tendency is serious, for the computer will not have a powerful economic impact on medical education unless replacement of some kind occurs at a reasonable point in the implementation process. Otherwise,

clinical programs will simply represent an add-on cost—a luxury which medical education cannot afford. The implication here is that in the initial planning for course development and implementation, all of the changes which must occur to facilitate effective utilization of programs, as well as realization of potential cost savings, should be examined.

The uncertainty of the administrators in regard to cost-effectiveness probably reflects the newness of this decision-making tool in educational settings. Consequently, the implication is that use of cost analysis in higher education is an area which will require considerable development before administrators can use it as an effective and fair decision-making tool.

Another implication of this study is that medical school administrators are indeed sensitive to the basic principles of innovation. For instance, their decided agreement with incentives and evaluation may imply that (1) they recognize that new rewards will be required to stimulate faculty involvement in CAI development and (2) that innovation requires a systems approach to evaluation.

An examination of the structural character of the home institutions of the three groups of administrators revealed that medical schools are also sensitive to the need for new structures to manage change. This is evident in 20 schools in Group 1 and 4 in Group 2, which have already instituted new offices or administrative posts for monitoring the process of innovation at the administrative level. This may imply that medical schools are gearing themselves for innovation and that they are particularly sensitive to opportunities for promising change.

In summary, the results of this study suggest that medical school administrators are receptive to cost factors relevant to course development. However, their views of basic phases of the production process and key cost issues such as cost-effectiveness and cost savings will probably remain conservative until

there are data available on (1) effective models and procedures for production, (2) the educational effectiveness of programs and, (3) the requirements for realizing CAI cost savings. A curious observation was that despite the financial plight of medical schools, administrators tend to question whether sophisticated programs should represent an add-on or replacement cost.

CONCLUSIONS

The results of this study led to several conclusions. They were as follows:

1. Medical school administrators with broad CAI experience tend to have similar attitudes to the relevance of the following cost factors to production of sophisticated clinical programs as medical administrators with little or no background in CAI: authorship, incentives, distribution, replacement, evaluation, and training.
2. Medical school administrators are generally receptive to the relevance of authorship, incentives, evaluation, and training to production of sophisticated clinical programs.
3. Medical school administrators would probably be more receptive to distribution if they had access to data which identified the requirements and procedures for effective performance of the dissemination function. Similarly, they would be more receptive to replacement as an approach to cost justification for program production if data were available on the requirements for replacement.
4. Medical school administrators express uncertainty about the role cost-effectiveness should play in the production of sophisticated clinical programs.

REFERENCES

1. Levien, R. E., et al. The Emerging Technology, Instructional Uses of The Computer in Higher Education. A Carnegie Commission on Higher Education and Rand Corporation Study. New York: McGraw-Hill, 1972.
2. Luskin, B. J. An Identification and Examination of Obstacles to the Development of Computer Assisted Instruction. Unpublished Ed.D. thesis, University of California, Los Angeles, 1970.
3. Anastasio, E. J. and Morgan, J. S. Factors Inhibiting the Use of Computers in Instruction. Final Report. EDJCOM. Interuniversity Communications Council, Inc., Princeton, New Jersey: 1972.
4. Stolurow, L. M., et al. Computer-Assisted Instruction in the Health Professions. Entelek, Inc. Newburyport, Massachusetts: 1970.
5. Cooley, William W. and Lohnes, Paul W. Multivariate Data Analysis. New York: John Wiley & Sons, Inc., 1971.
6. Williams, Mary Carter. The Attitudes of Medical School Administrators Toward Cost Factors Relating to Computer-Assisted Instruction. Unpublished Ph.D. dissertation, Catholic University of America, Washington, D. C.: 1975.

Table 1
Subscale Reliabilities

Subscale	No. of Items	Alpha Coefficient	Spearman-Brown Index (Step-up Unit=40 Items)
1. Authorship	4	.22	.73
2. Incentives	3	.48	.93
3. Distribution	7	.21	.60
4. Replacement	5	.42	.85
5. Evaluation	4	.37	.85
6. Training	5	.30	.77

Table 2

Group Means, Standard Deviations, and
Likert Scale Equivalent Means

Subscale	Group 1 (N=48)		Group 2 (N=23)		Group 3 (N=8)	
	Mean (S.D.)	Likert Means	Mean (S.D.)	Likert Means	Mean (S.D.)	Likert Means
1. Authorship	14.71 (1.99)	3.68	14.52 (1.81)	3.63	14.25 (1.83)	3.56
2. Incentives	12.63 (1.63)	4.21	11.91 (1.62)	3.97	12.00 (0.76)	4.12
3. Distribution	24.31 (3.30)	3.47	24.61 (2.62)	3.52	24.38 (2.88)	3.49
4. Replacement	16.06 (2.00)	3.21	16.61 (2.73)	3.32	17.00 (1.69)	3.27
5. Evaluation	16.98 (1.82)	4.24	17.09 (1.59)	4.27	16.88 (1.13)	4.25
6. Training	19.13 (2.02)	3.82	19.17 (2.00)	3.83	19.11 (2.00)	3.83