

Chapter 9: SASS School Library Survey (SLS)

1. OVERVIEW

Federal surveys of school library media centers in elementary and secondary schools in the United States were conducted in 1958, 1962, 1974, 1978, and 1985. NCES now asks questions on libraries in public, private, and Bureau of Indian Affairs (BIA) schools as part of the Schools and Staffing Survey (SASS, see chapter 4). The School Library Media Center Survey was introduced as a component of SASS in 1993–94. It is sponsored by NCES and administered by the U.S. Bureau of the Census.

Purpose

To provide a national picture of school library collections, expenditures, technology, and services. SLS furnishes national estimates for public and private school libraries (by school grade level and urbanicity) and for libraries operated by the Bureau of Indian Affairs (BIA) schools; state estimates for public schools; and national estimates for private school libraries, by detailed association. In 1993–94, SLS also furnished national and state estimates for public school librarians and estimates for private school librarians at the national level and by private affiliation or type of school.

Components

Before the School Library Media Center Survey was introduced in the 1993–94 SASS, questions on school libraries were asked in three components of the 1990–91 SASS. The *School Questionnaire* included items on the number of students served and the number of professional staff and aides. The *Teacher Demand and Shortage Questionnaire* included, at the district level, items on the number of full-time equivalent librarians/media specialists, vacant positions, positions abolished, and approved positions; and the *School Administrator Questionnaire* included items on the amount of librarian input in establishing curriculum.

The 1993–94 SLS component consisted of two questionnaires, one on the school's library media center and the other on the library media specialist. The 1999–2000 SASS included only the Library Media Center questionnaire. The surveys are sent to public schools, private schools, and BIA schools in the 50 states and the District of Columbia.

School Library Media Center Survey. The “*Library Survey*” is designed to provide a national picture of school library media center facilities, collections, equipment, technology, staffing, income, expenditure, and services. The respondents to the Library Survey are school librarians or other school staff members familiar with the library.

SAMPLE SURVEY OF ELEMENTARY AND SECONDARY SCHOOL LIBRARIES

SLS collects data on:

- ▶ Collections
- ▶ Expenditures
- ▶ Technology
- ▶ Services

School Library Media Specialist/Librarian Survey. The “*Librarian Survey*” is designed to profile the school library media specialist workforce, including demographic characteristics, academic background, workload, career histories and plans, compensation, and perceptions of the school library media specialist profession and workplace. The eligible respondent for the Librarian Survey is the staff member whose main assignment at the school is to oversee the library.

Periodicity

The two surveys in SLS were first introduced in the SASS conducted during the 1993–94 school year. The Library Survey was repeated in the 1999–2000 SASS; the Librarian Survey was dropped from the 1999–2000 SASS.

2. USES OF DATA

School libraries and library media centers are an important component of the educational process. SLS data provide a national picture of school library collections, expenditures, technology, and services. The information can be used by federal, state, and local policymakers and practitioners to assess the status of school library media centers in the United States. It also contributes to the assessment of the federal role in supporting school libraries. The Librarian Survey provides, for the first time, a national profile of the school library media specialist/librarian workforce.

SLS data can also be used to address current issues related to school libraries. Recent interest has focused on the contribution libraries could make to the current education reform movement. Education reform has prompted increased attention to the role school libraries/media centers might play in applying new technology and developing new teaching methods. Some analysts argue that libraries have a crucial role in developing computer literacy and educating students in the use of modern information technologies. A number of observers also have argued that expanding the function of libraries is a key prerequisite to meeting the National Education Goals.

3. KEY CONCEPTS

Some of the key concepts and terms in SLS are defined below. For additional terms, refer to the *1993–94 Schools and Staffing Survey: Data File User’s Manual, Volume I: Survey Documentation* (NCES 96–142).

Librarian. A school staff member whose main responsibility is taking care of the library.

Library Media Center. An organized collection of printed, audiovisual, or computer resources that (a) is administered as a unit, (b) is located in a designated place or places, and (c) makes resources and services available to students, teachers, and administrators.

Library Media Specialist. A teacher who is state-certified in the field of library media.

4. SURVEY DESIGN

Target Population

The universe of library media centers/libraries and library media center specialists/librarians in elementary and secondary schools with any of grades 1–12 in the 50 states and the District of Columbia.

Sample Design

For the 1999–2000 SASS, the library media center sample was the entire SASS school sample, excluding charter schools. For more information on the 1999–2000 SLS sampling frame, refer to chapter 4, *Schools and Staffing Survey (SASS)*. Each sampled library media center receives a library media center questionnaire.

In 1993–94, the library media center sample was a subsample of the SASS school sample. Drawn from the 13,000 schools in the SASS, the library sample consisted of 5,000 public schools, 2,500 private schools, and the 176 BIA schools in the United States. The librarian questionnaire was given to the head librarian of each sample library. (Thus, within a school, no librarian sampling took place.) The same strata were used for library sampling as were used for public school sampling (state and grade level). All BIA schools were selected for the library survey, so no stratification or sorting was needed. Within strata, public schools were sorted on the following variables: (1) LEA metro status (1=Central city of a metropolitan statistical area (MSA); 2=MSA, not central city; 3=Outside MSA); (2) LEA CCD ID; (3) school enrollment; and (4) school CCD ID.

SASS sample schools were then systematically subsampled using a probability proportionate to size algorithm, where the measure of size was the square root of the number of teachers in the school as reported in the Common Core of Data (CCD, the public school sampling frame for

SASS) times the school's inverse of the probability of selection from the public school sample file. Any school with a measure of size larger than the sampling interval was excluded from the library sampling operation and included in the sample with certainty.

The SASS private school library frame was identical to the frame used for the SASS private school survey, except that schools with special program emphasis, special education, vocational, or alternative curriculum were excluded. Private schools were stratified by recoded affiliation (Catholic, other religious, nonsectarian); grade level (elementary, secondary, combined); and urbanicity (urban, suburban, rural). Within each stratum, sorting occurs on the following variables: (1) Frame (list frame and area frame) and (2) school enrollment.

Within each stratum, schools were systematically selected using a probability proportionate to size algorithm. The measure of size used the school's measure of size times the school's inverse of the probability of selection. Any library with a measure of size larger than the sampling interval was excluded from the probability sampling process and included in the sample with certainty. In all, 2,500 private schools were selected for the library sample.

Data Collection and Processing

The U.S. Bureau of the Census is the collection agent for SLS. Data collection and processing procedures are discussed below.

Reference dates. Most data items refer to the most recent full week in the current school year. Questions on collections and expenditures refer to the previous school year.

Data collection. The Library Survey and, in 1993–94, the Librarian Survey are mailed with other components during October of the SASS survey year. The Library Surveys are addressed to “Principal” (and the 1993–94 Librarian Surveys were addressed to “Library Media Specialist/Librarian”). The follow-up procedures are described in chapter 4.

Editing. Once data collection is complete, data records are processed through a clerical edit, preliminary ISR classification, computer pre-edit, range check, consistency edit, and blanking edit. (See chapter 4 for details.) After the completion of these edits, records are processed through an edit to make a final determination of whether the case is eligible for the survey and, if so, whether sufficient data has been collected for the case to be classified

as an interview. A final interview status code (ISR) value is assigned to each case as a result of the edit.

Estimation Methods

Weighting. Estimates from the SASS sample data are produced by using weights. The weighting process for each component of SASS includes adjustment for nonresponse using respondents' data, and—in 1993–94—adjustment of the sample totals to the frame totals to reduce sampling variability. Thus, weights for library sample schools that reported having a library were ratio adjusted to total SASS sample schools that reported having a library. Library sample schools that reported not having a library were similarly adjusted to study the characteristics of such schools. In the same fashion, library sample schools that reported having a librarian were ratio adjusted to total SASS sample schools that reported having a librarian, and library sample schools that reported not having a librarian were adjusted to study the characteristics of such schools. Due to reporting inconsistencies between the Library and Librarian Surveys and the School Survey, Library Survey data were not adjusted directly to schools reporting to have libraries, and Librarian Survey data were not adjusted directly to schools reporting to have librarians. The exact formula representing the construction of the weight for each component of the 1993–94 SASS is provided in the *1993–94 Schools and Staffing Survey: Sample Design and Estimation* (NCES 96–089).

Imputation. All item missing values are imputed for records classified as interviews. SLS uses a two-stage imputation procedure. In the first stage, items with missing values are completed whenever possible by using information about the school library/librarian from the following sources:

- (1) Other questionnaire items on the same questionnaire;
- (2) The matching Library Media Center (or Library Media Specialist/Librarian) Questionnaire; and
- (3) The matching SASS School Questionnaire.

In general, the second stage of imputation fills remaining unanswered items by using data from the record for a library of a similar school; that is, a school that was the same level, of similar size, located in the same type of community, etc. Variables that describe certain characteristics of the schools (e.g., enrollment size and instructional level) are copied from the matching school record. In addition, a variable that categorizes the size of the library is created by using the number of books held

at the end of the previous school year. These school variables and the library variable are used to sort the library records and to match incomplete records to those with complete entries (donors).

For some items, data are directly copied to the record with the missing value. For others, however, entries on the donor record are used as factors along with other information on the incomplete record to fill the items with missing values. For example, if the number of subscriptions acquired are reported for Library#1 but the number held is not, the donor's ratio of subscriptions held to subscriptions acquired is used with the number of subscriptions acquired by Library#1 to impute the number held by Library#1.

Remaining items with missing values are clerically imputed.

Recent Changes

The Librarian/Media Specialist component was not fielded in 1999–2000.

Future Plans

SASS administrations are now scheduled on a 4-year cycle. The next administration will be in 2003–2004.

5. DATA QUALITY AND COMPARABILITY

Although data are imputed for nonrespondents, caution should be exercised when analyzing data by state, sector, or affiliation. Since nonresponse varies by state, the reliability of state estimates and comparisons are affected. Users should be especially cautious about using data at a level of detail where the nonresponse rate is 30 percent or greater. See below for more information on types of error affecting data quality and comparability.

Sampling Error

The estimators of sampling variances for SASS statistics take the SASS complex sample design into account. See chapter 4.

Nonsampling Error

Nonresponse error.

Unit nonresponse. Data from the 1999–2000 Library Survey are not yet available. Weighted response rates for the 1993–94 Library Survey were 90.1, 70.7, and 89.4

percent for public, private, and BIA schools, respectively. Weighted response rates for the 1993–94 Librarian Survey were 92.3, 76.5, and 88.3 percent for the public, private, and BIA school librarians, respectively.

Item nonresponse. In 1993–94, several items had unweighted response rates below 75 percent in at least one of the public, private, or BIA versions of the survey. In the Library Survey, low-response items included questions on other audio-visual materials acquired by the library during school year; current serial subscriptions held at end of school year; other audio-visual materials held at end of school year, other audio-visual materials locally budgeted expenditures; video materials (tape & disc) locally budgeted expenditures; and number of students per week using the library media center. In the Librarian Survey, low-response items included field of study and year of doctorate or first professional degree; eight items on frequency of working with classroom teachers in the subject areas of reading, math, foreign language, etc.; two items on field of study and year of education specialist or professional diploma; and an item on whether the librarian was working in the school on a contributed service basis (private schools only).

Measurement error. A reinterview was conducted for the 1993–94 Library Survey. The library reinterview questionnaire collected information on 1993–94 library media center staffing, 1992–93 collection and expenditures, technology, library media center facilities, and scheduling and transactions. Full results from the reinterview study can be found in *Reinterview Report: Response Variance in the 1993 Library Survey*.

The reinterview was designed so that the data collection method was the same as that used in the original interview. For example, if the original interview was completed by mail, reinterview data was also collected by mail. If the original interview was completed by CATI (Computer Assisted Telephone Interview), the reinterview was done by CATI. For both methods of reinterview, the Census Bureau attempted to reinterview the same respondent who completed the original interview.

6. CONTACT INFORMATION

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7. METHODOLOGY AND EVALUATION REPORTS

General

1993-94 Schools and Staffing Survey: Data File User's Manual, Volume I: Survey Documentation, NCES 96-142, by K. Gruber, C.L. Rohr, and S.E. Fondelier. Washington, DC: 1996.

Uses of Data

Evaluation of Definitions and Analysis of Comparative Data for the School Library Statistics Program, NCES 98-267, by G. Dickson, Washington, DC: 1998.

Survey Design

1993-94 Schools and Staffing Survey: Sample Design and Estimation, NCES 96-089, by R. Abramson, C. Cole, S. Fondelier, B. Jackson, R. Parmer, and S. Kaufman. Washington, DC: 1996.

Data Quality and Comparability

Reinterview Report: Response Variance in the 1993 Library Survey, by P.J. Feindt. United States Department of Commerce, Bureau of the Census. Washington, DC: 1996.

Chapter 10: Public Libraries Survey (PLS)

1. OVERVIEW

The Public Libraries Survey (PLS) is the only source of current, national descriptive data on the status of public libraries in the United States. PLS is conducted annually by NCES through the Federal-State Cooperative System (FSCS) for Public Library Data. FSCS is a working network, allowing for close communication with the states through State Data Coordinators appointed by the Chief Officers of State Library Agencies (COSLA). At the federal level, NCES provides the financial support for FSCS activities. PLS data have been collected electronically by the U.S. Census Bureau, the collection agent for the PLS, since the first survey in 1989.

Purpose

To annually collect and disseminate descriptive data on all public libraries in the United States, the District of Columbia, and outlying areas, for use in planning, evaluation, research, and policymaking.

Components

There is one component to PLS. State Data Coordinators collect data from public libraries in their state, the District of Columbia, or outlying area and submit the completed survey to the U.S. Census Bureau. Outlying areas comprise the Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, the Republic of Palau, the U.S. Virgin Islands, and American Samoa.

Public Libraries Survey. Basic data items include the library's population of legal service area, full-time equivalent paid staff, service outlets, library materials, operating income and expenditures, capital outlay, circulation, reference transactions, library visits, public service hours, interlibrary loans, circulation of children's materials, children's program attendance, and as of 1995, interlibrary relationship, type of governance, administrative structure, several electronic measures, and whether or not the library meets all criteria of the FSCS definition of a public library. Identification items for public libraries include the library's name, address, telephone number, and county.

The same identification information is collected for public library service outlets and state library agencies. PLS also collects the following descriptive data on public library outlets and state library outlets: type of outlet, metropolitan status, number of books-by-mail-only outlets, web address, and number of bookmobiles. Four additional items are collected on characteristics of the state data submission: starting and ending dates for the fiscal year reporting period, official state total population estimate, and total unduplicated population of legal service areas.

Periodicity

Annual. Data are submitted for the previous fiscal year. The first PLS was for fiscal year 1989.

ANNUAL SURVEY OF THE UNIVERSE OF PUBLIC LIBRARIES

PLS collects data on:

- ▶ Population of legal service area
- ▶ Library staffing
- ▶ Operating income and expenditures
- ▶ Library materials
- ▶ Circulation, loan, and reference transactions
- ▶ Children's program attendance
- ▶ Electronic services
- ▶ Public service hours and visits

2. USES OF DATA

PLS provides the only current, national descriptive data on the status of nearly 9,000 public libraries. These data are used by federal, state, and local officials, professional associations, and local practitioners for planning, evaluation, and policymaking. Such valid, reliable, and timely statistics are essential for determining the investment of public resources in library development and operations. PLS data are also available to researchers and educators interested in issues related to public libraries. Because PLS is a universe that includes key characteristics such as legal basis (municipality, county, etc.) and location (urban, suburban, rural), it makes an excellent frame for drawing samples to address topics such as literacy, access for the disabled, library construction, electronic access, and services to children and young adults.

The FSCS Steering Committee and NCES foster the use and analysis of PLS data through annual training opportunities for State Data Coordinators. A Data Use Subcommittee addresses the dissemination, use, and analysis of PLS data.

3. KEY CONCEPTS

PLS collects identifying information on administrative entities and public library service outlets. An *administrative entity* is the public library, state library agency, system, federation, or cooperative service that is legally established under local or state law to provide public library service to a particular client group (e.g., the population of a local jurisdiction, the population of a state, or the public libraries located in a particular region). The entity may be administrative only and have no public library service outlets, have a single outlet, or have more than one outlet. The various administrative structures of public libraries are defined below. For other key terms, refer to the database documentation.

Public Library. Defined by FSCS as an entity established under state enabling laws or regulations to serve residents of a community, district, or region, and meeting these criteria: (1) has an organized collection of printed or other library materials, or a combination thereof; (2) employs a paid staff to provide and interpret such materials as required to meet the informational, cultural, recreational, and/or educational needs of a clientele; (3) has an established schedule in which services of the staff are available to the public; (4) has the facilities necessary to support such a collection, staff, and schedule; and (5)

is supported in whole or in part with public funds. However, for purposes of the PLS data collection, state law prevails in the determination of a public library, and not all states define public libraries according to the PLS definition.

State Library Agency. The agency within each of the states and outlying areas which administers federal funds under the Library Services and Technology Act (LSTA) and is authorized to develop library services in the state or outlying area. It may also provide direct services to the public. Some state library agencies have service outlets.

System, Federation, or Cooperative Service. An autonomous library joined by formal or informal agreement(s) with other autonomous libraries to perform various services cooperatively, such as resource sharing and communications. In PLS, a public library may have the word “system” in its legal name but only identifies itself as a headquarters or member of a system, federation, or cooperative service if it has an agreement with another autonomous library. These agreements can be with other public libraries or with other types of libraries, such as school or academic libraries. Although data for library systems, federations, or cooperative services are not collected by PLS, the survey item “Interlibrary Relationship Code” indicates the system status of each public library.

Public Library Service Outlet. An outlet providing direct public library service and classified as one of the following types: central library outlet, branch library outlet, bookmobile outlet, or books-by-mail-only outlet. A public library may have one or more outlets, or it may have none.

Population of the Legal Service Area. The number of people in the geographic area for which a public library has been established to offer services and from which (or on behalf of which) the library derives income, plus any areas served under contract for which the library is the primary service provider. (Note that the determination of this population figure is the responsibility of the state library agency. The population figure should be based on the most recent official state population figures for jurisdictions in the state, available from the State Data Center. The State Data Coordinator obtains these figures annually from the State Data Center or other official state sources. For administrative entities that do not serve the public directly and have no outlets—e.g., a system, federation, or cooperative service—this number is zero. Population of the legal service area is a key survey item.)

4. SURVEY DESIGN

Target Population

All public libraries identified by the state library agencies in the 50 states and the District of Columbia, as well as libraries in outlying areas (Commonwealth of the Northern Mariana Islands, Guam, Puerto Rico, Republic of Palau, U.S. Virgin Islands, and American Samoa). Although data are not systematically collected from public libraries on Native American reservations, a category for Native American Tribal Government has been included in the survey item on type of local government structure since 1993. Data are not collected from military libraries that provide public library services or from libraries that serve residents of institutions.

Sample Design

PLS surveys the universe of public libraries.

Data Collection and Processing

PLS was the first national NCES survey in which respondents supplied the data electronically and in which data were edited and tabulated completely in machine-readable form. The states can submit their data by mail on diskette or over the Internet. The survey is generally released to the states over the Internet in the fall of the survey year, with returns due in the spring or summer (due date varies based on state fiscal cycle). Nonresponse follow up is conducted shortly thereafter.

Reference dates. The PLS reporting period is the previous fiscal year. If the fiscal year varies by locality, the state is requested to provide the earliest starting date and latest ending date reported by its public libraries. The last day of the fiscal year is the reference date for data on paid staff.

Data collection. As of fiscal year (FY) 98, states report their data using a personal computer Windows-based data collection software program which is downloaded from the Internet or available upon request on compact disc.

State level. The survey software has an edit check program that generates on-screen warnings during the data entry/import process, enabling respondents to review their data and correct many errors immediately. Following data entry/import, respondents can generate an on-screen or printed edit report for further review and correction of their data before submitting the final file to NCES. Four types of edit checks were performed:

relational edit checks; out-of-range edit checks; arithmetic edit checks; and blank, zero, or invalid data edit checks.

Respondents also use the survey software to generate state summary tables and single-library tables (showing data for individual public libraries in their state). States are encouraged to review the tables for data quality before submitting their data to NCES. States submit their data with a signed form from the Chief Officer of the State Library Agency certifying its accuracy.

National level. NCES and the U.S. Bureau of the Census (the data collection agent for the survey) edit the state data submissions, working closely with the State Data Coordinators and the FSCS Steering Committee.

Estimation Methods

Imputation for nonresponding libraries was implemented with the 1995 PLS. FY 92 to FY 94 files were back-imputed for a 5-year trend report, which was released in 2001.

Imputation. Imputation was first implemented in 1995, using an imputation methodology developed by the Census Bureau. Annual public service hours were not imputed in 1995 but were imputed in later PLS cycles.

For many variables—such as numbers of audio books, bookmobiles, book/serial volumes, central, branches, librarians, reference transactions, etc.—data were imputed for nonresponding libraries categorized into imputation cells using a method which can be described as “updated cold deck”; that is, prior year’s data were adjusted to accommodate the changes taking place over time. In some cases, prior year’s ratios were applied to this year’s data to impute some variables. For benefit and expenditure variables, logical procedures were used to impute the values; in some cases, a combination of the above methods were used. For libraries that did not respond for 2 years prior to the current survey, the mean value of an imputation cell was adjusted for a size variable of the missing units in the cell. For all nonresponding libraries, capital outlay was imputed by using expenditure variables and adjusting them when necessary.

Recent Changes

In 1995, imputation was implemented to compensate for nonresponse, and seven data items were added to the survey instrument. One new item asked whether or not the public library meets all criteria of the FSCS public library definition. The other items pertain to electronic

technology, covering access to the Internet and electronic services, Internet usage, availability of library materials in electronic format, operating expenditures for electronic access, and expenditures for library materials in electronic format. New data elements added in 1998 were the number of Internet terminals used by staff only, and the number of Internet terminals used by the general public; deleted in 1998 on the Outlet file was the item on the population of legal service area by type of outlet, as the data were unreliable.

Future Plans

Web-based data collection is being considered for future surveys. NCES is developing a public library geographic mapping tool to be available on the Internet as part of the NCES Decennial Census School District 2000 project. This tool is an interactive online mapping system which integrates 2000 Decennial Census Data with school district boundaries and school district data. The library part of this tool will be developed in phases over the next several years.

5. DATA QUALITY AND COMPARABILITY

Data for nonresponding libraries were imputed beginning with the FY 95 survey. Before FY 95, the data were based on responding libraries only, and the percentage of public libraries responding to a given item varied widely among states. Therefore, *caution should be used in comparing FY 95 or later data to earlier data.* (Note: Imputed files have been produced for FY 92 to FY 94.)

State data comparisons should be made with caution because of differences in reporting periods and adherence to survey definitions. FSCS has formed a Definitions Subcommittee to work with the states on consistency of definitions and a Training Subcommittee to respond to the needs of the State Data Coordinators. *Special care should be used in comparing data for the District of Columbia, a city, with state data, and caution should also be used in making comparisons with the state of Hawaii, as Hawaii reports only one public library for the state.*

Public library questions are being included in other NCES surveys, including the National Household Education Surveys (NHES) and the Early Childhood Longitudinal Survey. Studies have been conducted to evaluate coverage, definitions, finance data, and staffing data. NCES has also sponsored a project to develop the first indices

of inflation for public libraries, a cost index, and a price index, and another project that uses geographic mapping software to link census demographic data with PLS data. Work is under way to geocode public library service outlets nationwide and to map and digitize the boundaries of the nearly 9,000 public library legal service area jurisdictions so that they can be matched to Census Tiger files and to PLS data files.

Sampling Error

PLS is a universe survey and, therefore, not subject to sampling error.

Nonsampling Error

Differences in coverage from state to state, as well as differences in state laws and reporting practices, are the primary sources of nonsampling error in PLS.

Coverage error. The usage of different definitions of a public library may result in coverage error in some states. (See *Public Library Structure and Organization in the United States*, NCES 96–229.) Also, some outlying areas either do not submit the requested data or submit incomplete data; for this reason, not all outlying areas have been included in the data file or reports in past years. The Northern Marianas was included in both for the first time in FY 97, Guam in FY 98, and the Republic of Palau and the Virgin Islands in FY 2000.

In 1994, the Census Bureau conducted an evaluation of public library coverage in the 1991 PLS. (See *Report on Coverage Evaluation in the Public Library Statistics Program*, NCES 94–430.) This study showed PLS coverage to be very comprehensive, with only minor instances of undercounts or overcounts. The number of public libraries in the 1991 PLS relative to the number in state library directories was used as the measure of aggregate coverage. The coverage rate was 99.5 percent for the United States as a whole, and 87.5–106.3 percent for individual states. Thirty states had 100 percent coverage. The primary cause of undercoverage was nonresponse from some communities to their state's annual reporting requirement. Some of these states then excluded these communities' libraries from PLS.

Nonresponse error.

Unit nonresponse. The response rate to PLS is generally in the range of 97 to 99 percent. The response rate in 2000 was 98.3. The unit of response is the public library administrative entity that reports at least three of five key survey items (total paid employees, total income, total operating expenditures, book/serial volumes, and total

circulation), and that also reports population of the legal service area (provided by the State Data Coordinator). All 50 states and the District of Columbia have submitted data annually since the first survey in 1989. Six outlying areas added to PLS in 1993, but nonresponse or edit follow-up problems meant they were not included immediately in the data file or reports. The Northern Marianas was included for the first time in FY 97, Guam in FY 98, and the Republic of Palau and the Virgin Islands in FY 2000.

Item nonresponse. Response is generally 70 percent or higher for all items at the national level, but sometimes lower at the state level. In the FY 2000 PLS, response rates fell below 70 percent in several states for one or more of the following items: library visits, reference transactions, other income, total income, employee benefits, capital outlay, materials in electronic format, expenditures for materials in electronic format, Internet terminals used by staff only, audio materials, and users of electronic resources.

Measurement error. Several types of measurement error have been identified, largely related to inconsistencies in definitions used by the states and differences in their reporting practices.

Reporting period differences. The PLS reporting period is the previous fiscal year. There were eight different reporting periods in FY 2000, although most states reported data for the 12-month period of July to June or January to December. Fiscal year reporting may also vary by locality within a state; in such cases, the state is requested to provide the earliest starting date and latest ending date reported by its public libraries. While a state's reporting period may span more than a 12-month period, each library reports data for only a 12-month period.

Definitional differences. Definitions used by states in collecting data from their public libraries are not always consistent with PLS definitions. Three reports that address definitional problems are: *Report on Evaluation of Definitions Used in the Public Library Statistics Program* (NCES 95-430); *Public Library Structure and Organization in the United States* (NCES 96-229); and *Report on Coverage Evaluation in the Public Library Statistics Program* (NCES 94-430). The Definitions Subcommittee of the FSCS Steering Committee is working with the states to resolve these inconsistencies.

Estimates versus counts. Public libraries provide annual counts of library visits and reference transactions when

counts are available. Otherwise, annual estimates are provided, based on a count taken during a typical week in October, multiplied by 52.

Population counts. There are significant methodological differences in the ways states calculate the three data items on population: (1) population of the legal service area of each public library administrative entity, (2) the total unduplicated population of legal service areas in the state, and (3) the official state total population estimate. There may also be differences in the time period for which the population data are provided. In addition, the calculated total for population of legal service areas of public libraries in a state sometimes exceeds the state's actual population or the state's total unduplicated population of legal service areas. This occurs when a state has overlapping service areas; that is, when adjacent libraries serve and thus count the same population.

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7. METHODOLOGY AND EVALUATION REPORTS

Methodology discussed in Technical Notes.

General

Public Libraries in the United States: Fiscal Year 1999, NCES 2002-308, by A. Chute, E. Kroe, P. Garner, M. Polcari, and C.J. Ramsey. Washington, DC: 2002.

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Uses of Data

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Chapter 11: Academic Libraries Survey (ALS)

1. OVERVIEW

The Academic Libraries Survey (ALS) is designed to provide concise information on library resources, services, and expenditures for all academic libraries in the 50 states, the District of Columbia, and outlying areas. In 1998, ALS collected data on the approximately 3,650 libraries in the universe of higher education institutions. In the aggregate, these data provided an overview of the status of academic libraries nationally and statewide. The 1996 ALS also surveyed libraries in nonaccredited institutions that had a program of 4 years or more. Because so few of these libraries respond to ALS, their data were not published. Beginning with the 1998 ALS, the major distinction is whether the library is part of a postsecondary institution that was or was not eligible for Title IV funds.

Although ALS was a component of the Integrated Postsecondary Education Data System (IPEDS) from 1988 through 1998, ALS is now an independent survey.

Purpose

To periodically collect and disseminate descriptive data on all postsecondary academic libraries in the United States, the District of Columbia, and outlying areas, for use in planning, evaluation, and policymaking.

Components

There is a single component to the Academic Libraries Survey. The survey is completed by a designated respondent at the library. While ALS was a part of IPEDS, an appointed State IPEDS Data Coordinator collected the information from academic librarians and submitted it to NCES.

Academic Libraries Survey. Through 1996, ALS distinguished between libraries in postsecondary institutions accredited by agencies recognized by the Secretary of the U.S. Department of Education and libraries in nonaccredited institutions that had programs of 4 or more years. Starting with the 1998 collection, the major distinction is whether the library is part of a postsecondary institution that was or was not eligible for Title IV funds. Data include number of libraries, branches, and service outlets; full-time equivalent library staff by sex and position; operating expenditures by purpose, including salaries and fringe benefits; total volumes held at the end of the fiscal year; circulation transactions, interlibrary loan transactions, and information services for the fiscal year; hours open, gate count, and reference transactions per typical week; and as of 1996, the availability of electronic services such as electronic catalogs of the library's holdings, electronic full text periodicals, Internet access and instruction on use, library reference services by e-mail, electronic document delivery to patron's account-address, computers and software for patron use, scanning equipment for patron use, and services to the institution's distance education students.

BIENNIAL SURVEY OF THE UNIVERSE OF LIBRARIES IN HIGHER EDUCATION INSTITUTIONS

ALS collects data on:

- ▶ Library staffing
- ▶ Operating expenditures
- ▶ Total volumes
- ▶ Circulation, loan, and reference transactions
- ▶ Electronic services
- ▶ Gate count

Periodicity

Biennial in even-numbered years since 1990; triennial from 1966 to 1988.

2. USES OF DATA

Effective planning for the development and use of library resources demands the availability of valid and reliable statistics on academic libraries. ALS provides a wealth of information on academic libraries. These data are used by federal program staff to address various policy issues, by state policymakers for planning and comparative analysis, and by institutional staff for planning and peer analysis. Specific uses are listed below:

- ▶ Congress uses ALS data to assess the impact of library grant programs, the need for revisions of existing legislation, and the allocation of funds.
- ▶ Federal agencies that administer library grants for collections development, resource sharing, and networking activities require ALS data for their evaluation of the condition of academic libraries.
- ▶ State education agencies (SEAs) use ALS data to make comparisons at the national, regional, and state levels.
- ▶ Accreditation review programs for academic institutions require current library statistical data in order to evaluate postsecondary education institutions, establish standards, and modify comparative norms for assessing the quality of programs.
- ▶ Library administrators, academic managers, and national postsecondary education policy planners need current data on new electronic technologies to assess the impact of rapid technological change on the collections, budgets, and staffs of academic libraries. College librarians and administrators need these data to develop plans for the most effective use of local, state, and federal funds. Staff data are input to supply/demand models for professional and paraprofessional librarians.
- ▶ Library associations—such as the American Library Association, the Association of Research Libraries, and the Association of College and Research Libraries—use ALS data to determine the general status of the profession. Other research organizations use the data for studies of libraries.
- ▶ Program staff in the Institute of Education Sciences of the U.S. Department of Education use ALS data for administering their library grants program, evaluating existing programs, and preparing documentation for congressional budget hearings and inquiries.

3. KEY CONCEPTS

Some of the key concepts and terms in ALS are defined below. For additional terms, refer to *Integrated Postsecondary Education Data System: Glossary* (NCES 97–543).

Academic Library. A library operated by a postsecondary education institution that has: (1) an organized collection of printed, microform, and audiovisual materials; (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; and (4) the physical facilities necessary to support such a collection, staff, and schedule. Units that are part of a learning resource center are included if they meet the above criteria.

Branch Library. An auxiliary library service outlet with quarters separate from the central library of an institution. A branch library has a basic collection of books and other materials, a regular staffing level, and an established schedule.

Volume. Any printed, mimeographed, or processed work, contained in one binding or portfolio, hardbound or paperbound, that has been catalogued, classified, or otherwise made ready for use.

Title. A publication that forms a separate bibliographic whole, whether issued in one or several volumes, reels, disks, slides, or parts. The term applies equally to printed materials (e.g., books and periodicals), sound recordings, film and video materials, microforms, and computer files.

Circulation Transaction. Includes all items lent from the general collection and from the reserve collection for use generally (although not always) outside the library. Includes both activities with initial charges (either manual or electronic) and renewals, each of which is reported as a circulation transaction.

Interlibrary Loan. A transaction in which library materials, or copies of the materials, are made available by one library to another upon request. Loans include providing materials and receiving materials. Libraries involved in these interlibrary loans cannot be under the same administration or on the same campus.

Reference Transaction. An information contact that involves the knowledge, use, recommendation, interpretation, or instruction in the use of one or more information sources by a member of the library staff. Information

sources include printed and nonprinted materials, machine-readable databases (including assistance with computer searching), catalogues and other holdings records, and, through communication or referral, other libraries and institutions and persons both inside and outside the library. Includes information and referral services.

Online Public Access Catalogue (OPAC). A library's catalog of its collections in electronic form accessible by computer or other online workstation.

Gate Count. The total number of persons physically entering the library in a typical week.

4. SURVEY DESIGN

Target Population

The libraries of all institutions in the 50 states, the District of Columbia, and the outlying areas that have as their primary purpose the provision of postsecondary education. Branch campuses of U.S. institutions located in foreign countries are excluded. Through 1996, ALS distinguished between libraries in postsecondary institutions accredited by agencies recognized by the Secretary of the U.S. Department of Education and libraries in nonaccredited institutions that had programs of four or more years. In 1996, there were approximately 3,600 accredited institutions and 400 nonaccredited institutions in the IPEDS universe. About 3,400 of the accredited institutions had academic libraries. Starting with the 1998 collection, the major distinction is whether the library is part of a postsecondary institution that was or was not eligible for Title IV funds.

Sample Design

ALS surveys the universe of postsecondary institutions.

Data Collection and Processing

The 2000 ALS was a web collection. The U.S. Bureau of the Census is the collection agent. In recent administrations, State IPEDS Data Coordinators collected, edited, and submitted ALS data to the Census Bureau, using the software package IDEALS (i.e., Input and Data Editing for Academic Library Statistics). An academic librarian in the state assisted with the collection and submission of the data.

Reference dates. Most ALS data are reported for the most recent completed fiscal year, which generally ends before October 1 of the survey year. Information on staff

and services per typical week are collected for a single point in time during the fall of the survey year, usually the institution's official fall reporting date or October 15.

Data collection. In the 2000 ALS web collection, library respondents submitted data directly to the Census Bureau through the web. Libraries began receiving registration materials in August and could submit responses from October through the following February. A web-based survey is the latest in a number of steps to improve ALS collection. In July 1990, NCES initiated an ALS improvement project 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 an academic librarian in each state to work with the IPEDS Coordinators in submitting their library data. During the 1990s, many of these library representatives took major responsibility for collecting data in their state. Others were available to assist in problem resolution when anomalies are discovered in completed questionnaires.

The ALS improvement project also led to the development of the microcomputer software package (IDEALS), which was used by states in reporting their academic library data. Along with the software, NCES provided IPEDS Data Coordinators with a list of instructions explaining precisely how responses were to be developed for each ALS item. Academic librarians within each state completed hard copy forms, as they had previously, and returned them to the state's library representative or IPEDS Coordinator. States were given the option of submitting the paper library forms but were encouraged to enter the data into IDEALS and submit the data on diskette to the Census Bureau. Nearly all states elected the diskette option.

ALS was mailed to postsecondary institutions during the summer of the survey year, with returns requested during the fall. Any survey returns from institutions that did not have an academic library were declared to be out of scope, as were institutions that did not have their own library but shared one with other institutions. In recent years, less than half of the nonaccredited institutions responded to the survey; NCES does not include data on this group in publications because the estimates are not statistically acceptable.

Editing. The web-based collection incorporates most of the internal consistency edit checks, range checks, and summation checks that the IDEALS software featured, but allows these checks to be run at the library level instead of at the state level. These edit checks provide some warning as the data are being keyed. When the

IDEALS software was used, library representatives at the state level could also run edit/error reports and make corrections before submitting the data to NCES. Examples of these edit checks include summation checks, relational edit checks, and range checks.

When probable errors are identified, Census Bureau personnel contact the institution to resolve the problem. After all the data are received, general edits are performed. These edits include checks for comparability between the response to the “own library inquiry” in ALS and the Institutional Characteristics Survey; between expenditures for staff reported in Part C of the ALS questionnaire and full-time equivalent staff reported in Part B; between expenditures on books, etc. in Part C and the numbers of books, etc. reported in Part D; between library holdings at the end of the year and the number of materials added during the year; between the number of presentations given and the number of persons served in presentations; and between the library data reported in the current survey and the same data reported in the prior survey. Once all edits have been performed and all corrections have been made, the data undergo imputation to compensate for nonresponse (see below).

Estimation Methods

Imputation is used in ALS to compensate for nonresponse. In 1994, procedures were changed to use data from the previous survey if available, and only use imputation group means (see below) if prior-year data were not available. Before 1994, only imputation group means were used.

Imputation. ALS imputation is based on the response in each part of the survey. Each part goes through either total or partial imputation procedures except Part A, Number of Branch and Independent Libraries; Part B, Line 4—Library staff information-contributed services staff; and Part C, Line 23—Library operating expenditures-employee fringe benefits. These items are imputed only if reported prior year data are available (contributed services staff and employee fringe benefits apply to only a few institutions). Part G, Electronic Services, does not go through imputation.

The imputation methods use either prior year data or current year imputation group means. The procedures are slightly different depending on whether an institution is totally nonresponding or partially nonresponding in the current year. If prior year data are available, the imputation procedure either carries forward the prior year data or carries forward the prior year data multiplied by a growth factor. If prior year data are not available, the

imputation procedure uses the current year imputation group means as the imputed value.

Means and ratios are calculated for each of eight imputation groups. There are three imputation groups each for public, 4-year or above institutions and private, 4-year or above institutions: (a) those granting 50 or more doctoral degrees; (b) those granting less than 50 doctoral degrees and 50 or more postbaccalaureate degrees; and (c) all others. The remaining two imputation groups combine (1) public, 2-year institutions and public, less than 2-year institutions; and (2) private, nonprofit, 2-year institutions; private, for-profit, 2-year institutions; private, nonprofit, less than 2-year institutions; and private for-profit, less than 2-year institutions. Note that computation of the imputation base excludes institutions that merged, split, submitted combined forms, changed sectors from the prior year, or did not submit a full report for either the current year or the prior year.

Some examples follow:

If a total is blank or zero, but there are one or more positive subtotals, the total is changed to equal the sum of the subtotals. Alternatively, if, for a given record, there is a reported total but all subtotals are either zero or blank, then it is assumed that the subtotals should have positive values and values are imputed.

To calculate the imputed value for a subtotal, the average estimate is calculated across the set of respondents including ones for which the total is obtained by adding the subtotals, but excluding those for which the sum of the subtotals does not originally equal the total. The average subtotal value is divided by the average total value within each imputation group to obtain an average proportion. The average proportion is then multiplied by the reported total to obtain the imputed subtotal value.

For key items *total staff* and *total operating expenditures*, if the total and all subtotals are blank or zero, they are imputed by using the average by imputation group from the set of respondents described above. Zero is not a valid entry for these items.

The imputation procedures 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. While checks indicate that the effect of the change in imputation procedures was not large, caution should be exercised in making comparisons with pre-1996 or earlier reports. See Status of Academic Libraries in the United States: Results from the 1996

Academic Library Survey with Historical Comparisons (NCES 2001–301).

Recent Changes

Several changes were made to the survey instrument in 1996, 1998, and 2000. These are summarized below. In the 1996 instrument, the data items in Part E of the questionnaire (Library Services) were expanded to request separate reporting for returnables and nonreturnables, as well as totals. In addition, a new section, Part G, was added to collect information about access to the following electronic services, both on and off campus:

- ▶ Electronic catalog that includes the library's holdings;
- ▶ Electronic indexes and reference tools;
- ▶ Electronic full text periodicals;
- ▶ Electronic full text course reserves;
- ▶ Electronic files other than the catalog (e.g., finding aids, indices, manuscripts) created by library staff;
- ▶ Internet access;
- ▶ Library reference service by e-mail;
- ▶ Capacity to place interlibrary loan/document delivery requests electronically;
- ▶ Electronic document delivery by the library to patron's account/address;
- ▶ Computers not dedicated to library functions for patron use inside the library;
- ▶ Computer software for patron use inside the library (e.g., word processing, spreadsheet, custom applications, etc.);
- ▶ Technology in the library to assist patrons with disabilities (e.g., TDD, specially equipped workstations); and
- ▶ Instruction by library staff on use of Internet resources.

The 1998 ALS survey instrument modifications included the following.

The definition of a library was moved to the cover page and reformatted as a checklist. The other cover page change was that the possibilities of reporting data *for* another library or having data reported *by* another library were clarified. The data items in Part B (Library Staff) were expanded to request a total full-time equivalency (FTE) count for librarians and other professionals as well as separate counts of these two categories of staff. Part C was renamed "Library Expenditures" and the word "operating" was used only in reference to expenditures

for items other than staff and materials. The two major lines for reporting expenditures on information resources were subdivided as follows: books, serial backfiles, and other materials (paper and microform; electronic); and current serial subscriptions and search services (paper and microform; electronic). In addition, expenditures on search services were to be reported with those for current serial subscriptions, in recognition of the fact that it is often impossible to separate the two. Part D (Collections) was changed the most, being reduced from 18 lines to 7. It collected data on only three types of materials: books, serial backfiles, and other materials (paper; microform; electronic); current serial subscriptions (paper and microform; electronic); and audiovisual materials. The following lines were deleted: manuscripts and archives, cartographic materials, graphic materials, sound recordings, film and video materials, and computer files. Except for paper materials, there was no longer separate reporting of physical counts and title counts. In Part F (Library Services, Typical Week), "Public service hours" was changed to "hours open" since some libraries keep two separate counts and were unsure of what to report. "Typical week" was added to the heading above the space for reporting figures to reinforce that only typical week figures should be reported. In Part G (Electronic Services), the following items were added to the yes/no checklist about access to electronic services:

- ▶ Computers not dedicated to library functions for patron use inside the library;
- ▶ Computer software for patron use in the library (e.g., word processing, spreadsheet, custom applications, etc.);
- ▶ Scanning equipment for patron use in the library; and
- ▶ Services to your institution's distance education students.

The changes for the 1998 form for the 2000 ALS are as follows:

Cover sheet (Library Definition): The format of the question regarding providing financial support to another library was clarified.

Part C (Library Expenditures): The text for library expenditures was modified to clarify what is wanted.

Part D (Library Collections): The items "Electronic-Titles" and "Number of electronic subscriptions" were dropped and the item covering other forms of subscriptions was revised.

Part E (Library Services): A new item was added for "Documents delivered from commercial services" and

the words “document delivery” were dropped from the items for “interlibrary loans provided” and “interlibrary loans received.”

Part G (Electronic Services): Five items were added under the heading “Consortial Services.”

Future Plans

At this time, NCES plans to continue conducting ALS biennially.

5. DATA QUALITY AND COMPARABILITY

NCES makes every effort to achieve high data quality. Through a web collection that includes built-in edit checks, it hopes to improve the quality of ALS data. *Users are cautioned about limitations in the analysis of ALS data by state or by level and control of institution. Since nonresponse varies by state, the reliability of state estimates and comparisons are affected. Special caution should be exercised when using data where the nonresponse rate is 30 percent or greater.* See below for more information on the types of error affecting data quality and comparability.

Sampling Error

Because ALS is a universe survey, there is no sampling error.

Nonsampling Error

Coverage error. A comprehensive evaluation of the coverage of ALS found that quality of institutional coverage was excellent (a coverage gap of only 1 to 3 percent) when compared to other institutional listings directly related to the academic libraries industry, although questions remain as to whether the data collected by ALS fully account for branch data associated with parent institution resources. (See *Coverage Evaluation of the Academic Library Survey*, NCES 1999-330.) A second problem plaguing ALS data is the presence or absence of professional school statistics in parent college or university data.

Nonresponse error.

Unit nonresponse. The overall unit response rate for the 1998 ALS was 97.0 percent, higher than in 1996 (94.2 percent) or 1994 (93.7 percent). Nineteen states had response rates of 100 percent, and 19 states fell below the overall rate of 97.0 percent; their rates ranged from 71.4 to 96.9 percent. The aggregate response rate for 4-year

institutions was 97.7 percent (ranging from 97.0 percent for master’s level to 98.8 percent for doctor’s degree). Institutions of less than 4 years had a slightly lower response rate of 95.8 percent. Overall response rates were 98.2 percent for public institutions and 96.0 percent for private institutions.

Item nonresponse. In the 1998 ALS, 23 items had response rates of 90 percent or higher; 63 items had rates in the 80–89 percent range; 12 items had rates in the 70–79 percent range; and 4 items had rates lower than 70 percent. One of these items was in the area of library staff (69.5 percent), one in the area of library operating expenditures (66.0 percent), and two in the area of library collections (65.2 and 65.3 percent).

Measurement error. No information available.

6. CONTACT INFORMATION

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7. METHODOLOGY AND EVALUATION REPORTS

General

Academic Libraries: 1998, NCES 2001-341, by M.W. Cahalan and N.M. Justh. Washington, DC: 2001.

Academic Libraries: 1996, NCES 2000-326, by M.W. Cahalan and N.M. Justh. Washington, DC: 2000.

Data Quality and Comparability

Coverage Evaluation of the Academic Library Survey, NCES 1999-330, by C.C. Marston. Washington, DC: 1999.

Status of Academic Libraries in the United States: Results from the 1996 Academic Library Survey with Historical Comparisons, NCES 2001-301, by M. Cahalan, W. Mansfield, and N. Justh. Washington, DC: 2001.

Chapter 12: State Library Agencies (StLA) Survey

1. OVERVIEW

The State Library Agency (StLA) Survey collects data annually on state library agencies in the 50 states and the District of Columbia. This survey is the product of a cooperative effort between the Chief Officers of State Library Agencies (COSLA), the National Commission on Libraries and Information Science (NCLIS), and NCES. The first StLA Survey collected data for fiscal year 1994.

Purpose

To provide descriptive information about all StLAs in the 50 states and the District of Columbia.

Components

There is one component to the StLA Survey. StLA staff collects the information.

StLA Survey. This survey collects data on governance, public service hours, number and types of service outlets, type and size of collections, library service transactions and development transactions, electronic services and information, resources assigned to allied operations (e.g., archive and records management), staffing, income, and expenditures. Data are also collected on StLA services to public, academic, school, and special libraries, and to library systems.

Periodicity

Annual. Data are submitted for the previous fiscal year. The first StLA Survey was for fiscal year (FY) 1994.

2. USES OF DATA

The StLA Survey provides state and federal policymakers, researchers, and other interested users with a wealth of descriptive information about StLAs in the 50 states and the District of Columbia. It provides data on the variety of roles played by StLAs and the various combinations of fiscal, human, and informational resources invested in their work. Together with other NCES data collections on public, academic, school, and federal libraries, and on library cooperatives, the StLA Survey provides a comprehensive profile of libraries and information services in the United States.

3. KEY CONCEPTS

A few key concepts are defined below. For definitions of all terms, refer to the survey instrument in the database documentation.

ANNUAL SURVEY OF THE UNIVERSE OF STATE LIBRARY AGENCIES

StLA collects data on:

- ▶ Governance
- ▶ Library staffing
- ▶ Income and expenditures
- ▶ Type and size of collections
- ▶ Service and development transactions
- ▶ Electronic services
- ▶ Public service hours
- ▶ Number and types of service outlets

State Library Agency (StLA). The official agency of a state that is (1) charged by the law of that state with the extension and development of public library services throughout the state, and (2) responsible for administering federal funds under the Library Services and Technology Act (LSTA), Public Law 104-208. Beyond these two essential roles, StLAs vary greatly. They can be located in different departments of state government and report to different authorities, are involved in various ways in the development and operation of electronic information networks, and provide different types of services to different types of libraries.

The administrative and developmental responsibilities of StLAs affect the operation of thousands of public, academic, school, and special libraries in the nation. StLAs also provide important reference and information services to their state government, and administer their state library and special operations such as the state archives, libraries for the blind and physically handicapped, and the State Center for the Book. An StLA may function as its state's public library at large, providing service to the general public and state government employees.

Academic Library. A library forming an integral part of a college, university, or other academic institution for postsecondary education, and organized and administered to meet the needs of students, faculty, and affiliated staff of the institution.

Public Library. A library that serves all residents of a given community, district, or region, and that typically receives its financial support, in whole or part, from public funds.

School Library Media Center. A library that is an integral part of the educational program of an elementary or secondary school, with materials and services that meet the curricular, information, and recreational needs of students, teachers, and administrators.

Special Library. A library in a business firm, professional association, government agency, or other organized group; a library that is maintained by a parent organization to serve a specialized clientele; or an independent library that may provide materials or services, or both, to the public, a segment of the public, or to other libraries. The scope of collections and services are limited to the subject interests of the host or parent institution. Includes libraries in state institutions (e.g., state-run prisons, hospitals, and residential training schools).

System. A group of autonomous libraries joined together by formal or informal agreements to perform various services cooperatively such as resource sharing, communications, etc. Includes multitype library systems and public library systems. Excludes multiple outlets under the same administration.

Allied Operations. Other information resources with which the StLA may be affiliated. Includes the state archives; state legislative reference/research service; state history museum/art gallery; and state records management service. Excludes the State Center for the Book and libraries for the blind and physically handicapped.

Collections. The volumes or physical units in all StLA outlets (main or central libraries, bookmobiles, and other outlets) that serve the general public and/or state government. Includes book and serial volumes (excluding microforms), audio materials, video materials, serial subscriptions, and government documents.

4. SURVEY DESIGN

Target Population

The state library agencies in the 50 states and the District of Columbia (51 total).

Sample Design

The StLA Survey covers the universe of state library agencies in the 50 states and the District of Columbia.

Data Collection and Processing

As of the FY 99 StLA Survey, NCES collects the data via an Internet web-based reporting system, as described below. (Prior to FY 99, the data were collected via customized survey software.) The web survey is usually released on the web in mid-October with a due date in mid-February. Nonresponse follow up is conducted immediately after receipt of the completed survey over the Internet. The U.S. Bureau of the Census serves as the data collection and processing agent for NCES.

Reference dates. The reporting period for the StLA Survey is the previous fiscal year. The reference date for reporting staff counts is October 1.

Data collection. Beginning in FY 99, the data are reported through an Internet web-based reporting system designed to reduce respondent burden and enable states to edit their data before submission to NCES. The

system contains prior-year data for items where the data are not expected to change annually—about 40 percent of the survey items. The respondent is requested to review the pre-entered data and update any information that has changed. The respondent is instructed to answer all other items; to enter -1 to any numeric item if the data cannot be provided; and to report 0 if a count is taken with a result of zero. Items left blank indicate nonresponse (i.e., not reported or not applicable). Respondents are alerted to questionable data during the data entry process through interactive, on-screen error warnings that prompt them to verify or revise the data, as appropriate. The web-based system also provides error/warning reports of questionable data that can be reviewed on-screen or printed. These features allow the respondent to submit a data file that requires minimal or no follow up for data problems.

Editing. Data from the StLA Survey are edited by the states and NCES in different stages, based on established editing criteria.

State level. The web-based system performs four types of edit checks before the data are submitted to NCES: relational edit checks; out-of-range edit checks; arithmetic edit checks; and blank/zero/invalid edit checks.

National level. NCES, assisted by the Census Bureau, edits individual state submissions by e-mail and telephone follow-up with survey respondents. After submissions are received from all 50 states and the District of Columbia, the preliminary national file and draft tables for the *E.D. TABS: State Library Agencies* publication are reviewed for data quality by the StLA Steering Committee, NCES, and the Census Bureau. States with questionable data are contacted to request verification or correction of their data before the final file and tables are produced.

Estimation Methods

StLA began imputing for item nonresponse as of FY 99.

Imputation. Missing data are imputed using one of four methods, in the following order: the zero rule, the growth rule, regression modeling, or the sum rule. Under the zero rule, if the state does not report a value for the current year and reported zero for the prior year, then the value for the current year is set to zero. This rule is applied first, on the assumption that there was no change from the prior year. Under the growth rule, if the state does not report a value for the current year and the value for the prior year was greater than zero, the growth rate from the prior year to the current year is calculated for

all states that reported data greater than zero in both years. The median of the growth rates is then calculated and applied to the state's previously reported data to obtain an estimate for the current year. (Note that the growth rule looked at values for the prior year only.) Regression modeling is used if the state does not report a value for the current year and there was no value for the prior year. The regression model uses only the current year's data file. It uses three to six auxiliary items reported by all states to determine the regression model that best fit the data. The auxiliary items are selected by calculating the correlations between the imputed item and all other numeric items on the data file, and, after a process of elimination, using the items that have the highest correlations to the imputed item. The sum rule applies when the details of a total and the total are missing, and the details are imputed by the zero rule, the growth rule, or regression modeling: the total is imputed by adding up the details.

Recent Changes

A number of changes were made to the 2002 survey, particularly to Part F—Electronic Services and Information. In Part D, the responses to all items in one question were revised to clarify how the StLA provided services. In Part E, one item was revised to indicate that only one StLA outlet may be identified as the main or central outlet, and another question was split into two to provide more information about hours open. In Part F, the Serial Subscription item was revised to clarify that only current serial subscriptions in print format should be reported. In Part N, one question was split into two to collect more specific information on Internet workstations owned by the StLA or available but not owned by the StLA, and another question was revised to include a new Bibliographic Records item. Two changes were made to a third question: an Other Expenditures item was added for consistency with items collected in Part K, and the OCLC Participation and Z39.50 Gateway items were deleted. Finally, two items were added to Part J to identify the types of libraries for which StLAs administer state funds, and six items were added to Part N to collect more current descriptive data on electronic services provided by StLAs.

Future Plans

No changes are currently planned for the FY 03 survey.

5. DATA QUALITY AND COMPARABILITY

Data from the StLA Survey were not imputed for item nonresponse prior to FY 99, so state and national totals for some items may be underestimated in earlier years. *State comparisons should be made with caution because item response rates, fiscal year reporting periods, and adherence to survey definitions vary by state. Special care should also be taken in comparing data for the District of Columbia (a city) with data for a state.*

Sampling Error

The StLA Survey is a universe survey and, therefore, not subject to sampling error.

Nonsampling Error

Coverage error. There is no coverage error in the StLA Survey. It includes the universe of state library agencies in the 50 states and the District of Columbia.

Nonresponse error.

Unit nonresponse. The StLA Survey has achieved a 100 percent response rate in all survey administrations.

Item nonresponse. Most items have a 100 percent response rate. In FY 01, only six items did not have a 100 percent response rate: five items had a response rate of 98.0, and one had a response rate of 88.2 percent.

Measurement error. Measurement (or reporting) errors can result from the use of different definitions for key terms and different reporting periods among the states. The fiscal year of most states is July 1 to June 30. Exceptions are New York (April 1 to March 31); Texas (September 1 to August 31); and Alabama, the District of Columbia, and Michigan (October 1 to September 30).

Some definitions of selected fiscal data related to the Library Services and Construction Act (LSCA), the predecessor to the LSTA, needed clarification, based on inconsistent reporting of the data. The Census Bureau conducted an evaluation study to examine these data, and the survey instructions for various LSCA items on income and expenditures were revised based on the report recommendations. Specifically, the instructions for the reporting of LSCA income and LSCA expenditures for statewide services and financial assistance to libraries and systems were clarified.

Although some data for two states should have been reported in the Public Libraries Survey (see chapter 10) instead of in the 1994 StLA Survey, NCES has negotiated successfully with these StLAs to eliminate such reporting from the 1995 and later StLA Surveys.

6. CONTACT INFORMATION

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7. METHODOLOGY AND EVALUATION REPORTS

Methodology discussed in technical notes to survey reports.

General

State Library Agencies, Fiscal Year 2001, NCES 2003-309, by B. Holton, E. Kroe, P. O'Shea, C. Sheckells, S. Dorinski, and M. Freeman. Washington, DC: 2002.

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State Library Agencies, Fiscal Year 1999, NCES 2000-374, by E. Kroe. Washington, DC: 2000.

State Library Agencies, Fiscal Year 1998, NCES 2000-318, by E. Kroe. Washington, DC: 2000.

State Library Agencies, Fiscal Year 1997, NCES 1999-304, by E. Kroe. Washington, DC: 1999.

Data Quality and Comparability

Evaluation of the NCES State Library Agencies Survey: An Examination of Duplication and Definitions in the Fiscal Section of the State Library Agencies Survey, NCES 1999-312, by L.R. Aneckstein. Washington, DC: 1999.

Chapter 13: Federal Libraries and Information Centers Survey

1. OVERVIEW

Since 1965, NCES has periodically conducted a comprehensive survey of federal libraries in the 50 states and the District of Columbia. The 1994 Federal Libraries and Information Centers Survey was the sixth survey, the first since 1978, and the first to include information centers. This survey is a cooperative effort of the National Center for Education Statistics (NCES) and the Federal Library and Information Center Committee (FLICC) of the Library of Congress. There are no current plans for the next administration of the survey.

Purpose

To provide descriptive information about all federal libraries and information centers in the 50 states and the District of Columbia, excluding elementary and secondary school libraries under federal agency operation.

Components

There is only one component to the Federal Libraries and Information Centers Survey. The survey is completed by a designated respondent at the library or information center.

Federal Libraries and Information Centers Survey. This survey collects the following information on federal libraries and information centers: staffing, collections, service per typical week, automation, technology, and preservation.

Periodicity

Irregular. The survey previous to the 1994 survey was conducted in 1978, and there are no current plans for the next administration.

2. USES OF DATA

The 1994 Federal Libraries and Information Centers Survey updates the federal library survey data collected in 1978, establishing a more current national profile of federal libraries and information centers. A primary use of this survey's data is the publication of the *Directory of Federal Libraries and Information Centers*, which provides for each entry the name, address, and type of library or information center, and the name and telephone number of a contact person. The type of library or information center represents the library/information center's primary subject-matter acquisitions, categorized as follows: presidential, national, academic, engineering and science, health and medicine, general, law, multitype, training center and/or instructional technical school, and special. Most of the information in the Directory is provided by survey respondents.

PERIODIC SURVEY OF THE UNIVERSE OF FEDERAL LIBRARIES

Collects data on:

- ▶ Library staffing
- ▶ Library collections
- ▶ Service per typical week
- ▶ Automation and technology
- ▶ Preservation

For nonrespondents, the name and address of the library or information center are obtained from the file used to conduct the survey. The latest Directory represents the universe of domestic federal libraries and information centers as of September 30, 1994. Changes available prior to publication were incorporated.

3. KEY CONCEPTS

The terms defined below are a subset of the terms in the Federal Libraries and Information Centers Survey. For definitions of all terms, refer to the survey instrument in the database documentation.

Library/Information Center. A *library* is an organization that includes among its functions the following: selection, acquisition, organization, preservation, retrieval, and provision of access to information resources. An *information center* is an organization that performs the function of linking requestors with appropriate information resources through established mechanisms, such as searching databases, providing referrals, answering specific questions, or by other means. A library or information center may be further defined as:

Autonomous. One that has a separate facility, collection, staff, defined clientele, and full operational control. The principal operating budget generally derives from the institution served.

Headquarters. Either a single-unit library serving administrative headquarters or a central user unit with administrative and directional control of other libraries.

Central/main. The single-unit library or the administrative center of a multi-unit library where the principal collections are kept and handled.

Branch or nonautonomous. A user-service unit which has all of the following:

- ▶ quarters that are separate from the central library;
- ▶ a permanent basic collection of material;
- ▶ a permanent staff provided by the central library or the institution or organization of which the library is a part; and
- ▶ a regular schedule for opening.

Such units are administered from the central library. Although they are not autonomous, some units may report independently for the purpose of this survey.

Network and Cooperative. Two or more independent libraries of any type(s) engaging in cooperative activities to perform library services for mutual benefit, according to some agreement on common purposes while retaining individual autonomy. The activities extend beyond reciprocal borrowing and beyond the scope of the national (American Library Association) interlibrary loan code.

Bibliographic Service Center. An organization that serves a network of libraries as a distributor of computer-based bibliographic services. A service center gains access to bibliographic data through a bibliographic utility.

Bibliographic Utility. An organization that maintains online databases provided by various libraries individually or cooperatively through networks. The utility provides a standard interface by which bibliographic data are accessible to libraries either directly or through bibliographic service centers.

Centralized Processing Center. A library or other agency that orders library materials, prepares these materials for use, and prepares cataloguing records for these materials on behalf of a group of libraries.

Cooperative Collection Resource Facility. A facility supported cooperatively by a group of libraries to acquire, maintain, and provide access to collection resources not generally available in any or all of the cooperating libraries. Materials may be acquired through cooperative purchase or through depository arrangements to maintain little-used materials furnished by participating libraries. Services typically include interlibrary lending, photocopying, and materials preservation. This type of facility is distinguished from a storage facility in which materials stored cooperatively remain the property of each library rather than becoming common property of the facility. The Center for Research Libraries is one example of a cooperative collection resource facility.

Gate Count. The number of persons counted either entering or leaving the library/information center in a typical week in the past year. If not regularly counted, results of samplings may be entered.

FEDLINK. A cooperative network program (Federal Library and Information Network) established by the Federal Library and Information Center Committee (FLICC) of the Library of Congress. Through FEDLINK, FLICC offers all federal agencies cost-effective access to information and library operations support services from commercial sources.

4. SURVEY DESIGN

Target Population

All federal libraries and information centers in the 50 states and the District of Columbia. Foreign branch operations and entities outside of the United States are excluded. For the purposes of this survey, data for Puerto Rico, the Virgin Islands, and U.S. territories are excluded.

To be included in this survey, a library/information center must also meet the following criteria:

- (1) be staffed with at least one paid part-time or full-time librarian, technical information specialist, library technician, archivist, or other trained person whose primary function is to assist others in meeting their information needs;
- (2) be considered as a federal government operation or receive at least half of its funding from federal sources; and
- (3) support the information needs of a federal agency or supply information as part of the agency's mission.

Sample Design

This survey covers the universe of federal libraries and information centers. Major projects involved in developing the survey instrument and defining the universe for the 1994 survey included dissemination of a survey pretest to a sample of 200 facilities in the fall of 1993; the mailing of a locator questionnaire to 3,000 facilities in the spring of 1994 to determine universe eligibility; revision of the survey instrument based on the pretest; and dissemination of a second pretest to a sample of 50 facilities in the fall of 1994.

A variety of sources were searched to develop the initial universe list of approximately 3,200 facilities, which was used as the basis for the locator questionnaire mailing. The primary sources were the Oryx Directory of Federal Libraries and the Federal Library and Information Network (FEDLINK) mailing list. Additional sources included the Federal Health Care Libraries Directory, the U.S. Department of Navy Libraries list, a list of Government Agencies with Public Document Rooms, the Department of Defense (DoD) schools list, the Air Force Library and Information System Address list, and the *U.S. Government Manual*.

The final universe excluded approximately 700 facilities that were overseas (United States Information Service and DoD) and/or elementary and secondary school libraries (DoD and Bureau of Indian Affairs). The overseas facilities were removed because of logistical problems

in data collection. The elementary and secondary school libraries under federal agency operation were excluded both to reduce reporting burden and because their mission and function differ from most federal libraries and information centers. NCES includes these schools in a separate survey of School Library Media Centers and Library Media Center Specialists, which is part of the Schools and Staffing Survey (SASS)—see chapter 9. Approximately 1,700 additional facilities were eliminated from the initial universe because they were out of scope of the survey definitions, had combined with another facility, were duplicates of other facilities, or were closed.

Data Collection and Processing

The collection agent for this survey is the U.S. Bureau of the Census. The 1994 survey data were collected and processed between January and September of 1995.

Reference dates. The reporting period for the 1994 survey was the most recent complete fiscal year prior to October 1, 1994. Most data covered the full fiscal year. Data on request and search services were reported for a typical week, defined as a week in which the federal library or information center was open its regular hours (without holidays) and conducted its regular activities. Information reported for the “last 3 years” was reported for the 3 fiscal years from 1992 (ending prior to October 1, 1992) through 1994 (ending prior to October 1, 1994). Information reported for the “next 5 years” was reported for fiscal years from 1995 (ending prior to October 1, 1995) through 1999 (ending prior to October 1, 1999).

Data collection. The 1994 survey was mailed to 1,571 facilities in the United States in January 1995. Of these, 337 were later excluded as out of scope because they did not meet the survey definition of federal libraries and information centers. Thus, there were 1,234 in-scope federal libraries and information centers in the 50 states and District of Columbia.

Only 35 percent of the questionnaires were returned by the March 1995 due date. Rigorous follow-up efforts, including repeated telephone reminders, additional mailings, and special appeals by the FLICC members, were conducted through August. The final response rate was 94.1 percent.

Editing. Prior to keying, the data were manually edited for reporting errors (e.g., when more than one box was marked for items allowing only one answer). The following additional edits were performed after keying: relational edit checks and numeric checks.

Special follow up was required for libraries and information centers which reported reference requests and searches on an annual or other basis instead of weekly. To evaluate the extent of the problem, Census Bureau staff called a sample of cases with possible errors. Approximately 10 percent of the requests and searches data required correction.

Estimation Methods

No adjustment was made for missing information at the unit or item level.

Future Plans

There are no current plans for the next administration of the survey.

5. DATA QUALITY AND COMPARABILITY

Data were not imputed for nonresponse in the 1994 Federal Libraries and Information Centers Survey. *Caution should be exercised when using estimates with item response rates lower than the unit response rate.* Per NCES statistical standards, data are suppressed in published tables if the “total response” (the unit response rate multiplied by the item response rate) is less than 70 percent.

Sampling Error

Because this survey is a universe survey, there is no sampling error.

Nonsampling Error

Coverage error. A comprehensive evaluation of the coverage of the 1994 Federal Libraries and Information Centers Survey revealed some concerns about coverage. Receiving particular consideration was the classification of libraries as out-of-scope, as well as the use of a definition of “federal” library that relied in part on information about the facility’s level of federal funding that was provided by the respondent. The study noted that as the 1994 survey’s immediate predecessor was conducted more than 15 years earlier, the first task was constructing a survey frame from scratch, a difficult task given that while various directories of federal libraries existed, none of them had the same focus or shared the same definitions as the 1994 survey.

Nonresponse error.

Unit nonresponse. The 1994 survey achieved an overall response rate of 94.1 percent. The response rates by branch of the federal government were as follows:

▶ Judicial Branch	95.2 percent
▶ Legislative Branch	80.0 percent
▶ Executive Branch	
Civilian Departments	75.0–100.0 percent (11 out of 14 were 90 percent or higher)
Military Departments	90.7–96.3 percent
▶ Independent Agencies	90.6–100.0 percent

Item nonresponse. Item response rates in 1994 for published items were as follows: 10 items had a response rate between 92.2 and 94.1 percent. These items primarily consisted of identifying information such as “type of library” and “type of service performed.” Another four items had response rates between 86.0 and 89.8 percent. Finally there were three items that obtained response rates of only 76.0–77.5 percent. These items were: size of book print collection (volumes), directional/ready reference requests per typical week, and substantive reference requests per typical week.

Measurement error. Some libraries/information centers reported reference requests and searches on an annual or other basis instead of weekly. A special follow up was conducted by the Census Bureau to evaluate the problem, resulting in correction to about 10 percent of the requests and searches data. *Users should be cautious in their use of these data because only a sample of the lower values was investigated.*

6. CONTACT INFORMATION

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7. METHODOLOGY AND EVALUATION REPORTS

General

Federal Libraries and Information Centers in the United States: 1994, NCES 96-247, by the Governments Division, Bureau of the Census. Washington, DC: 1996.

Data Quality and Comparability

Coverage Evaluation of the 1994 Federal Libraries and Information Centers Survey, NCES 98-269, by J. Curry. Washington, DC: 1998.