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**NATIONAL CENTER FOR EDUCATION STATISTICS**

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**E.D. TABS**

**July 2001**

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# **Academic Libraries: 1998**

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**U.S Department of Education**

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**NATIONAL CENTER FOR EDUCATION STATISTICS**

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# **Academic Libraries: 1998**

Margaret W. Cahalan  
Natalie M. Justh  
Mathematica Policy Research, Inc.

Jeffrey W. Williams, Project Officer  
National Center for Education Statistics

## Acknowledgments

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Members of the IPEDS Library Project Advisory Committee during the time of the study were: Martha Kyrillidou, Association of Research Libraries; Jan H. Kemp, Texas Tech University; Susan Anderson, Saint Petersburg Junior College; Carolyn Norman, California Community Colleges; Leland M. Park, Davidson College; Stanley Wilder, University of Rochester; Hugh Thompson, ALA.

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# Introduction

This report presents detailed tabulations for the 1998 Academic Library Survey (ALS). In 1998, the Academic Library Survey was conducted as part of the Integrated Postsecondary Education Data System (IPEDS) of the United States Department of Education's National Center for Education Statistics (NCES).<sup>1</sup> The Academic Library survey has been conducted by NCES since 1966 at irregular intervals. Beginning with the 1990 survey, the Academic Library survey has been conducted on a 2-year cycle. The data in this report cover academic libraries in 2-year and 4-year degree-granting postsecondary institutions in the United States.

## Topics Covered in the Report

The tables in this publication summarize library services (including electronic services), library staff, library collections, and library expenditures for libraries in degree-granting postsecondary institutions in the 50 states and the District of Columbia (D.C.). Library staff data are for fall 1998. Operating expenditures and library collections are for fiscal year (FY) 1998. Library circulation and interlibrary loans are for FY 1998 and other library services are for a typical week in the fall of 1998. Fiscal year 1998 is defined as any 12-month period between July 1, 1997, and September 30, 1998, that corresponds to the institution's fiscal year.

## Coverage and Response

Of the 4,141 2-year and 4-year degree-granting postsecondary institutions in the United States, there were 160 institutions that did not have their own library but shared a library with one or more of 124 other institutions. Those 160 institutions were excluded from the survey. There were also 323 institutions that were found to be out of scope because they did not have an academic library as defined by the survey. Thus there were 3,658 degree-granting postsecondary institutions in the 50 states and the District of Columbia that had academic libraries in 1998. The response among these 3,658 institutions was 97 percent.

## Changes in the Survey Form and Definitions of Key Terms for 1998

The NCES Academic Library Project Advisory Committee periodically revises the survey form to reflect changes that have occurred in the services, collections, expenditure accounting, and staffing of academic libraries. For example, in 1996 for the first time a number of questions were added on electronic services. In 1998, the year covered by this report, a substantial number of additional changes were made, especially in the collections and expenditures sections. These changes reflect the extensive changes in library services that have occurred with regard to the development of electronic media. We note below the definitions of key terms used in the tables and where applicable, we also note any changes that were made to the survey form in 1998. Some caution needs to be exercised in making comparisons with previous reports due to changes in categories as indicated below.

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<sup>1</sup> IPEDS is the U.S. Department of Education's vehicle for collecting data from all postsecondary institutions in the United States. Other topics included within IPEDS are institutional characteristics, fall enrollment, completions, finance, faculty salaries, and fall staff. From 1988 to 1998, the Academic Library Survey was a part of the IPEDS system. Beginning in the year 2000, the Academic Library Survey began collecting data independent from the IPEDS data collection; however, data from the Academic Library Survey can still be linked to IPEDS data using the institution UNITID. IPEDS also provides the frame used in the Academic Library Survey.

## Definition of Academic Library

The definition of academic library used in previous academic library surveys was not changed in 1998. However, in 1998 the definition of a library was reformatted as a checklist and the possibilities of reporting data for another library or having data reported by another library were clarified. This may have resulted in a slight increase in the number of libraries reported (from 3,408 in 1996 to 3,658 in 1998). This increase may also be related to the fact that all 2 and 4-year degree-granting postsecondary institutions were included in 1998. In previous years the category “Institution of Higher Education (IHE)” was used to define the group included in the report.<sup>2</sup> The definition below was included as part of the survey form.

*An Academic Library* is defined in part A of the survey form as an entity in a postsecondary institution that provides all of the following:

- organized collection of printed or other materials, or a combination thereof;
- a staff trained to provide and interpret such materials as required to meet the informational, cultural, recreational, or educational needs of clientele;
- an established schedule in which services of the staff are available to clientele; and
- the physical facilities necessary to support such a collection, staff, and schedule. This definition includes libraries that are part of learning resource centers.

*Branch libraries* are defined as auxiliary library service outlets with quarters separate from the central library that houses the basic collection. The central library administers the branches. Libraries on branch campuses that have separate NCES identification numbers are reported as separate libraries.

## Library Services (tables 1A, 1B, 2A, 2B, 3A, 3B)

The service-related sections of the survey form (parts E and F) did not change in content from 1996 to 1998. The definitions used in this section are as follows:

- *General and reserve circulation.* General circulation includes initial charging out of items, either manually or electronically, by patrons. The count also includes renewals of items, each of which is a circulation transaction. Reserve materials include those items that have been removed from circulation and set aside so they could be available for a certain course or activity.
- *Interlibrary loan transactions* are the numbers of filled requests for materials provided to other libraries or received by the library from another library. This includes originals and copies, and materials sent by electronic submission.
- *Public service hours per typical week* are the numbers of hours the physical facility is open for service.
- *Gate count of visitors to library per typical week* is the number of persons who physically enter library facilities over the course of a week. A single person can be counted more than once.

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<sup>2</sup> The term “institutions of higher education” (IHE) referred to a set of institutions with certain types of accreditation recognized at the time by the Department of Education. The term 2 and 4-year degree-granting postsecondary institutions includes all postsecondary institutions that award 2-year degrees or higher.

- *Reference transactions (including computer searches)* are information contacts that involve the knowledge, use, commendation, interpretation, or instruction in the use of one or more information sources by a member of the library staff. Information sources may include printed (e.g., book volumes) and non-printed (e.g., microforms) materials and machine-readable databases (e.g., those on CD-ROMS). The transaction may include providing direction to services outside the library.
- *Number served in information services/presentations to groups* is the number of individuals served in presentations that were sponsored by the library and planned in advance. The presentation may cover instruction in library use, or cultural, recreational or educational presentations. Presentations given off the library site are included, as long as the library is the sponsor.

### **Library Collections (tables 4A, 4B, 5A, 5B, 6A, 6B, 13B)**

The collections section (part D) had the largest number of changes between the 1996 and 1998 form. The section was reduced from 18 items in 1996 to 7 items in 1998. The simplification involved two kinds of changes. First, in 1998 counts were requested for selected types of material only, rather than for all materials. Second, for items other than books and bound serials, respondents were asked to provide a physical count or a bibliographical count but not both types of counts as had been the case for certain items in previous years. Deleted items included manuscripts and archives (linear feet) and other library materials. Cartographic materials, graphic materials, sound recordings, and film and video materials were combined with "Audiovisual materials." The computer files category was modified and became the broader "Electronic titles" category. The list below gives the categories used in the 1998 form.

- *Books, serial backfiles, and other materials* including government documents:
  - *Paper materials*---defined as those materials produced by making impression on paper (for this category only information is requested on the number of volumes and titles);
  - *Microform units*---defined as photographic reproductions of textual, tabular, or graphic materials reduced in size so that they can be used only with magnification;
  - *Electronic titles*---defined as materials that are not current serials and are considered part of the collection, whether purchased or leased, such as CD-ROMs, magnetic tapes, and magnetic disks (this category does not include bibliographic records).
- *Current serial subscriptions*---this category represents the total number of current serials received, including those that are paid and those received without payment (government documents received serially and electronic current serials are included); and
- *Audio-visual materials*---this category includes library materials that are displayed by visual projections or magnification or through sound reproduction.

## **Library Staff (tables 7A, 7B, 13C)**

There was only one change in 1998 to the section of the form on library staff (part B). For fall 1998, the category “Librarians and Other Professional Staff” reported together in previous surveys was separated into two categories “Librarians” and “Other Professional Staff.” The total of the two categories was also requested. Key staff definitions are as follows.

- *Full-time equivalent (FTE) staff* is the number of filled or temporarily vacant full-time equivalent (FTE) library positions. Part-time work is totaled and converted to FTE based on the number of hours the library uses as a full-time workweek.
- *Librarians* are staff members whose duties require professional education (the master’s degree or its equivalent) in the theoretical and scientific aspects of librarianship.
- *Other professionals* are staff members whose duties require an education and or training in related fields (e.g., academic disciplines, archives, media, computing).
- *Contributed services staff* are staff, such as members of religious orders, whose services are valued by bookkeeping entries rather than by full cash transactions (volunteers are not included here).
- *Other paid staff* is all other paid staff, except student assistants. This category includes clerical and technical staff but excludes maintenance and custodial staff.
- *Student assistants* are students employed on an hourly basis to work on library-related tasks. This group includes both students whose wages are paid from funds under the library budget and those paid from other budgets, including the College Work-Study Program.

## **Library Expenditures (tables 8A, 8B, 9A, 9B, 10A, 10B, 11A, 11B, 13D, 13E)**

There were two major changes to the expenditures section (part C). First, the title was changed from “Operating Expenditures” to “Library Expenditures.” This change reflects the fact that for many academic libraries the term operating expenditures does not include expenditures for “staff” or for “information resources.” The second change is that the expenditure categories were revised to be consistent with the new collection categorizations and to reflect expenditures for electronic-related activities and services. Books, serial backfiles, and other materials are now reported in two categories “paper and microform” and “electronic.” Current serials were also reported for “paper and microform” and “electronic”. Expenditures for search services and current serials were reported together. As with collections, an important rule is to count each of the expenditures only in one category. The categories used are summarized below.

- *Salaries and wages* are expenditures for full-time and part-time salaries and wages before deductions and include hourly pay to student assistants.
- *Information resources expenditures* are expenditures for the following materials:
  - *Books, serial backfiles and other materials* includes bound journal articles but does not include current serial subscriptions
  - *Paper and microform* includes books, serial backfiles, and other materials made with impression on paper and microforms (i.e., photographic reproductions of textual, tabular, or graphic materials reduced in size so that they can be used only with magnification);
  - *Electronic materials* are materials considered part of the collection that are purchased or

leased such as CD-ROMs, magnetic tapes, and magnetic disks and are designed to be processed by a computer or similar machine. Examples are U.S. Census data tapes or electronic journals, and reference tools (e.g., dictionary) on CD-ROM.

- *Current serial subscriptions and search services* includes serials that are publications issued in parts (e.g., periodicals, newspapers, annuals, proceedings, and transactions of societies); this expenditure category also includes the costs of search services such as First Search or Dialog
  - *Paper and microform* is the same format category defined above but for current serial subscriptions and search services;
  - *Electronic* is the same format category defined above but for current serial subscriptions and search services.
- *Audiovisual materials* are those that are displayed by visual projection or magnification or through sound reproduction or both; and
- *Document delivery and interlibrary loan-related expenditures* include fees paid for photocopies, costs of telefacsimile transmission, royalties and access fees paid to bibliographic utilities.
- *Preservation* includes the expenditures associated with maintaining library and archival materials for use in their original form or some other usable way. Examples of this are rebinding, de-acidification, lamination, and materials conservation.
- *Other collection materials* include expenses that are not included above.
- *Operating Expenditures:*
  - *Furniture and equipment* includes such things as microform equipment, audiovisual equipment, and related costs. This category excludes computer equipment.
  - *Computer hardware and software* includes expenditures from the library budget for computer hardware and software used to support library operations, whether purchased or leased, mainframe or microcomputer. It includes expenditures for maintenance and the expenditure to run information services when it cannot be separated from the price of the product. The category excludes those expenses reported under electronic collection expenditures.
  - *Bibliographic utilities, networks and consortia* include expenditures for services provided by national, regional, and local bibliographic utilities networks, and consortia.
  - *All other operating expenditures* includes all expenditures not already reported elsewhere except employee fringe benefits.
- *Total expenditures* include the sum of all expenditures listed above.

### **Electronic Services (tables 12A, 12B)**

In addition to the items initiated in 1996, a number of new items were added to this section (part G) in 1998, including video-desktop conferencing, satellite broadcasting, scanning equipment and services for distance education students:

- *Electronic services* cover information about the availability of electronic services in the library and

elsewhere on campus and off campus access by primary clientele and other users. Services in addition to those listed above include: Internet access, reference services by e-mail, full-texts of periodicals and academic course reserve materials available electronically, and electronic library indexes such as citation indexes.

### **Other Terms Used in the Report**

In addition to the library terms noted above a number of other terms are used in various sections of the report.

- *Full-time equivalent student* is calculated based on the number of full-time students enrolled plus one-third of the number of part-time students.
- *Education and General expenditures* are the total expenditures for operating the institution, and include expenditures for instruction, administration, student services, research, libraries, public services, operation and maintenance of plant, scholarships and fellowships, and mandatory transfers (money legislatively earmarked for postsecondary education).
- *Carnegie Classification* is a grouping of degree-granting postsecondary institutions into categories developed by the Carnegie Foundation for the Advancement of Teaching. The categorization is based on a combination of levels of degrees awarded and research funding levels. The Carnegie Classification categories used are as follows: Research I and II; Doctoral I and II; Master's I and II; Baccalaureate I and II; Associate of Arts; and Specialized.<sup>3</sup> For table presentation, "level I" and "level II" of the Carnegie Classifications were combined. In addition there were 535 institutions that did not have a Carnegie Classification and these were put into a "not classified" category (The Carnegie Foundation for the Advancement of Teaching, *A Classification of Institutions of Higher Education, 1994 Edition*, Princeton, N.J).

### **Classifications Used in the Report**

The 'A' series of tables in this publication reports the data by state. The 'B' series of tables reports data by control (library at public, private institution); size of FTE student enrollment at institution (less than 1,500; 1,500 to 4,999; 5,000 or more); the Carnegie Classification (see definition above); and highest offering -- a categorization based on the IPEDS classification of the highest degree awarded by the institution (doctor's, master's, bachelor's, and less than 4-year).

### **Methodological Caution**

This is a descriptive report that focuses on information from a census of academic libraries in 1998. The presentation of numbers, proportions, and percentages is descriptive only of libraries in the period referenced. While data were imputed for nonresponse, states vary in the extent of imputed data. See the section on *Methodology* for more detail on imputation. See Methodology tables A to B for item response rates and overall response rates by state.

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<sup>3</sup> Specialized institutions offer degrees ranging from the bachelor's to the doctorate, at least 50 percent of which are in a single specialized field, e.g., theological seminaries, Bible Colleges, and other institutions offering degrees in religion, and schools of art, music, and design.

## Highlights

### Services

- In 1998, 3,658 of the 4,141 2-year and 4-year degree-granting postsecondary institutions in the United States reported that they had their own academic library. Of these 3,658 academic libraries, 97 percent responded to the survey (table A - Methodology Tables).
- In fiscal year (FY) 1998, general collection circulation transactions in the nation's academic libraries at degree-granting postsecondary institutions totaled 175.4 million. Reserve collection circulation transactions totaled 40.7 million.
- In FY 1998, academic libraries provided a total of about 9.2 million interlibrary loans to other libraries (both academic libraries and other types of libraries) and received about 7.7 million loans (table 1A).
- Overall, the largest percentage of academic libraries (42 percent) reported having 60-79 hours of public service per typical week. However, 38 percent provided 80 or more service hours per typical week during the academic year. The percentage of institutions providing 80 or more public-service hours ranged from 6 percent in less than 4-year institutions to 75 percent in doctorate-granting institutions (calculated from table 2B). Twenty libraries reported that they were open 168 hours a week or 24 hours 7 days a week (table 2A).
- Taken together, academic libraries reported a gate count of about 16.2 million visitors per typical week (about 1.6 visits per total FTE enrollment) (table 3A).<sup>4</sup>
- About 2.1 million reference transactions were reported in a typical week (table 3A).
- Over FY 1998, about 438,000 presentations to groups serving about 7.4 million were reported (table 3A).

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<sup>4</sup> FTE enrollment is calculated by adding one-third of part-time enrollment to full-time enrollment. Enrollment data are from the 1997-98 IPEDS Fall Enrollment Survey. Calculations are based on a total FTE of 10,216,653.

## Collections

- Taken together, the nation's 3,658 academic libraries at degree-granting postsecondary institutions held a total of 878.9 million paper volumes (books, bound serials, and government documents) at the end of FY 1998 (table 4A).
- The median number of paper volumes held per FTE student was 53.7 volumes. Median volumes held ranged from 18.5 per FTE in less than 4-year institutions to 119.8 in doctorate-granting institutions (table 13B).
- Of the total paper volumes held at the end of the year, 43 percent (376.0 million) were held at the 125 institutions categorized under the Carnegie Classification as Research I or Research II institutions. About 55 percent of the volumes were at those institutions classified as either Research or Doctoral in the Carnegie Classification (calculated from table 4B).
- In FY 1998, the median number of paper volumes added to collections per FTE student was 1.5. The median number added ranged from .7 per FTE student in less than 4-year institutions to 2.9 in doctorate-granting institutions (table 13B).

## Staff

- There was a total of 96,709 FTE staff working in academic libraries in 1998. Of these, 30,041 (31 percent) were librarians or other professional staff; 38,026 (39 percent) were other paid staff; 270 (less than one-half of 1 percent) were contributed services staff; and 28,373 (29 percent) were student assistants (table 7A).
- Excluding student assistants, the institutional median number of academic library FTE staff per 1,000 FTE students was 5.6. The median ranged from 3.6 in less than 4-year institutions to 9.1 in doctorate-granting institutions (table 13C).

## Expenditures

- In 1998, total expenditures for libraries at the 3,658 degree-granting postsecondary institutions totaled \$4.6 billion (table 8A). The three largest expenditure items for all academic libraries were salaries and wages, \$2.31 billion (50 percent); current paper and electronic serial subscription expenditures, \$974.9 million (21 percent); and paper books and bound serials, \$514.0 million (11 percent) (calculated from tables 9A and 10A).
- The libraries of the 570 doctorate-granting institutions (16 percent of the total institutions) accounted for \$2.924 billion, or 64 percent of the total expenditure dollars at all academic libraries at degree-granting postsecondary institutions (calculated from table 9B).

- In 1998, the median total operating expenditures per FTE student was \$301.25 and the median for information resource expenditures was \$84.98 (table 13D).

## **Electronic Services**

- In FY 1998, 84 percent of degree-granting postsecondary institutions with an academic library had access from within the library to an electronic catalog of the library's holdings, 95 percent had Internet access within the library, and 54 percent had library reference service by e-mail both within the library and elsewhere on campus (table 12A). Ninety-two percent had instruction by library staff on the use of internet resources within the library (table 12A).
- In FY 1998, 44 percent had technology within the library to assist persons with disabilities and 34 percent of academic libraries had access to this service from elsewhere on campus (table 12A). Sixty-five percent provided services to distance education students (table 12A).
- Almost three-fourths (71 percent) had computers not dedicated to library functions for patron use inside the library. Fewer institutions (12 percent) had video/desktop conferencing by or for the library within the library and 19 percent had access from elsewhere on campus (table 12A). Seventeen percent had satellite broadcasting by or for the library within the library and 23 percent had access from elsewhere on campus (table 12A).
- Just under one-third (30 percent) had electronic document delivery by the library to a patron's account or address from within the library (table 12A).

## Methodology

### Scope

The Academic Libraries survey was mailed in August 1998 to all postsecondary institutions in the United States.<sup>5</sup> The Academic Library data file and this report are limited to 2-year and 4-year degree-granting postsecondary institutions.

Of the 4,141 degree-granting postsecondary institutions in the United States, there were 160 institutions that did not have their own library but shared a library with one or more of 124 other institutions. Those 160 institutions were excluded from the survey. There were also 323 institutions that were found to be out of scope because they did not have an academic library as defined by the survey. Thus there were 3,658 degree-granting postsecondary institutions in the 50 states and the District of Columbia that had academic libraries in 1998. The response rate among these 3,658 institutions was 97 percent.

### Data Collection Procedures

The Academic Library Survey data are collected and processed by the U.S. Bureau of Census Government Division, for NCES. In 1990, an NCES/IPEDS (Integrated Postsecondary Education Data System) Academic Library survey improvement project was begun with the assistance of the National Commission on Libraries and Information Science (NCLIS) and the American Library Association's Office of Research and Statistics (ALA-ORS). The project identified a librarian in each state to work with IPEDS Coordinators in submitting library data to NCES. For the 1990, 1992, 1994, 1996, and 1998 data collections many of those library representatives took major responsibility for collecting data in their state. Others were available to promote prompt responses from librarians and to assist in problem resolution when anomalies were discovered in completed questionnaires.

The project also assisted NCES in developing microcomputer software packages prepared for use by states in reporting library data to NCES. The software package was named Input and Data Editing for Academic Library Statistics (IDEALS). Academic librarians within each state completed hard copy forms as in the past and returned them to the state's library representative or the IPEDS Coordinator. States were given the option of submitting the library forms to NCES, but were encouraged to enter those data into IDEALS and submit the data on diskette to NCES.

The IDEALS package features some internal consistency edit checks as well as a few range checks and summation checks. Library representatives at the state level could run edit/error reports and make corrections before submitting the data on diskette to NCES.

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<sup>5</sup>This report is based only on responses of 2-year and 4-year degree-granting postsecondary institutions.

## Editing and Imputation

The IDEALS computer program described above includes many edit checks providing some warnings as the data are being keyed and provides an edit/error report after the data have been keyed. The types of edit checks are listed below:

- *Summations*--reported totals are compared with the sums of the constituent data items. If they are not equal, an error message is generated.
- *Relational edit checks*--the program compares data entries from one section of the questionnaire with data entries from another section of the questionnaire for consistency. For example, if books and bound serials were added during the fiscal year the program would expect some expenditure to be reported for books and bound serials. If one is reported without the other an error message is generated. Another example is that the number of volumes of print materials added during the fiscal year cannot exceed the total number of volumes held at the end of the fiscal year.
- *Range checks*--for example, if the average salary of librarians is less than \$20,000 or greater than \$100,000, an error message is generated. If any of the collections data, except for volumes held at the end of the year, is greater than 1,000,000, an error message is generated. If the reported hours of service is less than 10 hours per week or greater than 168 hours per week, an error message is generated.

When probable errors were identified by the IDEALS edit checks, state or Census Bureau personnel contacted the institution to resolve the problem.

After the data were received by NCES from every state, the data files were merged and general edits and imputations were performed. Some examples of general edits and imputations follow:

- If a total was blank or zero, but there were one or more positive subtotals the total was changed to equal the sum of the subtotals.
- If a value or item were missing and prior year (1996) data were available, the data were used to impute a value for the missing item. A ratio adjustment was done, taking into account the average amount of change that occurred in the variable within the imputation stratum to which the institution was assigned. These ratios were then applied to the prior year data used for imputation. The strata were based upon the highest level of degree (doctor's, master's, bachelor's, and associate), and control and size of institution. The four control/size imputation categories were: public, less than median number of degrees for institutions in that category; public, equal to or greater than the median; private, less than the median; private, equal to or greater than the median.

- If prior year data were unavailable, for purposes of imputation, the Academic Library file was divided into the 8 imputation classes noted above and averages for the class were applied.
- To calculate the imputed value for a subtotal, the average estimate was calculated across the set of respondents in each class, including ones for which the total was obtained by adding the subtotals, but excluding those for which the sum of the subtotals did not originally equal the total. The average subtotal value was divided by the average total value within each imputation class to obtain an average proportion. The average proportion was multiplied by the reported total to obtain the imputed subtotal value.
- If for total staff (Part B, line 8) and total expenditures (Part C, line 24), the total and all subtotals were blank or zero, they were imputed by taking the average of the imputation class.
- Values were imputed for all data items in Parts B through F, except contributed services staff (Part B, line 6 on the survey form) and employee fringe benefits (Part C, line 25 on the survey form). These categories were applicable to only a few institutions. Tables 1 - 11 and 13 reflect imputed data.
- Values were not imputed for electronic services (Part G). Table 12, which reports percentages, does not include imputed data.

The imputation procedure of using a ratio adjustment to prior year data for imputation represented a change from that followed in cycles prior to 1996, and may have resulted in some small differences in estimates. The change for 1996 to the use of ratio adjustments allowed use of information about actual changes in the data, which enabled more accurate imputation. While checks indicate that the effect of the change in imputation procedure was not large, caution should be exercised in making comparisons with pre-1996 or earlier reports. The reader is referred to the NCES report on the *Status of Academic Libraries in the United States: Results from the 1996 Academic Library Survey with Historical Comparisons* (NCES2001301). This report uses data from institutions reporting in each reference year, to make comparisons over time.

### **Response Rates.**

Of the 3,658 college and university libraries, 111 or 3.0 percent were unit nonrespondents. Methodology tables A and B present further information on response rates. The first three rows of table A present the number of academic libraries, and the number and percentage of nonrespondents and respondents by level and control of institution. In addition, the remaining rows show the number and percentage of libraries responding for each item.

## Classifications Used in the Report

The tables in this report present the data by state; control (public, private); level of highest degree offering (doctor's, master's, bachelor's, and less than 4-year); size of full-time equivalent (FTE) enrollment (less than 1,500; 1,500 to 4,999; 5,000 or more); and the 1994 Carnegie Classification. The Carnegie Classification categories used are as follows: Research I and II; Doctoral I and II; Master's I and II; Baccalaureate I and II; Associate of Arts; and Specialized. For table presentation, "level I" and "level II" of the Carnegie Classifications were combined. In addition, there were 535 institutions that did not have a Carnegie Classification in 1994 and these were put into a "not classified" category (Carnegie Foundation for the Advancement of Teaching, *A Classification of Institutions of Higher Education, 1994 Edition*, Princeton, N. J.).

**Caution on the analysis of data by state and by level and control of institution.** The number of unit nonresponses can vary by state and affect the reliability of the state data. Methodology table B presents the distribution of the set of unit nonrespondents by state and by level and control of institution. Methodology table C gives the number of academic libraries by state, level, and control of institution. The data user should be especially cautious in using data at a level of detail where the nonresponse rate was 30 percent or greater.

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Table 1A.- Total circulation and interlibrary loan transactions in academic libraries, by state: 1998

State	Total number of libraries	Circulation		Interlibrary loans					
		General collection	Reserve collection	Loans provided to other libraries			Loans received from other libraries		
				Total	Returnable	Non-returnable	Total	Returnable	Non-returnable
<b>Total 50 states &amp; D.C.</b>	3,658	175,409,202	40,657,911	9,209,087	4,367,107	4,840,867	7,695,279	3,400,138	4,283,647
Alabama	67	1,969,518	332,149	82,913	40,479	42,434	64,848	21,650	43,198
Alaska	6	169,941	35,839	19,024	9,021	10,003	36,160	15,235	20,925
Arizona	53	3,189,055	516,282	124,703	63,595	61,108	106,815	45,954	60,861
Arkansas	45	959,518	165,203	75,768	30,090	45,678	63,633	25,336	38,297
California	353	20,066,916	4,283,915	599,840	277,616	322,224	547,918	243,096	304,822
Colorado	59	3,822,152	584,338	159,973	68,611	91,362	223,482	73,058	150,424
Connecticut	43	1,487,302	335,115	142,391	70,560	71,831	109,521	60,410	49,111
Delaware	9	578,175	135,530	20,153	8,760	11,393	20,617	8,404	12,213
District of Columbia	17	1,604,802	364,813	89,910	42,500	47,410	71,475	27,410	44,065
Florida	124	5,682,240	1,519,365	308,456	131,427	177,029	225,189	85,853	139,336
Georgia	93	3,385,010	1,324,918	194,035	79,615	114,420	127,864	49,208	78,656
Hawaii	17	972,883	96,584	23,321	3,438	19,883	17,503	5,906	11,597
Idaho	13	759,296	251,850	37,167	17,063	20,104	30,418	11,676	18,742
Illinois	165	8,387,270	2,263,887	758,027	436,126	321,054	579,753	323,186	255,043
Indiana	74	4,774,299	892,313	255,908	106,611	149,066	206,997	78,054	127,882
Iowa	63	2,283,206	558,353	166,495	60,936	105,559	120,177	45,441	74,736
Kansas	54	2,548,918	447,086	139,732	79,387	60,345	113,235	50,184	63,051
Kentucky	66	1,815,642	441,386	92,771	38,933	53,838	73,547	26,544	47,003
Louisiana	38	1,787,228	489,891	80,917	34,926	45,991	81,016	30,584	50,432
Maine	33	802,559	315,726	115,289	67,565	47,724	114,906	60,630	54,276
Maryland	55	2,822,061	906,313	152,653	69,054	83,599	133,991	51,694	82,297
Massachusetts	124	7,106,635	2,492,141	368,736	170,570	198,166	275,754	112,492	163,262
Michigan	102	4,857,637	923,149	254,565	89,719	164,846	183,403	63,943	119,460
Minnesota	109	4,793,557	910,136	438,021	167,736	270,285	264,539	137,967	126,572
Mississippi	40	1,136,795	295,306	43,065	22,119	20,946	40,613	15,378	25,235
Missouri	96	3,195,039	749,880	200,073	79,450	120,623	183,873	75,959	107,914
Montana	28	595,841	182,417	34,390	15,189	19,201	39,110	15,778	23,332
Nebraska	37	1,349,936	251,737	73,563	33,524	40,039	60,828	26,744	34,084
Nevada	11	570,761	159,958	25,570	13,198	12,372	26,296	10,474	15,822
New Hampshire	26	797,623	248,419	45,703	19,442	26,261	50,238	14,743	35,495
New Jersey	55	4,076,262	727,212	142,855	72,697	70,158	125,282	49,663	75,619
New Mexico	39	1,152,922	298,028	69,500	35,533	33,967	68,504	25,972	42,532
New York	271	15,716,446	4,117,114	611,449	254,990	356,459	538,798	206,475	323,470
North Carolina	120	5,740,364	979,932	283,313	139,489	143,824	178,633	102,780	75,853
North Dakota	20	718,297	84,757	37,633	20,086	17,547	49,969	17,911	32,058
Ohio	139	7,060,859	1,750,771	686,264	472,978	213,251	679,064	452,580	226,428
Oklahoma	46	1,826,351	430,620	94,793	32,475	62,318	82,158	27,107	55,051
Oregon	50	1,730,464	521,558	144,508	87,069	57,439	129,686	73,355	56,331
Pennsylvania	227	7,155,420	2,014,191	435,860	185,995	249,865	375,234	130,727	244,507
Rhode Island	13	753,341	291,163	43,380	22,525	20,855	43,169	16,475	26,694
South Carolina	63	2,210,656	416,422	68,736	29,526	39,210	83,474	35,517	47,957
South Dakota	24	340,136	91,815	32,909	18,592	14,317	32,557	11,607	20,950
Tennessee	82	2,714,867	618,381	101,620	42,051	59,569	107,080	34,880	72,200
Texas	192	12,414,069	2,132,234	512,983	207,079	305,904	411,095	139,582	271,513
Utah	21	2,083,151	515,521	80,821	34,656	46,165	50,373	19,357	31,016
Vermont	24	775,287	183,715	39,150	25,027	14,123	41,867	19,593	22,274
Virginia	83	4,363,607	946,477	236,187	104,360	131,827	174,428	69,673	104,755
Washington	69	5,439,568	664,446	197,491	97,448	100,043	134,521	67,705	66,816
West Virginia	26	855,002	193,247	27,325	18,207	9,118	31,648	16,951	14,697
Wisconsin	65	3,591,527	1,173,611	216,170	106,952	109,218	147,764	62,550	85,214
Wyoming	9	418,791	32,697	23,008	12,112	10,896	16,256	6,687	9,569

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 1B.- Total circulation and interlibrary loan transactions in academic libraries by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Circulation		Interlibrary loans					
		General collection	Reserve collection	Loans provided to other libraries			Loans received from other libraries		
				Total	Returnable	Non-returnable	Total	Returnable	Non-returnable
<b>All postsecondary degree-granting institutions</b> .....	3,658	175,409,202	40,657,911	9,209,087	4,367,107	4,840,867	7,695,279	3,400,138	4,283,647
<b>Control</b>									
Public .....	1,583	116,158,325	25,267,126	6,117,411	2,915,081	3,202,330	4,826,614	2,174,349	2,652,265
Private .....	2,075	59,250,877	15,390,785	3,091,676	1,452,026	1,638,537	2,868,665	1,225,789	1,631,382
<b>Level *</b>									
Total 4-year and above .....	2,220	150,575,119	34,452,792	8,599,282	3,910,517	4,687,652	7,084,209	3,007,069	4,065,646
Doctor's .....	570	105,613,558	22,469,135	6,111,991	2,532,000	3,579,991	4,508,547	1,853,891	2,645,803
Master's .....	944	33,868,817	8,746,691	1,857,221	1,015,147	841,808	1,875,218	833,090	1,041,011
Bachelor's .....	703	11,083,458	3,235,571	630,040	363,340	265,853	700,313	319,959	378,830
Less than 4-year .....	1,438	24,834,083	6,205,119	609,805	456,590	153,215	611,070	393,069	218,001
<b>Size (FTE enrollment)</b>									
Less than 1,500 .....	2,041	24,945,911	6,172,939	1,139,514	559,755	578,646	1,103,290	494,220	597,576
1,500 to 4,999 .....	1,053	33,991,509	9,258,878	2,051,225	1,096,480	954,745	2,025,223	931,192	1,094,031
5,000 or more .....	564	116,471,782	25,226,094	6,018,348	2,710,872	3,307,476	4,566,766	1,974,726	2,592,040
<b>Carnegie Classification (1994) *</b>									
Research I and II .....	125	71,056,641	13,846,917	3,616,001	1,406,553	2,209,448	2,447,505	1,047,640	1,399,865
Doctoral I and II .....	109	17,011,465	4,487,801	1,244,381	634,375	610,006	1,105,666	474,913	630,753
Master's I and II .....	521	31,830,547	7,536,918	1,838,498	966,280	871,987	1,788,016	714,993	1,071,962
Baccalaureate I and II .....	603	15,820,361	4,676,047	992,537	607,298	385,239	1,125,179	553,737	571,442
Associate of Arts .....	1,217	22,362,696	6,115,275	608,932	459,468	149,464	594,853	389,894	204,959
Specialized .....	548	12,306,340	3,126,356	790,543	233,967	555,694	453,796	145,815	306,401
Not classified .....	535	5,021,152	868,597	118,195	59,166	59,029	180,264	73,146	98,265

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 2A.- Public service hours per typical week and number of libraries by category of public service hours  
per typical week in academic libraries, by state: 1998**

State	Total number of libraries	Public service hours per typical week								
		Total	Less than 20	20 to 39	40 to 59	60 to 79	80 to 99	100 to 119	120 to 167	168*
<b>Total 50 states &amp; D.C.</b>	3,658	273,581	39	93	575	1,550	984	350	47	20
Alabama	67	4,765	0	0	12	34	18	3	0	0
Alaska	6	506	0	0	2	2	1	0	0	1
Arizona	53	3,741	1	2	13	26	7	1	3	0
Arkansas	45	3,221	0	0	10	21	12	1	1	0
California	353	23,661	4	26	78	156	69	16	3	1
Colorado	59	4,256	1	1	12	26	13	5	1	0
Connecticut	43	3,183	1	2	6	15	12	7	0	0
Delaware	9	748	0	0	0	4	3	2	0	0
District of Columbia	17	1,408	0	1	2	6	3	4	1	0
Florida	124	8,831	0	3	29	58	23	10	1	0
Georgia	93	7,076	0	0	11	46	29	5	2	0
Hawaii	17	1,167	0	0	6	6	4	1	0	0
Idaho	13	1,062	0	0	1	4	5	3	0	0
Illinois	165	12,284	2	6	23	75	40	15	4	0
Indiana	74	5,854	1	1	9	27	24	11	1	0
Iowa	63	5,134	1	0	5	25	19	11	1	1
Kansas	54	4,063	0	0	8	26	18	1	0	1
Kentucky	66	4,778	0	0	18	25	17	5	1	0
Louisiana	38	2,975	3	1	4	9	16	3	0	2
Maine	33	2,483	0	0	8	11	9	5	0	0
Maryland	55	4,415	0	1	3	26	16	7	2	0
Massachusetts	124	10,134	2	1	15	34	46	25	0	1
Michigan	102	7,878	0	3	10	52	26	8	2	1
Minnesota	109	7,692	0	5	33	36	22	11	1	1
Mississippi	40	3,094	0	0	6	23	5	2	3	1
Missouri	96	7,351	0	1	10	48	31	6	0	0
Montana	28	1,911	0	0	11	11	5	0	1	0
Nebraska	37	2,842	0	0	4	17	14	2	0	0
Nevada	11	719	0	1	3	4	2	1	0	0
New Hampshire	26	2,088	0	0	3	9	9	5	0	0
New Jersey	55	4,422	0	1	5	23	20	6	0	0
New Mexico	39	2,443	3	2	10	15	8	1	0	0
New York	271	20,613	2	11	37	107	74	36	2	2
North Carolina	120	9,167	0	0	6	68	34	9	3	0
North Dakota	20	1,399	0	0	5	12	2	1	0	0
Ohio	139	10,473	2	1	26	53	37	19	0	1
Oklahoma	46	3,409	1	1	3	26	10	5	0	0
Oregon	50	3,834	1	3	5	20	15	2	4	0
Pennsylvania	227	17,268	3	10	38	74	68	28	4	2
Rhode Island	13	1,186	0	0	1	2	5	5	0	0
South Carolina	63	4,599	1	1	5	31	21	4	0	0
South Dakota	24	1,739	0	0	5	10	9	0	0	0
Tennessee	82	5,815	2	4	10	39	23	4	0	0
Texas	192	14,594	4	1	23	89	55	17	3	0
Utah	21	1,501	1	0	7	3	7	3	0	0
Vermont	24	2,236	0	0	2	5	10	5	0	2
Virginia	83	7,006	0	2	8	28	25	17	0	3
Washington	69	4,803	2	1	14	36	11	4	1	0
West Virginia	26	1,949	0	0	0	18	8	0	0	0
Wisconsin	65	5,108	1	0	10	22	23	7	2	0
Wyoming	9	697	0	0	0	7	1	1	0	0

\* These libraries are open 24 hours a day 7 days a week.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 2B.- Public service hours per typical week and number of libraries by category of public service hours per typical week in academic libraries by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Public service hours per typical week								
		Total	Less than 20	20 to 39	40 to 59	60 to 79	80 to 99	100 to 119	120 to 167	168 <sup>2</sup>
<b>All postsecondary degree-granting institutions</b> .....	3,658	273,581	39	93	575	1,550	984	350	47	20
<b>Control</b>										
Public .....	1,583	119,641	2	9	179	858	384	121	25	5
Private .....	2,075	153,940	37	84	396	692	600	229	22	15
<b>Level<sup>1</sup></b>										
Total 4-year and above .....	2,220	183,759	24	36	187	653	922	342	37	19
Doctor's .....	570	52,079	5	9	31	95	225	176	24	5
Master's .....	944	78,137	10	14	65	254	484	99	9	9
Bachelor's .....	703	53,362	9	13	91	301	213	67	4	5
Less than 4-year .....	1,438	89,822	15	57	388	897	62	8	10	1
<b>Size (FTE enrollment)</b>										
Less than 1,500 .....	2,041	138,231	38	87	507	892	402	93	10	12
1,500 to 4,999 .....	1,053	84,310	1	3	57	499	364	111	14	4
5,000 or more .....	564	51,040	0	3	11	159	218	146	23	4
<b>Carnegie Classification (1994)<sup>1</sup></b>										
Research I and II .....	125	13,436	0	2	1	1	26	76	17	2
Doctoral I and II .....	109	10,662	0	1	1	6	50	48	2	1
Master's I and II .....	521	46,747	2	0	2	79	364	65	6	3
Baccalaureate I and II .....	603	51,996	1	3	12	177	309	93	5	3
Associate of Arts .....	1,217	79,464	8	24	252	835	79	7	10	2
Specialized .....	548	40,941	6	14	92	241	129	53	5	8
Not classified .....	535	30,335	22	49	215	211	27	8	2	1

<sup>1</sup> While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

<sup>2</sup> These libraries are open 24 hours a day 7 days a week.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 3A.- Gate count and number of reference transactions per typical week, and total information service to groups, in academic libraries, by state: 1998**

State	Total number of libraries	Gate count per typical week	Reference transactions, including computer searches per typical week	Information service to groups, fiscal year 1998	
				Total number of presentations	Total number served
<b>Total 50 states &amp; D.C.</b>	3,658	16,194,154	2,070,104	437,538	7,355,518
Alabama	67	199,132	29,016	6,069	112,776
Alaska	6	17,581	2,135	972	13,007
Arizona	53	202,153	45,969	9,091	156,845
Arkansas	45	114,759	10,315	4,044	54,759
California	353	1,922,723	168,041	45,581	696,872
Colorado	59	186,740	24,661	7,096	93,459
Connecticut	43	176,597	19,767	4,082	62,966
Delaware	9	40,088	7,109	1,370	22,097
District of Columbia	17	194,624	16,407	2,874	29,464
Florida	124	584,198	69,941	17,126	293,494
Georgia	93	295,014	43,088	10,747	182,310
Hawaii	17	84,112	8,014	1,182	20,559
Idaho	13	98,998	7,269	1,445	22,634
Illinois	165	717,896	81,229	19,559	347,718
Indiana	74	332,782	39,719	7,990	146,356
Iowa	63	276,305	21,493	6,011	87,700
Kansas	54	141,804	20,722	4,825	76,986
Kentucky	66	234,954	19,076	6,408	115,626
Louisiana	38	216,867	19,784	5,603	85,179
Maine	33	61,250	5,664	1,724	25,541
Maryland	55	307,427	72,662	15,537	289,081
Massachusetts	124	641,321	59,329	13,847	194,175
Michigan	102	452,654	58,761	13,171	256,998
Minnesota	109	310,893	29,540	7,939	149,924
Mississippi	40	150,263	45,110	3,991	80,422
Missouri	96	398,295	42,415	8,905	154,856
Montana	28	65,402	6,110	4,229	28,140
Nebraska	37	130,672	11,248	4,038	57,084
Nevada	11	67,202	10,181	1,791	25,759
New Hampshire	26	61,736	5,466	1,767	32,063
New Jersey	55	364,801	33,245	8,675	162,214
New Mexico	39	131,309	13,420	5,032	77,716
New York	271	1,322,952	165,195	40,269	762,152
North Carolina	120	376,445	55,070	14,022	201,874
North Dakota	20	61,746	5,118	1,212	25,814
Ohio	139	605,974	343,785	14,380	250,246
Oklahoma	46	163,535	18,208	6,404	124,248
Oregon	50	206,717	17,255	4,874	84,537
Pennsylvania	227	815,547	74,846	20,604	333,091
Rhode Island	13	115,391	11,024	2,101	30,925
South Carolina	63	192,204	21,844	5,806	104,575
South Dakota	24	70,035	5,241	1,244	22,632
Tennessee	82	280,565	34,564	6,941	116,405
Texas	192	1,151,537	118,163	25,966	459,362
Utah	21	250,137	25,222	6,387	117,789
Vermont	24	64,251	4,973	2,041	26,957
Virginia	83	403,560	46,964	10,334	162,497
Washington	69	348,386	30,438	8,907	166,993
West Virginia	26	89,150	8,458	1,983	33,535
Wisconsin	65	463,700	34,477	10,618	166,236
Wyoming	9	31,770	2,353	724	10,870

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 3B.- Gate count and number of reference transactions per typical week, and total information service to groups, in academic libraries by control, level, size, and Carnegie Classification of institution: 1998

Institutional characteristic	Total number of libraries	Gate count per typical week	Reference transactions, including computer searches per typical week	Information service to groups, fiscal year 1998	
				Total number of presentations	Total number served
<b>All postsecondary degree-granting institutions</b> .....	3,658	16,194,154	2,070,104	437,538	7,355,518
<b>Control</b>					
Public .....	1,583	10,821,168	1,473,817	303,610	5,369,645
Private .....	2,075	5,372,986	596,287	133,928	1,985,873
<b>Level *</b>					
Total 4-year and above .....	2,220	12,517,110	1,641,786	299,727	4,717,727
Doctor's .....	570	7,316,020	1,157,781	169,818	2,363,312
Master's .....	944	3,920,896	354,376	87,754	1,584,068
Bachelor's .....	703	1,279,814	129,507	42,146	770,127
Less than 4-year .....	1,438	3,677,044	428,318	137,811	2,637,791
<b>Size (FTE enrollment)</b>					
Less than 1,500 .....	2,041	2,699,680	308,803	80,344	1,212,654
1,500 to 4,999 .....	1,053	4,370,600	408,415	132,976	2,413,887
5,000 or more .....	564	9,123,874	1,352,886	224,218	3,728,977
<b>Carnegie Classification (1994) *</b>					
Research I and II .....	125	3,901,819	518,019	96,102	1,296,158
Doctoral I and II .....	109	1,555,487	439,132	35,798	512,417
Master's I and II .....	521	3,808,058	367,515	80,200	1,472,230
Baccalaureate I and II .....	603	1,805,514	142,130	51,157	902,614
Associate of Arts .....	1,217	3,537,146	411,426	132,137	2,541,853
Specialized .....	548	1,157,652	131,191	26,527	377,615
Not classified .....	535	428,478	60,691	15,617	252,631

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 4A.- Number of volumes of books, bound serials, and bound government documents held at the end of the year, and number of libraries by number of volumes, by state: 1998**

State	Total number of libraries	Volumes held at end of year	Number of libraries in volume category									
			Less than 5,000	5,000 to 9,999	10,000 to 19,999	20,000 to 29,999	30,000 to 49,999	50,000 to 99,999	100,000 to 249,999	250,000 to 499,999	500,000 to 999,999	1,000,000 or more
<b>Total 50 states &amp; D.C.</b>	3,658	878,906,177	485	175	221	285	453	673	729	270	180	187
Alabama	67	12,204,721	7	4	2	3	14	14	11	7	2	3
Alaska	6	2,237,345	1	0	0	1	0	1	1	0	1	1
Arizona	53	9,825,842	17	3	4	5	5	13	2	1	1	2
Arkansas	45	5,869,164	4	7	8	4	4	5	8	2	2	1
California	353	78,932,965	69	19	27	25	44	70	56	9	15	19
Colorado	59	13,013,818	18	5	4	4	6	4	6	4	5	3
Connecticut	43	19,375,551	1	4	2	3	10	5	7	3	5	3
Delaware	9	3,231,999	0	0	1	0	0	0	4	3	0	1
District of Columbia	17	10,298,619	2	1	0	2	0	2	4	0	2	4
Florida	124	23,996,765	28	10	8	6	14	21	18	7	6	6
Georgia	93	18,661,382	9	4	10	5	14	18	20	5	4	4
Hawaii	17	4,361,571	3	0	1	2	3	4	1	2	0	1
Idaho	13	3,830,706	2	1	0	1	0	2	3	1	2	1
Illinois	165	47,526,638	20	12	9	12	20	28	35	13	6	10
Indiana	74	22,204,103	9	8	5	3	2	8	22	10	2	5
Iowa	63	12,653,705	8	3	4	5	3	14	19	2	3	2
Kansas	54	13,943,047	3	2	1	12	10	14	4	2	2	4
Kentucky	66	11,464,986	13	0	3	6	11	10	13	4	4	2
Louisiana	38	14,407,524	5	2	0	2	3	4	5	9	5	3
Maine	33	5,221,976	6	2	5	2	3	6	4	0	4	1
Maryland	55	13,564,930	2	3	3	3	9	9	15	5	4	2
Massachusetts	124	40,618,020	8	5	7	7	9	29	32	12	9	6
Michigan	102	30,546,220	3	10	6	7	17	20	19	7	9	4
Minnesota	109	16,736,005	34	6	9	10	12	7	15	10	5	1
Mississippi	40	6,763,599	3	0	0	6	7	9	8	4	2	1
Missouri	96	20,549,253	9	4	9	9	9	25	18	6	1	6
Montana	28	2,674,940	3	1	7	4	0	7	3	1	2	0
Nebraska	37	7,564,426	5	1	3	4	5	3	12	0	2	2
Nevada	11	2,362,590	2	1	1	1	3	1	0	0	1	1
New Hampshire	26	5,021,399	3	1	3	4	3	3	6	1	0	2
New Jersey	55	20,336,396	3	2	1	5	4	9	14	9	5	3
New Mexico	39	5,479,865	8	3	3	4	7	6	4	2	0	2
New York	271	77,681,302	42	11	13	6	15	54	66	35	12	17
North Carolina	120	28,679,348	0	3	5	16	36	23	22	3	6	6
North Dakota	20	3,118,126	1	1	3	3	1	7	1	1	1	1
Ohio	139	39,443,916	16	5	10	13	15	18	37	9	5	11
Oklahoma	46	11,329,222	2	2	5	4	5	11	7	7	1	2
Oregon	50	7,285,967	6	3	2	3	7	13	8	6	0	2
Pennsylvania	227	43,833,532	46	9	7	11	23	36	59	19	11	6
Rhode Island	13	5,782,478	0	0	0	1	1	4	3	1	1	2
South Carolina	63	10,323,747	5	1	4	5	11	12	17	5	2	1
South Dakota	24	2,623,533	4	3	1	1	3	5	4	2	1	0
Tennessee	82	15,228,461	13	2	1	3	11	21	20	3	5	3
Texas	192	53,017,407	9	1	8	31	21	38	45	16	9	14
Utah	21	8,384,263	5	1	0	3	2	4	2	0	1	3
Vermont	24	4,554,572	4	2	0	1	4	6	5	0	1	1
Virginia	83	22,139,519	6	3	1	9	15	9	20	11	5	4
Washington	69	14,978,244	11	2	8	3	17	12	6	5	2	3
West Virginia	26	4,672,801	1	0	1	1	4	5	11	2	0	1
Wisconsin	65	18,597,813	6	1	6	4	8	16	8	7	6	3
Wyoming	9	1,751,856	0	1	0	0	3	4	0	0	0	1

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 4B.- Number of volumes of books, bound serials, and bound government documents held at the end of the year, and number of libraries by number of volumes by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Volumes held at end of year	Number of libraries in volume category									
			Less than 5,000	5,000 to 9,999	10,000 to 19,999	20,000 to 29,999	30,000 to 49,999	50,000 to 99,999	100,000 to 249,999	250,000 to 499,999	500,000 to 999,999	1,000,000 or more
<b>All postsecondary degree-granting institutions</b> .....	3,658	878,906,177	485	175	221	285	453	673	729	270	180	187
<b>Control</b>												
Public .....	1,583	521,816,653	46	45	87	135	304	358	230	125	119	134
Private .....	2,075	357,089,524	439	130	134	150	149	315	499	145	61	53
<b>Level *</b>												
Total 4-year and above .....	2,220	821,964,805	172	80	110	89	148	350	641	265	178	187
Doctor's .....	570	569,294,518	25	5	11	11	16	36	126	75	91	174
Master's .....	944	186,921,965	53	31	29	23	39	174	368	144	70	13
Bachelor's .....	703	65,645,208	94	44	70	54	91	140	147	46	17	0
Less than 4-year .....	1,438	56,941,372	313	95	111	196	305	323	88	5	2	0
<b>Size (FTE enrollment)</b>												
Less than 1,500 .....	2,041	117,188,188	466	157	184	242	256	326	354	50	5	1
1,500 to 4,999 .....	1,053	172,046,594	18	16	37	42	187	260	285	145	55	8
5,000 or more .....	564	589,671,395	1	2	0	1	10	87	90	75	120	178
<b>Carnegie Classification (1994) *</b>												
Research I and II .....	125	376,026,957	0	0	0	0	0	1	0	2	7	115
Doctoral I and II .....	109	103,594,766	1	0	0	0	0	0	10	12	39	47
Master's I and II .....	521	180,784,164	4	2	1	3	4	44	195	146	101	21
Baccalaureate I and II .....	603	106,822,497	6	1	10	4	24	171	278	79	27	3
Associate of Arts .....	1,217	56,575,887	163	67	95	149	317	327	92	5	2	0
Specialized .....	548	44,675,672	46	34	66	61	73	113	125	26	4	0
Not classified .....	535	10,426,234	265	71	49	68	35	17	29	0	0	1

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 5A.- Number of titles, units, and subscriptions held at the end of the year by material collection category, in academic libraries, by state: 1998**

State	Total number of libraries	Books, serial backfiles, and other materials (including government documents)				Current serial subscriptions		Audiovisual materials-units
		Paper-volumes	Paper-titles	Microform-units	Electronic-titles	Paper and microform subscriptions	Electronic subscriptions	
<b>Total 50 states &amp; D.C.</b>	3,658	878,906,177	495,724,813	1,062,082,077	3,473,225	7,543,703	3,364,649	92,305,707
Alabama	67	12,204,721	8,469,832	21,476,116	84,951	186,809	25,022	1,671,045
Alaska	6	2,237,345	2,332,635	2,273,568	3,247	5,795	2,427	700,802
Arizona	53	9,825,842	5,725,875	15,065,597	49,346	75,908	58,398	1,912,267
Arkansas	45	5,869,164	3,694,645	9,954,187	12,439	43,197	8,902	185,167
California	353	78,932,965	44,031,623	94,523,398	214,382	680,286	153,540	16,840,391
Colorado	59	13,013,818	5,158,442	17,646,878	15,465	92,758	22,692	427,284
Connecticut	43	19,375,551	6,200,870	17,265,599	11,168	102,240	34,773	3,534,665
Delaware	9	3,231,999	503,283	5,271,307	281	22,354	10,558	189,740
District of Columbia	17	10,298,619	6,050,366	14,999,341	6,268	80,587	9,928	638,290
Florida	124	23,996,765	14,605,423	39,472,399	55,233	175,330	94,275	1,492,748
Georgia	93	18,661,382	8,108,181	32,252,148	239,680	150,001	45,157	986,164
Hawaii	17	4,361,571	2,695,203	8,609,854	4,218	39,184	5,919	90,871
Idaho	13	3,830,706	2,667,653	5,298,392	8,784	26,982	1,488	124,863
Illinois	165	47,526,638	29,091,652	42,944,766	57,629	455,735	155,444	3,015,755
Indiana	74	22,204,103	9,710,851	21,280,333	143,793	682,365	143,959	2,352,477
Iowa	63	12,653,705	8,999,071	13,059,000	20,787	111,286	19,875	1,483,479
Kansas	54	13,943,047	6,820,550	13,088,126	35,022	80,581	68,701	363,291
Kentucky	66	11,464,986	7,749,429	19,157,459	21,534	80,923	59,679	1,441,872
Louisiana	38	14,407,525	7,771,635	18,330,942	17,211	92,327	83,260	429,265
Maine	33	5,221,976	3,188,195	5,229,065	6,159	37,553	20,219	241,089
Maryland	55	13,564,930	8,455,669	16,786,825	34,266	93,112	27,697	2,480,960
Massachusetts	124	40,618,020	19,184,495	37,314,081	192,710	218,240	306,289	4,626,648
Michigan	102	30,546,220	14,639,754	34,442,203	83,431	242,172	128,053	1,105,792
Minnesota	109	16,736,005	10,665,221	15,104,679	38,783	121,700	51,209	1,925,455
Mississippi	40	6,763,599	4,279,173	13,553,382	25,287	49,671	39,047	478,063
Missouri	96	20,549,253	13,341,928	24,717,557	50,237	126,321	72,393	1,332,171
Montana	28	2,674,940	1,563,155	3,901,086	13,483	19,749	16,598	260,811
Nebraska	37	7,564,426	4,441,957	10,373,006	21,084	176,668	24,134	284,614
Nevada	11	2,362,590	1,010,681	5,164,462	8,881	20,162	3,116	551,660
New Hampshire	26	5,021,399	2,057,006	7,236,284	5,833	64,648	5,458	496,248
New Jersey	55	20,336,396	5,986,446	15,580,513	25,026	131,535	61,074	650,845
New Mexico	39	5,479,865	3,910,013	10,700,154	7,656	37,181	9,891	1,687,812
New York	271	77,681,302	47,971,564	94,165,086	116,938	1,007,131	146,268	7,019,418
North Carolina	120	28,679,348	14,665,845	34,441,423	258,795	214,445	126,389	1,938,093
North Dakota	20	3,118,126	1,986,890	2,335,484	18,889	20,709	10,056	139,769
Ohio	139	39,443,916	22,894,527	34,715,610	54,925	204,325	97,563	3,619,374
Oklahoma	46	11,329,222	6,427,810	16,824,618	122,483	75,285	60,794	783,876
Oregon	50	7,285,967	4,522,739	9,448,780	11,947	52,585	15,126	324,401
Pennsylvania	227	43,833,532	23,133,703	47,683,735	213,404	304,713	194,567	14,149,974
Rhode Island	13	5,782,478	2,855,387	5,380,113	6,641	32,655	8,198	1,345,890
South Carolina	63	10,323,747	8,166,149	12,585,461	18,353	66,985	31,709	356,489
South Dakota	24	2,623,533	1,893,287	2,835,305	15,127	13,749	16,469	92,650
Tennessee	82	15,228,461	11,260,657	23,760,060	26,447	97,778	32,213	1,292,419
Texas	192	53,017,407	31,330,639	70,143,372	97,909	374,166	168,237	2,193,653
Utah	21	8,384,263	6,999,087	9,593,731	129,670	58,849	62,544	194,196
Vermont	24	4,554,572	3,360,117	3,529,999	7,654	32,626	14,573	131,451
Virginia	83	22,139,519	14,361,222	31,501,257	772,088	167,800	452,766	1,358,055
Washington	69	14,978,244	8,385,749	20,289,342	26,880	134,983	46,353	2,249,350
West Virginia	26	4,672,801	3,367,532	6,091,622	17,735	25,330	16,027	248,487
Wisconsin	65	18,597,813	8,792,680	21,030,516	37,169	118,899	91,222	793,112
Wyoming	9	1,751,856	238,317	3,653,856	5,897	17,330	4,400	72,446

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 5B.- Number of titles, units, and subscriptions held at the end of the year by material collection category, in academic libraries by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Books, serial backfiles, and other materials (including government documents)				Current serial subscriptions		Audiovisual materials-units
		Paper-volumes	Paper-titles	Microform-units	Electronic-titles	Paper and microform subscriptions	Electronic subscriptions	
<b>All postsecondary degree-granting institutions</b> .....	3,658	878,906,177	495,724,813	1,062,082,077	3,473,225	7,543,703	3,364,649	92,305,707
<b>Control</b>								
Public .....	1,583	521,816,653	294,231,140	726,894,787	2,161,608	4,292,082	1,560,940	60,768,450
Private .....	2,075	357,089,524	201,493,673	335,187,290	1,311,617	3,251,621	1,803,709	31,537,257
<b>Level *</b>								
Total 4-year and above .....	2,220	821,964,805	449,640,357	1,018,287,077	2,789,476	7,026,177	2,407,289	85,948,231
Doctor's .....	570	569,294,518	275,549,433	690,622,199	1,388,457	5,131,000	916,643	69,050,696
Master's .....	944	186,921,965	126,110,247	292,392,646	748,854	1,507,493	960,907	12,017,381
Bachelor's .....	703	65,645,208	47,855,130	35,266,749	651,702	386,149	529,738	4,879,640
Less than 4-year .....	1,438	56,941,372	46,084,456	43,795,000	683,749	517,526	957,360	6,357,476
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	2,041	117,188,188	86,646,720	85,878,929	1,294,281	1,105,410	1,295,526	9,337,496
1,500 to 4,999 .....	1,053	172,046,594	118,514,997	210,946,496	1,093,360	1,723,219	1,235,073	11,970,490
5,000 or more .....	564	589,671,395	290,563,096	765,256,652	1,085,584	4,715,074	834,050	70,997,721
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	125	376,026,957	160,047,227	434,422,361	335,542	2,755,622	240,540	53,501,693
Doctoral I and II .....	109	103,594,766	59,858,546	145,885,252	277,123	1,246,946	146,831	10,918,954
Master's I and II .....	521	180,784,164	120,316,036	320,367,282	794,510	1,770,552	941,568	9,245,352
Baccalaureate I and II .....	603	106,822,497	73,269,824	73,884,265	721,493	610,216	593,604	5,792,667
Associate of Arts .....	1,217	56,575,887	45,554,663	42,876,673	675,478	494,529	878,628	6,164,187
Specialized .....	548	44,675,672	28,722,022	33,154,163	483,308	457,798	324,146	5,686,767
Not classified .....	535	10,426,234	7,956,495	11,492,081	185,771	208,040	239,332	996,087

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 6A.- Number of titles, units, and subscriptions added during the year by material collection category, in academic libraries, by state: 1998**

State	Total number of libraries	Books, serial backfiles, and other materials (including government documents)				Current serial subscriptions		Audiovisual materials-units
		Paper-volumes	Paper-titles	Microform-units	Electronic-titles	Paper and microform subscriptions	Electronic subscriptions	
<b>Total 50 states &amp; D.C.</b>	3,658	24,550,615	14,346,948	36,045,363	1,140,542	337,805	1,526,167	3,180,988
Alabama	67	272,407	210,828	605,920	8,489	2,568	10,990	46,712
Alaska	6	54,976	29,260	64,631	880	327	287	9,940
Arizona	53	301,459	192,349	446,578	5,049	1,150	13,381	96,197
Arkansas	45	167,675	105,147	257,107	3,810	2,526	3,310	10,833
California	353	2,216,638	1,304,519	3,155,775	52,943	30,201	64,247	267,662
Colorado	59	347,061	175,275	653,233	2,596	2,161	12,207	13,317
Connecticut	43	389,638	191,881	594,113	3,398	3,551	20,789	33,621
Delaware	9	78,686	18,305	555,605	60	517	3,860	6,552
District of Columbia	17	222,783	150,132	826,133	2,280	1,815	3,383	43,242
Florida	124	809,333	588,941	1,257,847	14,063	24,979	36,316	83,555
Georgia	93	560,081	247,329	1,305,391	50,131	10,426	18,539	158,060
Hawaii	17	114,497	57,418	190,396	984	616	1,843	9,378
Idaho	13	122,177	91,333	171,658	2,547	642	1,274	5,055
Illinois	165	1,132,172	765,043	1,639,079	17,799	15,790	64,949	108,440
Indiana	74	518,345	267,401	855,623	38,365	50,670	109,956	89,235
Iowa	63	365,970	255,984	439,743	4,774	3,073	9,461	28,319
Kansas	54	318,186	206,314	331,564	6,185	3,574	7,885	17,818
Kentucky	66	283,669	192,725	591,810	4,866	2,968	32,985	49,376
Louisiana	38	301,198	173,435	569,006	4,122	7,565	4,046	11,098
Maine	33	135,289	92,191	147,988	2,214	1,150	7,809	15,161
Maryland	55	347,644	234,990	508,445	9,978	4,459	12,913	82,773
Massachusetts	124	1,133,753	444,017	1,610,185	36,730	23,267	18,231	170,609
Michigan	102	699,301	392,014	1,135,323	5,896	7,990	59,128	45,983
Minnesota	109	412,367	203,330	555,492	10,119	4,904	19,443	82,097
Mississippi	40	277,434	210,610	411,820	5,184	3,670	17,279	12,246
Missouri	96	1,544,591	607,355	804,201	10,230	3,937	27,100	72,161
Montana	28	101,188	69,712	115,125	3,879	2,370	5,999	7,464
Nebraska	37	214,533	125,060	260,297	7,258	1,807	11,022	17,201
Nevada	11	68,612	39,941	183,609	2,510	432	1,067	16,800
New Hampshire	26	138,797	58,852	266,325	2,367	3,236	3,041	6,841
New Jersey	55	755,360	167,554	473,073	8,611	4,988	20,104	22,576
New Mexico	39	193,567	137,642	243,415	2,360	1,446	3,544	19,516
New York	271	1,828,460	1,165,215	2,417,356	32,831	39,887	65,383	243,305
North Carolina	120	886,404	455,621	1,208,241	28,820	4,448	95,816	75,439
North Dakota	20	76,619	55,019	108,146	2,354	1,768	3,075	6,936
Ohio	139	1,022,535	632,931	1,304,766	17,162	9,541	55,859	152,496
Oklahoma	46	302,198	168,905	640,078	24,133	2,401	40,829	13,388
Oregon	50	212,460	162,733	395,406	2,264	1,821	9,252	12,436
Pennsylvania	227	1,185,992	666,610	1,424,763	104,126	7,522	104,256	592,141
Rhode Island	13	138,004	81,945	248,748	2,324	687	3,738	25,282
South Carolina	63	280,295	211,842	397,543	5,774	3,724	18,705	14,605
South Dakota	24	76,285	52,396	157,353	3,885	290	5,022	3,597
Tennessee	82	394,368	300,672	937,815	9,197	3,702	15,634	96,987
Texas	192	1,556,998	922,759	2,091,998	34,621	12,524	92,653	87,613
Utah	21	242,488	230,115	311,713	123,594	1,533	11,909	21,362
Vermont	24	145,348	121,924	211,768	2,611	1,234	6,115	7,080
Virginia	83	602,243	454,928	1,393,616	383,990	6,709	302,143	47,307
Washington	69	448,021	339,903	638,704	9,665	4,202	27,034	70,179
West Virginia	26	102,740	76,838	249,496	9,963	1,247	10,161	7,535
Wisconsin	65	412,692	230,670	652,274	10,264	4,979	32,183	39,497
Wyoming	9	37,078	9,035	29,069	2,287	811	12	3,965

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 6B.- Number of titles, units, and subscriptions added during the year by material collection category, in academic libraries by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Books, serial backfiles, and other materials (including government documents)				Current serial subscriptions		Audiovisual materials-units
		Paper-volumes	Paper-titles	Microform-units	Electronic-titles	Paper and microform subscriptions	Electronic subscriptions	
<b>All postsecondary degree-granting institutions</b> .....	3,658	24,550,615	14,346,948	36,045,363	1,140,542	337,805	1,526,167	3,180,988
<b>Control</b>								
Public .....	1,583	14,928,756	8,930,832	20,726,616	844,637	183,459	856,791	2,131,599
Private .....	2,075	9,621,859	5,416,116	15,318,747	295,905	154,346	669,376	1,049,389
<b>Level *</b>								
Total 4-year and above .....	2,220	22,200,986	12,574,596	34,359,060	869,944	308,960	963,826	2,799,912
Doctor's .....	570	14,255,008	8,019,141	21,066,162	294,908	207,191	276,375	2,072,582
Master's .....	944	5,861,637	3,259,281	11,490,620	197,070	79,429	419,583	479,642
Bachelor's .....	703	2,081,145	1,292,908	1,802,253	377,951	22,292	267,867	247,680
Less than 4-year .....	1,438	2,349,629	1,772,352	1,686,303	270,598	28,845	562,341	381,076
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	2,041	3,741,858	2,442,684	4,694,843	508,331	83,997	690,763	512,910
1,500 to 4,999 .....	1,053	5,230,560	3,322,455	9,045,117	307,502	56,225	490,654	545,277
5,000 or more .....	564	15,578,197	8,581,809	22,305,403	324,709	197,583	344,750	2,122,801
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	125	8,822,396	4,548,272	12,111,102	117,182	73,777	90,931	1,515,071
Doctoral I and II .....	109	2,975,994	1,965,328	4,860,319	64,100	99,396	60,936	313,016
Master's I and II .....	521	5,577,188	3,068,674	11,025,642	163,414	57,568	291,917	348,304
Baccalaureate I and II .....	603	2,872,795	1,823,304	4,096,561	338,629	22,067	329,831	286,589
Associate of Arts .....	1,217	2,228,352	1,702,462	1,670,458	275,367	26,764	532,894	365,493
Specialized .....	548	1,469,291	870,251	1,278,449	77,824	39,852	119,051	291,182
Not classified .....	535	604,599	368,657	1,002,832	104,026	18,381	100,607	61,333

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 7A.- Number and percentage of full-time equivalent (FTE) staff in academic libraries, by staff category and state: 1998

State	Total number of libraries	Total FTE staff	Percent	Librarians and other professional		Librarians		Other professional staff		All other paid staff		Contributed service staff		Student assistants	
				FTE	Percent	FTE	Percent	FTE	Percent	FTE	Percent	FTE	Percent	FTE	Percent
<b>Total 50 states &amp; D.C.</b>	3,658	96,709	100.0%	30,041	31.1%	24,815	25.7%	5,225	5.4%	38,026	39.3%	270	0.3%	28,373	29.3%
Alabama	67	1,400	1.4	460	32.8	367	26.2	93	6.6	545	39.0	7	.5	388	27.7
Alaska	6	253	.3	84	33.3	49	19.4	35	13.9	82	32.5	16	6.3	71	27.9
Arizona	53	1,282	1.3	366	28.6	317	24.7	50	3.9	559	43.6	1	.1	356	27.8
Arkansas	45	788	.8	224	28.5	190	24.2	34	4.3	293	37.2	4	.5	267	33.9
California	353	9,488	9.8	2,577	27.2	2,048	21.6	529	5.6	3,824	40.3	22	.2	3,064	32.3
Colorado	59	1,265	1.3	492	38.9	330	26.1	163	12.9	422	33.4	1	.1	349	27.6
Connecticut	43	1,529	1.6	596	39.0	459	30.0	138	9.0	579	37.9	3	.2	351	23.0
Delaware	9	332	.3	105	31.5	93	28.1	11	3.4	160	48.1	0	.0	68	20.4
District of Columbia	17	1,136	1.2	330	29.1	314	27.6	17	1.5	499	43.9	1	.1	306	26.9
Florida	124	3,561	3.7	1,135	31.9	912	25.6	224	6.3	1,379	38.7	9	.2	1,037	29.1
Georgia	93	2,417	2.5	769	31.8	657	27.2	112	4.6	966	40.0	0	.0	681	28.2
Hawaii	17	537	.6	142	26.5	133	24.8	9	1.7	180	33.5	3	.5	212	39.5
Idaho	13	372	.4	93	25.0	81	21.8	12	3.3	145	38.8	1	.3	134	35.9
Illinois	165	4,918	5.1	1,395	28.4	1,183	24.0	213	4.3	2,106	42.8	10	.2	1,407	28.6
Indiana	74	2,275	2.4	643	28.3	544	23.9	100	4.4	967	42.5	5	.2	659	29.0
Iowa	63	1,218	1.3	329	27.0	290	23.8	39	3.2	492	40.4	1	.1	396	32.5
Kansas	54	944	1.0	310	32.8	260	27.5	50	5.3	320	33.9	2	.2	312	33.1
Kentucky	66	1,478	1.5	447	30.3	392	26.5	55	3.7	554	37.5	2	.1	474	32.1
Louisiana	38	1,453	1.5	442	30.4	372	25.6	70	4.8	490	33.7	9	.6	512	35.2
Maine	33	466	.5	152	32.5	143	30.6	9	2.0	159	34.2	2	.4	153	32.9
Maryland	55	1,710	1.8	564	33.0	485	28.4	79	4.6	787	46.1	5	.3	353	20.7
Massachusetts	124	4,659	4.8	1,539	33.0	1,288	27.6	251	5.4	1,809	38.8	11	.2	1,300	27.9
Michigan	102	2,972	3.1	902	30.4	748	25.2	155	5.2	1,114	37.5	3	.1	953	32.1
Minnesota	109	1,610	1.7	509	31.6	425	26.4	85	5.3	524	32.6	7	.4	570	35.4
Mississippi	40	954	1.0	313	32.8	246	25.7	67	7.0	274	28.7	5	.5	363	38.0
Missouri	96	1,972	2.0	678	34.4	551	27.9	127	6.5	768	38.9	8	.4	518	26.3
Montana	28	294	.3	100	34.0	83	28.0	18	6.0	100	34.1	0	.1	94	31.8
Nebraska	37	697	.7	226	32.4	194	27.8	32	4.6	309	44.3	2	.4	160	22.9
Nevada	11	308	.3	84	27.1	79	25.6	5	1.5	136	44.2	0	.2	88	28.5
New Hampshire	26	583	.6	167	28.7	137	23.5	30	5.2	236	40.5	1	.3	178	30.6
New Jersey	55	2,174	2.2	726	33.4	608	27.9	119	5.5	995	45.8	28	1.3	425	19.5
New Mexico	39	877	.9	292	33.3	168	19.1	125	14.2	240	27.4	1	.1	344	39.2
New York	271	8,580	8.9	3,035	35.4	2,328	27.1	708	8.2	3,179	37.1	11	.1	2,355	27.4
North Carolina	120	3,159	3.3	1,050	33.2	930	29.4	120	3.8	1,366	43.2	4	.1	740	23.4
North Dakota	20	301	.3	101	33.4	88	29.1	13	4.2	85	28.4	10	3.4	105	34.9
Ohio	139	3,527	3.6	1,046	29.6	838	23.8	207	5.9	1,268	35.9	11	.3	1,202	34.1
Oklahoma	46	1,143	1.2	329	28.8	289	25.3	40	3.5	406	35.6	2	.1	406	35.5
Oregon	50	883	.9	267	30.3	231	26.2	36	4.1	332	37.6	5	.5	278	31.5
Pennsylvania	227	4,947	5.1	1,528	30.9	1,295	26.2	233	4.7	1,908	38.6	22	.4	1,490	30.1
Rhode Island	13	673	.7	183	27.2	156	23.2	27	4.0	254	37.7	0	.0	236	35.0
South Carolina	63	1,293	1.3	400	31.0	356	27.5	45	3.4	482	37.3	0	.0	410	31.7
South Dakota	24	244	.3	75	30.7	67	27.4	8	3.3	83	34.1	0	.2	85	35.0
Tennessee	82	1,791	1.9	566	31.6	479	26.8	87	4.9	729	40.7	4	.2	492	27.5
Texas	192	5,943	6.1	1,776	29.9	1,518	25.5	258	4.3	2,603	43.8	18	.3	1,547	26.0
Utah	21	1,129	1.2	350	31.0	240	21.3	110	9.7	315	27.9	2	.2	463	41.0
Vermont	24	438	.5	154	35.1	109	24.9	45	10.2	137	31.3	0	.1	147	33.6
Virginia	83	2,436	2.5	686	28.2	630	25.9	57	2.3	1,104	45.3	1	.0	644	26.4
Washington	69	1,837	1.9	514	28.0	454	24.7	60	3.3	836	45.5	3	.2	484	26.4
West Virginia	26	560	.6	141	25.2	135	24.2	6	1.0	235	41.9	1	.2	183	32.8
Wisconsin	65	1,720	1.8	576	33.5	485	28.2	90	5.3	618	35.9	6	.4	520	30.2
Wyoming	9	182	.2	69	37.9	47	25.7	22	12.2	71	38.7	0	.2	42	23.2

NOTE: Detail may not sum to total due to rounding.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 7B.- Number and percentage of full-time equivalent (FTE) staff in academic libraries by staff category and by control, level, size, and Carnegie Classification of institution: 1998

Institutional characteristic	Total number of libraries	Total FTE staff	Percent	Librarians and other professional		Librarians		Other professional staff		All other paid staff		Contributed service staff		Student assistants	
				FTE	Percent	FTE	Percent	FTE	Percent	FTE	Percent	FTE	Percent	FTE	Percent
<b>All postsecondary degree-granting institutions</b> .....	3,658	96,709	100.0%	30,041	31.1%	24,815	25.7%	5,225	5.4%	38,026	39.3%	270	0.3%	28,373	29.3%
<b>Control</b>															
Public .....	1,583	58,314	60.3	17,495	30.0	14,594	25.0	2,901	5.0	24,657	42.3	106	.2	16,056	27.5
Private .....	2,075	38,395	39.7	12,546	32.7	10,222	26.6	2,324	6.1	13,369	34.8	163	.4	12,317	32.1
<b>Level *</b>															
Total 4-year and above .....	2,220	82,533	85.3	25,287	30.6	20,938	25.4	4,350	5.3	32,423	39.3	205	.2	24,618	29.8
Doctor's .....	570	54,478	56.3	16,282	29.9	13,330	24.5	2,952	5.4	23,378	42.9	46	.1	14,771	27.1
Master's .....	944	20,547	21.2	6,570	32.0	5,579	27.2	990	4.8	6,934	33.7	112	.5	6,932	33.7
Bachelor's .....	703	7,499	7.8	2,431	32.4	2,025	27.0	406	5.4	2,110	28.1	47	.6	2,911	38.8
Less than 4-year .....	1,438	14,176	14.7	4,753	33.5	3,878	27.4	876	6.2	5,603	39.5	65	.5	3,755	26.5
<b>Size (FTE enrollment)</b>															
Less than 1,500 .....	2,041	14,949	15.5	5,386	36.0	4,386	29.3	1,000	6.7	4,329	29.0	159	1.1	5,075	33.9
1,500 to 4,999 .....	1,053	22,221	23.0	7,264	32.7	6,038	27.2	1,226	5.5	8,197	36.9	62	.3	6,697	30.1
5,000 or more .....	564	59,539	61.6	17,391	29.2	14,391	24.2	3,000	5.0	25,499	42.8	48	.1	16,601	27.9
<b>Carnegie Classification (1994) *</b>															
Research I and II .....	125	33,610	34.8	9,866	29.4	7,923	23.6	1,943	5.8	15,082	44.9	9	.0	8,654	25.7
Doctoral I and II .....	109	10,227	10.6	3,002	29.4	2,547	24.9	456	4.5	4,133	40.4	13	.1	3,078	30.1
Master's I and II .....	521	19,804	20.5	6,116	30.9	5,253	26.5	863	4.4	7,312	36.9	38	.2	6,338	32.0
Baccalaureate I and II .....	603	10,890	11.3	3,292	30.2	2,742	25.2	550	5.0	3,117	28.6	83	.8	4,398	40.4
Associate of Arts .....	1,217	13,540	14.0	4,579	33.8	3,759	27.8	819	6.1	5,480	40.5	60	.4	3,422	25.3
Specialized .....	548	6,324	6.5	2,320	36.7	1,900	30.0	420	6.6	2,332	36.9	43	.7	1,629	25.8
Not classified .....	535	2,315	2.4	867	37.4	692	29.9	175	7.6	569	24.6	25	1.1	854	36.9

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: Detail may not sum to total due to rounding.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 8A.- Total expenditures and number of libraries by category of total expenditures, by state: 1998

State	Total number of libraries	Total expenditures	Number of libraries								
			Less than \$20,000	\$20,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$199,999	\$200,000 to \$299,999	\$300,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$1,999,999	\$2,000,000 or more
<b>Total 50 states &amp; D.C.</b>	3,658	\$4,592,657,325	158	255	293	492	422	581	617	376	464
Alabama	67	61,581,815	1	4	7	12	10	15	5	7	6
Alaska	6	11,661,568	0	1	0	2	0	0	0	1	2
Arizona	53	59,214,943	1	11	7	6	4	10	5	4	5
Arkansas	45	30,175,352	0	2	4	10	10	4	9	1	5
California	353	489,010,440	17	43	35	43	24	43	74	29	45
Colorado	59	66,948,625	4	10	9	9	4	5	4	7	7
Connecticut	43	96,719,813	0	2	3	3	4	9	9	4	9
Delaware	9	17,453,726	0	0	0	0	2	2	2	2	1
District of Columbia	17	60,128,710	0	2	0	2	1	3	0	4	5
Florida	124	146,745,730	3	8	25	21	13	9	18	12	15
Georgia	93	114,930,256	2	4	6	10	16	18	18	8	11
Hawaii	17	21,305,569	2	0	2	2	1	3	3	2	2
Idaho	13	17,049,634	1	2	1	0	0	3	2	0	4
Illinois	165	223,056,850	3	7	14	22	16	34	34	17	18
Indiana	74	107,013,866	3	1	8	12	17	4	12	10	7
Iowa	63	62,101,212	3	2	5	12	10	12	13	2	4
Kansas	54	42,584,351	0	5	5	21	6	8	0	5	4
Kentucky	66	60,243,156	5	13	0	8	11	14	6	3	6
Louisiana	38	58,099,717	5	0	3	1	4	4	4	9	8
Maine	33	21,799,649	4	0	5	7	7	2	3	0	5
Maryland	55	87,178,901	1	1	3	3	5	9	17	9	7
Massachusetts	124	249,131,299	2	10	5	11	8	24	26	17	21
Michigan	102	154,443,796	1	3	8	21	15	12	16	11	15
Minnesota	109	80,312,837	8	15	17	18	12	11	13	8	7
Mississippi	40	36,684,841	3	1	3	4	4	7	10	4	4
Missouri	96	90,102,483	2	7	8	16	16	22	12	4	9
Montana	28	13,984,469	1	2	5	9	1	6	1	1	2
Nebraska	37	33,250,621	3	3	2	6	4	9	5	1	4
Nevada	11	18,697,706	0	2	1	2	0	1	2	1	2
New Hampshire	26	26,888,995	1	4	1	3	5	4	3	3	2
New Jersey	55	114,268,881	0	2	1	3	5	7	10	13	14
New Mexico	39	33,500,897	5	5	2	7	5	9	2	2	2
New York	271	398,929,095	8	14	19	25	14	37	57	50	47
North Carolina	120	160,554,350	0	3	5	18	24	32	17	8	13
North Dakota	20	11,535,418	0	1	5	3	2	6	1	0	2
Ohio	139	163,627,722	11	9	14	23	23	22	23	12	16
Oklahoma	46	46,450,862	2	2	4	6	7	5	9	5	6
Oregon	50	41,672,431	3	3	5	5	8	7	8	6	5
Pennsylvania	227	232,578,173	16	19	17	33	23	28	41	24	26
Rhode Island	13	30,353,539	0	0	1	0	1	0	3	6	2
South Carolina	63	54,359,306	1	3	3	6	16	12	12	6	4
South Dakota	24	10,165,072	0	5	1	8	3	1	4	0	2
Tennessee	82	77,391,383	2	10	4	13	13	14	11	7	8
Texas	192	266,193,026	20	2	10	19	19	31	31	24	36
Utah	21	48,948,744	2	4	1	3	0	2	2	3	4
Vermont	24	17,988,204	1	3	1	4	4	5	2	2	2
Virginia	83	124,006,807	1	1	4	8	17	12	18	7	15
Washington	69	86,193,030	4	3	5	6	7	11	20	5	8
West Virginia	26	20,239,494	1	0	1	3	3	9	7	0	2
Wisconsin	65	87,383,093	5	1	2	5	8	14	13	10	7
Wyoming	9	7,816,868	0	0	1	2	3	2	0	0	1

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 8B.- Total expenditures and number of libraries by category of total expenditures, by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Total expenditures	Number of libraries								
			Less than \$20,000	\$20,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$199,999	\$200,000 to \$299,999	\$300,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$1,999,999	\$2,000,000 or more
<b>All postsecondary degree-granting institutions</b> .....	3,658	\$4,592,657,325	158	255	293	492	422	581	617	376	464
<b>Control</b>											
Public .....	1,583	2,780,103,432	2	20	49	185	197	281	322	218	309
Private .....	2,075	1,812,553,893	156	235	244	307	225	300	295	158	155
<b>Level *</b>											
Total 4-year and above .....	2,220	4,072,211,257	71	97	148	229	221	327	378	304	445
Doctor's .....	570	2,923,751,351	11	11	11	31	23	37	55	84	307
Master's .....	944	868,309,659	22	23	45	76	87	164	234	176	117
Bachelor's .....	703	279,994,188	38	62	90	122	111	126	89	44	21
Less than 4-year .....	1,438	520,446,068	87	158	145	263	201	254	239	72	19
<b>Size (FTE enrollment)</b>											
Less than 1,500 .....	2,041	566,665,049	157	254	290	448	321	314	176	55	26
1,500 to 4,999 .....	1,053	947,496,994	1	1	3	44	101	257	356	197	93
5,000 or more .....	564	3,078,495,282	0	0	0	0	0	10	85	124	345
<b>Carnegie Classification (1994) *</b>											
Research I and II .....	125	1,905,879,646	0	0	0	0	0	0	0	1	124
Doctoral I and II .....	109	515,683,601	0	0	1	0	0	0	4	16	88
Master's I and II .....	521	868,946,617	1	0	1	6	6	59	131	166	151
Baccalaureate I and II .....	603	415,075,215	0	5	7	58	102	162	162	66	41
Associate of Arts .....	1,217	505,713,015	41	86	98	201	202	256	241	74	18
Specialized .....	548	299,411,356	16	40	79	107	81	73	68	45	39
Not classified .....	535	81,947,875	100	124	107	120	31	31	11	8	3

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 9A.- Library expenditures by object of expenditure, and salaries as a percentage of total expenditures, by state: 1998

State	Total number of libraries	Total expenditures	Salaries and wages	Salaries and wages as a percentage of total expenditures	Information resources total <sup>1</sup>	All other operating expenditures <sup>2</sup>
<b>Total 50 states &amp; D.C.</b>	3,658	\$4,592,657,325	\$2,314,380,461	50.4%	\$1,643,914,009	\$634,362,855
Alabama	67	61,581,815	29,236,485	47.5	23,759,458	8,585,872
Alaska	6	11,661,568	6,150,801	52.7	3,000,585	2,510,182
Arizona	53	59,214,943	28,990,962	49.0	21,906,907	8,317,074
Arkansas	45	30,175,352	14,155,334	46.9	11,825,568	4,194,450
California	353	489,010,440	273,373,694	55.9	148,453,598	67,183,148
Colorado	59	66,948,625	31,601,168	47.2	26,662,809	8,684,648
Connecticut	43	96,719,813	44,528,173	46.0	32,513,693	19,677,947
Delaware	9	17,453,726	8,266,845	47.4	7,583,869	1,603,012
District of Columbia	17	60,128,710	30,273,962	50.3	20,546,324	9,308,424
Florida	124	146,745,730	73,638,790	50.2	56,874,252	16,232,688
Georgia	93	114,930,256	53,024,836	46.1	45,607,016	16,298,404
Hawaii	17	21,305,569	12,159,089	57.1	7,023,216	2,123,264
Idaho	13	17,049,634	7,637,614	44.8	6,705,804	2,706,216
Illinois	165	223,056,850	117,284,986	52.6	76,556,340	29,215,524
Indiana	74	107,013,866	51,328,072	48.0	41,456,442	14,229,352
Iowa	63	62,101,212	28,935,810	46.6	24,101,108	9,064,294
Kansas	54	42,584,351	21,143,637	49.7	15,621,264	5,819,450
Kentucky	66	60,243,156	29,590,284	49.1	21,973,514	8,679,358
Louisiana	38	58,099,717	28,440,434	49.0	22,343,839	7,315,444
Maine	33	21,799,649	10,276,613	47.1	9,770,492	1,752,544
Maryland	55	87,178,901	44,931,064	51.5	29,617,112	12,630,725
Massachusetts	124	249,131,299	121,827,582	48.9	82,035,799	45,267,918
Michigan	102	154,443,796	76,525,277	49.5	55,588,301	22,330,218
Minnesota	109	80,312,837	40,697,257	50.7	28,388,463	11,227,117
Mississippi	40	36,684,841	16,631,983	45.3	15,407,726	4,645,132
Missouri	96	90,102,483	42,195,544	46.8	34,959,828	12,947,111
Montana	28	13,984,469	6,795,069	48.6	5,182,075	2,007,325
Nebraska	37	33,250,621	15,636,355	47.0	14,102,527	3,511,739
Nevada	11	18,697,706	8,758,073	46.8	7,931,969	2,007,664
New Hampshire	26	26,888,995	12,900,877	48.0	11,126,875	2,861,243
New Jersey	55	114,268,881	65,932,747	57.7	37,400,976	10,935,158
New Mexico	39	33,500,897	17,378,337	51.9	11,854,998	4,267,562
New York	271	398,929,095	216,246,718	54.2	137,337,491	45,344,886
North Carolina	120	160,554,350	74,433,648	46.4	62,460,500	23,660,202
North Dakota	20	11,535,418	5,379,035	46.6	4,665,727	1,490,656
Ohio	139	163,627,722	81,371,265	49.7	59,285,318	22,971,139
Oklahoma	46	46,450,862	21,886,691	47.1	18,505,244	6,058,927
Oregon	50	41,672,431	20,233,243	48.6	16,377,648	5,061,540
Pennsylvania	227	232,578,173	115,773,910	49.8	82,710,673	34,093,590
Rhode Island	13	30,353,539	15,835,625	52.2	10,805,864	3,712,050
South Carolina	63	54,359,306	26,184,782	48.2	19,490,177	8,684,347
South Dakota	24	10,165,072	4,393,444	43.2	4,219,719	1,551,909
Tennessee	82	77,391,383	38,130,558	49.3	29,823,029	9,437,796
Texas	192	266,193,026	125,813,979	47.3	99,222,537	41,156,510
Utah	21	48,948,744	22,577,137	46.1	18,229,680	8,141,927
Vermont	24	17,988,204	8,826,488	49.1	7,561,196	1,600,520
Virginia	83	124,006,807	59,793,669	48.2	48,049,106	16,164,032
Washington	69	86,193,030	47,502,197	55.1	28,299,369	10,391,464
West Virginia	26	20,239,494	10,231,392	50.6	7,638,678	2,369,424
Wisconsin	65	87,383,093	45,837,998	52.5	28,300,543	13,244,552
Wyoming	9	7,816,868	3,680,928	47.1	3,048,763	1,087,177

<sup>1</sup> 'Information resources total' includes books, serial backfiles, current serial subscriptions and search services, audiovisual materials, document delivery/interlibrary loan, preservation, and other materials.

<sup>2</sup> 'All other operating expenditures' includes furniture and equipment, computer hardware and software, bibliographic utilities, networks, consortia, and all other operating expenditures.

**Table 9B.- Library expenditures by object of expenditure, and salaries as a percentage of total expenditures, by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Total expenditures	Salaries and wages	Salaries and wages as a percentage of total expenditures	Information resources total <sup>2</sup>	All other operating expenditures <sup>3</sup>
<b>All postsecondary degree-granting institutions</b> .....	3,658	\$4,592,657,325	\$2,314,380,461	50.4%	\$1,643,914,009	\$634,362,855
<b>Control</b>						
Public .....	1,583	2,780,103,432	1,455,454,799	52.4	967,914,536	356,734,097
Private .....	2,075	1,812,553,893	858,925,662	47.4	675,999,473	277,628,758
<b>Level <sup>1</sup></b>						
Total 4-year and above .....	2,220	4,072,211,257	1,974,256,434	48.5	1,528,523,483	569,431,340
Doctor's .....	570	2,923,751,351	1,376,388,454	47.1	1,118,819,220	428,922,441
Master's .....	944	868,309,659	454,960,644	52.4	308,426,574	104,922,441
Bachelor's .....	703	279,994,188	142,786,449	51.0	101,255,573	35,952,166
Less than 4-year .....	1,438	520,446,068	340,124,027	65.4	115,390,526	64,931,515
<b>Size (FTE enrollment)</b>						
Less than 1,500 .....	2,041	566,665,049	294,695,150	52.0	190,352,564	81,617,335
1,500 to 4,999 .....	1,053	947,496,994	500,648,104	52.8	328,321,696	118,527,194
5,000 or more .....	564	3,078,495,282	1,519,037,207	49.3	1,125,239,749	434,218,326
<b>Carnegie Classification (1994) <sup>1</sup></b>						
Research I and II .....	125	1,905,879,646	889,959,533	46.7	717,518,167	298,401,946
Doctoral I and II .....	109	515,683,601	239,419,750	46.4	213,011,480	63,252,371
Master's I and II .....	521	868,946,617	455,304,801	52.4	312,512,241	101,129,575
Baccalaureate I and II .....	603	415,075,215	205,163,748	49.4	156,293,283	53,618,184
Associate of Arts .....	1,217	505,713,015	330,863,377	65.4	113,461,702	61,387,936
Specialized .....	548	299,411,356	149,876,483	50.1	104,516,620	45,018,253
Not classified .....	535	81,947,875	43,792,769	53.4	26,600,516	11,554,590

<sup>1</sup> While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

<sup>2</sup> 'Information resources total' includes books, serial backfiles, current serial subscriptions and search services, audiovisual materials, document delivery/interlibrary loan, preservation, and other materials.

<sup>3</sup> 'All other operating expenditures' includes furniture and equipment, computer hardware and software, bibliographic utilities, networks, consortia, and all other operating expenditures.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 10A.- Expenditures for information resources, by state: 1998

State	Total number of libraries	Information resources total *	Books and serial backfiles- paper	Books and serial backfiles- electronic	Current serials- paper	Current serials- electronic	Audiovisual materials	Document delivery/inter-library loan	Preservation	Other materials
<b>Total 50 states &amp; D.C.</b>	3,658	\$1,643,914,009	\$514,047,519	\$28,061,293	\$849,398,552	\$125,470,357	\$30,622,721	\$19,308,575	\$42,919,173	\$34,085,819
Alabama	67	23,759,458	7,038,259	297,089	12,504,311	2,436,089	305,498	180,157	698,368	299,687
Alaska	6	3,000,585	979,223	8,125	1,520,506	251,275	58,978	57,215	123,589	1,674
Arizona	53	21,906,907	6,873,064	675,346	9,633,528	2,834,847	578,569	401,341	476,760	433,452
Arkansas	45	11,825,568	3,460,170	228,415	6,502,997	770,084	412,341	160,194	218,117	73,250
California	353	148,453,598	52,160,920	1,394,547	72,275,958	10,552,572	2,106,667	2,283,705	4,869,674	2,809,555
Colorado	59	26,662,809	7,820,326	485,428	14,262,824	1,980,087	747,866	488,397	590,958	286,923
Connecticut	43	32,513,693	12,638,698	732,229	13,293,662	2,433,490	384,056	187,067	1,157,236	1,687,255
Delaware	9	7,583,869	2,663,652	13,702	4,156,729	235,019	13,774	7,300	135,773	357,920
District of Columbia	17	20,546,324	5,236,267	1,118,974	10,611,386	1,877,913	141,038	266,447	656,813	637,486
Florida	124	56,874,252	18,051,318	945,436	28,661,868	4,981,689	1,311,512	484,399	1,294,066	1,143,964
Georgia	93	45,607,016	15,360,707	882,656	21,862,354	2,539,912	776,039	241,650	653,451	3,290,247
Hawaii	17	7,023,216	2,139,703	26,270	3,843,540	529,172	114,802	56,141	303,093	10,495
Idaho	13	6,705,804	1,637,389	81,793	4,217,522	219,216	96,445	88,099	193,654	171,686
Illinois	165	76,556,340	23,849,412	1,166,992	39,032,505	6,419,620	1,700,406	848,232	1,733,551	1,805,622
Indiana	74	41,456,442	15,225,926	619,833	19,499,514	2,034,157	403,958	794,495	1,381,712	1,496,847
Iowa	63	24,101,108	7,474,879	287,158	12,587,025	2,210,141	402,374	288,481	666,501	184,549
Kansas	54	15,621,264	4,869,429	216,896	8,019,197	1,486,325	140,281	467,768	409,889	11,479
Kentucky	66	21,973,514	5,684,652	188,818	12,751,565	1,901,547	407,357	199,009	475,249	365,317
Louisiana	38	22,343,839	6,002,792	252,001	13,344,923	1,069,224	212,466	464,701	576,568	421,164
Maine	33	9,770,492	2,856,148	73,946	5,706,563	580,625	109,383	143,431	191,998	108,398
Maryland	55	29,617,112	8,830,415	465,767	13,988,164	2,946,285	615,139	307,768	688,538	1,775,036
Massachusetts	124	82,035,799	25,980,432	3,808,528	41,274,573	5,012,055	1,697,190	657,808	1,798,553	1,806,660
Michigan	102	55,588,301	16,479,144	916,068	29,438,564	4,286,912	995,531	784,018	1,550,718	1,137,346
Minnesota	109	28,388,463	8,238,958	407,164	15,082,814	2,002,756	837,406	526,971	874,443	417,951
Mississippi	40	15,407,726	3,597,127	102,813	10,098,799	766,079	400,577	61,438	302,517	78,376
Missouri	96	34,959,828	9,919,824	851,658	18,232,306	3,557,206	839,334	453,832	665,759	439,909
Montana	28	5,182,075	1,148,941	37,309	3,063,532	370,476	160,993	279,619	71,321	49,884
Nebraska	37	14,102,527	3,523,800	100,636	8,243,806	993,329	533,229	205,559	219,692	282,476
Nevada	11	7,931,969	2,493,919	133,958	3,961,132	860,010	154,058	104,047	223,817	1,028
New Hampshire	26	11,126,875	2,964,296	149,277	6,491,658	1,043,898	96,566	53,720	287,534	39,926
New Jersey	55	37,400,976	11,735,053	823,652	17,415,810	2,918,635	728,283	274,875	1,103,050	2,401,618
New Mexico	39	11,854,998	3,657,232	65,178	5,806,038	1,406,268	409,739	172,354	276,178	62,011
New York	271	137,337,491	41,618,607	1,684,057	75,321,331	8,636,497	1,888,878	1,070,074	4,621,262	2,496,785
North Carolina	120	62,460,500	20,732,431	1,196,801	30,891,577	5,490,216	1,491,924	367,408	1,492,877	797,266
North Dakota	20	4,665,727	1,163,236	72,463	2,791,792	319,987	97,555	90,781	85,791	44,122
Ohio	139	59,285,318	17,627,115	482,319	33,671,535	3,465,375	1,062,505	598,324	1,674,647	703,498
Oklahoma	46	18,505,244	5,011,208	232,390	10,346,681	1,633,098	268,313	377,409	346,140	290,005
Oregon	50	16,377,648	5,312,002	140,406	8,656,586	1,437,764	225,246	260,957	239,104	105,583
Pennsylvania	227	82,710,673	26,302,172	2,039,274	41,445,291	6,346,396	1,426,592	999,760	2,669,635	1,481,553
Rhode Island	13	10,805,864	3,529,072	121,817	5,615,342	857,410	119,843	196,837	301,155	64,388
South Carolina	63	19,490,177	5,679,951	165,356	10,760,906	1,518,800	336,732	154,006	499,350	375,076
South Dakota	24	4,219,719	1,251,034	24,641	2,081,970	684,803	55,683	43,335	74,280	3,973
Tennessee	82	29,823,029	8,601,583	325,296	16,225,644	2,501,544	628,949	258,586	658,049	623,378
Texas	192	99,222,537	33,604,008	2,166,216	47,484,660	8,968,186	2,371,453	1,155,122	2,141,697	1,331,195
Utah	21	18,229,680	5,654,763	382,761	9,363,108	1,602,685	263,145	213,453	704,262	45,503
Vermont	24	7,561,196	2,428,476	71,609	4,006,165	679,233	136,344	79,457	138,776	21,136
Virginia	83	48,049,106	14,888,109	601,368	25,539,504	3,485,717	932,668	646,243	1,194,779	760,718
Washington	69	28,299,369	8,547,560	148,527	16,572,294	1,391,434	470,536	296,154	528,264	344,600
West Virginia	26	7,638,678	1,996,022	119,029	4,581,858	394,943	121,682	170,828	182,253	72,063
Wisconsin	65	28,300,543	8,810,448	524,691	14,540,878	2,481,665	775,942	338,527	408,624	419,768
Wyoming	9	3,048,763	697,647	4,610	2,115,757	67,691	56,876	1,076	89,088	16,018

\* 'Information resources total' includes books, serial backfiles, current serial subscriptions and search services, audiovisual materials, document delivery/interlibrary loan, preservation, and other materials.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 10B.- Expenditures for information resources, by control, level, size, and Carnegie Classification of institution: 1998

Institutional characteristic	Total number of libraries	Information resources total <sup>2</sup>	Books and serial backfiles-paper	Books and serial backfiles-electronic	Current serials-paper	Current serials-electronic	Audiovisual materials	Document delivery/inter-library loan	Preservation	Other materials
<b>All postsecondary degree-granting institutions</b>	3,658	\$1,643,914,009	\$514,047,519	\$28,061,293	\$849,398,552	\$125,470,357	\$30,622,721	\$19,308,575	\$42,919,173	\$34,085,819
<b>Control</b>										
Public .....	1,583	967,914,536	287,820,125	13,225,287	521,919,319	72,005,967	19,684,189	12,280,533	24,661,972	16,317,144
Private .....	2,075	675,999,473	226,227,394	14,836,006	327,479,233	53,464,390	10,938,532	7,028,042	18,257,201	17,768,675
<b>Level<sup>1</sup></b>										
Total 4-year and above	2,220	1,528,523,483	459,360,924	24,097,641	817,028,057	112,755,727	21,920,647	18,653,832	42,142,338	32,564,317
Doctor's .....	570	1,118,819,220	314,609,032	17,379,183	621,739,565	76,012,002	11,960,702	14,136,086	33,018,291	29,964,359
Master's .....	944	308,426,574	103,800,614	4,783,100	151,877,356	28,783,579	7,075,623	3,472,423	6,839,635	1,794,244
Bachelor's .....	703	101,255,573	40,942,191	1,935,208	43,406,927	7,954,646	2,883,057	1,044,158	2,283,859	805,527
Less than 4-year .....	1,438	115,390,526	54,686,595	3,963,652	32,370,495	12,714,630	8,702,074	654,743	776,835	1,521,502
<b>Size (FTE enrollment)</b>										
Less than 1,500 .....	2,041	190,352,564	66,770,877	4,224,334	87,144,246	17,629,148	5,950,432	2,330,294	3,994,002	2,309,231
1,500 to 4,999 .....	1,053	328,321,696	116,824,700	6,549,068	152,777,306	30,025,794	9,851,463	3,524,873	6,342,002	2,426,490
5,000 or more .....	564	1,125,239,749	330,451,942	17,287,891	609,477,000	77,815,415	14,820,826	13,453,408	32,583,169	29,350,098
<b>Carnegie Classification (1994)<sup>1</sup></b>										
Research I and II .....	125	717,518,167	201,969,030	11,719,751	395,562,128	44,119,368	6,543,170	8,934,835	23,300,812	25,369,073
Doctoral I and II .....	109	213,011,480	62,201,682	2,919,498	119,426,135	15,629,051	2,141,767	2,683,489	5,167,371	2,842,487
Master's I and II .....	521	312,512,241	98,764,821	4,541,550	161,300,930	29,059,633	6,699,315	3,511,881	6,956,395	1,677,716
Baccalaureate I and II ...	603	156,293,283	61,427,421	2,722,436	69,200,467	12,487,296	4,036,677	1,734,158	3,882,092	802,736
Associate of Arts .....	1,217	113,461,702	53,952,432	3,870,389	32,347,679	12,075,158	8,315,507	636,465	807,028	1,457,044
Specialized .....	548	104,516,620	26,316,415	1,431,315	61,190,375	8,289,971	1,808,793	1,563,977	2,413,975	1,501,799
Not classified .....	535	26,600,516	9,415,718	856,354	10,370,838	3,809,880	1,077,492	243,770	391,500	434,964

<sup>1</sup> While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

<sup>2</sup> 'Information resources total' includes books, serial backfiles, current serial subscriptions and search services, audiovisual materials, document delivery/interlibrary loan, preservation, and other materials.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 11A.- Expenditures for equipment and other selected categories of expenditures, by state: 1998

State	Total number of libraries	Furniture and equipment	Computer hardware and software	Bibliographic utilities, networks, consortia	Other operating expenditures
<b>Total 50 states &amp; D.C.</b>	3,658	\$57,012,720	\$164,378,701	\$89,617,521	\$323,353,913
Alabama	67	991,201	3,150,074	1,125,885	3,318,712
Alaska	6	238,398	759,359	455,793	1,056,632
Arizona	53	559,280	1,869,533	649,333	5,238,928
Arkansas	45	544,099	1,501,990	585,074	1,563,287
California	353	4,295,900	15,246,855	5,751,881	41,888,512
Colorado	59	740,751	2,640,092	2,584,248	2,719,557
Connecticut	43	907,799	4,630,069	2,112,018	12,028,061
Delaware	9	36,986	131,414	213,004	1,221,608
District of Columbia	17	598,710	2,345,712	2,417,130	3,946,872
Florida	124	1,798,704	4,673,142	2,718,732	7,042,110
Georgia	93	2,440,153	3,677,736	1,532,904	8,647,611
Hawaii	17	246,512	560,394	312,443	1,003,915
Idaho	13	507,764	641,770	616,964	939,718
Illinois	165	3,332,416	7,569,842	4,556,505	13,756,761
Indiana	74	629,590	5,318,802	1,935,888	6,345,072
Iowa	63	708,231	3,089,788	1,130,176	4,136,099
Kansas	54	597,392	1,728,294	1,034,423	2,459,341
Kentucky	66	581,039	1,798,367	621,461	5,678,491
Louisiana	38	1,011,119	2,089,097	1,119,299	3,095,929
Maine	33	227,491	467,279	330,063	727,711
Maryland	55	904,433	2,912,841	3,482,628	5,330,823
Massachusetts	124	1,796,957	8,732,965	4,870,838	29,867,158
Michigan	102	2,593,365	5,583,871	3,408,479	10,744,503
Minnesota	109	992,405	3,755,617	1,838,926	4,640,169
Mississippi	40	694,701	1,420,820	516,619	2,012,992
Missouri	96	1,043,746	2,747,015	2,088,472	7,067,878
Montana	28	198,325	656,239	322,724	830,037
Nebraska	37	433,244	1,104,106	627,236	1,347,153
Nevada	11	273,255	702,601	216,180	815,628
New Hampshire	26	340,479	728,298	428,798	1,363,668
New Jersey	55	869,476	1,995,692	1,534,726	6,535,264
New Mexico	39	526,929	823,078	572,164	2,345,391
New York	271	3,706,128	10,408,725	9,498,204	21,731,829
North Carolina	120	2,856,969	7,701,452	2,674,400	10,427,381
North Dakota	20	112,972	288,579	438,488	650,617
Ohio	139	1,926,148	5,548,717	3,024,364	12,471,910
Oklahoma	46	844,987	2,034,012	826,002	2,353,926
Oregon	50	402,114	1,537,025	1,038,965	2,083,436
Pennsylvania	227	2,529,618	9,913,770	4,510,143	17,140,059
Rhode Island	13	199,681	520,324	800,950	2,191,095
South Carolina	63	1,363,251	2,109,762	975,368	4,235,966
South Dakota	24	233,993	373,825	453,323	490,768
Tennessee	82	690,602	3,127,097	1,272,201	4,347,896
Texas	192	5,039,705	12,697,489	4,859,829	18,559,487
Utah	21	895,580	3,354,378	864,726	3,027,243
Vermont	24	194,567	339,021	240,482	826,450
Virginia	83	1,322,392	3,750,376	2,087,595	9,003,669
Washington	69	891,401	1,525,610	1,484,723	6,489,730
West Virginia	26	388,154	513,988	496,672	970,610
Wisconsin	65	1,547,242	3,353,541	1,937,116	6,406,653
Wyoming	9	206,366	228,258	422,956	229,597

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 11B.- Expenditures for equipment and other selected categories of expenditures,  
by control, level, size, and Carnegie Classification of institution: 1998**

Institutional characteristic	Total number of libraries	Furniture and equipment	Computer hardware and software	Bibliographic utilities, networks, consortia	Other operating expenditures
<b>All postsecondary degree-granting institutions</b> .....	3,658	\$57,012,720	\$164,378,701	\$89,617,521	\$323,353,913
<b>Control</b>					
Public .....	1,583	35,051,417	99,484,304	47,043,689	175,154,687
Private .....	2,075	21,961,303	64,894,397	42,573,832	148,199,226
<b>Level*</b>					
Total 4-year and above .....	2,220	45,707,319	143,224,542	79,843,177	300,656,302
Doctor's .....	570	29,658,576	103,980,706	47,826,110	247,078,285
Master's .....	944	11,988,046	29,894,718	23,727,359	39,312,318
Bachelor's .....	703	4,060,212	9,346,886	8,288,386	14,256,682
Less than 4-year .....	1,438	11,305,401	21,154,159	9,774,344	22,697,611
<b>Size (FTE enrollment)</b>					
Less than 1,500 .....	2,041	11,157,841	25,349,075	15,398,272	29,712,147
1,500 to 4,999 .....	1,053	13,647,062	32,702,220	25,438,955	46,738,957
5,000 or more .....	564	32,207,817	106,327,406	48,780,294	246,902,809
<b>Carnegie Classification (1994)*</b>					
Research I and II .....	125	16,120,216	66,244,526	25,769,620	190,267,584
Doctoral I and II .....	109	6,797,215	16,893,701	12,200,198	27,361,257
Master's I and II .....	521	10,904,265	31,017,080	20,421,064	38,787,166
Baccalaureate I and II .....	603	5,973,608	13,752,812	13,445,223	20,446,541
Associate of Arts .....	1,217	10,246,644	19,267,120	9,859,079	22,015,093
Specialized .....	548	4,833,305	12,705,913	6,496,066	20,982,969
Not classified .....	535	2,137,467	4,497,549	1,426,271	3,493,303

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 12A.- Percentage of responding institutions with selected electronic services, by state, United States: 1998

State	Electronic catalog that includes the library's holdings				Electronic indexes and reference tools			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>Total 50 states &amp; D.C.</b>	84.2%	67.4%	64.8%	61.8%	91.4%	70.8%	55.4%	19.9%
Alabama	87.9	52.5	50.8	39.3	93.8	60.0	42.4	14.3
Alaska	83.3	66.7	66.7	50.0	83.3	100.0	66.7	50.0
Arizona	69.4	46.5	53.7	47.5	83.7	47.7	41.9	19.5
Arkansas	66.7	69.6	52.2	38.9	90.0	55.6	17.6	11.8
California	81.8	53.2	53.0	47.0	86.1	53.2	45.5	10.5
Colorado	70.7	49.1	55.8	57.7	75.9	55.4	57.4	23.5
Connecticut	88.4	72.5	74.4	72.5	95.3	76.9	62.5	15.4
Delaware	88.9	75.0	75.0	75.0	100.0	62.5	50.0	25.0
District of Columbia	81.2	62.5	81.2	62.5	87.5	62.5	62.5	12.5
Florida	79.5	53.9	46.5	45.2	87.2	64.7	57.9	13.2
Georgia	93.3	73.1	68.4	62.3	94.4	81.0	79.7	34.7
Hawaii	87.5	68.8	75.0	68.8	87.5	62.5	56.2	18.8
Idaho	100.0	69.2	58.3	61.5	92.3	61.5	53.8	23.1
Illinois	84.0	63.7	55.8	57.5	93.3	71.7	52.3	18.1
Indiana	95.7	88.1	81.8	77.3	97.1	86.6	74.2	32.8
Iowa	88.1	78.2	70.4	67.9	96.6	78.2	60.4	17.3
Kansas	77.4	50.0	45.3	39.2	98.1	66.0	46.0	24.0
Kentucky	70.8	57.6	55.9	53.4	82.8	63.3	45.6	10.5
Louisiana	94.3	72.7	77.4	80.6	94.3	78.1	80.6	38.7
Maine	78.8	56.2	55.2	48.3	93.9	68.8	44.8	17.2
Maryland	85.5	75.9	68.5	64.2	96.4	66.0	53.8	20.0
Massachusetts	91.3	71.7	74.8	73.1	99.1	75.5	53.7	17.6
Michigan	89.2	70.7	72.8	70.3	93.5	75.0	65.2	36.7
Minnesota	80.6	76.8	74.7	71.6	86.5	80.6	69.8	24.5
Mississippi	72.5	48.5	45.7	41.2	89.7	59.4	64.7	41.2
Missouri	77.7	62.2	58.1	56.5	93.6	77.3	50.0	17.5
Montana	100.0	83.3	68.4	63.2	100.0	72.2	42.1	15.8
Nebraska	79.4	70.6	52.9	52.9	91.2	67.6	55.9	14.7
Nevada	70.0	60.0	75.0	75.0	90.0	70.0	44.4	11.1
New Hampshire	84.6	60.0	56.0	52.0	84.6	66.7	52.2	13.6
New Jersey	86.8	75.0	72.9	74.5	98.1	71.4	51.1	32.6
New Mexico	74.3	57.1	48.6	42.9	88.6	68.6	60.0	20.0
New York	88.4	74.0	73.4	69.5	94.0	70.6	54.7	18.5
North Carolina	92.5	60.9	49.5	47.7	96.7	80.0	31.4	6.7
North Dakota	89.5	88.2	93.3	92.9	94.7	88.2	86.7	50.0
Ohio	79.3	73.0	70.2	67.5	90.8	74.3	46.8	17.4
Oklahoma	86.4	62.8	58.1	55.8	93.2	69.8	51.2	11.6
Oregon	81.6	71.7	75.6	76.1	85.7	71.1	69.8	31.8
Pennsylvania	76.3	66.0	64.3	63.5	84.1	69.7	56.3	21.2
Rhode Island	100.0	92.3	76.9	76.9	100.0	92.3	76.9	7.7
South Carolina	88.3	73.3	71.4	69.1	96.6	75.9	45.3	23.1
South Dakota	75.0	62.5	62.5	58.3	91.7	58.3	62.5	45.8
Tennessee	71.4	68.1	67.2	70.1	83.1	73.5	58.8	21.2
Texas	93.2	79.2	77.0	73.6	96.9	78.8	60.4	21.3
Utah	76.5	64.7	64.7	64.7	82.4	70.6	41.2	17.6
Vermont	79.2	78.3	68.2	59.1	95.8	82.6	78.3	38.1
Virginia	92.7	87.3	88.6	83.3	90.2	80.8	62.8	15.8
Washington	92.3	63.5	55.6	53.2	93.9	71.0	52.5	8.6
West Virginia	88.0	80.0	76.0	68.0	92.0	84.0	60.0	24.0
Wisconsin	88.7	82.5	74.1	71.9	96.8	83.9	66.7	16.1
Wyoming	100.0	88.9	100.0	87.5	100.0	88.9	100.0	87.5

See footnotes at end of table.

Table 12A.- Percentage of responding institutions with selected electronic services, by state, United States: 1998 (continued)

State	Electronic full text periodicals				Electronic full text course reserves			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>Total 50 states &amp; D.C.</b>	80.8%	66.3%	51.1%	13.2%	12.5%	11.4%	10.5%	2.7%
Alabama	90.9	57.6	39.0	7.1	7.8	3.4	3.7	*
Alaska	83.3	83.3	66.7	33.3	16.7	*	16.7	*
Arizona	79.2	50.0	37.5	8.1	10.4	4.8	5.0	*
Arkansas	90.0	47.1	16.7	15.8	10.0	*	*	5.9
California	68.8	49.0	37.4	8.5	11.7	9.8	10.0	2.2
Colorado	65.5	48.2	50.0	9.8	5.5	5.2	7.7	2.0
Connecticut	86.0	79.5	62.5	15.8	18.6	18.4	17.9	*
Delaware	100.0	62.5	37.5	12.5	11.1	12.5	12.5	*
District of Columbia	68.8	50.0	43.8	*	25.0	25.0	18.8	*
Florida	82.9	62.1	60.9	5.3	12.1	13.0	12.3	2.6
Georgia	90.8	85.3	86.7	28.2	14.9	14.1	11.8	1.4
Hawaii	68.8	50.0	50.0	*	12.5	6.2	6.2	*
Idaho	84.6	53.8	46.2	30.8	15.4	23.1	23.1	7.7
Illinois	82.7	67.9	47.3	16.2	13.1	12.3	10.1	1.3
Indiana	92.6	83.6	69.2	27.7	10.6	11.1	10.9	4.8
Iowa	77.6	68.5	45.3	7.7	11.9	9.1	9.4	*
Kansas	92.6	61.1	51.0	22.0	9.4	13.0	11.8	6.0
Kentucky	75.4	61.0	40.7	10.2	7.7	8.5	8.8	1.8
Louisiana	76.5	71.0	62.1	21.4	25.7	25.8	26.7	13.8
Maine	60.6	45.2	31.0	10.3	21.9	20.0	20.7	13.8
Maryland	83.6	59.6	44.2	9.8	12.7	7.7	7.5	1.9
Massachusetts	83.8	71.7	52.8	11.5	11.9	10.5	8.3	1.9
Michigan	81.7	68.5	58.9	22.2	12.9	11.0	9.0	1.1
Minnesota	79.4	76.5	67.7	15.2	9.8	8.4	8.8	3.3
Mississippi	87.5	64.7	65.7	42.9	15.8	6.1	6.1	3.0
Missouri	77.2	64.8	40.7	13.3	10.9	10.3	6.0	2.4
Montana	100.0	68.4	42.1	11.1	15.8	10.5	10.5	10.5
Nebraska	85.3	73.5	55.9	8.8	8.8	8.8	5.9	2.9
Nevada	80.0	77.8	50.0	12.5	*	*	*	*
New Hampshire	80.8	58.3	56.5	13.0	16.0	9.1	9.5	4.8
New Jersey	84.9	64.0	47.8	23.8	10.4	13.0	9.3	4.9
New Mexico	80.0	71.4	60.0	14.3	11.8	5.9	5.9	2.9
New York	79.7	65.1	47.8	9.5	11.8	10.6	9.4	2.5
North Carolina	94.2	77.4	29.2	4.9	11.8	10.8	8.8	1.0
North Dakota	94.7	82.4	80.0	46.2	11.1	21.4	25.0	9.1
Ohio	74.2	61.9	39.1	9.3	14.3	13.5	11.9	3.7
Oklahoma	84.1	65.1	55.8	7.0	15.9	16.3	11.6	2.3
Oregon	72.9	61.4	60.5	22.7	4.3	4.5	4.7	*
Pennsylvania	69.8	65.0	54.4	12.8	13.5	15.3	12.5	2.8
Rhode Island	84.6	84.6	61.5	*	7.7	7.7	7.7	*
South Carolina	86.7	75.0	42.6	13.2	10.2	8.8	9.4	1.9
South Dakota	91.7	70.8	75.0	41.7	4.2	4.2	*	*
Tennessee	72.7	65.2	54.4	10.4	12.0	10.4	9.4	6.5
Texas	90.1	70.0	53.5	12.1	16.9	14.0	14.1	3.6
Utah	82.4	70.6	41.2	11.8	11.8	11.8	11.8	*
Vermont	78.3	77.3	61.9	4.8	20.8	17.4	13.6	*
Virginia	87.8	84.8	62.0	14.1	17.1	16.7	16.9	4.0
Washington	87.9	69.4	60.7	1.8	15.2	13.1	11.7	*
West Virginia	88.0	80.0	56.0	16.0	8.3	8.3	8.3	*
Wisconsin	85.0	80.0	56.4	11.3	15.0	17.9	18.2	5.5
Wyoming	88.9	88.9	100.0	87.5	*	*	*	*

See footnotes at end of table.

Table 12A.- Percentage of responding institutions with selected electronic services, by state, United States: 1998 (continued)

State	Electronic files other than the catalog				Internet access			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>Total 50 states &amp; D.C.</b>	47.7%	42.2%	40.8%	36.5%	94.6%	88.6%	54.1%	27.0%
Alabama	41.5	30.0	29.3	28.1	97.0	89.8	43.1	24.1
Alaska	66.7	66.7	50.0	33.3	100.0	100.0	66.7	50.0
Arizona	41.7	34.1	35.9	29.7	91.8	77.3	34.1	22.5
Arkansas	15.0	11.8	5.9	5.9	80.6	76.2	30.0	11.1
California	38.2	31.4	31.5	27.8	92.1	85.5	42.5	21.0
Colorado	41.8	35.1	39.2	37.3	89.7	71.4	49.1	31.5
Connecticut	51.2	53.8	52.5	50.0	92.9	89.5	47.4	26.3
Delaware	33.3	37.5	37.5	37.5	100.0	87.5	50.0	12.5
District of Columbia	50.0	43.8	37.5	31.2	87.5	81.2	37.5	18.8
Florida	47.4	40.4	38.1	32.7	94.9	83.5	48.7	23.9
Georgia	39.8	38.0	38.5	34.7	96.6	92.5	62.8	34.7
Hawaii	56.2	43.8	56.2	25.0	93.8	75.0	68.8	18.8
Idaho	53.8	46.2	46.2	38.5	92.3	84.6	46.2	38.5
Illinois	43.8	37.0	36.7	32.7	93.9	87.9	51.7	22.9
Indiana	46.9	41.3	35.5	35.5	95.7	95.5	55.6	34.9
Iowa	47.5	48.1	41.5	40.4	96.6	98.2	58.0	22.4
Kansas	40.7	29.6	30.8	25.5	98.1	94.3	54.0	34.0
Kentucky	47.7	37.9	36.8	31.6	92.2	82.0	42.9	16.1
Louisiana	42.9	45.2	48.3	42.9	91.4	87.9	48.4	28.6
Maine	57.6	54.8	62.1	62.1	93.9	87.5	58.6	17.2
Maryland	60.0	50.0	49.1	45.3	100.0	85.2	64.7	36.7
Massachusetts	58.0	47.2	45.4	42.5	96.6	91.0	49.5	27.0
Michigan	50.5	45.7	41.8	39.6	95.7	90.2	65.2	24.4
Minnesota	48.0	46.3	47.3	41.1	93.2	92.9	56.4	33.0
Mississippi	27.5	22.9	20.0	17.1	92.3	82.9	48.5	39.4
Missouri	48.4	35.6	34.1	29.4	96.8	85.4	59.3	29.3
Montana	63.2	36.8	31.6	31.6	100.0	89.5	47.4	16.7
Nebraska	55.9	50.0	50.0	41.2	97.1	88.2	44.1	29.4
Nevada	40.0	40.0	25.0	33.3	90.0	90.0	55.6	22.2
New Hampshire	61.5	43.5	43.5	43.5	92.3	87.5	54.2	30.4
New Jersey	50.0	49.0	47.8	40.0	90.7	92.2	60.4	33.3
New Mexico	37.1	28.6	25.7	20.0	94.3	88.6	55.9	32.4
New York	53.8	48.4	45.3	39.8	95.9	87.6	58.7	31.7
North Carolina	42.4	34.9	35.0	29.4	98.3	94.9	39.0	15.7
North Dakota	47.1	53.8	58.3	45.5	100.0	100.0	100.0	70.0
Ohio	54.2	49.1	45.0	41.4	93.4	88.8	59.3	24.8
Oklahoma	36.4	32.6	32.6	30.2	95.5	86.0	48.8	14.0
Oregon	51.1	44.4	39.5	34.9	93.8	85.1	65.9	37.2
Pennsylvania	46.0	44.2	43.8	38.1	91.6	86.3	57.9	27.3
Rhode Island	76.9	76.9	69.2	61.5	92.3	92.3	69.2	30.8
South Carolina	44.1	37.9	34.5	29.6	96.7	94.9	45.1	22.0
South Dakota	37.5	25.0	25.0	20.8	100.0	95.8	62.5	41.7
Tennessee	42.7	39.7	36.4	34.8	92.2	86.8	55.2	23.8
Texas	55.2	53.4	53.8	49.3	96.3	93.6	63.7	30.3
Utah	41.2	41.2	41.2	35.3	94.1	82.4	52.9	29.4
Vermont	54.2	52.2	40.9	36.4	100.0	91.3	68.2	33.3
Virginia	61.0	57.0	51.9	46.2	97.6	92.3	59.7	25.3
Washington	53.0	44.4	41.9	40.3	96.9	92.1	56.7	22.0
West Virginia	52.0	48.0	48.0	44.0	88.0	92.0	76.0	52.0
Wisconsin	59.0	57.9	52.6	47.4	98.4	94.9	56.4	24.5
Wyoming	44.4	44.4	50.0	50.0	100.0	88.9	85.7	57.1

See footnotes at end of table.

Table 12A.- Percentage of responding institutions with selected electronic services, by state, United States: 1998 (continued)

State	Library reference service by e-mail				Capacity to place interlibrary loan/document delivery requests electronically			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>Total 50 states &amp; D.C.</b>	54.2%	53.7%	52.6%	36.2%	61.1%	42.7%	41.6%	15.1%
Alabama	44.6	38.3	39.0	30.9	54.7	26.7	30.5	17.9
Alaska	66.7	83.3	66.7	66.7	66.7	66.7	66.7	50.0
Arizona	43.8	29.3	31.6	15.8	52.1	36.6	30.8	10.5
Arkansas	38.1	35.3	12.5	6.2	70.0	23.5	40.0	19.0
California	41.6	41.0	42.0	22.5	40.1	25.3	25.2	9.9
Colorado	51.8	48.3	50.0	39.6	54.5	44.8	43.4	26.4
Connecticut	61.9	65.0	57.5	53.8	67.4	51.3	51.3	20.0
Delaware	66.7	62.5	37.5	12.5	77.8	62.5	37.5	12.5
District of Columbia	56.2	56.2	56.2	33.3	31.2	18.8	26.7	*
Florida	48.7	41.7	45.2	28.9	59.0	42.6	39.5	13.2
Georgia	55.7	60.3	63.6	42.5	64.8	51.3	51.9	21.9
Hawaii	43.8	43.8	50.0	31.2	50.0	18.8	25.0	*
Idaho	53.8	53.8	46.2	30.8	61.5	38.5	30.8	7.7
Illinois	50.3	51.0	46.7	31.5	68.3	44.5	43.3	15.3
Indiana	44.6	52.3	49.2	34.4	50.0	35.4	32.8	4.7
Iowa	69.5	65.5	61.8	42.6	72.4	49.1	45.3	13.2
Kansas	68.5	57.4	50.9	44.2	75.9	38.9	40.4	31.4
Kentucky	44.4	46.6	42.1	29.8	52.3	41.4	38.2	9.1
Louisiana	65.7	64.5	63.3	60.0	57.1	48.4	46.4	20.7
Maine	69.7	67.7	66.7	60.0	66.7	56.7	58.6	33.3
Maryland	65.5	67.3	59.3	37.7	60.0	39.6	35.2	16.7
Massachusetts	60.5	55.6	55.1	35.6	60.2	38.7	39.0	12.6
Michigan	55.9	59.3	60.7	44.9	66.7	38.5	39.6	14.4
Minnesota	57.8	59.4	60.2	36.3	68.3	59.8	66.0	22.0
Mississippi	42.5	41.2	40.0	38.2	65.0	32.4	31.4	20.0
Missouri	54.8	55.1	49.4	33.7	72.0	42.0	44.7	20.5
Montana	57.9	63.2	57.9	52.6	31.6	26.3	31.6	5.6
Nebraska	52.9	52.9	47.1	29.4	67.6	52.9	47.1	17.6
Nevada	40.0	40.0	44.4	33.3	30.0	30.0	33.3	11.1
New Hampshire	46.2	45.8	50.0	34.8	69.2	39.1	39.1	9.1
New Jersey	53.8	55.1	57.4	27.3	67.9	40.8	36.2	10.9
New Mexico	54.3	48.6	42.9	25.7	40.0	42.9	37.1	17.1
New York	58.0	57.3	55.8	38.4	62.2	42.3	40.7	14.3
North Carolina	52.1	54.4	45.3	31.4	77.5	42.3	33.3	10.6
North Dakota	38.9	57.1	61.5	50.0	89.5	75.0	73.3	50.0
Ohio	47.1	43.2	45.9	33.0	63.9	53.1	47.3	14.8
Oklahoma	40.9	34.9	41.9	25.6	70.5	46.5	48.8	19.0
Oregon	61.7	64.4	62.8	50.0	66.0	48.9	47.7	23.3
Pennsylvania	54.5	54.0	53.8	39.7	57.7	44.9	44.2	9.8
Rhode Island	53.8	61.5	58.3	33.3	76.9	61.5	53.8	7.7
South Carolina	65.0	65.0	63.0	37.7	64.4	40.4	41.5	13.2
South Dakota	62.5	58.3	54.2	50.0	87.5	58.3	54.2	29.2
Tennessee	51.9	56.1	58.5	43.8	54.5	42.6	40.3	13.4
Texas	61.4	57.8	60.5	44.8	66.0	50.7	52.1	15.4
Utah	52.9	52.9	47.1	23.5	52.9	52.9	41.2	29.4
Vermont	73.9	69.6	68.2	54.5	79.2	60.9	59.1	22.7
Virginia	65.9	66.7	67.9	47.4	61.0	46.8	46.8	14.1
Washington	62.5	70.0	64.4	32.8	50.0	35.5	29.5	8.3
West Virginia	60.0	64.0	64.0	52.0	64.0	40.0	40.0	24.0
Wisconsin	62.3	61.4	59.6	33.3	70.5	55.4	55.4	12.5
Wyoming	77.8	66.7	75.0	62.5	88.9	88.9	87.5	50.0

See footnotes at end of table.

Table 12A.- Percentage of responding institutions with selected electronic services, by state, United States: 1998 (continued)

State	Technology to assist patrons with disabilities				Instruction by library staff on use of internet resources			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>Total 50 states &amp; D.C.</b>	44.4%	34.2%	12.1%	6.7%	91.9%	63.3%	35.4%	17.3%
Alabama	49.2	38.9	13.0	5.8	95.5	51.9	32.7	17.0
Alaska	83.3	50.0	16.7	16.7	83.3	66.7	66.7	50.0
Arizona	51.1	35.0	13.5	11.1	93.9	61.0	42.1	21.1
Arkansas	35.0	22.2	*	*	90.0	44.4	25.0	18.8
California	39.6	31.8	7.5	3.0	88.7	58.2	27.1	11.0
Colorado	54.4	41.8	12.2	10.2	86.2	56.4	40.0	26.0
Connecticut	40.5	40.5	14.7	8.6	92.9	71.8	42.1	25.6
Delaware	55.6	50.0	12.5	12.5	100.0	37.5	25.0	12.5
District of Columbia	43.8	25.0	6.2	6.2	87.5	43.8	31.2	12.5
Florida	47.0	25.4	14.0	5.3	87.2	55.2	36.8	17.5
Georgia	44.9	35.1	17.1	8.6	96.6	67.1	50.0	32.9
Hawaii	31.2	25.0	12.5	*	93.8	43.8	50.0	*
Idaho	53.8	46.2	23.1	23.1	84.6	61.5	46.2	30.8
Illinois	42.9	38.0	12.2	8.6	92.6	64.5	31.0	13.3
Indiana	52.2	35.6	8.8	8.8	92.6	66.7	31.0	17.5
Iowa	32.2	24.1	5.9	2.0	96.6	77.8	44.2	23.5
Kansas	42.6	32.7	4.3	4.3	94.4	58.5	38.0	22.4
Kentucky	27.0	23.6	3.7	3.6	89.2	66.7	35.7	14.5
Louisiana	51.4	30.0	14.3	10.7	85.7	56.2	43.3	28.6
Maine	34.4	27.6	7.4	3.7	93.9	65.6	27.6	20.7
Maryland	56.4	35.3	10.0	8.0	94.5	59.6	35.3	21.6
Massachusetts	42.7	38.7	12.7	6.1	95.7	59.0	31.4	14.9
Michigan	36.6	37.4	13.3	10.0	91.4	63.0	34.4	16.7
Minnesota	45.6	51.5	18.6	10.6	91.3	72.7	37.5	13.8
Mississippi	32.5	13.3	9.7	6.5	90.0	51.6	26.7	16.7
Missouri	44.1	28.7	20.3	10.0	92.5	64.4	42.7	20.3
Montana	47.4	50.0	16.7	16.7	100.0	77.8	33.3	22.2
Nebraska	38.2	29.4	2.9	2.9	94.1	61.8	29.4	23.5
Nevada	30.0	40.0	22.2	22.2	90.0	80.0	22.2	22.2
New Hampshire	42.3	28.6	10.0	5.0	92.3	56.5	34.8	9.1
New Jersey	62.3	44.2	15.6	9.1	94.3	59.6	25.0	15.0
New Mexico	42.9	48.6	14.7	11.8	85.7	60.0	22.9	11.4
New York	49.2	33.5	10.5	5.1	91.0	61.6	30.0	11.9
North Carolina	40.3	30.8	5.0	2.0	97.5	60.6	30.4	17.8
North Dakota	27.8	28.6	25.0	16.7	88.9	78.6	69.2	41.7
Ohio	45.8	27.9	9.6	7.8	90.1	65.7	25.2	10.9
Oklahoma	45.5	33.3	11.9	2.4	95.5	50.0	26.2	11.9
Oregon	38.8	31.8	7.1	4.9	91.7	63.0	51.2	35.7
Pennsylvania	37.3	26.9	13.6	6.9	89.1	65.8	40.4	20.0
Rhode Island	53.8	38.5	15.4	*	84.6	38.5	23.1	*
South Carolina	40.0	26.3	14.0	8.0	93.3	66.1	41.5	15.4
South Dakota	41.7	33.3	16.7	8.3	95.8	66.7	37.5	25.0
Tennessee	39.5	31.3	7.7	1.5	87.0	64.7	38.5	20.3
Texas	58.5	38.5	17.4	6.9	95.1	66.4	43.6	22.0
Utah	52.9	35.3	17.6	11.8	94.1	88.2	35.3	17.6
Vermont	37.5	31.8	14.3	9.5	91.7	81.8	52.4	28.6
Virginia	42.5	30.1	8.5	8.6	93.9	76.9	43.6	21.6
Washington	67.7	61.7	22.4	8.9	89.2	72.6	39.0	3.4
West Virginia	44.0	26.1	21.7	8.7	88.0	68.0	48.0	24.0
Wisconsin	41.0	42.9	17.9	5.5	98.4	73.2	32.7	9.3
Wyoming	50.0	87.5	28.6	*	100.0	75.0	57.1	28.6

See footnotes at end of table.

Table 12A.- Percentage of responding institutions with selected electronic services, by state, United States: 1998 (continued)

State	Electronic document delivery by the library to patron's account/address				Video/desktop conferencing by or for the library			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>Total 50 states &amp; D.C.</b>	29.9%	27.3%	22.9%	7.8%	12.4%	18.8%	9.6%	4.9%
Alabama	19.7	19.6	14.3	5.6	15.6	19.0	12.3	9.1
Alaska	50.0	50.0	33.3	*	16.7	16.7	*	*
Arizona	16.7	16.7	15.0	5.1	6.1	11.9	*	*
Arkansas	64.4	42.9	36.6	31.7	60.0	45.2	12.2	4.9
California	18.7	15.6	12.7	2.9	10.2	13.0	6.2	2.6
Colorado	27.6	19.6	22.6	13.2	14.8	26.3	12.2	6.1
Connecticut	41.9	39.5	35.9	7.7	4.8	28.9	15.8	5.3
Delaware	55.6	37.5	12.5	*	*	25.0	*	*
District of Columbia	25.0	18.8	25.0	*	*	*	*	*
Florida	37.1	25.9	28.9	10.5	9.6	11.4	7.0	.9
Georgia	17.0	14.5	15.8	6.9	10.2	18.4	7.0	8.3
Hawaii	43.8	43.8	37.5	*	6.2	18.8	18.8	*
Idaho	38.5	38.5	23.1	15.4	23.1	30.8	23.1	23.1
Illinois	28.8	28.8	23.6	10.3	11.8	24.8	9.5	4.8
Indiana	12.1	13.6	12.1	1.8	12.1	8.6	5.3	*
Iowa	39.7	40.0	31.5	11.3	10.3	27.3	13.5	5.9
Kansas	35.2	32.1	28.8	14.0	11.3	20.8	8.3	6.2
Kentucky	16.9	19.0	12.5	*	10.8	19.3	7.1	3.6
Louisiana	34.3	35.5	31.0	7.1	8.8	16.7	10.7	3.7
Maine	12.1	16.7	14.3	3.6	6.1	13.3	3.7	3.7
Maryland	27.3	26.9	17.6	5.9	3.7	17.6	8.2	4.1
Massachusetts	29.9	22.7	20.4	3.0	8.7	10.7	6.9	5.0
Michigan	35.5	33.3	30.0	20.2	16.1	24.2	13.3	7.8
Minnesota	39.8	40.2	42.9	8.9	10.8	14.0	4.3	2.2
Mississippi	40.0	32.4	27.3	12.1	28.2	26.5	9.1	12.5
Missouri	22.2	21.6	19.5	7.1	11.1	18.2	14.6	8.4
Montana	26.3	21.1	10.5	5.3	16.7	31.6	10.5	10.5
Nebraska	35.3	35.3	32.4	5.9	17.6	17.6	8.8	5.9
Nevada	10.0	10.0	11.1	11.1	10.0	30.0	11.1	11.1
New Hampshire	36.0	34.8	31.8	4.5	4.0	4.5	*	*
New Jersey	30.0	25.0	19.6	4.7	16.0	14.9	7.3	7.5
New Mexico	28.6	25.7	22.9	11.4	17.1	26.5	5.9	2.9
New York	35.5	30.2	22.6	6.0	9.5	17.6	7.5	2.5
North Carolina	40.0	36.4	18.4	8.8	12.0	18.3	7.8	3.9
North Dakota	50.0	46.7	50.0	23.1	10.5	20.0	28.6	15.4
Ohio	28.6	27.7	19.0	2.9	12.6	19.3	10.8	4.0
Oklahoma	25.6	20.9	16.7	4.8	11.6	16.3	4.8	2.4
Oregon	21.3	23.9	20.5	9.1	8.2	8.7	6.8	4.5
Pennsylvania	24.9	24.2	21.3	6.0	9.3	19.1	13.7	5.6
Rhode Island	23.1	23.1	23.1	*	*	15.4	*	7.7
South Carolina	41.7	39.0	29.1	14.8	20.3	21.1	11.5	7.8
South Dakota	45.8	37.5	37.5	25.0	12.5	25.0	16.7	16.7
Tennessee	20.8	23.2	13.4	4.5	9.2	18.2	3.2	3.2
Texas	25.2	21.0	17.4	6.6	16.2	25.5	15.2	7.4
Utah	47.1	47.1	35.3	11.8	23.5	17.6	5.9	*
Vermont	33.3	34.8	36.4	13.6	12.5	17.4	13.6	*
Virginia	46.9	50.0	42.1	14.5	16.2	22.4	17.6	10.8
Washington	29.2	26.2	20.0	5.2	23.8	28.3	16.9	5.2
West Virginia	32.0	24.0	20.0	4.0	12.0	16.0	12.0	4.0
Wisconsin	38.3	40.7	35.2	7.4	12.9	19.6	14.5	9.1
Wyoming	37.5	42.9	42.9	42.9	11.1	12.5	*	*

See footnotes at end of table.

Table 12A.- Percentage of responding institutions with selected electronic services, by state, United States: 1998 (continued)

State	Satellite broadcasting by or for the library				Computers not dedicated to library functions for patron use inside the library	Computer software for patron use inside the library	Scanning equipment for patron use in the library	Services to institutions' distance education students
	Access from		Access off campus by					
	Within library	Elsewhere on campus	Primary clientele	Others				
<b>Total 50 states &amp; D.C.</b>	16.6%	22.7%	9.4%	6.0%	70.5%	66.2%	24.1%	65.0%
Alabama	18.5	21.8	12.7	5.7	77.6	70.1	22.4	56.8
Alaska	33.3	16.7	16.7	16.7	100.0	100.0	33.3	60.0
Arizona	16.3	14.3	5.3	2.7	53.1	57.1	17.0	61.3
Arkansas	68.9	51.2	14.6	4.9	40.0	35.6	13.3	15.0
California	5.7	9.6	4.8	1.5	68.7	63.4	23.8	52.8
Colorado	18.2	24.1	6.0	2.0	72.4	72.4	14.0	55.6
Connecticut	9.5	31.6	10.5	2.6	100.0	100.0	*	100.0
Delaware	*	12.5	12.5	*	44.4	55.6	11.1	66.7
District of Columbia	*	*	*	*	75.0	75.0	25.0	44.4
Florida	21.6	24.1	10.5	6.1	78.4	76.7	21.6	62.2
Georgia	14.9	21.5	9.6	10.8	73.9	68.2	33.3	75.0
Hawaii	12.5	25.0	6.2	*	68.8	62.5	18.8	69.2
Idaho	23.1	38.5	30.8	30.8	84.6	69.2	30.8	41.7
Illinois	8.8	20.3	6.8	3.4	71.2	65.0	25.3	64.2
Indiana	18.5	22.4	14.3	8.9	63.2	64.2	29.4	75.6
Iowa	13.8	28.3	11.5	5.9	75.9	77.6	24.1	76.9
Kansas	22.6	35.8	8.3	10.2	77.4	71.7	17.0	71.1
Kentucky	16.9	24.6	8.9	3.6	76.9	80.0	23.1	68.9
Louisiana	5.9	18.8	6.9	3.6	71.4	60.0	22.9	75.0
Maine	*	13.8	7.7	7.7	75.0	75.0	16.1	57.7
Maryland	14.8	26.0	12.0	8.0	65.5	63.6	23.6	68.9
Massachusetts	16.0	13.3	2.9	2.0	67.0	53.9	26.3	46.7
Michigan	15.1	22.0	8.9	7.8	53.8	41.9	20.4	78.9
Minnesota	20.6	29.6	12.1	9.9	82.1	80.2	28.6	83.1
Mississippi	30.8	26.5	6.1	6.1	85.0	82.5	27.5	73.3
Missouri	20.0	20.5	7.3	7.2	80.0	74.7	37.6	64.4
Montana	26.3	36.8	21.1	21.1	80.0	75.0	15.0	63.2
Nebraska	23.5	26.5	8.8	5.9	82.4	79.4	32.4	56.2
Nevada	*	10.0	*	*	70.0	70.0	30.0	75.0
New Hampshire	12.0	17.4	*	*	73.1	73.1	15.4	52.4
New Jersey	18.0	22.4	14.0	9.5	72.2	72.2	14.8	71.1
New Mexico	20.0	31.4	11.4	8.6	62.9	60.0	20.0	70.6
New York	14.1	20.8	7.5	2.5	66.9	63.0	23.8	52.3
North Carolina	24.3	30.6	7.9	7.0	65.8	61.7	17.6	77.2
North Dakota	10.5	26.7	21.4	7.7	73.7	63.2	21.1	87.5
Ohio	18.5	24.3	8.8	5.9	67.8	67.8	28.9	57.6
Oklahoma	27.9	30.2	14.3	14.3	75.0	65.9	22.7	78.0
Oregon	10.4	19.1	13.3	13.3	68.1	65.2	30.4	76.5
Pennsylvania	13.7	22.3	12.7	5.1	69.3	69.0	20.7	61.0
Rhode Island	15.4	23.1	*	*	61.5	38.5	23.1	23.1
South Carolina	21.7	28.1	15.7	7.8	51.7	53.4	20.7	78.3
South Dakota	20.8	29.2	20.8	25.0	95.8	91.7	41.7	50.0
Tennessee	11.7	15.9	4.6	4.6	75.3	68.8	23.7	78.4
Texas	20.1	32.2	12.5	5.9	77.8	70.4	24.2	80.5
Utah	41.2	47.1	17.6	5.9	82.4	70.6	35.3	64.3
Vermont	8.3	21.7	13.6	9.1	78.3	78.3	30.4	62.5
Virginia	25.9	23.1	10.5	7.9	70.7	64.6	30.9	69.4
Washington	21.9	19.7	3.4	*	49.2	44.6	29.2	79.6
West Virginia	20.0	16.0	12.0	8.0	84.0	68.0	20.0	70.0
Wisconsin	16.1	29.3	16.4	14.5	75.8	66.1	26.2	74.5
Wyoming	*	12.5	14.3	14.3	88.9	77.8	11.1	100.0

\* Less than .05%.

NOTE: Total number of institutions responding to each question is shown in Table A. Data in table 12 were not imputed for non-response, and the average response rate was 87.1%

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table 12B.- Percentage of responding institutions with selected electronic services, by control, level, size, and Carnegie Classification of institution: 1998

Institutional characteristic	Electronic catalog that includes the library's holdings				Electronic indexes and reference tools			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>All postsecondary degree-granting institutions</b> .....	84.2%	67.4%	64.8%	61.8%	91.4%	70.8%	55.4%	19.9%
<b>Control</b>								
Public .....	95.7	83.5	80.4	76.7	99.2	83.9	66.5	27.2
Private .....	75.0	54.3	51.8	49.4	85.2	60.1	46.3	13.8
<b>Level *</b>								
Total 4-year and above .....	86.7	73.8	70.9	67.9	93.5	76.8	62.9	20.2
Doctor's .....	94.8	87.6	86.3	84.2	98.4	87.3	79.1	28.6
Master's .....	87.9	78.3	76.7	72.7	95.2	80.5	66.4	19.3
Bachelor's .....	78.3	56.1	49.3	46.7	87.3	63.2	43.8	14.0
Less than 4-year .....	80.1	56.9	54.4	51.3	87.9	61.0	42.6	19.4
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	73.0	47.6	44.1	41.5	84.5	55.8	39.5	13.8
1,500 to 4,999 .....	96.4	86.1	82.3	78.3	99.2	85.3	66.3	23.4
5,000 or more .....	99.1	95.8	95.7	93.1	100.0	92.0	84.6	32.2
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	100.0	100.0	99.2	95.1	100.0	99.2	97.6	33.3
Doctoral I and II .....	100.0	100.0	100.0	100.0	100.0	100.0	92.5	36.6
Master's I and II .....	96.9	95.0	93.5	89.1	100.0	95.5	83.1	27.0
Baccalaureate I and II .....	89.7	79.0	75.8	73.4	98.5	83.7	61.1	16.7
Associate of Arts .....	84.9	62.6	58.5	55.4	91.4	65.3	44.5	20.2
Specialized .....	76.4	52.1	47.8	45.8	87.8	54.9	41.9	13.7
Not classified .....	60.5	29.0	28.0	24.3	71.6	39.3	33.0	13.0

See footnotes at end of table.

Table 12B.- Percentage of responding institutions with selected electronic services, by control, level, size, and Carnegie Classification of institution: 1998 (continued)

Institutional characteristic	Electronic full text periodicals				Electronic full text course reserves			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>All postsecondary degree-granting institutions</b> .....	80.8%	66.3%	51.1%	13.2%	12.5%	11.4%	10.5%	2.7%
<b>Control</b>								
Public .....	95.3	81.1	61.8	17.3	16.0	14.6	13.8	3.4
Private .....	69.3	54.2	42.2	9.8	9.7	8.8	7.7	2.1
<b>Level *</b>								
Total 4-year and above .....	80.9	70.9	57.3	12.7	15.6	15.0	14.0	3.1
Doctor's .....	85.2	80.7	71.8	18.4	28.6	27.7	26.5	4.8
Master's .....	83.8	75.6	61.4	12.0	11.7	12.0	11.2	2.9
Bachelor's .....	73.5	56.4	38.7	8.7	9.9	8.3	7.0	1.8
Less than 4-year .....	80.6	58.7	40.7	14.1	7.7	5.5	4.4	2.0
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	68.0	49.6	35.9	9.6	8.1	6.5	5.5	1.6
1,500 to 4,999 .....	95.2	82.7	61.2	15.5	11.0	10.1	8.9	2.9
5,000 or more .....	97.3	89.0	78.9	20.3	30.5	29.5	28.6	5.7
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	100.0	97.5	92.7	23.7	53.7	52.9	50.0	6.9
Doctoral I and II .....	98.1	98.1	88.0	24.3	36.8	35.6	34.3	9.1
Master's I and II .....	97.8	92.9	77.2	15.8	16.6	16.4	15.7	4.2
Baccalaureate I and II .....	91.8	79.4	55.5	10.6	10.4	9.8	8.5	2.9
Associate of Arts .....	84.1	63.2	41.8	14.1	8.0	6.4	4.8	2.0
Specialized .....	55.9	41.6	34.6	9.1	8.4	7.2	6.6	.4
Not classified .....	56.8	34.4	32.4	9.8	9.9	7.1	7.2	1.9

See footnotes at end of table.

Table 12B.- Percentage of responding institutions with selected electronic services, by control, level, size, and Carnegie Classification of institution: 1998 (continued)

Institutional characteristic	Electronic files other than the catalog				Internet access			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>All postsecondary degree-granting institutions</b> .....	47.7%	42.2%	40.8%	36.5%	94.6%	88.6%	54.1%	27.0%
<b>Control</b>								
Public .....	54.3	50.2	48.9	44.8	97.5	95.6	62.7	33.9
Private .....	42.5	35.6	34.0	29.6	92.3	82.9	47.1	21.3
<b>Level *</b>								
Total 4-year and above .....	55.5	50.7	49.1	44.0	95.4	89.8	61.4	28.6
Doctor's .....	73.8	70.2	68.4	62.8	97.3	92.1	75.3	39.3
Master's .....	54.8	50.1	48.2	43.8	95.7	91.3	63.6	27.8
Bachelor's .....	41.3	35.0	33.0	27.3	93.5	86.2	45.8	20.1
Less than 4-year .....	35.3	28.2	26.9	23.8	93.3	86.6	41.9	24.4
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	35.5	27.0	25.5	21.4	91.4	81.4	40.8	20.8
1,500 to 4,999 .....	54.4	50.4	48.0	43.5	98.7	97.0	62.6	29.8
5,000 or more .....	76.5	75.0	74.4	69.8	98.0	96.1	79.4	41.0
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	92.6	91.7	91.0	84.2	100.0	96.7	95.1	52.2
Doctoral I and II .....	87.0	88.6	86.7	81.9	100.0	100.0	90.5	44.1
Master's I and II .....	69.1	66.3	64.4	59.5	99.2	97.2	76.2	32.8
Baccalaureate I and II .....	54.7	49.9	48.1	43.0	98.0	95.9	65.3	29.7
Associate of Arts .....	37.2	30.5	28.8	25.6	95.3	89.9	44.0	26.0
Specialized .....	39.6	30.8	27.9	24.4	91.4	79.6	41.2	20.1
Not classified .....	28.5	19.2	18.7	13.1	83.9	69.4	28.8	14.1

See footnotes at end of table.

Table 12B.- Percentage of responding institutions with selected electronic services, by control, level, size, and Carnegie Classification of institution: 1998 (continued)

Institutional characteristic	Library reference service by e-mail				Capacity to place interlibrary loan/document delivery requests electronically			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>All postsecondary degree-granting institutions</b> .....	54.2%	53.7%	52.6%	36.2%	61.1%	42.7%	41.6%	15.1%
<b>Control</b>								
Public .....	57.7	59.2	57.3	41.8	71.5	51.8	50.5	21.0
Private .....	51.5	49.2	48.8	31.6	52.9	35.3	34.3	10.2
<b>Level *</b>								
Total 4-year and above .....	61.5	61.7	61.5	41.8	65.7	51.1	50.2	15.7
Doctor's .....	78.3	78.8	81.1	59.2	77.5	68.0	69.4	25.0
Master's .....	59.3	60.6	60.2	37.9	63.9	51.1	48.9	13.9
Bachelor's .....	50.4	48.5	45.4	31.5	58.4	36.3	34.4	9.6
Less than 4-year .....	42.7	40.3	37.7	26.9	53.6	29.0	27.4	14.3
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	47.3	43.9	42.7	30.6	51.5	28.3	27.2	11.2
1,500 to 4,999 .....	58.3	60.5	58.6	38.4	68.4	52.0	49.8	17.2
5,000 or more .....	70.2	71.9	72.0	49.4	80.0	71.5	70.7	23.3
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	93.5	95.1	95.1	67.5	90.1	87.6	86.8	28.6
Doctoral I and II .....	82.2	85.0	85.0	65.4	86.0	83.0	82.2	28.8
Master's I and II .....	65.9	69.3	68.7	42.1	76.1	69.1	66.4	17.3
Baccalaureate I and II .....	59.1	60.1	59.0	37.9	67.8	53.0	50.3	13.2
Associate of Arts .....	44.6	42.8	39.4	28.4	58.0	30.9	29.1	14.4
Specialized .....	57.6	54.3	55.8	44.1	54.4	28.8	30.2	15.7
Not classified .....	37.4	32.2	31.3	19.5	36.6	19.6	19.1	8.2

See footnotes at end of table.

Table 12B.- Percentage of responding institutions with selected electronic services, by control, level, size, and Carnegie Classification of institution: 1998 (continued)

Institutional characteristic	Technology to assist patrons with disabilities				Instruction by library staff on use of internet resources			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>All postsecondary degree-granting institutions</b> .....	44.4%	34.2%	12.1%	6.7%	91.9%	63.3%	35.4%	17.3%
<b>Control</b>								
Public .....	65.8	54.5	18.5	10.9	96.6	71.0	43.2	24.5
Private .....	27.3	17.7	6.9	3.2	88.2	57.2	29.1	11.3
<b>Level *</b>								
Total 4-year and above .....	42.4	27.9	11.9	6.6	92.2	66.8	39.7	18.7
Doctor's .....	62.8	40.2	20.6	12.6	96.2	75.9	54.5	27.0
Master's .....	42.3	28.1	10.2	5.6	93.0	67.3	39.7	17.3
Bachelor's .....	25.7	17.2	6.8	3.1	87.8	58.6	26.9	13.4
Less than 4-year .....	47.5	44.4	12.4	6.7	91.3	57.7	28.4	15.0
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	25.0	19.4	6.7	3.5	87.0	52.9	25.4	11.6
1,500 to 4,999 .....	57.8	43.0	12.5	6.8	97.2	71.0	41.3	20.6
5,000 or more .....	85.0	66.3	28.7	16.5	98.4	82.7	56.3	29.3
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	95.9	71.4	38.9	22.4	99.2	83.2	66.4	36.8
Doctoral I and II .....	76.9	57.3	25.8	17.7	100.0	88.1	62.1	34.0
Master's I and II .....	63.1	41.6	16.6	9.8	98.0	79.5	51.8	22.6
Baccalaureate I and II .....	35.3	22.2	7.1	3.0	96.2	70.8	38.3	18.3
Associate of Arts .....	50.6	47.5	13.3	7.0	92.6	60.7	29.8	16.2
Specialized .....	20.6	9.7	4.6	2.8	85.2	50.7	26.4	11.9
Not classified .....	23.4	18.3	7.5	3.9	81.0	42.7	20.2	8.1

See footnotes at end of table.

Table 12B.- Percentage of responding institutions with selected electronic services, by control, level, size, and Carnegie Classification of institution: 1998 (continued)

Institutional characteristic	Electronic document delivery by the library to patron's account/address				Video/desktop conferencing by or for the library			
	Access from		Access off campus by		Access from		Access off campus by	
	Within library	Elsewhere on campus	Primary clientele	Others	Within library	Elsewhere on campus	Primary clientele	Others
<b>All postsecondary degree-granting institutions</b> .....	29.9%	27.3%	22.9%	7.8%	12.4%	18.8%	9.6%	4.9%
<b>Control</b>								
Public .....	36.9	33.5	27.7	11.4	20.6	30.1	15.0	8.3
Private .....	24.2	22.3	18.8	4.9	5.9	9.6	5.1	2.1
<b>Level *</b>								
Total 4-year and above .....	32.0	30.4	26.2	7.2	11.5	18.3	9.8	4.3
Doctor's .....	39.9	38.3	34.6	11.4	17.0	25.9	14.5	6.3
Master's .....	31.4	29.8	27.1	6.1	10.7	18.0	10.0	5.1
Bachelor's .....	26.3	24.5	17.5	5.1	8.0	12.3	5.6	1.6
Less than 4-year .....	26.5	22.4	17.4	8.8	13.9	19.7	9.2	5.9
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	22.7	20.2	16.7	6.2	6.7	10.4	4.8	2.9
1,500 to 4,999 .....	34.8	31.0	25.2	8.6	18.3	26.4	14.5	7.2
5,000 or more .....	45.4	43.8	37.7	11.4	20.9	32.0	15.5	7.2
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	59.5	57.6	47.5	12.8	25.8	35.5	12.9	4.3
Doctoral I and II .....	49.5	47.5	44.1	14.0	23.0	37.8	22.1	10.6
Master's I and II .....	41.2	41.4	35.7	7.6	14.7	26.4	15.2	8.1
Baccalaureate I and II .....	31.5	29.5	22.9	5.4	11.5	15.2	7.5	2.5
Associate of Arts .....	27.1	23.3	17.4	8.7	14.6	20.4	9.9	6.2
Specialized .....	19.5	16.3	15.1	6.5	5.1	9.4	5.0	2.5
Not classified .....	21.1	17.1	17.4	7.6	7.8	11.6	5.6	2.4

See footnotes at end of table.

Table 12B.- Percentage of responding institutions with selected electronic services, by control, level, size, and Carnegie Classification of institution: 1998 (continued)

Institutional characteristic	Satellite broadcasting by or for the library				Computers not dedicated to library functions for patron use inside the library	Computer software for patron use inside the library	Scanning equipment for patron use in the library	Services to institutions' distance education students
	Access from		Access off campus by					
	Within library	Elsewhere on campus	Primary clientele	Others				
<b>All postsecondary degree-granting institutions</b> .....	16.6%	22.7%	9.4%	6.0%	70.5%	66.2%	24.1%	65.0%
<b>Control</b>								
Public .....	28.2	37.7	15.0	10.7	68.0	61.8	26.0	82.6
Private .....	7.5	10.5	4.8	2.0	72.4	69.7	22.6	44.6
<b>Level *</b>								
Total 4-year and above .....	14.1	19.5	9.5	5.3	73.2	68.6	27.9	63.6
Doctor's .....	18.8	26.7	16.7	9.4	78.1	69.4	36.4	80.4
Master's .....	13.2	19.8	8.4	4.2	70.1	66.2	26.7	66.1
Bachelor's .....	11.4	13.1	4.9	3.2	73.2	71.2	22.3	40.9
Less than 4-year .....	20.7	28.0	9.2	7.1	66.2	62.3	18.2	66.9
<b>Size (FTE enrollment)</b>								
Less than 1,500 .....	9.8	13.2	5.1	3.5	72.5	70.6	20.7	47.1
1,500 to 4,999 .....	23.3	31.2	11.8	7.6	65.9	60.1	24.2	77.8
5,000 or more .....	27.7	38.1	18.7	10.6	71.9	62.6	35.7	87.4
<b>Carnegie Classification (1994) *</b>								
Research I and II .....	23.5	34.5	17.8	11.0	83.6	71.3	51.2	88.7
Doctoral I and II .....	28.4	41.0	28.9	14.6	78.7	64.5	29.9	86.9
Master's I and II .....	17.7	25.9	11.7	6.4	72.1	64.7	31.7	81.3
Baccalaureate I and II .....	17.4	18.6	7.1	4.4	71.1	67.4	27.6	57.2
Associate of Arts .....	21.7	29.2	9.2	6.9	64.3	59.6	18.4	70.5
Specialized .....	5.9	11.5	5.6	3.2	78.3	74.8	24.3	48.5
Not classified .....	9.2	12.3	7.0	4.4	69.0	72.2	17.1	34.7

\* While 'level' and 'Carnegie Classification' are similar, there is not complete overlap in the two classifications. 'Level' refers to the highest level of any degree offered by the institution. The 'Carnegie Classification' is based on criteria such as institution mission and research funding in addition to highest level of degree awarded. The Carnegie Classification was developed by the Carnegie Foundation for the Advancement of Teaching and published in *A Classification of Institutions of Higher Education, 1994 Edition*.

NOTE: Total number of institutions responding to each question is shown in Table A. Data in table 12 were not imputed for non-response, and the average response rate was 87.1%

NOTE: The number of doctoral, masters, and bachelors level institutions does not sum to the total number of 4-year and above institutions because there are three 4-year and above institutions that grant "other" degrees and are thus not included in the breakdown.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Table 13A.- Academic library circulation per full-time-equivalent (FTE) student, by level and control of institution, United States: 1998**

	Total post-secondary degree-granting institutions	4-year institutions				Less than 4-year	Public	Private
		Total 4-year institutions	Highest level of degree					
			Doctor's	Master's	Bachelor's			
<b>General circulation per FTE student *</b>								
Lower quartile .....	4.8	8.0	11.9	7.6	6.0	2.8	4.5	5.5
Median .....	10.1	14.8	19.5	13.2	13.2	5.7	7.8	13.0
Upper quartile .....	20.8	26.9	38.4	22.3	27.9	10.1	14.4	28.5
<b>Reserve circulation per FTE student *</b>								
Lower quartile .....	.6	1.3	2.2	1.4	.6	.2	.7	.6
Median .....	2.2	3.2	4.1	3.0	2.8	1.0	1.8	3.0
Upper quartile .....	5.2	7.0	8.2	5.9	7.3	2.8	3.5	7.6
<b>Total circulation per FTE student *</b>								
Lower quartile .....	6.5	10.8	15.6	10.3	8.0	3.8	5.9	7.8
Median .....	13.4	19.1	25.2	17.3	17.2	7.4	10.2	17.7
Upper quartile .....	26.4	35.2	44.5	28.8	35.4	12.9	17.5	36.8

\* FTE enrollment is calculated by adding one-third of part-time enrollment to full-time enrollment.

NOTE: Twenty-five percent of institutions fall into each quartile grouping. All institutions in the lower quartile were at or below the number given in the table for the lower quartile and all institutions in the upper quartile were at or above the upper quartile number. For example, all institutions within the lower quartile had 4.8 or fewer general circulation transactions per FTE student.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998" and "Fall Enrollment Survey, 1997."

**Table 13B.- Number of books and bound serials volumes held at the end of the year, and added during the year by academic libraries per full-time-equivalent (FTE) student, by level and control of institution, United States: 1998**

	Total post-secondary degree-granting institutions	4-year institutions			Less than 4-year	Public	Private	
		Total 4-year institutions	Highest level of degree					
			Doctor's	Master's				Bachelor's
<b>Volumes held per FTE student *</b>								
Lower quartile .....	18.7	54.6	72.2	56.5	34.4	10.4	16.5	26.9
Median .....	53.7	94.1	119.8	83.4	92.3	18.5	32.8	82.7
Upper quartile .....	118.7	162.8	206.0	139.0	160.8	32.8	71.1	168.2
<b>Volumes added per FTE student *</b>								
Lower quartile .....	.6	1.3	1.8	1.2	1.0	.3	.5	.9
Median .....	1.5	2.3	2.9	2.0	2.3	.7	1.0	2.1
Upper quartile .....	3.3	4.6	5.1	3.8	4.7	1.3	2.0	4.9

\* FTE enrollment is calculated by adding one-third of part-time enrollment to full-time enrollment.

NOTE: Twenty-five percent of institutions fall into each quartile grouping. All institutions in the lower quartile were at or below the number given in the table for the lower quartile and all institutions in the upper quartile were at or above the upper quartile number. For example, all institutions within the lower quartile had 18.7 or fewer volumes held per FTE student.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998" and "Fall Enrollment Survey, 1997."

**Table 13C.- Total academic library staff, except student assistants, per 1,000 full-time-equivalent (FTE) students, by level and control of institution, United States: 1998**

	Total post-secondary degree-granting institutions	4-year institutions			Less than 4-year	Public	Private	
		Total 4-year institutions	Highest level of degree					
			Doctor's	Master's				Bachelor's
<b>Total staff per 1,000 FTE students *</b>								
Lower quartile .....	3.4	4.9	6.0	4.5	4.6	2.4	3.0	4.5
Median .....	5.6	7.3	9.1	6.5	7.4	3.6	4.2	7.4
Upper quartile .....	9.4	11.5	15.6	10.2	11.2	5.5	6.1	12.4

\* FTE enrollment is calculated by adding one-third of part-time enrollment to full-time enrollment.

NOTE: Twenty-five percent of institutions fall into each quartile grouping. All institutions in the lower quartile were at or below the number given in the table for the lower quartile and all institutions in the upper quartile were at or above the upper quartile number. For example, all institutions within the lower quartile had 3.4 or fewer total staff per 1,000 FTE students.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998" and "Fall Enrollment Survey, 1997."

**Table 13D.- Total expenditures for academic libraries, information resources, and serials expenditures per full-time-equivalent (FTE) student, by level and control of institution, United States: 1998**

	Total post-secondary degree-granting institutions	4-year institutions				Less than 4-year	Public	Private
		Total 4-year institutions	Highest level of degree					
			Doctor's	Master's	Bachelor's			
<b>Total expenditures per FTE student <sup>1</sup></b>								
Lower quartile .....	\$170.77	\$286.75	\$408.50	\$276.57	\$230.75	\$114.03	\$150.53	\$222.25
Median .....	\$301.25	\$418.50	\$596.00	\$375.00	\$369.00	\$168.50	\$228.75	\$390.67
Upper quartile .....	\$509.55	\$693.00	\$1,068.00	\$568.00	\$582.60	\$256.79	\$354.62	\$694.00
<b>Expenditures for information resources per FTE student <sup>1, 2</sup></b>								
Lower quartile .....	\$37.68	\$83.22	\$143.75	\$82.50	\$57.72	\$21.89	\$32.17	\$52.22
Median .....	\$84.98	\$133.27	\$226.00	\$117.25	\$103.58	\$37.29	\$58.28	\$114.25
Upper quartile .....	\$173.92	\$249.00	\$378.00	\$197.00	\$191.62	\$59.98	\$111.21	\$233.75
<b>Expenditures for current serials per FTE student <sup>1, 3</sup></b>								
Lower quartile .....	\$13.82	\$39.00	\$78.12	\$41.50	\$22.34	\$7.38	\$12.17	\$18.33
Median .....	\$37.90	\$71.00	\$131.83	\$66.75	\$47.96	\$14.05	\$24.14	\$53.60
Upper quartile .....	\$89.91	\$134.25	\$221.50	\$104.50	\$92.06	\$24.09	\$63.44	\$109.69

<sup>1</sup> FTE enrollment is calculated by adding one-third of part-time enrollment to full-time enrollment.

<sup>2</sup> 'Information resources' most closely resembles the category 'Collection expenditures' in the 1992 Academic Libraries E.D.-TABS report.

<sup>3</sup> Expenditures for current serials is the total reported expenditures for paper and microform and electronic serial subscriptions and search services. See form changes in survey questionnaire for details.

NOTE: Twenty-five percent of institutions fall into each quartile grouping. All institutions in the lower quartile were at or below the number given in the table for the lower quartile and all institutions in the upper quartile were at or above the upper quartile number. For example, all institutions within the lower quartile had total operating expenditures per FTE student of \$170.77 or less.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998" and "Fall Enrollment Survey, 1997."

**Table 13E.- Academic library expenditures as a percentage of institutional expenditures; and expenditures for information resources, current serials, and salaries and wages as a percentage of total library expenditures, by level and control of institution, United States: 1998**

	Total post-secondary degree-granting institutions	4-year institutions				Less than 4-year	Public	Private
		Total 4-year institutions	Highest level of degree					
			Doctor's	Master's	Bachelor's			
<b>Total expenditures as percentage of institutional expenditures <sup>1</sup></b>								
Lower quartile .....	1.9%	2.3%	2.2%	2.4%	2.2%	1.5%	1.7%	2.2%
Median .....	2.7%	3.0%	3.0%	3.0%	2.9%	2.1%	2.4%	3.0%
Upper quartile .....	3.5%	3.9%	4.2%	3.8%	3.8%	2.8%	3.1%	4.3%
<b>Expenditures for information resources as a percentage of total expenditures <sup>2</sup></b>								
Lower quartile .....	22.5%	26.8%	30.0%	26.8%	23.5%	18.0%	20.9%	24.5%
Median .....	30.1%	33.7%	36.9%	33.0%	31.8%	23.1%	28.0%	32.8%
Upper quartile .....	37.8%	40.6%	42.3%	40.3%	38.1%	29.6%	35.2%	40.0%
<b>Expenditures for current serials as a percentage of total information resources expenditures <sup>3</sup></b>								
Lower quartile .....	36.4%	42.2%	50.5%	42.6%	36.5%	30.8%	35.9%	37.2%
Median .....	50.1%	55.6%	64.0%	54.9%	49.4%	40.3%	49.2%	51.0%
Upper quartile .....	63.8%	67.3%	74.8%	65.9%	60.2%	52.3%	65.1%	62.7%
<b>Salaries and wages as a percentage of total operating expenditures</b>								
Lower quartile .....	47.4%	45.3%	43.2%	46.3%	46.7%	55.7%	50.3%	45.5%
Median .....	55.8%	52.1%	47.8%	53.4%	55.5%	63.9%	59.1%	52.8%
Upper quartile .....	65.2%	60.0%	54.3%	59.9%	64.2%	71.7%	67.7%	61.7%

<sup>1</sup> For public institutions, institutional expenditures are defined as educational and general (E&G) expenditures. For private institutions, institutional expenditures are defined as total expenses.

<sup>2</sup> 'Information resources' most closely resembles the category 'Collection expenditures' in the 1992 Academic Libraries E.D.-TABS report.

<sup>3</sup> Expenditures for current serials is the total reported expenditures for paper and microform and electronic serial subscriptions and search services. See form changes in survey questionnaire for details.

NOTE: Twenty-five percent of institutions fall into each quartile grouping. All institutions in the lower quartile were at or below the number given in the table for the lower quartile and all institutions in the upper quartile were at or above the upper quartile number. For example, all institutions within the lower quartile had total operating expenditures as a percentage of E&G expenditures of 1.9 percent or less.

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998" and "Public Finance Survey, 1998" and "Private Finance Survey, 1997." Finance data was the closest available data to the Academic Library Survey for 1998.

## **Methodology Tables**

Table A.- Number and percentage of responding academic libraries by item and by level and control of institution: 1998

	Total post-secondary degree-granting institutions	Pct responding	4-year institutions								Less than 4-year		Public		Private	
			Total 4-year institutions		Highest level of degree						Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding
			Total responding	Pct responding	Doctor's		Master's		Bachelor's							
					Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding						
<b>All institutions</b> .....	3,658	100.0%	2,220	100.0%	570	100.0%	944	100.0%	703	100.0%	1,438	100.0%	1,583	100.0%	2,075	100.0%
Non-responding libraries .....	111	3.0	50	2.3	7	1.2	28	3.0	15	2.1	61	4.2	29	1.8	82	4.0
Responding libraries .....	3,547	97.0	2,170	97.7	563	98.8	916	97.0	688	97.9	1,377	95.8	1,554	98.2	1,993	96.0
<b>Part B-Library staff</b>																
Librarians .....	3,333	91.1	2,053	92.5	531	93.2	872	92.4	647	92.0	1,280	89.0	1,485	93.8	1,848	89.1
Other professional staff .....	2,828	77.3	1,734	78.1	464	81.4	740	78.4	527	75.0	1,094	76.1	1,303	82.3	1,525	73.5
Librarians & professional staff .....	3,070	83.9	1,880	84.7	493	86.5	794	84.1	590	83.9	1,190	82.8	1,373	86.7	1,697	81.8
All other paid staff .....	2,972	81.2	1,837	82.7	496	87.0	771	81.7	568	80.8	1,135	78.9	1,371	86.6	1,601	77.2
Contributed services staff .....	2,541	69.5	1,532	69.0	404	70.9	635	67.3	491	69.8	1,009	70.2	1,183	74.7	1,358	65.4
Student assistants/all funding .....	3,189	87.2	1,983	89.3	512	89.8	845	89.5	623	88.6	1,206	83.9	1,435	90.7	1,754	84.5
Total FTE staff .....	2,975	81.3	1,828	82.3	479	84.0	776	82.2	570	81.1	1,147	79.8	1,329	84.0	1,646	79.3
<b>Part C-Library operating expenditures</b>																
Librarians/professional staff .....	3,174	86.8	1,956	88.1	519	91.1	838	88.8	596	84.8	1,218	84.7	1,449	91.5	1,725	83.1
All other paid staff .....	2,988	81.7	1,855	83.6	509	89.3	791	83.8	553	78.7	1,133	78.8	1,429	90.3	1,559	75.1
Student assistants .....	3,036	83.0	1,917	86.4	500	87.7	817	86.5	599	85.2	1,119	77.8	1,395	88.1	1,641	79.1
Books, serial backfiles-paper and microform .....	3,368	92.1	2,078	93.6	536	94.0	882	93.4	657	93.5	1,290	89.7	1,509	95.3	1,859	89.6
Books, serial backfiles-electronic .....	2,642	72.2	1,565	70.5	403	70.7	650	68.9	511	72.7	1,077	74.9	1,226	77.4	1,416	68.2
Current serials-paper and microform .....	3,326	90.9	2,049	92.3	531	93.2	877	92.9	638	90.8	1,277	88.8	1,502	94.9	1,824	87.9
Current serials-electronic .....	2,959	80.9	1,794	80.8	465	81.6	784	83.1	543	77.2	1,165	81.0	1,361	86.0	1,598	77.0
Audiovisual materials .....	2,998	82.0	1,800	81.1	460	80.7	777	82.3	561	79.8	1,198	83.3	1,380	87.2	1,618	78.0
Document delivery/interlibrary loan .....	2,819	77.1	1,752	78.9	470	82.5	744	78.8	536	76.2	1,067	74.2	1,303	82.3	1,516	73.1
Other information resources .....	2,416	66.0	1,434	64.6	389	68.2	586	62.1	457	65.0	982	68.3	1,158	73.2	1,258	60.6
Preservation .....	2,885	78.9	1,844	83.1	485	85.1	797	84.4	561	79.8	1,041	72.4	1,314	83.0	1,571	75.7
Furniture and equipment .....	2,975	81.3	1,827	82.3	474	83.2	786	83.3	566	80.5	1,148	79.8	1,370	86.5	1,605	77.3
Computer hardware and software .....	3,118	85.2	1,914	86.2	503	88.2	815	86.3	594	84.5	1,204	83.7	1,415	89.4	1,703	82.1
Bibliographic utilities, networks, consortia .....	3,049	83.4	1,907	85.9	509	89.3	833	88.2	563	80.1	1,142	79.4	1,391	87.9	1,658	79.9
All other operating expenditures .....	3,151	86.1	1,958	88.2	514	90.2	837	88.7	604	85.9	1,193	83.0	1,455	91.9	1,696	81.7
Total operating expenditures .....	2,564	70.1	1,584	71.4	408	71.6	664	70.3	510	72.5	980	68.2	1,181	74.6	1,383	66.7
<b>Part D-Library collections</b>																
Books/serials paper vols. added .....	3,236	88.5	2,021	91.0	530	93.0	859	91.0	629	89.5	1,215	84.5	1,457	92.0	1,779	85.7
Books/serials paper vols. eofy .....	3,323	90.8	2,060	92.8	541	94.9	872	92.4	644	91.6	1,263	87.8	1,484	93.7	1,839	88.6
Books/serials paper titles added .....	2,874	78.6	1,740	78.4	418	73.3	767	81.2	553	78.7	1,134	78.9	1,298	82.0	1,576	76.0
Books/serials paper titles eofy .....	2,901	79.3	1,745	78.6	419	73.5	762	80.7	562	79.9	1,156	80.4	1,302	82.2	1,599	77.1
Books/serials microform units added .....	2,920	79.8	1,843	83.0	492	86.3	796	84.3	552	78.5	1,077	74.9	1,363	86.1	1,557	75.0
Books/serials microform units eofy .....	2,981	81.5	1,882	84.8	508	89.1	804	85.2	567	80.7	1,099	76.4	1,393	88.0	1,588	76.5
Books/serials electronic titles added .....	2,385	65.2	1,445	65.1	364	63.9	617	65.4	462	65.7	940	65.4	1,029	65.0	1,356	65.3
Books/serials electronic titles eofy .....	2,389	65.3	1,465	66.0	390	68.4	612	64.8	461	65.6	924	64.3	1,023	64.6	1,366	65.8
Current serials paper/microform added .....	3,064	83.8	1,873	84.4	475	83.3	798	84.5	597	84.9	1,191	82.8	1,386	87.6	1,678	80.9
Current serials paper/microform eofy .....	3,365	92.0	2,078	93.6	535	93.9	880	93.2	660	93.9	1,287	89.5	1,509	95.3	1,856	89.4
Current serials electronic subs added .....	2,776	75.9	1,678	75.6	421	73.9	727	77.0	528	75.1	1,098	76.4	1,245	78.6	1,531	73.8
Current serials electronic subs eofy .....	3,005	82.1	1,829	82.4	460	80.7	788	83.5	579	82.4	1,176	81.8	1,357	85.7	1,648	79.4
Audiovisual materials units added .....	2,901	79.3	1,796	80.9	469	82.3	770	81.6	555	78.9	1,105	76.8	1,337	84.5	1,564	75.4
Audiovisual materials units eofy .....	3,053	83.5	1,904	85.8	491	86.1	815	86.3	595	84.6	1,149	79.9	1,384	87.4	1,669	80.4

Table A.- Number and percentage of responding academic libraries by item and by level and control of institution: 1998 (continued)

	Total post-secondary degree-granting institutions	Pct responding	4-year institutions								Less than 4-year		Public		Private	
			Total 4-year institutions		Highest level of degree						Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding
			Total responding	Pct responding	Doctor's		Master's		Bachelor's							
					Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding						
<b>Part E-Library services, fiscal year</b>																
Circulation trans. general .....	3,292	90.0%	2,040	91.9%	527	92.5%	869	92.1%	641	91.2%	1,252	87.1%	1,490	94.1%	1,802	86.8%
Circulation trans. reserve .....	2,940	80.4	1,826	82.3	472	82.8	778	82.4	573	81.5	1,114	77.5	1,336	84.4	1,604	77.3
Inter-loans provided to .....	3,159	86.4	1,950	87.8	517	90.7	836	88.6	595	84.6	1,209	84.1	1,447	91.4	1,712	82.5
Inter-loans received from .....	3,188	87.2	1,967	88.6	517	90.7	848	89.8	599	85.2	1,221	84.9	1,456	92.0	1,732	83.5
Info serv. no. of presentations .....	3,196	87.4	1,957	88.2	513	90.0	833	88.2	608	86.5	1,239	86.2	1,457	92.0	1,739	83.8
Info serv. no. of persons .....	3,139	85.8	1,915	86.3	506	88.8	818	86.7	588	83.6	1,224	85.1	1,446	91.3	1,693	81.6
<b>Part F-Library service per typical week</b>																
Public service hours .....	3,391	92.7	2,090	94.1	534	93.7	886	93.9	667	94.9	1,301	90.5	1,487	93.9	1,904	91.8
Gate count .....	2,772	75.8	1,683	75.8	435	76.3	702	74.4	544	77.4	1,089	75.7	1,266	80.0	1,506	72.6
Reference transactions .....	2,935	80.2	1,819	81.9	478	83.9	776	82.2	563	80.1	1,116	77.6	1,329	84.0	1,606	77.4
<b>Part G-Electronic services</b>																
Electronic catalog that includes library's holdings																
Access from within library .....	3,439	94.0	2,121	95.5	553	97.0	896	94.9	669	95.2	1,318	91.7	1,518	95.9	1,921	92.6
Access from elsewhere on campus .....	3,265	89.3	2,036	91.7	540	94.7	865	91.6	628	89.3	1,229	85.5	1,469	92.8	1,796	86.6
Access off campus by primary clientele .....	3,190	87.2	2,004	90.3	540	94.7	857	90.8	604	85.9	1,186	82.5	1,449	91.5	1,741	83.9
Access off campus by others .....	3,161	86.4	1,988	89.5	539	94.6	847	89.7	599	85.2	1,173	81.6	1,432	90.5	1,729	83.3
Electronic indexes and reference tools																
Access from within library .....	3,422	93.5	2,112	95.1	550	96.5	892	94.5	667	94.9	1,310	91.1	1,510	95.4	1,912	92.1
Access from elsewhere on campus .....	3,231	88.3	2,012	90.6	535	93.9	855	90.6	619	88.1	1,219	84.8	1,455	91.9	1,776	85.6
Access off campus by primary clientele .....	3,146	86.0	1,981	89.2	537	94.2	847	89.7	594	84.5	1,165	81.0	1,421	89.8	1,725	83.1
Access off campus by others .....	3,074	84.0	1,922	86.6	514	90.2	827	87.6	578	82.2	1,152	80.1	1,399	88.4	1,675	80.7
Electronic full text periodicals																
Access from within library .....	3,409	93.2	2,101	94.6	549	96.3	885	93.8	664	94.5	1,308	91.0	1,503	94.9	1,906	91.9
Access from elsewhere on campus .....	3,223	88.1	2,006	90.4	534	93.7	855	90.6	614	87.3	1,217	84.6	1,448	91.5	1,775	85.5
Access off campus by primary clientele .....	3,139	85.8	1,969	88.7	536	94.0	841	89.1	589	83.8	1,170	81.4	1,425	90.0	1,714	82.6
Access off campus by others .....	3,058	83.6	1,907	85.9	511	89.6	820	86.9	573	81.5	1,151	80.0	1,391	87.9	1,667	80.3
Electronic full text course reserves																
Access from within library .....	3,361	91.9	2,069	93.2	542	95.1	877	92.9	647	92.0	1,292	89.8	1,484	93.7	1,877	90.5
Access from elsewhere on campus .....	3,171	86.7	1,971	88.8	520	91.2	850	90.0	599	85.2	1,200	83.4	1,428	90.2	1,743	84.0
Access off campus by primary clientele .....	3,068	83.9	1,929	86.9	520	91.2	833	88.2	573	81.5	1,139	79.2	1,383	87.4	1,685	81.2
Access off campus by others .....	3,037	83.0	1,900	85.6	504	88.4	827	87.6	566	80.5	1,137	79.1	1,373	86.7	1,664	80.2
Electronic files other than catalog																
Access from within library .....	3,380	92.4	2,078	93.6	543	95.3	878	93.0	654	93.0	1,302	90.5	1,495	94.4	1,885	90.8
Access from elsewhere on campus .....	3,192	87.3	1,985	89.4	526	92.3	851	90.1	605	86.1	1,207	83.9	1,440	91.0	1,752	84.4
Access off campus by primary clientele .....	3,108	85.0	1,951	87.9	528	92.6	841	89.1	579	82.4	1,157	80.5	1,410	89.1	1,698	81.8
Access off campus by others .....	3,084	84.3	1,935	87.2	522	91.6	835	88.5	575	81.8	1,149	79.9	1,399	88.4	1,685	81.2
Internet access																
Access from within library .....	3,435	93.9	2,115	95.3	553	97.0	897	95.0	662	94.2	1,320	91.8	1,520	96.0	1,915	92.3

Table A.- Number and percentage of responding academic libraries by item and by level and control of institution: 1998 (continued)

	Total post-secondary degree-granting institutions	Pct responding	4-year institutions								Less than 4-year		Public		Private	
			Total 4-year institutions		Highest level of degree						Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding
			Total responding	Pct responding	Doctor's		Master's		Bachelor's							
					Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding						
<b>Part G-Electronic services</b>																
Internet access																
Access from elsewhere on campus	3,267	89.3%	2,024	91.2%	535	93.9%	861	91.2%	625	88.9%	1,243	86.4%	1,476	93.2%	1,791	86.3%
Access off campus by primary clientele .....	3,112	85.1	1,951	87.9	531	93.2	838	88.8	579	82.4	1,161	80.7	1,406	88.8	1,706	82.2
Access from elsewhere on campus	3,018	82.5	1,883	84.8	511	89.6	807	85.5	562	79.9	1,135	78.9	1,373	86.7	1,645	79.3
Library reference service by e-mail																
Access from within library .....	3,390	92.7	2,087	94.0	545	95.6	884	93.6	655	93.2	1,303	90.6	1,494	94.4	1,896	91.4
Access from elsewhere on campus	3,216	87.9	2,008	90.5	534	93.7	856	90.7	615	87.5	1,208	84.0	1,439	90.9	1,777	85.6
Access off campus by primary clientele .....	3,131	85.6	1,967	88.6	534	93.7	844	89.4	586	83.4	1,164	80.9	1,411	89.1	1,720	82.9
Access off campus by others .....	3,080	84.2	1,924	86.7	520	91.2	824	87.3	577	82.1	1,156	80.4	1,398	88.3	1,682	81.1
Capacity to place interlibrary loan/doc deliv requests electronically																
Access from within library .....	3,396	92.8	2,093	94.3	547	96.0	884	93.6	659	93.7	1,303	90.6	1,494	94.4	1,902	91.7
Access from elsewhere on campus	3,203	87.6	1,996	89.9	532	93.3	855	90.6	606	86.2	1,207	83.9	1,440	91.0	1,763	85.0
Access off campus by primary clientele .....	3,124	85.4	1,958	88.2	532	93.3	842	89.2	581	82.6	1,166	81.1	1,423	89.9	1,701	82.0
Access off campus by others .....	3,079	84.2	1,922	86.6	520	91.2	827	87.6	572	81.4	1,157	80.5	1,408	88.9	1,671	80.5
Technology to assist patrons with disabilities																
Access from within library .....	3,387	92.6	2,085	93.9	549	96.3	879	93.1	654	93.0	1,302	90.5	1,501	94.8	1,886	90.9
Access from elsewhere on campus	3,098	84.7	1,906	85.9	497	87.2	818	86.7	588	83.6	1,192	82.9	1,390	87.8	1,708	82.3
Access off campus by primary clientele .....	2,953	80.7	1,837	82.7	486	85.3	792	83.9	556	79.1	1,116	77.6	1,321	83.4	1,632	78.7
Access off campus by others .....	2,932	80.2	1,821	82.0	477	83.7	787	83.4	554	78.8	1,111	77.3	1,316	83.1	1,616	77.9
Instruction by library staff on use of internet resources																
Access from within library .....	3,422	93.5	2,105	94.8	547	96.0	889	94.2	666	94.7	1,317	91.6	1,506	95.1	1,916	92.3
Access from elsewhere on campus	3,154	86.2	1,955	88.1	518	90.9	837	88.7	597	84.9	1,199	83.4	1,412	89.2	1,742	84.0
Access off campus by primary clientele .....	3,010	82.3	1,872	84.3	499	87.5	809	85.7	561	79.8	1,138	79.1	1,354	85.5	1,656	79.8
Access off campus by others .....	2,973	81.3	1,842	83.0	489	85.8	796	84.3	554	78.8	1,131	78.7	1,342	84.8	1,631	78.6
Electronic document delivery by the library to patron's account/address																
Access from within library .....	3,405	93.1	2,090	94.1	544	95.4	882	93.4	661	94.0	1,315	91.4	1,512	95.5	1,893	91.2
Access from elsewhere on campus	3,197	87.4	1,976	89.0	519	91.1	842	89.2	612	87.1	1,221	84.9	1,433	90.5	1,764	85.0
Access off campus by primary clientele .....	3,087	84.4	1,916	86.3	517	90.7	823	87.2	573	81.5	1,171	81.4	1,405	88.8	1,682	81.1
Access off campus by others .....	3,052	83.4	1,895	85.4	507	88.9	815	86.3	570	81.1	1,157	80.5	1,386	87.6	1,666	80.3
Video/desktop conferencing by or for the library																
Access from within library .....	3,382	92.5	2,080	93.7	540	94.7	885	93.8	652	92.7	1,302	90.5	1,494	94.4	1,888	91.0
Access from elsewhere on campus	3,188	87.2	1,970	88.7	517	90.7	841	89.1	609	86.6	1,218	84.7	1,435	90.7	1,753	84.5
Access off campus by primary clientele .....	3,039	83.1	1,881	84.7	498	87.4	812	86.0	568	80.8	1,158	80.5	1,376	86.9	1,663	80.1

**Table A.- Number and percentage of responding academic libraries by item and by level and control of institution: 1998 (continued)**

	Total post-secondary degree-granting institutions	Pct responding	4-year institutions								Less than 4-year		Public		Private	
			Total 4-year institutions		Highest level of degree						Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding
			Total responding	Pct responding	Doctor's		Master's		Bachelor's							
					Total responding	Pct responding	Total responding	Pct responding	Total responding	Pct responding						
<b>Part G-Electronic services</b>																
Video/desktop conferencing by or for the library																
Access off campus by others .....	3,020	82.6%	1,869	84.2%	494	86.7%	806	85.4%	566	80.5%	1,151	80.0%	1,367	86.4%	1,653	79.7%
Satellite broadcasting by or for the library																
Access from within library .....	3,384	92.5	2,077	93.6	537	94.2	881	93.3	656	93.3	1,307	90.9	1,496	94.5	1,888	91.0
Access from elsewhere on campus	3,202	87.5	1,982	89.3	520	91.2	848	89.8	611	86.9	1,220	84.8	1,441	91.0	1,761	84.9
Access off campus by primary clientele .....	3,040	83.1	1,887	85.0	504	88.4	814	86.2	566	80.5	1,153	80.2	1,368	86.4	1,672	80.6
Access off campus by others .....	3,024	82.7	1,880	84.7	502	88.1	810	85.8	565	80.4	1,144	79.6	1,364	86.2	1,660	80.0
Computers not dedicated to library functions for patron use inside library .....	3,408	93.2	2,094	94.3	544	95.4	880	93.2	667	94.9	1,314	91.4	1,505	95.1	1,903	91.7
Computer software for patron use inside the library .....	3,407	93.1	2,092	94.2	543	95.3	879	93.1	667	94.9	1,315	91.4	1,505	95.1	1,902	91.7
Scanning equipment for patron use in the library .....	3,392	92.7	2,080	93.7	541	94.9	878	93.0	658	93.6	1,312	91.2	1,501	94.8	1,891	91.1
Services to your institution's distance education students .....	2,575	70.4	1,493	67.3	449	78.8	641	67.9	401	57.0	1,082	75.2	1,381	87.2	1,194	57.5

NOTE: Caution should be exercised when using data at a level of detail where the response rate was less than 70 percent.

NOTE: EOFY = held at End Of Fiscal Year

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table B.- Number and percentage of non-responding academic libraries by state, level and control of institution: 1998

	Total post-secondary degree-granting institutions	Pct	4-year institutions								Less than 4-year		Public		Private	
			Total 4-year institutions		Highest level of degree						Total	Pct	Total	Pct	Total	Pct
			Total	Pct	Doctor's		Master's		Bachelor's							
					Total	Pct	Total	Pct	Total	Pct						
<b>Libraries with all items imputed</b>	111	3.0%	50	2.3%	7	1.2%	28	3.0%	15	2.1%	61	4.2%	29	1.8%	82	4.0%
Alabama .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Alaska .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Arizona .....	2	3.8	0	.0	0	.0	0	.0	0	.0	2	6.1	0	.0	2	6.9
Arkansas .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
California .....	13	3.7	8	4.1	3	5.5	4	4.3	1	2.3	5	3.1	1	.7	12	5.6
Colorado .....	1	1.7	0	.0	0	.0	0	.0	0	.0	1	4.5	1	3.7	0	.0
Connecticut .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Delaware .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
District of Columbia .....	1	5.9	1	5.9	0	.0	1	12.5	0	.0	0	.0	1	50.0	0	.0
Florida .....	5	4.0	1	1.4	0	.0	0	.0	1	3.2	4	7.7	0	.0	5	5.8
Georgia .....	3	3.2	3	5.2	1	7.1	1	4.2	1	5.0	0	.0	0	.0	3	6.5
Hawaii .....	1	5.9	1	11.1	1	33.3	0	.0	0	.0	0	.0	0	.0	1	12.5
Idaho .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Illinois .....	2	1.2	1	1.0	0	.0	0	.0	1	2.5	1	1.7	0	.0	2	1.9
Indiana .....	2	2.7	2	3.7	0	.0	2	7.4	0	.0	0	.0	0	.0	2	4.3
Iowa .....	2	3.2	0	.0	0	.0	0	.0	0	.0	2	9.1	2	11.1	0	.0
Kansas .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Kentucky .....	1	1.5	0	.0	0	.0	0	.0	0	.0	1	3.6	0	.0	1	2.3
Louisiana .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Maine .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Maryland .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Massachusetts .....	6	4.8	5	5.3	0	.0	5	11.6	0	.0	1	3.4	0	.0	6	6.5
Michigan .....	9	8.8	4	5.7	1	7.7	1	3.8	2	6.5	5	15.6	6	13.3	3	5.3
Minnesota .....	1	.9	1	2.0	0	.0	0	.0	1	4.8	0	.0	0	.0	1	1.8
Mississippi .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Missouri .....	1	1.0	0	.0	0	.0	0	.0	0	.0	1	3.4	0	.0	1	1.5
Montana .....	8	28.6	2	16.7	0	.0	1	25.0	1	16.7	6	37.5	3	17.6	5	45.5
Nebraska .....	3	8.1	1	4.3	0	.0	1	9.1	0	.0	2	14.3	2	12.5	1	4.8
Nevada .....	1	9.1	0	.0	0	.0	0	.0	0	.0	1	14.3	0	.0	1	20.0
New Hampshire .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
New Jersey .....	1	1.8	0	.0	0	.0	0	.0	0	.0	1	4.0	0	.0	1	4.3
New Mexico .....	3	7.7	1	5.9	0	.0	1	9.1	0	.0	2	9.1	1	3.8	2	15.4
New York .....	1	.4	1	.6	0	.0	1	1.1	0	.0	0	.0	0	.0	1	.5
North Carolina .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
North Dakota .....	1	5.0	0	.0	0	.0	0	.0	0	.0	1	10.0	1	6.7	0	.0
Ohio .....	16	11.5	10	11.5	1	4.8	7	18.4	2	7.1	6	11.5	7	13.5	9	10.3
Oklahoma .....	1	2.2	1	3.4	0	.0	0	.0	1	14.3	0	.0	0	.0	1	5.9
Oregon .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Pennsylvania .....	9	4.0	1	.7	0	.0	1	1.6	0	.0	8	10.3	0	.0	9	5.4
Rhode Island .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
South Carolina .....	1	1.6	1	2.7	0	.0	0	.0	1	6.7	0	.0	0	.0	1	3.3
South Dakota .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Tennessee .....	4	4.9	3	5.4	0	.0	2	8.3	1	5.6	1	3.8	1	4.2	3	5.2
Texas .....	6	3.1	2	1.9	0	.0	0	.0	2	9.5	4	4.5	1	.9	5	5.8
Utah .....	3	14.3	0	.0	0	.0	0	.0	0	.0	3	25.0	0	.0	3	25.0
Vermont .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Virginia .....	1	1.2	0	.0	0	.0	0	.0	0	.0	1	3.2	1	2.6	0	.0
Washington .....	1	1.4	0	.0	0	.0	0	.0	0	.0	1	2.8	0	.0	1	3.6
West Virginia .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0
Wisconsin .....	1	1.5	0	.0	0	.0	0	.0	0	.0	1	5.0	1	3.2	0	.0
Wyoming .....	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

Table C.- Total number of academic libraries by state, level, and control of institution: 1998

	Total post-secondary degree-granting institutions	4-year institutions			Less than 4-year	Public	Private	
		Total 4-year institutions	Highest level of degree					
			Doctor's	Master's				Bachelor's
<b>Libraries</b> .....	3,658	2,220	570	944	703	1,438	1,583	2,075
Alabama .....	67	37	11	12	14	30	43	24
Alaska .....	6	5	1	2	2	1	3	3
Arizona .....	53	20	4	6	10	33	24	29
Arkansas .....	45	21	5	8	8	24	33	12
California .....	353	193	55	94	44	160	137	216
Colorado .....	59	37	12	10	15	22	27	32
Connecticut .....	43	27	8	13	6	16	19	24
Delaware .....	9	6	2	3	1	3	5	4
District of Columbia .....	17	17	7	8	2	0	2	15
Florida .....	124	72	16	25	31	52	38	86
Georgia .....	93	58	14	24	20	35	47	46
Hawaii .....	17	9	3	4	2	8	9	8
Idaho .....	13	8	3	1	4	5	7	6
Illinois .....	165	105	31	34	40	60	61	104
Indiana .....	74	54	12	27	15	20	27	47
Iowa .....	63	41	6	15	20	22	18	45
Kansas .....	54	28	5	11	12	26	30	24
Kentucky .....	66	38	6	18	14	28	22	44
Louisiana .....	38	28	11	12	5	10	22	16
Maine .....	33	20	2	8	10	13	15	18
Maryland .....	55	31	7	20	4	24	34	21
Massachusetts .....	124	95	28	43	23	29	32	92
Michigan .....	102	70	13	26	31	32	45	57
Minnesota .....	109	51	10	20	21	58	54	55
Mississippi .....	40	20	6	8	6	20	25	15
Missouri .....	96	67	18	23	26	29	31	65
Montana .....	28	12	2	4	6	16	17	11
Nebraska .....	37	23	4	11	8	14	16	21
Nevada .....	11	4	2	0	2	7	6	5
New Hampshire .....	26	18	4	6	8	8	8	18
New Jersey .....	55	30	13	15	2	25	32	23
New Mexico .....	39	17	3	11	3	22	26	13
New York .....	271	181	48	90	43	90	87	184
North Carolina .....	120	58	14	20	24	62	74	46
North Dakota .....	20	10	2	2	6	10	15	5
Ohio .....	139	87	21	38	28	52	52	87
Oklahoma .....	46	29	7	15	7	17	29	17
Oregon .....	50	33	7	18	8	17	21	29
Pennsylvania .....	227	149	34	63	51	78	61	166
Rhode Island .....	13	12	5	4	3	1	3	10
South Carolina .....	63	37	8	14	15	26	33	30
South Dakota .....	24	18	5	9	4	6	14	10
Tennessee .....	82	56	14	24	18	26	24	58
Texas .....	192	104	43	39	21	88	106	86
Utah .....	21	9	4	3	2	12	9	12
Vermont .....	24	22	2	12	8	2	6	18
Virginia .....	83	52	18	17	17	31	39	44
Washington .....	69	33	6	18	9	36	41	28
West Virginia .....	26	22	2	8	12	4	15	11
Wisconsin .....	65	45	5	28	12	20	31	34
Wyoming .....	9	1	1	0	0	8	8	1

SOURCE: United States Department of Education, National Center for Education Statistics (NCES), Integrated Postsecondary Education Data System (IPEDS), "Academic Library Survey, 1998."

**Survey Questionnaire (Including Instructions and Definitions)**

FORM IPEDS-L  
(7-1-98)

U.S. DEPARTMENT OF COMMERCE  
BUREAU OF THE CENSUS  
ACTING AS COLLECTING AGENT FOR THE  
U.S. DEPARTMENT OF EDUCATION  
NATIONAL CENTER FOR EDUCATION STATISTICS

INTEGRATED POSTSECONDARY  
EDUCATION DATA SYSTEM

ACADEMIC LIBRARIES SURVEY  
1998

NOTE - The completion of this survey, in a timely and accurate manner, is MANDATORY for all institutions which participate or are applicants for participation in any Federal financial assistance program authorized by Title IV of the Higher Education Act of 1965, as amended. The completion of this survey is mandated by 20 U.S.C. 1094(a)(17).

For those institutions not required to complete this survey on the basis of the above requirements, the completion of this survey is voluntary and authorized by P.L. 103-382, National Education Statistics Act of 1994, Sec. 404(a).

*Please read the accompanying instructions before beginning this survey. Report data for the institution in the address label. If data for any other institutions or branch campuses are included in this survey because they CANNOT be reported separately, please provide the names of these institutions as instructed below.*

*Please correct any errors in the name, address, and ZIP Code.*

*If there are any questions about this form, contact a Bureau of the Census IPEDS representative at (800) 451-6236 or FAX number (301) 457-1542, 7:30 a.m.—4:30 p.m. EST.*

**RETURN TO**

Date due: November 15, 1998

1. Name of respondent	2. Title of respondent	3. Telephone Area code, number, extension
4. E-Mail address		FAX number (include area code)

Please answer the following questions to determine if you need to complete this survey:

a. Do you have an organized collection of printed or other materials or a combination thereof?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No
b. Do you have a staff trained to provide and interpret such materials as required to meet the informational, cultural, recreational, or educational needs of clientele?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No
c. Do you have an established schedule in which services of the staff are available to clientele?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No
d. Does the library have the physical facilities necessary to support such a collection, staff, and schedule?	1 <input type="checkbox"/> Yes 2 <input type="checkbox"/> No

*If you answered "Yes" to all of the questions above, please go to question e.*  
*If you have answered "No" to any of the questions, do you provide financial support to another library? If "Yes", complete Part III on page 4. If "No", please return this survey to the address above.*

e. Do you report data for yourself and for another library?	1 <input type="checkbox"/> Yes → Go to page 4, Part I and complete the entire survey, and return it to the address above.
	2 <input type="checkbox"/> No → Go to question f below.
f. Are your library data reported by another library?	1 <input type="checkbox"/> Yes → Go to page 4, complete Part II, and return the survey to the address above.
	2 <input type="checkbox"/> No → Go to Part A, line 01 and complete this survey.

## Changes from the 1996 form for 1998 ACADEMIC LIBRARIES SURVEY

### ▶ Cover sheet – Library definition

The definition of the library has been reformatted as a checklist. Also, the possibilities of reporting data FOR another library or having data reported BY another library have been clarified in connections with related changes on page 4.

### ▶ Part B – Library Staff

In addition to reporting a total full-time equivalent (FTE) for librarians and other professionals, respondents are asked to report separate counts for librarians and for other professionals on the library staff.

### ▶ Part C – Library Expenditures

- The title of this part has been changed to reflect the fact that in many academic libraries the term "operating expenditures" does not cover expenditures for staff or for information resources. Expenditures for "operating" (lines 20–23) are grouped under that subheading.
- Expenditures for "books, serial backfiles, and other materials" are reported in two categories: paper and microform and electronic.
- All expenditures for current serials are now reported on two lines: paper and microform and electronic.
- Expenditures for search services and current serials are reported together.

### ▶ Part D – Library Collections

This section has been reduced from 18 lines to 7 lines. Deleted items include manuscripts and archives (linear feet), computer files, and other library materials. Cartographic materials, graphic materials, sound recordings, and film and video materials are now combined under Audiovisual materials. The simplification involves two kinds of changes. Counts are now requested for selected types of material only, rather than for all. Also, for each type, respondents are asked to provide a physical count or a bibliographical count but not both.

### ▶ Part E – Library services

No content changes.

### ▶ Part F – Library Services, typical week

No content changes.

### ▶ Part G – Electronic Services

Video/desktop conferencing, satellite broadcasting, scanning equipment and services for distance education students questions were added to this part.

## PURPOSE OF THE SURVEY

The National Center for Education Statistics (NCES) collects these data periodically to obtain and report a comprehensive picture on the status of collections, transactions, staff, service per typical week, and library operating expenditures in postsecondary institutions. The survey is being conducted in compliance with the Center's mission "to collect, and analyze, and disseminate statistics and other data related to education in the United States . . .", (P.L. 103-382, National Education Statistics Act of 1994, Sec. 404(a)).

## USES OF DATA

Collection of these data over time will enable the nation to plan effectively for the development and use of postsecondary education library resources. Congress uses the data to assess the need for revisions of existing legislation concerning libraries and the allocation of Federal funds. Federal agencies need the data to evaluate and administer library programs. State education agencies and college librarians and administrators use the data for regional and national comparisons of library resources to plan for the effective use of funds. Finally, library associations and researchers use the survey results to determine the status of library operations and the profession.

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According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 1850-0582. The time required to complete this information collection is estimated to vary from 30 minutes to 6.0 hours per response, with an average of 2.5 hours, including the time to review instructions, search existing data resources, gather and maintain the data needed, and complete and review the information collection. If you have any comments concerning the accuracy of the time estimate(s) or suggestions for improving this form, please write to: U.S. Department of Education, Information Management Team, Washington, DC 20202-4652. If you have any comments or concerns regarding the status of *your individual submission* of this form, write directly to:

National Center for Education Statistics/IPEDS  
U.S. Department of Education  
555 New Jersey Avenue, NW  
Washington, DC 20208-5652

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The definitions and instructions for compiling IPEDS data have been designed to minimize comparability problems. However, postsecondary education institutions differ widely among themselves. As a result of these differences, comparisons of data provided by individual institutions may be misleading.

*DO NOT RETURN INSTRUCTIONS*

## NOTICE OF COMBINED DATA FOR MORE THAN ONE INSTITUTION OR BRANCH CAMPUS

L

I. The institution named on page 1 of this survey is including Academic Libraries survey data for other institutions/branch campuses with separate UNITIDs<sup>1</sup>.

*Please indicate below, the UNITID, name, and address of the institutions branch campuses for which data are included then complete the survey.*

UNITID	Institution name	Address	City	State	ZIP Code

II. The Academic Libraries survey data for this institution are reported by another institution.

*Please list the UNITID, name, and address of the reporting institution and return this survey to address indicated on page 1.*

UNITID	Institution name	Address	City	State	ZIP Code

III. This institution contributes financial support to a joint library with the following Postsecondary institution or public library.

*Please list the UNITID, name, and address of the reporting institutions and return this survey to address indicated on page 1.*

UNITID	Institution name	Address	City	State	ZIP Code

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<sup>1</sup>UNITID code is a unique identification number assigned to postsecondary institutions surveyed through the Integrated Postsecondary Education Data System (IPEDS).

Part A — NUMBER OF PUBLIC SERVICE OUTLETS, FISCAL YEAR 1998		
Line No.	Item	Number
01	Branch and independent libraries — <i>Exclude main or central library</i>	

Part B — LIBRARY STAFF, FALL 1998 ( <i>Exclude maintenance and custodial staff.</i> )  <i>NOTE: Report data to two decimals.</i>		
Line No.	Staff	Number of full-time equivalents (FTEs)
	Librarians and other professional staff:	
02	Librarians	.
03	Other professional staff	.
04	Total librarians and other professional staff ( <i>Sum lines 02 and 03</i> )	.
05	All other paid staff (except student assistants)	.
06	Contributed services staff	.
07	Students assistants from all funding sources	.
08	Total full-time equivalent (FTE) staff ( <i>Sum lines 04 through 07</i> )	.

Part C — LIBRARY EXPENDITURES, FISCAL YEAR 1998

L

NOTE: Do not report the same expenditures more than once.

Line No.	Category	Amount (Whole dollars only)
Salaries and wages:		
09	Librarians and other professional staff	\$
10	All other paid staff (except student assistants)	\$
11	Student assistants	\$
Information resources:		
Books, serial backfiles, and other materials:		
12	Paper and microform	\$
13	Electronic	\$
Current serial subscriptions and search services:		
14	Paper and microform	\$
15	Electronic	\$
16	Audiovisual materials	\$
17	Document delivery/interlibrary loan	\$
18	Preservation	\$
19	Other materials	\$
Operating expenditures:		
20	Furniture and equipment (exclude computer equipment)	\$
21	Computer hardware and software (include maintenance)	\$
22	Bibliographic utilities, networks, and consortia	\$
23	All other operating expenditures	\$
24	TOTAL EXPENDITURES (Sum lines 09 through 23)	\$
25	Employee fringe benefits (if paid from the library budget)	\$

## Part D — LIBRARY COLLECTIONS, FISCAL YEAR 1998

L

Line No.	Category	Added during the fiscal year (1)	Held at end of fiscal year (2)
	Books, serial backfiles, and other materials (include government documents):		
26	Paper – Volumes		
27	Paper – Titles		
28	Microform – Units		
29	Electronic – Titles		
	Current serial subscriptions:		
30	Number of paper and microform subscriptions		
31	Number of electronic subscriptions		
32	Audiovisual materials – Units		

## Part E — LIBRARY SERVICES, FISCAL YEAR 1998

Line No.	Category	Number
	Document delivery/interlibrary loans <u>provided</u> to other libraries:	
33	Returnable	
34	Non-returnable	
35	Total provided ( <i>Sum lines 33 and 34</i> )	
	Document delivery/interlibrary loans <u>received</u> from other libraries or commercial services:	
36	Returnable	
37	Non-returnable	
38	Total received ( <i>Sum lines 36 and 37</i> )	
	Circulation transactions:	
39	General collection	
40	Reserve collection	
	Information services to groups:	
41	Number of presentations	
42	Total attendance at all presentations	

Part F — LIBRARY SERVICES, TYPICAL WEEK, FALL 1998

L

Line No.	Category	Number in a typical week
43	Hours open in a typical week	
44	Gate count in a typical week	
45	Reference transactions in a typical week	

Part G — ELECTRONIC SERVICES

This section requests information about the availability of electronic services in the library and elsewhere on campus and off campus access by your primary clientele, and other users.

Please respond to each item by marking an (X) in the appropriate column.

Line No.	Category	Mark (X) appropriate column							
		Access from				Access off campus by			
		Within library		Elsewhere on campus		Primary clientele		Others	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Does the library or parent institution make available the following services?	Yes	No	Yes	No	Yes	No	Yes	No
46	An electronic catalog that includes the library's holdings								
47	Electronic indexes and reference tools								
48	Electronic full-text periodicals								
49	Electronic full-text course reserves								
50	Electronic files other than the catalog (e.g., finding aids, indices, manuscripts) created by library staff								
51	Internet access								
52	Library reference service by e-mail								
53	Capacity to place interlibrary loan/document delivery requests electronically								
54	Technology to assist patrons with disabilities (e.g., TDD, specially equipped work stations)								
55	Instruction by library staff on use of internet resources								
56	Electronic document delivery by the library to patron's account/address								
57	Video/desktop conferencing by or for the library								
58	Satellite broadcasting by or for the library								



## GENERAL INSTRUCTIONS — L

Please respond to each item on this form in the space provided. If the appropriate answer is zero or none, use "0." If you do not collect data for an item, provide your best estimate. PLEASE DO NOT LEAVE ANY LINES BLANK. If a line is left blank, NCES will impute a figure using the average for institutions with similar characteristics. Include data for the main or central library and all branch and independent libraries that were open all or part of fiscal year 1998.

### INSTITUTIONAL IDENTIFICATION

In the space provided on the front page of this report, make any necessary corrections to the preprinted address information. Also, please enter the name, title, area code and telephone number of the person responsible for completing the report.

### PERIOD OF REPORT

Report information for the following time periods as specified in each section:

1. Fiscal year 1998 – Any 12-month period between June 1, 1997 and September 30, 1998 which corresponds to your institution's fiscal year. (For Parts A, C, D, E, and G)
2. Typical week, Fall 1998 – A typical week is one that is neither unusually busy nor unusually slow. Avoid vacation periods for key staff or days when unusual events are taking place on the campus or in the library. Choose a week in which the library is open its regular hours. Include any seven consecutive calendar days. (For Part F)
3. Fall 1998 – The period during the fall of 1998 when the survey form is being completed. (For Parts B, F, and G)

### PART A – NUMBER OF PUBLIC SERVICE OUTLETS, FISCAL YEAR 1998

Library – An entity that provides all of the following:

1. An organized collection of printed or other materials or a combination thereof;
2. A staff trained to provide and interpret such materials as required to meet the informational, cultural, recreational, or educational needs of clientele;
3. An established schedule in which services of the staff are available to clientele;
4. The physical facilities necessary to support such a collection, staff, and schedule.

This includes libraries that are part of learning resource centers.

Branch and independent libraries (line 01) – Report the number of branch and independent libraries at your institution that were open all or part of fiscal year 1998. EXCLUDE THE MAIN OR CENTRAL LIBRARY. Branch and independent libraries are defined as auxiliary library service outlets with quarters separate from the central library of an institution which have a basic collection of books and other materials, a regular staffing level, and an established schedule. Branch and independent libraries are administered either by the central library or, as in the case of some libraries (such as law, medical, etc.), through the administrative structure of other units within the university. Departmental study/reading rooms are not included. Include data for all branch and independent libraries on the campus. Include libraries on branch campuses (i.e., located in another community) if those campuses are registered under the same NCES UNITID number as the main campus.

### PART B – LIBRARY STAFF, FALL 1998

Full-time equivalent (FTE) employees (lines 02-08) – Report the number of filled or temporarily vacant FTE positions during Fall 1998 paid from funds under library control. To compute FTEs of part-time employees and student assistants, take the TOTAL number of hours worked per week by part-time employees IN EACH CATEGORY and divide it by the number of hours CONSIDERED BY THE REPORTING LIBRARY TO BE A FULL-TIME WORK WEEK (e.g., 60 hours per week of part-time work divided by 40 hours per full-time week equals 1.50 FTE). Data should be reported to two decimal places.

Librarians (line 02) – Report the total FTE of staff whose duties require professional education (the master's degree or its equivalent) in the theoretical and scientific aspects of librarianship.

Other professional staff (line 03) – Report the total FTE of staff whose duties require education and/or training in related fields (e.g., academic disciplines, archives, media, computing).

Total librarians and other professional staff (line 04) – Report the sum of lines 02 and 03.

All other paid staff (except student assistants) (line 05) – Report the total FTE of all other library staff who are paid annual salaries or hourly wages except students, who are reported on line 05. Include technical and clerical staff, but exclude maintenance and custodial staff.

Contributed services staff (line 06) – Report the total FTE for contributed services staff. Contributed services staff are those, such as members of religious orders, whose services are valued by bookkeeping entries rather than by full cash transactions. Do not include volunteers.

Student assistants from all funding sources (line 07) – Report the total FTE of student assistants, employed on an hourly basis whose wages are paid from funds under library control or from a budget other than the library budget, including College Work Study Program. Exclude maintenance and custodial staff.

Total FTE staff (line 08) – Report the sum of lines 04 through 07.

### PART C – LIBRARY EXPENDITURES, FISCAL YEAR 1998

Expenditures (lines 09-25) – Report funds expended by the library in fiscal year 1998 (regardless of when received) from its regular budget and from all other sources; e.g., research grants, special projects, gifts and endowments, and fees for services. If items in this section are not paid from the library budget but can be easily identified in other parts of the institution's budget, report them here. Expenditures should be reported for the 12-month period which corresponds to your library's fiscal year between the calendar period June 1, 1997, to September 30, 1998. All expenditures should be reported in whole dollars in the most appropriate category to provide an unduplicated count of expenditures. Exclude expenditures for new buildings and building renovation. DO NOT REPORT ANY EXPENDITURES MORE THAN ONCE.

## GENERAL INSTRUCTIONS – L – Continued

### PART C – LIBRARY EXPENDITURES, FISCAL YEAR 1998 – Continued

Salaries and wages (lines 09-11) – Report expenditures for full-time and part-time salaries and wages before deductions. Exclude employee fringe benefits provided by your institution for all regular library staff which may be reported on line 25. Include salaries and wages from all sources paid to students serving on an hourly basis, if available; e.g., College Work Study Program. Exclude contributed services and maintenance and custodial staff.

Information resources (lines 12-19):

Books, serial backfiles, and other materials (lines 12 and 13) – Report expenditures for all published materials. Do not include current serial subscriptions.

Paper (line 12) – Report expenditures for all materials produced by making an impression with ink on paper.

Microform (line 12) – Report expenditures for all photographic reproductions of textual, tabular, or graphic materials reduced in size so that they can be used only with magnification. Examples of microforms are roll microfilm, microcard, microfiche, and ultrafiche.

Electronic (line 13) – Report expenditures for materials that are considered part of the collection, whether purchased or leased, such as CD-ROMs, magnetic tapes, and magnetic disks, that are designed to be processed by a computer or similar machine. Include material available remotely. Include expenditures for materials purchased jointly if such expenditures can be separated from other charges for joint services. Include expenditures for equipment when the cost is inseparably bundled into the price of the information service product. Exclude expenses for library system software and microcomputer software used only by the library staff which are reported on line 21.

Current serial subscriptions and search services (lines 14 and 15) – Report expenditures for current subscriptions to serials. These are publications issued in successive parts, usually at regular intervals, and, as a rule, intended to be continued indefinitely. Serials include periodicals, newspapers, annuals (reports, yearbooks, etc.), memoirs, proceedings, and transactions of societies. Include leases to collections of electronic serials. Include cost of search services such as First Search or Dialog.

Paper (line 14) – Report expenditures for all materials produced by making an impression with ink on paper.

Microform (line 14) – Report expenditures for all photographic reproductions of textual, tabular, or graphic materials reduced in size so that they can be used only with magnification. Examples of microforms are roll microfilm, microcard, microfiche, and ultrafiche.

Electronic (line 15) – Report expenditures for materials that are considered part of the collection, whether purchased or leased, such as CD-ROMs, magnetic tapes, and magnetic disks, that are designed to be processed by a computer or similar machine. Include material available remotely. Include expenditures for materials purchased jointly if such expenditures can be separated from other charges for joint services. Include expenditures for equipment when the cost is inseparably bundled into the price of the information service product. Exclude expenses for library system software and microcomputer software used only by the library staff which are reported on line 21.

Audiovisual materials (line 16) – Report expenditures for all library materials that are displayed by visual projection or magnification or through sound reproduction, or both, including graphic materials, audio materials, motion pictures, video materials, and special visual materials such as three-dimensional materials.

Document delivery/interlibrary loan (line 17) – Report expenditures for document delivery and interlibrary loan services. Include fees paid for photocopies, costs of facsimile transmission, royalties and access fees paid to provide document delivery or interlibrary loan. Include fees paid to bibliographic utilities if the portion paid for interlibrary loan can be separately counted. Do not count expenditures related to transactions between the main or central library and any libraries reported in Part A, transactions between libraries reported in Part A, or expenditures for on campus delivery.

Preservation (line 18) – Report expenditures associated with maintaining library and archival materials for use either in their original physical form or in some other usable way. This includes but is not limited to binding and rebinding, materials conservation, deacidification, lamination, and restoration. Do not include staff salaries and wages.

Other materials (line 19) – Report any other collection expenditures not already included on lines 12 through 18, such as expenditures for cartographic materials and manuscripts.

Operating Expenditures (lines 20-23)

Furniture and equipment (line 20) – Report expenditures for all library furniture and equipment purchased during the 1998 fiscal year. Include microform equipment, audiovisual equipment, and related maintenance costs. Exclude computer equipment.

Computer hardware and software (line 21) – Report expenditures from the library budget for computer hardware and software used to support library operations, whether purchased or leased, mainframe or microcomputer. Include expenditures for maintenance. Include the expenditure for equipment used to run information service products when that expenditure can be separated from the price of the product. Exclude expenditures reported on line 15.

Bibliographic utilities, networks, and consortia (line 22) – Report expenditures for services provided by national, regional, and local bibliographic utilities, networks, and consortia. Exclude expenditures already reported on lines 15 and 17.

All other operating expenditures (line 23) – Report all other expenditures not already reported on lines 09 through 22 except employee fringe benefits which are reported on line 25. Exclude expenditures for new buildings and building renovations.

Total (line 24) – Report the sum of lines 09 through 23.

Employee fringe benefits (line 25) – If benefits are paid from the library budget, report the amount here.

### PART D – LIBRARY COLLECTIONS, FISCAL YEAR 1998

NOTE – This section of the survey collects data on selected types of material. It does not cover all materials.

Column (1), Total number added during fiscal year – Report the gross number of each category added. Do not subtract the number withdrawn.

## GENERAL INSTRUCTIONS - L - Continued

### PART D - LIBRARY COLLECTIONS, FISCAL YEAR 1998 - Continued

Column (2), Total number held at end of fiscal year - Report the total number of each category held at end of fiscal year. To get this figure, take the total number held at the end of the previous fiscal year, add the number added during the fiscal year just ended and subtract the number withdrawn during that period.

Units (lines 28 and 32) - An individual physical item of library material. Examples of units are: a volume (books and serials); a reel, sheet, or card (microforms); disk, cassette, reel, slide, chart, picture, tape, or cartridge (audiovisual material).

Volumes (line 26) - Report the number of volumes of any printed, mimeographed, or processed work contained in one binding or portfolio, hardbound or paper bound, which has been cataloged, classified, or otherwise made ready for use. Include any government documents that are accessible through the library's catalog regardless of whether or not they are separately shelved. This includes documents for which records are provided by the library or downloaded from other sources into the library catalog.

Titles (lines 27 and 29) - Report the number of titles of publications which form a separate bibliographic whole, whether issued in one or several volumes, reels, disks, slides, or parts. The term "publication" applies to printed materials, such as books, periodicals, and government documents, as well as to such formats as microforms, audiovisual materials, and computer files. To determine the number of titles, count each unique bibliographic record in the library's catalog.

NOTE - For libraries which have card catalogs, a unique bibliographic record is represented by a shelf list entry. Libraries with electronic catalogs should be careful to distinguish between the BIBLIOGRAPHIC record which describes the title and the ITEM records which describe the individual volumes, parts, reels, disks, etc., associated with the title. Examples: Six copies of the same edition of a title count as one title or bibliographic record; two editions of the same title which have been cataloged or recorded separately count as two bibliographic records; a set of six monographs for which there are six bibliographic records counts as six titles; and two multi-volume sets of the same edition for which one bibliographic record has been made count as one title.

Books, serial backfiles, and other materials including government documents (lines 26-29) - Report the number of paper volumes and/or titles; microform units and electronic media titles.

Paper (line 26 and 27) - Materials produced by making an impression with ink on paper. For government documents, please use the following guides from the ARL Statistics: "if a volume count has not been kept, it may be estimated through sampling a representative group of title records and determining the corresponding number of volumes, then extrapolating to the rest of the collection. As an alternative, an estimate may be made using the following formulae: 52 document pieces per foot; 10 'traditional' volumes per foot; 5.2 document pieces per volume."

Microform (line 28) - Report the number of units of photographic reproductions of textual, tabular, or graphic materials reduced in size so that they can be used only with magnification. Examples of microforms are: roll microfilm, microcard, microfiche, and ultrafiche.

Electronic (line 29) - Report the number of titles of materials that are not current serials and are considered part of the collection, whether purchased or leased, such as CD-ROMS, magnetic tapes and magnetic disks, that are designed to be processed by a computer or similar machine. Include materials available remotely. Include materials purchased jointly. Exclude bibliographic records used to manage the collection, library system software, and microcomputer software used only by the library staff. Include government documents.

Current serial subscriptions (lines 30 and 31) - Report the total number of current serials received including those that are paid for and those received without payment. Include government documents issued serially. Each available title counts as one when titles are received as part of an electronic subscription.

Audiovisual materials (line 32) - All library materials that are displayed by visual projections of magnification or through sound reproduction, or both, including graphic materials, audio materials, motion pictures, video materials, and special visual materials such as three-dimensional materials.

### PART E - LIBRARY SERVICES, FISCAL YEAR 1998

Document delivery/interlibrary loans (lines 33-38) - On lines 33, 34, and 35, report the number of filled requests for material provided to other libraries. On lines 36, 37, and 38, report the number of filled requests for material received from other libraries or document delivery services. Do not include transactions between the main or central library and any libraries reported in Part A or transactions between libraries reported in Part A.

Returnables (lines 33 and 36) - Report materials that the supplier/lending library expects to have returned. Examples of returnables include books, dissertations and theses, microfilm reels, sound recordings, and audiovisual material.

Non-returnables (lines 34 and 37) - Report materials that the supplier/lending library does not expect to have returned. Examples of non-returnables include photocopies or facsimiles, fiche-to-fiche copies, print copies from microfilm, electronic full-text documents, and gratis print copies of unpublished reports and/or departmental working papers.

Total loans (lines 35 and 38) - Sum lines 33 and 34 for line 35, and sum lines 36 and 37 for line 38.

Circulation transactions (lines 39 and 40) - Report the number of items lent from the general collection on line 39 and from the reserve collection on line 40 for use usually (although not always) outside the library. These activities include initial charges, either manual or electronic, and also renewals, each of which is reported as a circulation transaction.

General collection (line 39) - Those materials that are available for circulation from the general library collection.

Reserve collection (line 40) - Those materials that have been removed from the general library collection and set aside in a library so they will be on hand for a certain course of study or activity in process. Usually, the circulation and length of loan of items in a reserve collection are restricted so that these items will be available to many users who have need of them within a limited time period.

## GENERAL INSTRUCTIONS - L - Continued

### PART E - LIBRARY SERVICES, FISCAL YEAR 1998 - Continued

Information services to groups (lines 41 and 42) - Report the total number of presentations (line 41) and the total number of persons attending or served by those presentations (line 42). Information services to groups are presentations at which a staff member or person invited by a staff member provides information intended for a number of persons and planned in advance. These services may be either bibliographic instruction or library use presentations, or cultural, recreational, or educational presentations. Presentations both on and off the library premises should be included, as long as they are sponsored by the library. Do not include meetings sponsored by other groups using library meeting rooms.

### PART F - LIBRARY SERVICES - TYPICAL WEEK, FALL 1998

Collect data during a typical week in the fall. A typical week is one that is neither unusually busy nor unusually slow. Avoid vacation periods for key staff or days when unusual events are taking place on the campus or in the library. Choose a week in which the library is open its regular hours. Include any seven consecutive calendar days. If waiting for a typical week in Fall 1998 will delay this form, please use typical week data from the preceding fiscal year. If you have data for the entire year, divide by the number of weeks that the library was open.

Hours open in a typical week (line 43) - Report an unduplicated count of hours open in a typical week for both main library and branches reported in Part A using the following method. If a library is open from 9 a.m. to 5 p.m., Monday through Friday, it should report 40 hours per week. If several of its branches are also open during those hours, the figure remains 40 hours per week. Should Branch A also be open one evening from 7:00 to 9:00, the total hours during which users can find service becomes 42. If Branch B is open the same hours on the same evening, the total remains 42, but if it is open two hours on another evening, or from 5:00 to 7:00 on the evening when Branch A is open later, the total becomes 44 hours during which users can find service.

Gate count in a typical week (line 44) - Report the number of persons who physically enter library facilities in a typical week. It is understood that a single person may be counted more than once.

Reference transactions in a typical week (line 45) - Report the total number of reference transactions in a typical week. A reference transaction is an information contact that involves the knowledge, use, commendation, interpretation, or instruction in the use of one or more information sources by a member of the library staff. Information sources include printed and non-printed materials, machine-readable databases (including assistance with computer searching), catalogs and other holdings records, and, through communication or referral, other libraries and institutions, and persons both inside and outside the library. Include information and referral services. If a contact includes both reference and directional services, it should be reported as one reference transaction. When a staff member utilizes information gained from a previous use of information sources to answer a question, report as a reference transaction, even if the source is not consulted again during this transaction. Duration should not be an element in determining whether a transaction is a reference transaction.

Do not report directional transactions here. A directional transaction is an information contact which facilitates the use of the library in which the contact occurs and which does NOT involve the knowledge, use, recommendation, interpretation, or instruction in the use of any information sources other than those which describe the library; such as schedules, floor plans, handbooks, and policy statements. Examples of directional transactions include giving instruction in locating, within the library, staff, library users, or physical features, etc., and giving assistance of a nonbibliographic nature with machines.

### PART G - ELECTRONIC SERVICES

This section requests information about the availability of electronic services in the library and elsewhere on campus and off campus access by your primary clientele, and other users. The questions require a "yes" or "no" response to the availability of the various services listed.