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**The Status of Federal
Libraries and Information
Centers in the United States:
Results from the 1994 Federal
Libraries and Information
Centers Survey**

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Executive Summary

The data collected through the 1994 Federal Libraries and Information Centers Survey present a picture of federal libraries and information centers that provide a wide variety of services to their respective agencies as well as to the general public. For example, in 1994, they averaged 43 requests or searches per week per federal FTE staff, an annual average of 1,445 loan transactions per federal FTE staff, and an annual average of 776 inter-library loan requests sent out per library. In 1994, federal libraries and information centers responding to the Federal Libraries and Information Centers Survey reported holding over 51 million volumes or volume equivalents in print and about 625,000 current serial subscriptions. In addition, about half of these federal libraries and information centers indicated providing centralized technical services and selective dissemination of information services; about two in five reported providing professional consultation services and preparing published bibliographies; and about one in three reported producing publications other than bibliographies and providing outreach services such as bookmobiles, clinical and circuit libraries, and regional services.

In 1994, more than half of the responding federal libraries and information centers in the United States either included the general public in their clientele or reported having services available to the public. About 40 percent of responding federal libraries and information centers reported the general public among their users, and about 53 percent reported having services available to the general public.

In addition, it is evident that federal libraries and information centers have responded to and are continuing to respond to the advanced technology revolution. In 1994, about a third of the federal libraries and information centers responding to the Federal Libraries and Information Centers Survey indicated that they maintained some electronic collections. Furthermore, the majority of responding federal libraries and information centers indicated that they have available the more common technologies such as fax, e-mail, CD-ROM, local area networks (LANs), and Internet access. Finally, in 1994, responding federal libraries and information centers indicated that nearly half of their functions were already automated and another 11 percent were, at the time, under development. While those federal libraries and information centers at the highest levels of automation had the highest percentages reporting increases in client service levels, client charges for services provided, and outside contracting for services from 1992 to 1994, the least automated federal libraries and information centers had the highest percentages reporting increases in federally appropriated funding over this period.

Most federal libraries and information centers that responded to the 1994 Federal Libraries and Information Centers Survey indicated that they maintained similar levels of services and resources over the fiscal years 1992 to 1994. However, where there were significant changes, more federal libraries and information centers experienced decreases in resources than increases in resources, while, at the same time, more of them reported increases in level of services to users rather than decreases. For example, more of the responding federal libraries and information centers indicated decreases in staff positions, staff training, new purchases of monographs, current subscriptions, and federal appropriations than reported increases, while more of them indicated significant increases in levels of service offered to their primary clientele than reported significant decreases. These findings appear to show that although there was a declining trend in resources, federal libraries and in-

formation centers continued to provide a wide variety of services and even managed to meet increasing demands for more and newer services. This may have been possible because of the increased use of technology in support of service.

Most of the federal libraries and information centers that responded to the 1994 survey indicated that their federal appropriations had not significantly changed from 1992 to 1994. However, their purchasing power had likely decreased given inflation and increases in costs of new acquisitions, current subscriptions, and maintenance of advanced technologies. For example, more of the responding federal libraries and information centers indicated increases in dollars spent on monographs and serials, while numbers of new purchases and current subscriptions decreased. While these decreases, to some extent, may be the result of the move towards electronic collections, they still indicate declining resources.

It appears that users did not decrease their reliance on services provided by federal libraries and information centers, and there is no reason to expect that they will in the future. In fact, it is more likely that demands for services, particularly those involving advanced technologies, will continue to increase. For these reasons, it will be important to ensure that federal libraries and information centers receive the support they need to continue fulfilling their missions to meet the needs and demands of their agencies and the general public.

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Introduction

Federal agencies, according to a 1993 count, operate over 2,500 libraries and information centers that comprise a highly diverse and decentralized information services network meeting the needs of various audiences.¹ These federal libraries and information centers range in collection size, from the largest library in the world, the Library of Congress, to some of the smallest in the country. They vary in structure, from traditional hard-copy collections to access through on-line databases, compact disks, and the Internet. Finally, they range in function, from highly specialized agency service to national public service. Interest in the variety and extent of use of these libraries and information centers by specific constituencies (e.g., businesses, industry, research and development) and the general public has grown with the increased emphasis at the federal level on public participation in the development of policy and with increased accessibility by means of the developing electronic information infrastructure.

Background

Federal libraries came into existence in 1800 when the Library of Congress was established to serve the needs of the newly established Washington administration. More libraries were established as the business of government increased and the needs for library services grew. Federal information centers had their roots in work carried out during World War II, as the need became apparent for both the gathering and management of science and technical information. Since the 1980s, leaders of the information centers in major R&D agencies have met regularly to review and improve cooperative management and transfer of federal science and technical information. These individuals, drawn from the Department of Commerce National Technical Information Service (NTIS), the Energy Department Office of Scientific and Technical Information (OSTI), the National Aeronautics and Space Administration Scientific and Technical Division, the Department of Health and Human Services National Library of Medicine (NLM), the Department of Defense Technical Information Center and Defense Science & Technical Intelligent Information Services Program, and the Department of the Interior National Biological Services, represent federal departments responsible for over 90% of federal R&D.

In 1965, the National Center for Education Statistics (NCES) initiated the first comprehensive survey of federal libraries to collect data on staff, resources, expenditures, functions, and activities.² The 1994 survey, on which this report is based, is the sixth comprehensive survey that has been conducted by NCES and the first to include information centers as well as federal libraries. The most recent previous survey—the Survey of Federal Libraries: Fiscal Year 1978—was a joint effort of the National Center for Education Statistics (NCES) and the Federal Library Committee of the Library of Congress. Those survey data show that in fiscal year 1978, library expenditures reached over \$565 million and total holdings in federal libraries were reported at approximately 200 million items, ranging anywhere from almost 80 million items in the (then) three central national librar-

1 See *Directory of Federal Libraries*, 2nd ed. (Phoenix, AZ: Oryx Press, 1993), which lists 2,516 such entities according to a 1993 census, arranged by the different branches of the federal government: 43 libraries are reported to serve the Legislative Branch; 96, the Judicial Branch; 2,052, the Executive Branch; and an additional 325 serve independent agencies.

2 This survey, *Special Libraries Serving the Federal Government*, was conducted by Frank L. Schick, assisted by Paul Howard, the first Executive Secretary of FLC. In 1968 it was published by the Office of Education.

ies—the Library of Congress, the National Library of Medicine, and the National Agricultural Library—to smaller federal penitentiary libraries, approximately half of which reported collections of less than 3,000 items (Bellassai, 1983). Aggregate full-time equivalent (FTE) staff reached 20,000, with a median number of three FTE staff per library. Of the 54 percent of employees for whom pay grades were reported in 1978, 9 percent were in grade levels 13 and above. The libraries at that time showed wide variation in mission, in composition, and in size of collections.

In the years immediately following the 1978 survey, and well into the 1980s, federal libraries and information centers underwent considerable funding and staff size reductions, and experienced increased competition from the private sector. The Paperwork Reduction Act of 1980, the Deficit Reduction Act of 1984, the Office of Management and Budget's (OMB) Circulars A-76 and A-130, and recommendations from the Grace Commission encouraged greater reliance on private-sector collection and distribution of federal information. These policies led to major federal funding cuts and a dramatic reduction of the collection, distribution, and dissemination functions of federal libraries and information centers. At that time, the American Library Association expressed concern that federal budget reduction policies were not effectively balancing cost reduction with the public good. Many libraries and information center representatives, both then and now, have maintained that effective management must take into account such service variables as the value and price of information, its uses, and the library or information center's productivity (McClure et al. 1995).

Although the nature of services of federal libraries and information centers began changing around the mid-1960s in response to the new electronic environment of the information industry, the movement accelerated tremendously in recent years. A major revision of OMB's Circular A-130, the Management of Federal Information Resources, made effective in June 1993, included a directive encouraging federal agencies to use electronic information to boost accessibility of federal information and to promote a more demand-driven system. This directive also recommended increased private-sector contracting to enhance the federal library and information center role in information storage and distribution by (1) providing a greater diversity of federal information sources to the public, (2) increasing awareness of the products and utility of government information, and (3) providing necessary customer support (Massant 1994). More recent initiatives, such as Technology for America's Economic Growth: A New Direction to Build Economic Strength and the National Information Infrastructure (NII), raise new challenges for federal libraries and information centers.³ In addition to the drive towards increasing technological capacities, the OMB Circular A-130 charged federal libraries and information centers with making public access one of their primary missions.

The 1994 Federal Libraries and Information Centers Survey

Given the changing environment of federal libraries and information centers described above, the 1994 Federal Libraries and Information Centers Survey was critical for collecting current data on functions, resources, services, staff, and expenditures. The survey was the product of a collaboration of the Federal Library and Information Center Committee (FLICC) of the Library of Congress and the National Center for Education Statistics (NCES) of the U. S. Department of Education (see survey in appendix A). It differed from the 1978 survey in that for the first time it included information centers. In 1984, the Federal Library Committee became the Federal Library and Information Center Committee, incorporating responsibility for information centers as well as federal libraries. In the 1994 survey, libraries were defined as organizations that include among their functions selection, acquisition, organization, preservation, retrieval, and provision of access to information resources, while information centers were defined as organizations that perform the function of linking requestors with appropriate information resources through established mechanisms, such as database searching, providing referrals, answering specific questions, or by other means. This sur-

3 Positive developments in this direction include the development of electronic locator services and directories such as Federal Information Centers (FICs), OMB's Government Information Locator Service (GILS), National Library of Medicine's (NLM) MEDLARS, NTIS' FedWorld, and the Library of Congress Information Systems (LOCIS), LC MARVEL systems.

vey also differed from the 1978 survey in that it excluded from the universe overseas units and school libraries. Overseas units were excluded because of logistical difficulties, and school libraries were excluded because they have a different mission and function than most federal libraries and information centers and also to reduce their reporting burden (NCES conducts a separate survey of school library media centers and library media center specialists). See appendix B for more detail on defining the universe.

The universe for the 1994 survey comprised 1,234 federal libraries and information centers in the 50 states and the District of Columbia.⁴ The included facilities met four specific criteria: they (1) were either a library or information center as defined above; (2) were staffed with at least one paid part-time or full-time librarian, technical information specialist, library technician, archivist, or other similarly trained person; (3) were considered to be a federal government operation, or half of their funding came from federal sources; and (4) supported the information needs of a federal agency or supplied information as part of the agency's mission. Although all 1,234 federal libraries and information centers returned surveys in 1994, respondents did not always answer every question. For this reason, the estimates provided in this report are based on response rates that range upwards from a low of just about 70 percent of the survey universe in 1994 (i.e., from about 865 to 1,222 federal libraries and information centers).

Overview of this Report

This report summarizes the status of federal libraries and information centers in the United States during 1994 and describes trends covering the period from 1992 to 1994 that were reported as part of the 1994 survey.⁵ To examine the ways in which organizational attributes may impact library and information center operations, this report classifies federal libraries and information centers in five different ways, according to their (1) organizational structure, (2) nature of parent organization, (3) mission/subject area, (4) public access, and (5) level of automation. These five organizational characteristics are defined as follows:

1. **Organizational Structure.** Federal libraries and information centers were asked to select the organizational structure that best described them: (i) *autonomous* (i.e., has a separate facility, collection, and staff; a defined clientele; and full operational control, including of the principal operating budget); (ii) *headquarters/main* (i.e., either a single-unit library serving administrative headquarters, or a central user unit with administrative and directional control of other libraries); or (iii) *branch/nonautonomous* (i.e., a user-service unit with quarters separate from the central library, a permanent collection of materials, a permanent staff, and a regular schedule for opening).

2. **Nature of Parent Organization.** This category identified the primary nature of the organization to which the library or information center reported. That is, the major function or responsibility of the parent organization, which included (i) *library/information center*, (ii) *administrative* (e.g., planning, finance, facilities), (iii) *computer technology and information resources management*, (iv) *education* (e.g., outreach, public programs, training), (v) *legal* (e.g., legal counsel), (vi) *technical/research* (e.g., in sciences, mechanics, industrial arts, historical, cultural), or (vii) "Other."

3. **Mission/Subject Area.** Federal libraries and information centers were asked to indicate which best described their mission and subject area. The survey allowed them 12 choices of mission and subject area which were collapsed into 9 categories for the purposes of this report. The nine categories are described below:

Presidential, that is, specialize in the official records, memorabilia, literature, and other materials concerning the affairs of Presidents of the United States.

4 The 1978 Survey sample included 2,142 federal libraries worldwide, of which 1,880 responded.

5 Throughout this report, references to 1992 and 1994 refer to the fiscal year ending on September 30 of that year; that is "in 1992" means in the fiscal year ending September 30, 1992.

National, that is, have legally mandated, government-wide responsibilities and missions that pertain to both national and international matters and include, among others, the Library of Congress, National Library of Medicine, National Agricultural Library, and National Technical Information Service.

Academic, that is, serve the faculty and students in colleges, universities, graduate, and postgraduate schools (e.g., U.S. Military Academy, U.S. Naval Academy).

Science and technology (includes classifications “Engineering and Science,” and “Special” from the survey list), that is, have collections and services that are devoted predominately to engineering and sciences, or serve specialized clientele and provide services limited to the interests of those clientele.

Health and medicine, that is, have collections and services predominately devoted to medicine and the health sciences.

General (including classifications “General”, “Hospital”, and “Penal” from the survey list), that is, provide service to meet cultural, information, education, and recreation needs of a defined clientele (e.g., libraries on military bases). These include libraries serving penal institutions and patient’s libraries and information centers located in hospitals.

Law, that is, have collections and services predominantly legal in nature.

Multitype, that is, have nonautonomous or semi-autonomous collections, branches, or facilities with each supporting a different mission or subject-matter interest, and with each component serving separately defined user groups that may not overlap; and

Training center and/or instructional technical school, that is, support nondegree-granting education (vocational) centers.

4. **Public access.** This category distinguishes between (i) federal libraries and information centers that include the general public among their user populations or have services available to the general public, and (ii) those that do not.

5. **Level of automation.** This category classifies federal libraries and information centers in terms of the extent to which their functions are automated. It includes five levels of automation, based on the distributions of responses to items related to the numbers of automated library functions and technologies available to patrons, with level 1 as the least automated and level 5 as the most automated.

As presented here, these five categories are independent of one another; that is, they each are used to classify all of the 1994 survey respondents. Each of the 27 tables included in this report presents data for all federal libraries and information centers in terms of each of these five categories and their subcategories. The data for the three largest national libraries—the Library of Congress, the National Library of Medicine, and the National Agricultural Library—are particularly influential on the estimates for the various subcategories that include them on any table.⁶ For this reason, throughout the report, averages by library or information center or in terms of federal FTE staff are presented to ameliorate the effect of these influences and the fact that some subcategories include substantially greater numbers of libraries and information centers than other subcategories. In ad-

6 All three national libraries were included in the following subcategories: “Autonomous” for organizational structure; “National” for mission/subject area; “General Public Included in Clientele” for public access; and “Fifth Quintile” for level of automation. For the nature of the parent organization category, the Library of Congress was included in the “Other” subcategory, the National Library of Medicine was included in the “Library/Information Center” subcategory, and the National Agricultural Library was included in the “Administrative” category. The National Library of Education had not been legislated at the time of the survey.

dition, for all tables in this report, the five subcategories on a table that include the Library of Congress are identified and the particular indicator values for the Library of Congress are provided in the table footnotes.

Since some federal libraries and information centers did not provide the information in the 1994 survey needed to classify them into one or more of the subcategories used to present results, table 1.1 presents the numbers of respondents that could be classified, their rates of response relative to the survey universe of 1,234 libraries and information centers, and the distribution of responses among each of the five federal library and information center classifications (e.g., organizational structure, nature of parent organization). Also shown on this table are the particular subcategories within each of the five classifications of federal libraries and information centers that include the Library of Congress.

The body of this report is organized into three chapters: (1) services, (2) collections and expenditures, and (3) staff. The information in each of these chapters provides a picture of federal libraries and information centers in fiscal year 1994 and of trends from fiscal year 1992 to fiscal year 1994 as reported in 1994 as part of the survey. All descriptive statements in the report are based on estimates provided by at least 70 percent of respondents. All comparative statements that are made have been tested for statistical significance to ensure that the differences are larger than might be expected due to sampling variation. To illustrate the status and trends for different types of federal libraries and information centers, the report presents highlights of findings from federal libraries and information centers with a science and technology mission and those with a health and medicine mission. Not only was there a substantial number of federal libraries and information centers with one or the other of these missions, but these federal libraries and information centers represent missions of particular interest and importance for the nation.

Chapter 1 reports on level of services, including searches and loans; trends in providing services for payment; the variety of services provided including advanced technologies; and extent of automation in federal libraries and information centers. Chapter 2 provides information on existing collections, trends in new acquisitions and expenditures for them, trends in federal appropriations, physical space, and the status of electronic collections in federal libraries and information centers. Chapter 3 focuses on the staff resources in federal libraries and information centers in 1994 and trends 1992 to 1994 in staff positions, contracted services, and training activities.

Table I.1— Numbers of respondents, response rates, and distribution of responses within the five classifications of federal libraries and information centers based on the 1994 survey

FL & IC Category	Numbers of FL & IC respondents	Response rates and distribution of responses
TOTAL (all federal libraries and information centers)	1,234	1,234
I. Organizational structure	1,159	93.9%
Autonomous ^a	838	72.3 ^b
Headquarters or main	181	15.6
Branch or nonautonomous	140	12.1
II. Nature of parent organization	1,158	93.8%
Library/Info. center	361	31.2 ^b
Administrative	372	32.1
Computer tech/Info. resources mgmt.	81	7.0
Education	98	8.4
Legal	67	5.8
Research/Technical	170	14.7
Other ^a	9	0.8
III. Mission/subject area	1,161	94.1%
Presidential	9	0.8 ^b
National ^a	20	1.7
Academic	42	3.6
Science and technology	447	38.5
Health and medicine	256	22.0
General	211	18.2
Law	90	7.8
Multitype	53	4.6
Training center and/or instructional school	33	2.8
IV. Public access	1,161	94.1%
Services available or provided to general public ^a	658	56.7 ^b
Services not available or provided to gen. public	503	43.3
V. Level of automation	1,154	93.5%
First quintile (least automated)	272	23.6 ^b
Second quintile	278	24.1
Third quintile	198	17.2
Fourth quintile	267	23.1
Fifth quintile (most highly automated) ^a	139	12.0

(a) The Library of Congress is included in each of these subcategories.

(b) Percentages calculated within FL & IC classification are based on the total number of respondents for that classification.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Chapter 1: Services

Overview

There are numerous ways to characterize and measure services provided by federal libraries and information centers for their clientele. Some of the more traditional approaches include a gate count and a count of loan transactions. However, because libraries and information centers are now much more than simple repositories of print materials, gate counts and counts of loan transactions do not adequately characterize the types and level of services they provide. Also, regardless of the services libraries and information centers provide, a major feature of their operations has been open accessibility. Specifically, federal libraries and information centers, to the greatest extent possible, have held to policies that provide their services to clients at no charge. Nevertheless, in times of declining funds and competing priorities libraries and information centers may have had to consider limiting services or beginning to charge for certain types of services. This chapter reports on types and levels of services provided, and trends in the provision of services including the charging of fees. The chapter also provides information on the extent of automation of functions in the nation's federal libraries and information centers.

The 1978 survey of federal libraries provides a context from which to consider the data presented here based on the 1994 survey of federal libraries and information centers, although the numbers and types of respondent organizations in the two surveys were different. In 1978, a total of almost 60 million service contacts were reported by 1,820 federal libraries. More specifically direct circulation service contacts totalled 42,144,891 in that year, while interlibrary loan transaction contacts were reported at 1,294,335. Informational transactions, which included reference, directional, and on-line reference transactions, resulted in a reported 12,804,694 service contacts, and another 3,575,824 service contacts were reported for photocopying materials for patrons. Some form of automation (e.g., on-line databases or circulation or cataloging systems) was reported by 27 percent of all library respondents in 1978, with on-line databases being the most used automated service (reported by 19 percent of respondents). Distribution of the 119 automated systems under development in 4 percent of these federal libraries in 1978 indicated proportionately greater emphasis on automating acquisition, serials control, and circulation systems.

In 1994, federal libraries and information centers responding to the survey reported high levels of usage by their clientele. Although the majority of federal libraries and information centers reported in 1994 there were no significant changes from 1992 to 1994 in the level of services they provided, substantially more reported significant increases than reported significant decreases. Interestingly, reports of significant increases in levels of service to clientele were related to level of automation; federal libraries and information centers at the highest level of automation had the highest percentages reporting increases in service levels, those federal libraries and information centers at the next highest level of automation had the second highest percentages reporting increases in service levels, and so on to the least automated federal libraries and information centers that had the lowest percentages reporting increases in service levels.

Only one in five of responding federal libraries and information centers reported that requiring client payment for services applied to them. Of those who reported on trends in charging fees, the highest percentage reported no significant changes, but about three times as many reported significant increases as reported significant decreases.

Federal libraries and information centers were also asked about providing and charging for eight specific services: centralized technical services, preparation of published bibliographies, preparation of other publications, the production of on-line or CD-ROM databases, translations, selective dissemination of information (SDI) services, outreach services, and professional consultation. Services such as SDI, centralized technical services, professional consultation, and preparation of published bibliographies were provided by over one-third of all responding federal libraries and information centers, while the other four services were provided by fewer federal libraries and information centers. Of all the services responding federal libraries and information centers reported providing, less than 5 percent required client payment. In addition, only 7 percent of responding libraries and information centers that provided one or more of these eight services charged for at least one of them.

Federal libraries and information centers that responded to the 1994 Federal Libraries and Information Centers Survey reported large volumes of inter-library loan requests received (borrowed) and filled (sent out): they averaged over 746 inter-library loans borrowed and 776 loans sent out per federal library or information center. As with charges for other services, only a small percentage (13.3 percent) reported on trends in charging for these inter-library loans, and most of those that did, reported no significant changes.

Federal libraries and information centers that responded to the 1994 survey reported providing a variety of services in 1994 including conducting an average of about 43 requests or searches per week per federal FTE staff and processing an annual average of 1,445 loan transactions per federal FTE staff. Requests and searches include reference services, directional/ready reference requests, on-line searches, CD-ROM searches, other in-house database searches, and Internet searches. Loan transactions include direct circulation of materials to users and specifically do not include inter-library loans. In addition to searches and user loans, over half of the federal libraries and information centers reported providing the following technologies for users to access: fax, e-mail, CD-ROM, local area networks (LAN), and the Internet. Finally, federal libraries and information centers reported that in 1994 nearly half of their functions were automated and that the majority of these were automated prior to 1991. They also reported that over 11 percent more of their functions were in the process of being automated.

Service Levels

In 1994, federal libraries and information centers responding to the Federal Libraries and Information Centers Survey reported a high level of usage of their facilities (see table 1.1). For example, federal libraries and information centers with an autonomous structure had a total gate count per typical week of 339,857 persons, with an average gate count of 576. Headquarter or main federal libraries and information centers reported a total gate count of 111,564 persons per typical week, with an average gate count of 872.

Federal libraries and information centers were asked in 1994 to characterize the trend from 1992 to 1994 in the level of services they provided. The data in table 1.2 show that, overall for federal libraries and information centers in the various classifications, the majority reported no significant changes from 1992 to 1994 in the level of services they provided. For those who reported significant changes in service levels, substantially more reported significant increases (33.4 percent) than reported significant decreases (5.5 percent).

In the **organizational structure** category, similar percentages of federal libraries and information centers in the three subcategories reported no significant changes in levels of service. Although similar percentages also reported significant increases or significant decreases, autonomous federal libraries and information centers had a higher percentage reporting significant increases (34.2 percent) than branch or nonautonomous federal libraries and information centers (29.3 percent). In fact, branch or nonautonomous federal libraries and information centers recorded the highest percentage within the organizational structure category reporting significant decreases in level of service over the period 1992 to 1994 (6.8 percent).

In the **nature of parent organization** category, the majority of responding federal libraries and information centers in each subcategory reported no significant changes from 1992 to 1994 in service levels. Federal libraries and information centers that had the highest percentages reporting significant increases in level of service reported to parent organizations with either computer technology/information resources management or legal responsibilities (38.0 percent). Responding federal libraries and information centers that reported to parent organizations with education responsibilities had the highest percentage reporting significant decreases in level of service (7.5 percent).

Table 1.1— Total and average gate count per typical week in federal libraries and information centers (FL and IC) in 1994

FL & IC Category	total # gate count	average # gate count
TOTAL (all federal libraries and information centers)	485,621 ^b	586 ^b
I. Organizational structure		
Autonomous ^a	339,857	576
Headquarters or main	111,564	872
Branch or nonautonomous	34,065	315
II. Nature of parent organization		
Library/Info. center	168,820	621
Administrative	197,489	693
Computer tech/Info. resources mgmt.	14,507 ^b	269 ^b
Education	53,487 ^b	836 ^b
Legal	—	—
Research/Technical	25,653	233
Other ^a	—	—
III. Mission/subject area		
Presidential	100	14
National ^a	23,207	1,289
Academic	53,644	1,490
Science and technology	76,191 ^b	251 ^b
Health and medicine	—	—
General	203,352	1,065
Law	—	—
Multitype	22,600 ^b	628 ^b
Training center and/or instructional school	24,178	806
IV. Public access		
Services available or provided to general public ^a	273,333 ^b	602 ^b
Services not available or provided to gen. public	212,288	568
V. Level of automation		
First quintile (least automated)	60,261	294
Second quintile	72,641	363
Third quintile	79,319	571
Fourth quintile	130,454 ^b	733 ^b
Fifth quintile (most highly automated) ^a	142,441	1,370

— Too few cases to provide a reliable estimate

(a) The Library of Congress is included in each of these subcategories. In 1994, it reported a total gate count of 16,000 per typical week.

(b) These estimates are based on response rates that fall between 65 percent and 69 percent.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part E, Section 1, Question 3 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.1.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 1.2— Trends in level of service offered to primary clientele in federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in level of service ^b	% reporting no change in level of service	% reporting significant decreases in level of service ^b	% for which this does not apply
TOTAL (all federal libraries and information centers)	33.4%	58.7%	5.5%	2.4%
I. Organizational structure				
Autonomous ^a	34.2	57.8	5.5	2.6
Headquarters or main	33.3	60.9	4.0	1.7
Branch or nonautonomous	29.3	61.7	6.8	2.3
II. Nature of parent organization				
Library/Info. center	35.1	55.4	6.1	3.5
Administrative	31.5	60.7	6.4	1.4
Computer tech/Info. resources mgmt.	38.0	59.5	2.5	0.0
Education	31.9	58.5	7.5	2.1
Legal	37.9	57.6	1.5	3.0
Research/Technical	32.1	61.8	4.2	1.8
Other ^a	12.5	50.0	0.0	37.5
III. Mission/subject area				
Presidential	11.1	88.9	0.0	0.0
National ^a	22.2	77.8	0.0	0.0
Academic	32.5	52.5	10.0	5.0
Science and technology	34.2	59.2	4.3	2.4
Health and medicine	37.5	56.9	2.4	3.2
General	29.1	57.8	11.7	1.5
Law	33.3	63.2	1.2	2.3
Multitype	30.8	57.7	11.5	0.0
Training center and/or instructional school	36.4	51.5	6.1	6.1
IV. Public access				
Services available or provided to gen. public ^a	34.9	56.6	5.6	2.9
Services not available or provided to gen. public	31.4	61.4	5.3	1.8
V. Level of automation				
First quintile (least automated)	25.1	63.3	5.0	6.6
Second quintile	29.6	62.2	6.3	1.9
Third quintile	34.5	59.8	4.6	1.0
Fourth quintile	40.2	54.1	5.4	0.4
Fifth quintile (most highly automated) ^a	42.5	50.0	6.0	1.5

(a) The Library of Congress is included in each of these subcategories.

(b) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 08 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

In the **mission/subject area** category, more than half of the responding federal libraries and information centers reported no significant changes in service levels from 1992 to 1994. Those with academic, general, and multitype missions had the highest percentages reporting significant decreases in levels of services over that period (10.0 percent, 11.7 percent, and 11.5 percent, respectively). Federal libraries and information centers with health and medicine or science and technology missions, by contrast, were among those respondents with an identified mission reporting higher percentages of significant increases in levels of services.

Federal libraries and information centers responding to the 1994 survey that provided **public access** had a lower percentage reporting no significant change in the level of services provided (56.6 percent) compared to those that did not provide or make available services to the general public (61.4 percent). Slightly higher percentages of those federal libraries and information centers providing public access reported significant increases (34.9 compared to 31.4 percent) and significant decreases (5.6 compared to 5.3 percent) in level of service than did their counterparts without public access.

The percentage of responding federal libraries and information centers reporting no significant change in level of service decreases with increasing **level of automation**: 63.3 percent of federal libraries and information centers with the least automation (i.e., in the first quintile) reported no significant change in service level, compared to 50.0 percent of those most highly automated federal libraries and information centers (i.e., in the fifth quintile). Correspondingly, the percentage reporting significant increases in service level goes up with increasing levels of automation: 25.1 percent in the first quintile to 42.5 percent in the fifth quintile. However, no relationship is evident between level of automation and percentage reporting significant decreases; for example, federal libraries and information centers in the second quintile did not differ in their reporting of significant decreases in level of service (6.3 percent) from those in the fifth quintile (6.0 percent).

Payment for Services

Trends

With increases in costs of new acquisitions and of maintaining and operating advanced technologies, coupled with declines in funding, federal libraries and information centers face the dilemma of charging users for some of the services they provide. Federal libraries and information centers have not historically charged for services, and many continue to believe that their services should be provided to users without charge. The data regarding services for payment show that, in fact, very few libraries and information centers charge for services. In addition, although there is some indication of an increasing trend from 1992 to 1994, the percentages for significant increases in fees for services were small.

The information in table 1.3 shows that 79.8 percent of all federal libraries and information centers indicated that trends regarding charging of fees did not apply to them. Of the remaining 20.2 percent, 16.3 percent indicated that they experienced no significant changes in charging of service fees, 3.1 percent indicated significant increases, and 0.9 percent indicated significant decreases. The pattern of responses in most of the subcategories reflected the overall pattern.

Selected Services

Federal libraries and information centers were also asked whether, in 1994, they charged for one or more of eight specific services: providing centralized technical services, preparing published bibliographies, preparing other publications, producing on-line or CD-ROM databases, doing translations, providing SDI services, providing outreach services and conducting professional consultations. The data presented in table 1.4 indicate that only 4.2 percent of the services provided by federal libraries and information centers that responded to the 1994 survey required client payment, and only 6.8 percent of the responding federal libraries and information centers that provided one or more of those services charged for at least one of them.

Table 1.3— Trends in charging of fees to users for functions or services in federal libraries and information centers (FL and IC) from 1992–1994^c

FL & IC Category	% reporting significant increases in charging ^b	% reporting no change in charging	% reporting significant decreases in charging ^b	% for which this does not apply
TOTAL (all federal libraries and information centers)	3.1%	16.3%	0.9%	79.8%
I. Organizational structure				
Autonomous ^a	2.9	15.8	0.5	80.9
Headquarters or main	5.3	18.1	1.2	75.4
Branch or nonautonomous	1.5	17.3	2.3	79.0
II. Nature of parent organization				
Library/Info. center	3.8	18.9	0.9	76.5
Administrative	2.5	18.1	0.8	78.6
Computer tech/Info. resources mgmt.	3.9	13.0	0.0	83.1
Education	2.1	13.8	2.1	81.9
Legal	1.6	11.1	1.6	85.7
Research/Technical	3.7	11.0	0.6	84.8
Other ^a	0.0	22.2	0.0	77.8
III. Mission/subject area				
Presidential	0.0	33.3	11.1	55.6
National ^a	0.0	52.6	0.0	47.4
Academic	0.0	12.2	2.4	85.4
Science and technology	5.2	16.5	1.2	77.2
Health and medicine	2.0	14.5	0.4	83.1
General	2.0	19.9	0.5	77.6
Law	0.0	9.5	1.2	89.3
Multitype	5.9	15.7	0.0	78.4
Training center and/or instructional school	0.0	3.1	0.0	96.9
IV. Public access				
Services available or provided to gen. public ^a	3.7	19.0	1.0	76.4
Services not available or provided to gen. public	2.3	12.8	0.8	84.1
V. Level of automation				
First quintile (least automated)	2.7	13.5	1.2	82.6
Second quintile	3.4	15.6	0.7	80.3
Third quintile	0.5	20.6	0.5	78.4
Fourth quintile	2.8	15.4	0.4	81.5
Fifth quintile (most highly automated) ^a	7.5	18.7	2.2	71.6

(a) The Library of Congress is included in each of these subcategories.

(b) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

(c) Functions and services that may require user fees include centralized technical services, preparing published bibliographies or other publications, producing on-line or CD-ROM databases, translations, SDI, outreach services, and professional consultation.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 17 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.3.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 1.4— Percentage of services^a requiring client payment and percentage of federal libraries and information centers (FL and IC) with these services in 1994

FL & IC Category	% of FL & IC with any service that requires client payment	% of services requiring client payment ^b
TOTAL (all federal libraries and information centers)	6.8%	4.2%
I. Organizational structure		
Autonomous ^c	6.0	3.7
Headquarters or main	11.5	6.6
Branch or nonautonomous	4.7	3.2
II. Nature of parent organization		
Library/Info. center	6.8	4.8
Administrative	6.4	3.9
Computer tech/Info. resources mgmt.	11.1	8.0
Education	2.3	0.8
Legal	3.9	1.3
Research/Technical	7.4	3.9
Other ^c	25.0	16.7
III. Mission/subject area		
Presidential	12.5	5.6
National ^c	30.0	20.0
Academic	2.6	1.0
Science and technology	9.3	5.1
Health and medicine	2.7	0.9
General	1.5	1.7
Law	4.4	2.0
Multitype	18.4	17.5
Training center and/or instructional school	6.9	6.4
IV. Public access		
Services available or provided to gen. public ^c	7.9	4.6
Services not available or provided to gen. public	5.1	3.6
V. Level of automation		
First quintile (least automated)	4.1	3.7
Second quintile	6.4	3.5
Third quintile	4.6	2.6
Fourth quintile	6.5	3.5
Fifth quintile (most highly automated) ^c	14.0	8.2

(a) Services that require client payment include centralized technical services, preparing published bibliographies or other publications, producing on-line or CD-ROM databases, translations, SDI, outreach services, and professional consultation.

(b) Includes all services reported by all libraries regardless of whether they charge for services.

(c) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I-V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part E, Section 5, Question 1, Lines 01-08, Column 3 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.4.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

In the **organizational structure** category, responding federal libraries and information centers with a headquarters/main structure reported the highest percentage of services requiring client payment (6.6 percent). Headquarters/main libraries and information centers also had the highest percentage reporting that they required payment for at least one of the eight services (11.5 percent), while branch/non-autonomous libraries and information centers had the lowest percentage (4.7 percent).

Responding federal libraries and information centers that reported to **parent organizations** with “Other” responsibilities (a subcategory including the Library of Congress) had the highest percentage reporting that they provided and charged for at least one of the eight specific services (25.0 percent). Responding federal libraries and information centers that reported to parent organizations with education or legal responsibilities reported the lowest percentages of services requiring client payment (0.8 percent and 1.3 percent, respectively) and had the lowest percentages requiring client payment for at least one of the eight services mentioned (2.3 percent and 3.9 percent, respectively).

In the **mission/subject area** category, federal libraries and information centers with a national mission that responded to the 1994 survey had the highest percentage indicating they charged fees for at least one of eight specific services (30.0 percent), while those with a general mission had the lowest percentage providing and charging for at least one of the eight specific services (1.5 percent). Responding federal libraries and information centers with a national or a multitype mission had the highest percentages of services requiring client payment.

Federal libraries and information centers with a science and technology mission appear rather different from those with a health and medicine mission in terms of client charges. Science and technology federal libraries and information centers were more likely than their health and medicine counterparts to (1) have higher percentages charging clients for any one of the eight services listed on the survey form (9.3 percent versus 2.7 percent) and (2) report higher percentages of services that require client payment (5.1 percent versus 0.9 percent).

In the **public access** category, federal libraries and information centers that make services available or provide services to the general public reported both a higher percentage of services that required client payment (4.6 percent compared to 3.6 percent) and a higher percentage charging for at least one of the eight specific services (7.9 percent compared to 5.1 percent).

Federal libraries and information centers in the fifth quintile of **level of automation** (i.e., the most automated) reported both the highest percentage of services requiring client payment (8.2 percent) and the highest percentage providing and charging for at least one of the eight specific services (14.0 percent). By contrast, those federal libraries and information centers in the first quintile (i.e., the least automated) reported the lowest percentage providing and charging for at least one of the eight specific services (4.1 percent).

Inter-library Loans

In addition to charging for various services, federal libraries and information centers can also charge other libraries and information centers for inter-library loans (see table 1.5). In 1994, however, only 13.3 percent of all federal libraries and information centers provided information regarding trends in charging for inter-library loans for the period 1992 to 1994. Of that number, 11.5 percent indicated no significant changes in charging for inter-library loans, with 1.1 percent indicating significant increases and 0.7 percent indicating significant decreases.

Variety of Services Provided

Requests, Searches, and Loan Transactions

Federal libraries and information centers provide a number of different services. Three of the major services they provide are research, direct loans, and inter-library loans. Library staff conduct

Table 1.5— Trends in charging to other libraries for inter-library loans made by federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in charging ^a	% reporting no change in charging	% reporting significant decreases in charging ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	1.1%	11.5%	0.7%	86.7%
I. Organizational structure				
Autonomous ^b	0.6	12.4	0.3	86.7
Headquarters or main	2.9	9.3	1.2	86.6
Branch or nonautonomous	1.5	9.1	2.3	87.1
II. Nature of parent organization				
Library/Info. center	1.2	12.4	1.2	85.3
Administrative	1.4	11.1	0.6	87.0
Computer tech/Info. resources mgmt.	1.3	7.7	0.0	91.0
Education	1.1	14.7	2.1	82.1
Legal	0.0	11.1	0.0	88.9
Research/Technical	0.0	11.0	0.0	89.0
Other ^b	0.0	11.1	0.0	88.9
III. Mission/subject area				
Presidential	0.0	22.2	11.1	66.7
National ^b	0.0	10.5	0.0	89.5
Academic	0.0	9.5	2.4	88.1
Science and technology	0.7	12.0	0.9	86.4
Health and medicine	2.8	18.4	0.0	78.8
General	1.0	5.4	0.5	93.1
Law	0.0	10.7	0.0	89.3
Multitype	0.0	7.7	1.9	90.4
Training center and/or instructional school	0.0	0.0	0.0	100.0
IV. Public access				
Services available or provided to gen. public ^b	0.8	13.8	0.8	84.7
Services not available or provided to gen. public	1.4	8.6	0.6	89.3
V. Level of automation				
First quintile (least automated)	0.0	9.6	0.4	90.0
Second quintile	1.1	11.6	0.8	86.5
Third quintile	1.0	10.8	1.0	87.2
Fourth quintile	1.5	13.1	0.4	84.9
Fifth quintile (most highly automated) ^b	2.2	13.2	1.5	83.1

(a) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 16 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.5.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

research in response to requests from clients for searches and basic information. Loan transactions include direct circulation of material to users. Inter-library loans include both those borrowed by and those sent out to other libraries and information centers. Table 1.6 presents information on weekly requests or searches and annual direct-user loan transactions per federal FTE. Table 1.7 reviews information related to inter-library loan transactions.

In 1994, federal libraries and information centers responding to the Federal Libraries and Information Centers Survey reported they processed an average of 42.8 requests or searches per federal FTE staff during a typical week and that they averaged an annual 1,445 direct loan transactions to users per federal FTE. Responding federal libraries and information centers also reported a total number of 876,607 inter-library loan requests received (borrowed), which averaged 746 loans borrowed per library or information center, and a total of 906,406 inter-library loan requests filled (sent out), which averaged 776 per library or information center. In other words, federal libraries and information centers reported loaning out more of their collections than they borrowed from other libraries and information centers.

In the **organizational structure** category, responding federal libraries and information centers with an autonomous structure averaged 70.2 requests or searches per federal FTE in a typical week, while branch or nonautonomous libraries and information centers averaged 35.2 requests or searches per FTE in a typical week. Autonomous libraries and information centers also had a higher total and average number of inter-library loan requests received and a higher total number of loan requests filled than did branch/nonautonomous libraries and information centers.

Federal libraries and information centers that reported to **parent organizations** with administrative responsibilities recorded 61.8 requests or searches per federal FTE in a typical week and one of the higher annual number of loan transactions per federal FTE staff (3,673 transactions). In contrast, responding federal libraries and information centers that reported to parent organizations with legal responsibilities had one of the lower annual numbers of loan transactions per federal FTE staff (284 transactions). In terms of inter-library loan requests, federal libraries and information centers that reported to parent organizations with education responsibilities had one of the higher average numbers of requests received (1,036 requests).

Federal libraries and information centers with a training center or instructional school **mission/subject area** had one of the higher numbers of requests per federal FTE per typical week (108.9 requests), while those with a presidential mission had one of the lowest numbers (4.6 requests). Federal libraries and information centers with a general mission reported the highest annual number of loan transactions per federal FTE staff (9,607 transactions), and those with either a national or presidential mission had the lowest (37.8 and 91.3 transactions, respectively). Federal libraries and information centers with a health and medicine mission had one of the higher average numbers of inter-library loans received (1,534 loans received), while those with a presidential mission had one of the lowest numbers (6 loans received). Federal libraries and information centers with a health and medicine mission recorded a higher average number of inter-library loan requests filled than did their counterparts with a science and technology mission (1,453 loan requests versus 425 requests).

In the **public access** category, federal libraries and information centers that neither have public services available nor provide services to the general public had a higher number of annual loan transactions per federal FTE staff (4,453 transactions compared to 888 transactions) than did those providing services to the public. In terms of inter-library loans, the apparent differences between these two types of federal libraries and information centers are difficult to interpret, on account of the considerable variability in the estimates.

Federal libraries and information centers at the highest **level of automation** (i.e., in the fifth quintile) reported the lowest average number of loan transactions per federal FTE (679.8 transactions). These most highly automated libraries and information centers also reported the highest average number of inter-library loan requests received in 1994 (2,159 requests).

Table 1.6— Weekly requests or searches and annual direct-user loan transactions per federal FTE staff in federal libraries and information centers (FL and IC) in 1994

FL & IC Category	# of requests/searches per federal FTE staff per typical week ^a	Annual # of loan transactions per federal FTE staff ^b
TOTAL (all federal libraries and information centers)	42.8	1,444.6
I. Organizational structure		
Autonomous ^c	70.2	1,502.6
Headquarters or main	—	1,318.8
Branch or nonautonomous	35.2	1,404.2
II. Nature of parent organization		
Library/Info. center	30.9	1,944.7
Administrative	61.8	3,673.0
Computer tech/ Info. resources mgmt.	56.1 ^d	1,552.1
Education	95.8 ^d	2,957.3
Legal	30.2	284.1
Research/Technical	—	1,093.6
Other ^c	39.5	1.8
III. Mission/subject area		
Presidential	4.6	91.3
National ^c	9.5	37.8
Academic	—	2,957.8
Science and technology	69.7 ^d	1,627.6
Health and medicine	61.7	2,958.1
General	84.1 ^d	9,606.6
Law	35.5	662.3
Multitype	—	3,821.7
Training center and/or instructional school	108.9	3,734.0
IV. Public access		
Services available or provided to gen. public ^c	37.8 ^d	888.0
Services not available or provided to gen. public	59.0	4,453.0
V. Level of automation		
First quintile (least automated)	57.1	3,401.4
Second quintile	18.8	1,098.2
Third quintile	62.3 ^d	3,601.9
Fourth quintile	68.5 ^d	3,635.0
Fifth quintile (most highly automated) ^c	—	679.8

— Too few cases to provide a reliable estimate

(a) Requests and searches include reference services, directional/ready reference requests, substantive reference requests, on-line searches, CD-ROM searches and other in-house database searches, and Internet searches.

(b) Loan transactions are made directly to users; does not include materials lent to other libraries or inter-library loans.

(c) The Library of Congress is included in each of these subcategories. The Library of Congress did not report on the number of requests. The Library of Congress is a research library and books are used only on the premises.

(d) These estimates are based on response rates that fall between 65 percent and 69 percent.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response. Data in this table are taken from Part E, Section 2, Question 2, Lines 01-06; and Part E, Section 4, Question 1 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.6.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 1.7— Inter-library loan transactions in federal libraries and information centers (FL and IC) in 1994^a

FL & IC Category	Total # of inter-library loan requests received (borrowed)	Average # of inter-library loan requests received (borrowed)	Total # of inter-library loan requests filled (sent out)	Average # of inter-library loan requests filled (sent out)
TOTAL (all federal libraries and information centers)	876,607	746	906,406	776
I. Organizational structure				
Autonomous ^b	610,518	765	738,486	934
Headquarters or main	220,204	1,280	136,694	799
Branch or nonautonomous	42,179	325	31,226	238
II. Nature of parent organization				
Library/Info. center	233,296	678	395,110	1,145
Administrative	306,391	856	289,680	828
Computer tech/Info. resources mgmt.	70,782	896	24,881	315
Education	101,568	1,036	81,662	851
Legal	10,466	174	7,821	128
Research/Technical	150,034	994	89,636	590
Other ^b	3,370	374	17,616	1,957
III. Mission/subject area				
Presidential	48	6	977	122
National ^b	16,529	827	273,920	13,696
Academic	45,761	1,090	32,593	776
Science and technology	298,570	718	176,225	425
Health and medicine	377,259	1,534	355,935	1,453
General	78,028	383	36,504	183
Law	21,640	264	13,911	170
Multitype	36,047	707	12,053	236
Training center and/or instructional school	2,725	83	4,288	134
IV. Public access				
Services available or provided to gen. public ^b	553,761	882	730,813	1,164
Services not available or provided to gen. public	322,846	681	175,593	376
V. Level of automation				
First quintile (least automated)	39,946	155	39,443	154
Second quintile	159,504	607	164,585	636
Third quintile	104,003	568	74,658	410
Fourth quintile	278,751	1,089	186,502	726
Fifth quintile (most highly automated) ^b	293,603	2,159	440,368	3,286

(a) Loan transactions include items charged directly to library users for use outside the library. Does not count materials lent in bulk loans or lent to other libraries on inter-library loan.

(b) The Library of Congress is included in each of these subcategories. In 1994, the Library of Congress reported a total of 495 inter-library loan requests received and 17,585 inter-library loan requests sent out.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part E, Section 4, Question 2; Part E, Section 4, Question 4 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.7.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and information Centers Survey.

Other Selected Services

In addition to loan transactions and reference services, libraries and information centers provide a variety of other services. These include centralized technical services, preparation of published bibliographies, preparation of other publications, the production of on-line or CD-ROM databases, translations, selective dissemination of information (SDI) services, outreach services, and professional consultation. The information from federal libraries and information centers about the provision of these eight specific services during fiscal year 1994 is provided in table 1.8.

Of the eight services, SDI and centralized technical services were offered by half or more than half of the federal libraries and information centers that responded to the 1994 Federal Libraries and Information Centers Survey. Professional consultation services and preparation of published bibliographies were offered next most frequently by these federal libraries and information centers. In contrast, fewer than 20 percent of federal libraries and information centers produced on-line or CD-ROM databases or provided translation services in 1994.

In general, within most of the subcategories shown in table 1.8, SDI, centralized technical services, professional consultation, and preparation of published bibliographies were provided by the highest percentages of libraries and information centers. However, the exact ordering of these percentages varied among the subcategories. In addition, for some subcategories the list of the top four services differed. One example of this is the branch/non-autonomous subcategory, where the highest percentages of federal libraries and information centers reported providing outreach services and professional consultation, followed by centralized technical services, and then SDI.

Responding federal libraries and information centers with science and technology and health and medicine missions differed in terms of their emphases on the eight services listed. Those with science and technology missions had higher percentages providing centralized technical services, on-line CD-ROM databases, and translation services. Those with health and medicine missions had higher percentages providing outreach and SDI services and preparing published bibliographies.

Technology-Based Services

Numerous advanced technologies have become or are now becoming commonplace. The electronic medium has been especially advantageous for archiving and retrieval of tremendous amounts of information. The use of different technologies to transmit information and for communication has also increased access to information. Federal libraries and information centers not only benefit themselves from having these capabilities but they also benefit their clientele.

The data in table 1.9 show that, in 1994, federal libraries and information centers that responded to the Federal Libraries and Information Centers Survey provided an average of four (out of nine) specific technologies to their clientele. Within the various subcategories, responding federal libraries and information centers reported providing between three and six technologies on average.

In 1994, larger percentages of the responding federal libraries and information centers reported having the more commonly known of the nine technology-based services: over three-fourths of libraries and information centers reported having fax, e-mail, and CD-ROM capabilities; over 60 percent had LANs (local area networks); over half reported access to the Internet; nearly a third had client/server interface capabilities; nearly a fourth had WANs (wide area networks); and less than a tenth could process magnetic tapes or had WORM (write once-read many) capabilities.

With few exceptions, the highest percentages of federal libraries and information centers in the various subcategories were found for fax, e-mail, CD-ROM and LAN capabilities, similar to the estimates for all federal libraries and information centers although not necessarily in exactly the same order as the nation. An exception is the presidential mission subcategory. In this subcategory, *all* of the reporting libraries and information centers indicated providing fax, E-mail, LAN, Internet

Table 1.8— Percentage of federal libraries and information centers (FL and IC) that offered services^a in 1994—continued on next page

FL & IC Category	% that provide centralized technical services	% that prepare published bibliographies	% that produce other publications	% that produce on-line or CD-ROM databases
TOTAL (all federal libraries and information centers)	50.0%	38.4%	34.1%	17.4%
I. Organizational structure				
Autonomous ^b	47.6	37.7	32.6	16.2
Headquarters or main	68.9	47.5	45.8	25.4
Branch or nonautonomous	40.2	30.7	27.7	13.9
II. Nature of parent organization				
Library/Info. center	44.7	42.5	32.8	17.1
Administrative	46.6	37.6	30.8	13.6
Computer tech/Info. resources mgmt.	59.5	34.2	40.5	17.7
Education	48.0	45.9	35.7	19.4
Legal	59.4	28.1	39.1	26.6
Research/Technical	61.9	33.3	35.7	19.1
Other ^b	44.4	44.4	77.8	66.7
III. Mission/subject area				
Presidential	11.1	33.3	55.6	0.0
National ^b	40.0	35.0	70.0	25.0
Academic	61.9	61.9	54.8	31.0
Science and technology	60.6	34.6	35.3	21.2
Health and medicine	43.9	45.9	36.4	15.8
General	30.4	39.2	17.2	4.9
Law	59.3	30.2	39.5	24.4
Multitype	53.9	23.1	32.7	25.0
Training center and/or instructional school	48.5	45.5	39.4	9.1
IV. Public access				
Services available or provided to gen. public ^b	52.1	40.5	38.8	19.2
Services not available or provided to gen. public	47.3	35.6	27.9	15.1
V. Level of automation				
First quintile (least automated)	37.8	23.0	19.6	9.3
Second quintile	41.5	33.7	30.4	15.2
Third quintile	51.0	43.9	31.6	14.8
Fourth quintile	57.6	47.0	43.5	19.5
Fifth quintile (most highly automated) ^b	74.8	54.0	55.4	36.7

(a) These services do not include hours of service and gate count; reference services; photocopying transactions; or loan transactions.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I-V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part E, Section 5, Question 1, Lines 01-08 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.8.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and information Centers Survey.

Table 1.8— Percentage of federal libraries and information centers (FL and IC) that offered services in 1994—continued

FL & IC Category	% that provide translation services	% that provide SDI services	% that provide outreach services	% that perform professional consultation
TOTAL (all federal libraries and information centers)	6.2%	51.4%	33.8%	39.6%
I. Organizational structure				
Autonomous	5.7	53.0	31.5	37.8
Headquarters or main	10.2	55.9	39.0	46.3
Branch or nonautonomous	3.7	35.8	41.6	41.6
II. Nature of parent organization				
Library/Info. center	5.4	46.2	34.8	34.8
Administrative	5.2	47.4	33.5	36.2
Computer tech/Info. resources mgmt.	11.4	65.8	40.5	49.4
Education	3.1	61.2	30.6	44.9
Legal	3.1	50.0	25.0	46.9
Research/Technical	9.5	58.3	33.9	48.8
Other	22.2	66.7	55.6	11.1
III. Mission/subject area				
Presidential	0.0	0.0	66.7	33.3
National	10.0	35.0	100.0	80.0
Academic	2.4	42.9	23.8	38.1
Science and technology	10.0	57.9	35.3	42.6
Health and medicine	5.5	68.8	41.1	45.5
General	2.0	23.0	24.5	23.0
Law	3.5	54.7	23.3	40.7
Multitype	1.9	38.5	32.7	38.5
Training center and/or instructional school	3.0	54.6	9.1	36.4
IV. Public access				
Services available or provided to gen. public	6.8	55.5	42.2	45.1
Services not available or provided to gen. public	5.3	46.0	22.8	32.4
V. Level of automation				
First quintile (least automated)	3.3	29.3	18.5	27.4
Second quintile	3.7	44.4	29.6	33.3
Third quintile	4.1	55.1	35.2	37.2
Fourth quintile	8.4	64.1	43.5	48.9
Fifth quintile (most highly automated)	15.1	79.1	51.8	61.9

Table 1.9— Number of available technologies and availability of specific technologies in federal libraries and information centers (FL and IC) in 1994—continued on next page

FL & IC Category	Mean # of available technologies ^a	% with Email	% with Fax	% with LAN	% with WAN
TOTAL (all federal libraries and information centers)	4	78.6%	84.0%	61.3%	23.1%
I. Organizational structure					
Autonomous ^b	4	77.9	82.9	59.2	22.1
Headquarters or main	5	85.0	86.7	69.4	27.8
Branch or nonautonomous	4	75.0	87.9	62.9	23.6
II. Nature of parent organization					
Library/Info center	4	74.5	82.1	55.7	19.1
Administrative	4	74.6	84.1	57.8	22.2
Computer tech/Info. resources mgmt.	5	91.4	85.2	81.5	33.3
Education	4	85.7	86.7	54.1	20.4
Legal	4	89.1	84.4	67.2	34.4
Research/Technical	5	81.2	85.3	72.4	25.9
Other ^b	4	88.9	88.9	55.6	22.2
III. Mission/subject area					
Presidential	6	100.0	100.0	100.0	100.0
National ^b	5	95.0	95.0	70.0	25.0
Academic	5	83.3	85.7	61.9	31.0
Science and technology	5	84.2	87.4	74.6	29.1
Health and medicine	4	86.7	87.8	52.6	18.0
General	3	51.9	73.1	37.5	10.1
Law	4	89.7	83.9	69.0	35.6
Multitype	4	67.9	79.3	64.2	18.9
Training center and/or instructional school	4	75.8	72.7	57.6	6.1
IV. Public access					
Services available or provided to gen. public ^b	4	81.8	87.8	61.9	26.0
Services not available or provided to gen. public	4	74.5	79.1	60.4	19.3
V. Level of automation					
First quintile (least automated)	2	41.6	63.2	23.1	3.7
Second quintile	4	82.4	82.7	52.9	14.0
Third quintile	5	87.4	90.9	69.7	19.7
Fourth quintile	5	94.4	94.0	83.5	31.8
Fifth quintile (most highly automated) ^b	7	100.0	97.8	97.1	66.9

(a) Available library and information center technologies include electronic mail (Email), Fax, Local Area Network (LAN), Wide Area Network (WAN), Internet, client/server interfaces (e.g., Gopher, WAIS), magnetic tape, CD-ROM, and Write Once Read Many (WORM).

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I-V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part F, Question 2 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.9.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 1.9— Number of available technologies and availability of specific technologies in federal libraries and information centers (FL and IC) in 1994—continued

FL & IC Category	% with Internet	% with client/server interface	% with magnetic tape	% with CD-ROM	% with WORM
TOTAL (all federal libraries and information centers)	55.1%	32.2%	8.3%	76.2%	1.9%
I. Organizational structure					
Autonomous	53.9	31.0	8.6	78.1	2.1
Headquarters or main	60.6	35.6	9.4	75.6	2.2
Branch or nonautonomous	55.0	34.3	5.7	66.4	0.7
II. Nature of parent organization					
Library/Info. center	50.1	30.0	8.7	76.8	2.0
Administrative	52.4	32.2	6.5	73.8	1.9
Computer tech/Info. resources mgmt.	79.0	45.7	11.1	92.6	2.5
Education	49.0	22.5	11.2	79.6	0.0
Legal	46.9	21.9	0.0	78.1	1.6
Research/Technical	65.9	40.0	11.2	70.6	2.9
Other	55.6	22.2	22.2	55.6	0.0
III. Mission/subject area					
Presidential	100.0	100.0	0.0	22.2	0.0
National	95.0	65.0	30.0	50.0	5.0
Academic	66.7	47.6	14.3	78.6	0.0
Science and technology	68.2	43.9	11.7	80.0	2.9
Health and medicine	52.2	27.1	5.1	78.4	1.2
General	29.3	12.0	2.9	69.2	0.5
Law	47.1	18.4	1.2	75.9	2.3
Multitype	41.5	30.2	5.7	79.3	1.9
Training center and/or instructional school	54.6	21.2	27.3	75.8	3.0
IV. Public access					
Services available or provided to gen. public	59.8	36.4	9.0	77.4	1.7
Services not available or provided to gen. public	48.9	26.6	7.4	74.7	2.2
V. Level of automation					
First quintile (least automated)	9.3	3.4	0.7	42.4	0.7
Second quintile	45.3	16.2	2.5	73.4	0.0
Third quintile	63.1	34.3	9.1	84.3	2.0
Fourth quintile	82.4	45.7	8.2	95.5	1.5
Fifth quintile (most highly automated)	99.3	90.7	33.8	98.6	8.6

access, server interface, and WAN capabilities; only 22 percent of federal libraries and information centers with a presidential mission had CD-ROM capabilities.

Although federal libraries and information centers with science and technology and health and medicine missions reported similar percentages with e-mail, fax, and CD-ROM technologies, they differed in terms of those often-considered more advanced technologies that are listed. In particular, federal libraries and information centers with science and technology missions reported higher percentages than their health and medicine counterparts with respect to the availability of LAN, WAN, Internet, client-server interface, magnetic tape, and WORM technologies.

Automation

Federal libraries and information centers can increase their capacity to serve clients and maintain information resources by automating many of their services. The data in table 1.10 show that, as of 1994, federal libraries and information centers responding to the Federal Libraries and Information Centers Survey had automated 47.5 percent of their functions: 32.8 percent of all functions were automated before 1991, and 14.7 percent were automated since 1991. In 1994, an additional 11.3 percent of functions were reported as being automated. This left 41.2 percent of all federal libraries and information center functions not automated as of 1994.

Although subcategory percentages varied, and with the exception of those in the first quintile of level of automation (i.e., the lowest level), federal libraries and information centers in most subcategories reported on average about a third or more of their functions were automated as of 1994. They also reported that more of these functions had been automated prior to 1991 than had been automated since 1991. Finally, in 1994, responding federal libraries and information centers (with the exception again of those in the first quintile) reported that between 9.2 and 17.5 percent of their functions were in the process of being automated.

Table 1.10— Percentage of functions that were automated prior to and after 1991 in federal libraries and information centers (FL and IC)^a

FL & IC Category	% functions automated as of 1994	% functions automated before 1991	% functions automated since 1991	% functions for which automation under development
TOTAL (all federal libraries and information centers)	47.5%	32.8%	14.7%	11.3%
I. Organizational structure				
Autonomous ^b	47.5	33.0	14.5	10.3
Headquarters or main	52.7	36.3	16.3	13.5
Branch or nonautonomous	39.7	26.0	13.7	14.7
II. Nature of parent organization				
Library/Info. center	44.2	29.0	15.1	12.9
Administrative	48.8	32.7	16.1	11.4
Computer tech/Info. resources mgmt.	60.7	48.3	12.4	9.2
Education	46.8	35.1	11.8	10.4
Legal	32.6	21.8	10.8	9.7
Research/Technical	49.6	34.2	15.4	9.7
Other ^b	62.5	56.3	6.3	12.5
III. Mission/subject area				
Presidential	39.1	21.7	17.4	17.4
National ^b	45.5	37.7	7.8	16.9
Academic	65.6	49.4	16.2	11.5
Science and technology	55.3	40.2	15.2	9.9
Health and medicine	44.3	29.5	14.9	10.7
General	38.8	22.4	16.4	15.1
Law	30.9	21.2	9.7	9.9
Multitype	48.0	35.1	12.9	10.9
Training center and/or instructional school	44.9	32.5	12.4	9.8
IV. Public access				
Services available or provided to gen. public ^b	50.5	36.1	14.4	10.7
Services not available or provided to gen. public	43.6	28.5	15.1	12.0
V. Level of automation				
First quintile (least automated)	9.9	5.9	4.0	3.4
Second quintile	32.9	22.0	11.0	9.3
Third quintile	50.2	31.5	18.6	13.1
Fourth quintile	66.2	48.6	17.5	17.5
Fifth quintile (most highly automated) ^b	85.5	60.0	25.5	11.5

(a) Automated functions may include On-line Public Access Catalog (OPAC), acquisitions, cataloging, circulation, serials control, authority file control, and inter-library loans.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part F, Question 1, Lines 01-08 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C1.10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Chapter 2: Collections and Expenditures

Overview

The size of collections in libraries and information centers is one of the indicators of the level of service they can offer their clientele. With increasing costs of print volumes and serial subscriptions, increasing demands for information in electronic forms, increasing need to access advanced technologies, and declines in funding, libraries and information centers each year must make judicious choices regarding how to spend their available dollars. This chapter reports on resources available to federal libraries and information centers. In particular, it reports on existing collections, trends in new acquisitions, and expenditures for them, trends in federal appropriations, physical space, and the status of electronic collections in federal libraries and information centers.

The 1978 Survey of Federal Libraries found that total collections for the 1,858 responding libraries exceeded 190 million items, with those having a national mission holding 79,875,902 items by themselves. During 1978, federal libraries reported adding more than 6 million items, or about 3 percent of the total materials held at the end of the year. The total number of volumes held in bookstock in federal libraries in 1978 was estimated at 53,406,583, and serial subscriptions (exclusive of title duplication) totaled 597,183 in that year. A total of 49,128 new periodical titles were added in all libraries reporting in 1978.

Federal library expenditures in 1978 were reported at \$565,540,358, with substantial variations noted in both amounts and distributions reflecting the differences in sizes and mission of the survey participants. Expenditures for the Library of Congress in 1978 totaled \$165,686,912, or 29 percent of all expenditures reported. Salaries and wages accounted for the largest single proportion of federal library costs (57 percent), followed by the costs reported for materials and supplies. Looking specifically at materials and supplies costs, costs for books amounted to 22 percent of the total expenditure of \$105,413,218, periodicals accounted for 19 percent of this expenditure, and audio-visual materials accounted for about 13 percent.

In fiscal year 1994, the federal libraries and information centers that responded to the Federal Libraries and Information Centers Survey and provided information on their collections (approximately 1,135 federal libraries and information centers) reported holding over 51 million volumes or volume equivalents in print and 626,135 current subscriptions. For the years from 1992 to 1994, over a third of these federal libraries and information centers indicated that they experienced significant changes in the volumes of monographs purchased, with almost twice as many federal libraries and information centers reporting significant decreases as reported significant increases. During the same time period, almost 40 percent of federal libraries and information centers reported significant changes in the number of serial subscriptions they carried, with over twice as many indicating significant decreases rather than significant increases.

The data on expenditures for monographs and serial subscriptions appear to indicate rising costs and declining funds. For example, for both monographs and serial subscriptions a higher percentage of federal libraries and information centers reported significant increases in dollars spent than in number of purchases. Further, although most federal libraries and information centers indicated experiencing no significant changes in expenditures for other collections, more reported significant increases than decreases in dollars expended for these materials.

Slightly more than half of the libraries and information centers reported no significant changes from 1992 to 1994 in their federal appropriations. Given inflation, this probably means that the purchasing power of these federal libraries and information centers decreased. Of those that reported changes, more reported significant decreases than significant increases in federal appropriations. For example, approximately 28 percent of federal libraries and information centers reporting to parent organizations with computer technology/information resources management responsibilities noted significant decreases in federally appropriated funding, as compared to the approximately 10 percent of these libraries and information centers that noted increases in federal funding.

In 1994, responding federal libraries and information centers reported an average square footage of 11,204 square feet per library and information center. When indexed by collection size in print, they averaged 0.2 square feet per volume or volume equivalent and 2.9 square feet per current subscription. Increasingly, federal libraries and information centers are acquiring electronic collections, and in 1994, over a third reported having some electronic collections.

Collections in Print

Collections in federal libraries and information centers included volumes or volume equivalents and current print subscriptions. Information regarding these print resources is presented in tables 2.1 and 2.2.

Based on the responses to the 1994 Federal Libraries and Information Centers Survey, there were approximately 45,000 volumes or volume equivalents and 525 current print subscriptions to be found on average in federal libraries and information centers. Of course, the variation from site to site was considerable; for example, the Library of Congress by itself contained over 16 million volumes or volume equivalents and more than 150,000 current print subscriptions in 1994. Responding federal libraries and information centers with a science and technology mission reported both a higher total and average number of volume equivalents than did their counterparts with a health and medicine mission (13,036,983 and 32,270 volumes versus 1,405,838 and 6,248 volumes, respectively).

Monographs and Expenditures

One of the major components of collections in federal libraries and information centers is monographs. The data in table 2.3 show that 46.0 percent of the federal libraries and information centers responding to the 1994 survey reported no significant changes in the number of monographs purchased from 1992 to 1994. However, almost twice as many of the responding federal libraries and information centers reported significant decreases (22.8 percent) in such purchases than reported significant increases (11.5 percent).

The pattern of responses for federal libraries and information centers in most subcategories mirrors this overall pattern. Some subcategories, however, reported a higher percentage with significant increases in the number of monographs purchased than significant decreases, including those that reported to a parent organization with legal responsibilities and those with a law or health and medicine mission. Responding federal libraries and information centers with a science and technology mission followed the overall pattern with more than twice the percentage of respondents reporting significant decreases in monographs as reporting significant increases (25.8 percent versus 9.6 percent). In contrast, responding federal libraries and information centers with a health and medicine mission went against the overall trend; a higher percentage of these federal libraries and information centers reported significant increases in numbers of monographs purchased than reported significant decreases (17.7 percent versus 16.1 percent).

The data in table 2.4 show that the trend from 1992 to 1994 in dollars expended on monographs was similar to that regarding monographs purchased: the largest percentage reported no significant changes (41.6 percent), and a higher percentage reported significant decreases (20.3 percent) than reported significant increases (18.2 percent).

The response pattern for federal libraries and information centers in most subcategories was similar to the one for responding federal libraries and information centers overall. However, as with monographs purchased, there were subcategories in which the percentages reporting significant increases exceeded those reporting significant decreases. These subcategories included federal libraries and information centers that reported to a parent organization with legal responsibilities and those with an academic, health and medicine, or law mission.

Table 2.1— Total numbers of volumes or volume equivalents in print held by federal libraries and information centers (FL and IC) in 1994

FL & IC Category	Total # of volumes or volume equivalents	Average # of volumes or volume equivalents
Total (all federal libraries and information centers)	51,243,549	45,228
I. Organizational structure		
Autonomous ^a	36,822,557	48,451
Headquarters or main	12,967,007	76,728
Branch or nonautonomous	1,375,985	10,667
II. Nature of parent organization		
Library/Info. center	9,312,112	28,133
Administrative	14,111,863	42,000
Computer tech/Info. resources mgmt.	2,138,505	29,702
Education	2,742,259	30,812
Legal	2,698,132	43,518
Research/Technical	3,388,209	21,444
Other ^a	16,852,469	1,872,497
III. Mission/subject area		
Presidential	164,544	20,568
National ^a	20,023,980	1,001,199
Academic	5,128,063	125,075
Science and technology	13,036,983	32,270
Health and medicine	1,405,838	6,248
General	5,703,750	28,236
Law	4,180,506	49,768
Multitype	1,056,506	24,012
Training center and/or instructional school	543,379	16,981
IV. Public access		
Services available or provided to gen. public ^a	41,573,852	69,755
Services not available or provided to gen. public	9,669,697	20,840
V. Level of automation		
First quintile (least automated)	3,077,275	12,359
Second quintile	3,382,349	13,584
Third quintile	3,599,398	19,777
Fourth quintile	11,010,734	45,126
Fifth quintile (most highly automated) ^a	30,169,043	232,070

(a) The Library of Congress is included in each of these subcategories. In 1994, the Library of Congress held 16,448,469 volumes or volume equivalents.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part D, Question 3, Column 1, Line 01 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.1.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 2.2— Total numbers of current subscriptions in print held by federal libraries and information centers (FL and IC) in 1994

FL & IC Category	Total # of current subscriptions in print	Average # of current subscriptions in print
Total (all federal libraries and information centers)	626,135	523
I. Organizational structure		
Autonomous ^a	473,192	579
Headquarters or main	134,094	780
Branch or nonautonomous	18,049	135
II. Nature of parent organization		
Library/Info. center	110,607	313
Administrative	171,906	487
Computer tech/Info. resources mgmt.	32,482	422
Education	31,288	323
Legal	45,736	715
Research/Technical	59,729	356
Other ^a	174,252	19,361
III. Mission/subject area		
Presidential	242	27
National ^a	214,635	10,732
Academic	32,116	765
Science and technology	142,632	333
Health and medicine	76,553	303
General	85,851	415
Law	56,247	670
Multitype	13,472	281
Training center and/or instructional school	4,387	133
IV. Public access		
Services available or provided to gen. public ^a	467,824	738
Services not available or provided to gen. public	158,311	322
V. Level of automation		
First quintile (least automated)	41,692	160
Second quintile	48,542	182
Third quintile	99,286	523
Fourth quintile	107,170	406
Fifth quintile (most highly automated) ^a	329,120	2,402

(a) The Library of Congress is included in each of these subcategories. In 1994, the library of Congress had a total of 168,103 current subscriptions in print.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part D, Question 3, Column 1, Line 05 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 2.3— Trends in volumes of monographs purchased by federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in monographs ^a	% reporting no change in monographs	% reporting significant decreases in monographs ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	11.5%	46.0%	22.8%	19.6%
I. Organizational structure				
Autonomous ^b	12.9	47.9	21.1	18.2
Headquarters or main	10.5	50.3	26.3	12.9
Branch or nonautonomous	4.6	30.0	27.7	37.7
II. Nature of parent organization				
Library/Info. center	10.8	43.9	24.0	21.4
Administrative	9.7	42.6	28.0	19.7
Computer tech/Info. resources mgmt.	17.1	42.1	32.9	7.9
Education	14.7	57.9	14.7	12.6
Legal	16.4	47.5	8.2	27.9
Research/Technical	11.2	53.4	14.9	20.5
Other ^b	0.0	33.3	11.1	55.6
III. Mission/subject area				
Presidential	11.1	44.4	44.4	0.0
National ^b	0.0	17.7	11.8	70.6
Academic	23.8	42.9	26.2	7.1
Science and technology	9.6	45.1	25.8	19.5
Health and medicine	17.7	56.2	16.1	10.0
General	7.5	38.2	29.7	24.6
Law	14.6	51.2	12.2	22.0
Multitype	8.0	44.0	20.0	28.0
Training center and/or instructional school	0.0	37.5	21.9	40.6
IV. Public access				
Services available or provided to gen. public ^b	11.6	48.1	23.4	16.8
Services not available or provided to gen. public	11.3	43.3	22.1	23.3
V. Level of automation				
First quintile (least automated)	9.5	34.4	13.4	42.7
Second quintile	11.4	47.9	16.4	24.3
Third quintile	9.5	48.4	25.3	16.8
Fourth quintile	12.9	54.5	28.6	3.9
Fifth quintile (most highly automated) ^b	15.8	44.4	39.1	0.8

(a) Respondents were instructed to report a change as "significant" if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 12 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.3.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 2.4— Trends in dollars expended for monographs in federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in dollars ^a	% reporting no change in dollars	% reporting significant decreases in dollars ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	18.2%	41.6%	20.3%	19.9%
I. Organizational structure				
Autonomous ^b	19.9	42.9	19.1	18.1
Headquarters or main	18.6	45.4	23.3	12.8
Branch or nonautonomous	7.7	29.2	23.1	40.0
II. Nature of parent organization				
Library/Info. center	16.5	40.4	21.5	21.5
Administrative	17.3	38.5	23.8	20.4
Computer tech/Info. resources mgmt.	24.0	41.3	28.0	6.7
Education	23.2	48.4	15.8	12.6
Legal	24.2	40.3	8.1	27.4
Research/Technical	17.0	48.4	13.8	20.8
Other ^b	0.0	33.3	11.1	55.6
III. Mission/subject area				
Presidential	11.1	44.4	33.3	11.1
National ^b	5.6	11.1	16.7	66.7
Academic	33.3	40.5	19.1	7.1
Science and technology	16.0	41.2	22.8	20.1
Health and medicine	27.5	48.6	13.8	10.1
General	10.1	37.2	28.6	24.1
Law	26.5	39.8	12.1	21.7
Multitype	12.2	46.9	12.2	28.6
Training center and/or instructional school	3.0	36.4	21.2	39.4
IV. Public access				
Services available or provided to gen. public ^b	19.5	43.3	20.0	17.2
Services not available or provided to gen. public	16.5	39.5	20.7	23.2
V. Level of automation				
First quintile (least automated)	13.4	30.4	13.4	42.7
Second quintile	16.5	46.7	12.3	24.5
Third quintile	17.4	41.6	23.7	17.4
Fourth quintile	23.5	46.3	26.3	3.9
Fifth quintile (most highly automated) ^b	21.8	43.6	33.1	1.5

(a) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 13 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.4.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Responding federal libraries and information centers with a science and technology mission differed from their health and medicine counterparts; following the overall pattern, more science and technology federal libraries and information centers reported significant decreases in dollars expended for monographs than reported significant increases (22.8 percent compared to 16.0 percent). For federal libraries and information centers with a health and medicine mission, this pattern was reversed, with 27.5 percent of respondents reporting significant increases in dollars expended for monographs and 13.8 percent reporting decreases in these expenditures.

A comparison of the response percentages for monographs purchased (table 2.3) and the expenditures for those monographs (table 2.4) suggests increases in the costs of monographs. That is, although 22.8 percent of federal libraries and information centers nationwide reported significant *decreases* in monographs purchased from 1992 to 1994, a smaller 20.3 percent reported significant *decreases* in dollars expended for monograph purchases. Also, although only 11.5 percent of libraries and information centers reported significant *increases* in monographs purchased, 18.2 percent reported significant *increases* in dollars spent for monographs.

Serials and Expenditures

Another major component of print collections of federal libraries and information centers is serial subscriptions. The data in table 2.5 show that over half of the federal libraries and information centers responding to the 1994 Federal Libraries and Information Centers Survey reported no significant changes in the number of serial subscriptions they held from 1992 to 1994. As with monographs purchased, about twice as many federal libraries and information centers reported significant decreases (27.4 percent) as reported significant increases (12.0 percent) in serial subscriptions. In all subcategories with the exception of the nature of parent organization subcategory "Other," which included the Library of Congress, more federal libraries and information centers reported significant decreases than reported significant increases in serial subscriptions.¹⁰

In terms of expenditures for serial subscriptions (see table 2.6), the highest percentage of federal libraries and information centers reported no significant changes from 1992 to 1994 in expenditures (40.4 percent). More federal libraries and information centers (29.2 percent) reported significant increases than reported significant decreases in dollars expended for serials (21.5 percent) which, given that the reverse was true of trends in *number* of serial subscriptions (table 2.5), appears to support the contention that the costs of serials increased between 1992 and 1994.

Although responding federal libraries and information centers in most of the subcategories (including those with science and technology and health and medicine missions) followed the same spending pattern as the national pattern, some of the subcategories actually had a higher percentage reporting significant decreases than significant increases in expenditures. These included federal libraries and information centers with a branch/non-autonomous structure and those with a presidential, general, or multitype mission. Possible reasons for a higher percentage reporting significant decreases compared to significant increases include the following: (a) these libraries and information centers substantially reduced their serial subscriptions, and/or (b) serials purchased by these federal libraries and information centers did not rise in cost as much as serials purchased by libraries and information centers in other subcategories.

¹⁰ The reader should note, however, that a relatively high percentage of libraries and information centers in the subcategory "Other" reported that this question did not apply to them as compared to libraries and information centers in the remaining subcategories. Furthermore, because of the small number of libraries and information centers in the subcategory "Other," the difference between those reporting significant increases and those reporting significant decreases is only one library or information center.

Table 2.5— Trends in number of serial subscriptions in federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in subscriptions ^a	% reporting no change in subscriptions	% reporting significant decreases in subscriptions ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	12.0%	53.2%	27.4%	7.4%
I. Organizational structure				
Autonomous ^b	12.4	54.7	26.4	6.5
Headquarters or main	12.1	50.6	32.2	5.2
Branch or nonautonomous	9.1	48.5	26.5	15.9
II. Nature of parent organization				
Library/Info. center	11.7	51.6	28.9	7.9
Administrative	10.6	50.1	31.8	7.5
Computer tech/Info. resources mgmt.	15.4	43.6	39.7	1.3
Education	11.5	68.8	13.5	6.3
Legal	15.9	58.7	20.6	4.8
Research/Technical	12.9	57.7	20.9	8.6
Other ^b	11.1	44.4	0.0	44.4
III. Mission/subject area				
Presidential	0.0	66.7	22.2	11.1
National ^b	0.0	27.8	11.1	61.1
Academic	14.6	56.1	22.0	7.3
Science and technology	10.6	52.0	29.3	8.0
Health and medicine	17.2	57.6	20.0	5.2
General	9.4	47.3	38.4	4.9
Law	16.7	61.9	19.1	2.4
Multitype	5.9	54.9	29.4	9.8
Training center and/or instructional school	9.1	54.6	27.3	9.1
IV. Public access				
Services available or provided to gen. public ^b	10.2	54.2	25.8	9.7
Services not available or provided to gen. public	14.2	52.0	29.5	4.3
V. Level of automation				
First quintile (least automated)	11.7	54.1	19.5	14.8
Second quintile	12.3	54.9	22.0	10.8
Third quintile	13.5	55.7	26.0	4.7
Fourth quintile	10.9	51.6	35.3	2.3
Fifth quintile (most highly automated) ^b	11.8	47.8	40.4	0.0

(a) Respondents were instructed to report a change as "significant" if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 10 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.5.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 2.6— Trends in dollars expended for serials in federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in dollars ^a	% reporting no change in dollars	% reporting significant decreases in dollars ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	29.2%	40.4%	21.5%	9.0%
I. Organizational structure				
Autonomous ^b	30.8	41.5	19.8	7.9
Headquarters or main	29.5	37.6	27.2	5.8
Branch or nonautonomous	19.1	37.4	23.7	19.9
II. Nature of parent organization				
Library/Info. center	28.1	40.1	22.5	9.4
Administrative	27.5	37.1	25.8	9.6
Computer tech/Info. resources mgmt.	39.5	23.7	32.9	4.0
Education	38.5	44.8	9.4	7.3
Legal	22.2	57.1	15.9	4.8
Research/Technical	28.0	48.5	13.7	9.9
Other ^b	22.2	22.2	11.1	44.4
III. Mission/subject area				
Presidential	0.0	66.7	22.2	11.1
National ^b	5.6	27.8	0.0	66.7
Academic	31.7	51.2	9.8	7.3
Science and technology	28.8	36.5	24.2	10.6
Health and medicine	42.8	40.0	12.4	4.8
General	19.9	41.3	32.8	6.0
Law	29.8	52.4	15.5	2.4
Multitype	19.6	41.2	25.5	13.7
Training center and/or instructional school	18.2	42.4	21.2	18.2
IV. Public access				
Services available or provided to gen. public ^b	30.3	38.6	19.9	11.2
Services not available or provided to gen. public	27.7	42.7	23.5	6.0
V. Level of automation				
First quintile (least automated)	17.6	47.3	17.6	17.6
Second quintile	25.6	45.5	16.5	12.4
Third quintile	31.9	37.2	22.5	8.4
Fourth quintile	37.7	32.6	27.8	2.0
Fifth quintile (most highly automated) ^b	38.5	36.3	25.2	0.0

(a) Respondents were instructed to report a change as "significant" if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 11 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.6.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Expenditures for Other Collections

Federal libraries and information centers also spend dollars for collections other than monographs or serial publications. Other collections include government documents or nongovernment reports; manuscripts; cartographic materials; audiovisual materials such as graphic materials, sound recordings, motion pictures, and video recordings; and special format materials for individuals unable to read standard print, such as braille, recordings, large print, or electronic devices. The data on trends in expenditures for other collections are presented in table 2.7.

Nearly 45 percent of federal libraries and information centers in the United States reported no significant changes from 1992 to 1994 in their expenditures for these other collections. Of those survey respondents who did report changes since 1992, a higher percentage (18.9 percent) reported significant increases than reported significant decreases (17.1 percent). For example, 25.8 percent of federal libraries and information centers with a health and medicine mission reported significant increases in expenditures for other collections, as compared to 8.1 percent that reported significant decreases in these expenditures. This was the general pattern of responses for most of the subcategories, although relatively higher percentages of federal libraries and information centers in some subcategories reported significant decreases. These included federal libraries and information centers with branch/non-autonomous and headquarters/main organizational structures; those that reported to parent organizations with administrative responsibilities; those whose mission/subject area was science and technology or general; and those in the first and third (i.e., lower) quintiles of level of automation.

Federal Funding

Decisions regarding staffing changes, training activities, and expenditures for collections are, to a large extent, dependent on the amount of federal appropriations received by federal libraries and information centers. The data in table 2.8 show that slightly more than half of federal libraries and information centers reported no significant changes in their federal appropriated funding, and more of these that reported changes reported decreases rather than increases in federal funding. In a study to create an index of inflation for public libraries, Chambers, Vergun, and Chute (forthcoming), found that from 1989–90 to 1992–93 the public library price index (PLPI) they created showed an average annual rate of inflation of 4.3 percent in library prices (e.g., staffing costs, costs for volumes). Given this rate of inflation, it is likely that the purchasing power of federal libraries and information centers decreased—even for those who indicated no significant changes in their federal appropriations.

In the **organizational structure** category, branch/non-autonomous federal libraries and information centers had the highest percentage (58.1 percent) reporting no significant changes in federal appropriations, with headquarters/main federal libraries and information centers having the lowest percentage reporting no change (50.0 percent). Autonomous federal libraries and information centers had the highest percentage reporting significant increases in funding (16.3 percent), while branch/non-autonomous federal libraries and information centers had the lowest percentage (8.5 percent). Headquarters/main federal libraries and information centers had the highest percentage reporting funding decreases (27.1 percent), while autonomous federal libraries and information centers had the lowest percentage (21.6 percent).

Federal libraries and information centers that reported to **parent organizations** with research/technical responsibilities had the highest percentage reporting no significant change in federal funding (65.4 percent). Federal libraries and information centers whose parent organizations had education or legal responsibilities had the highest percentages reporting significant increases in funding (21.3 percent and 20.0 percent, respectively), while those reporting to parent organizations with computer technology/information resources management responsibilities had the highest percentage reporting significant decreases (28.6 percent) in federal funds.

In the **mission/subject area** category, federal libraries and information centers with a national mission had the highest percentage reporting no significant changes in federal funding from 1992 to 1994 (84.2 percent), while those with a general mission had just about the lowest (41.1 percent).

Table 2.7— Trends in dollars expended for other collections in federal libraries and information centers (FL and IC) from 1992–1994^a

FL & IC Category	% reporting significant increases in dollars ^b	% reporting no change in dollars	% reporting significant decreases in dollars ^b	% for which this does not apply
TOTAL (all federal libraries and information centers)	18.9%	44.6%	17.1%	19.4%
I. Organizational structure				
Autonomous ^c	20.4	46.3	15.0	18.3
Headquarters or main	20.2	41.7	23.8	14.3
Branch or nonautonomous	7.8	38.3	20.3	33.6
II. Nature of parent organization				
Library/Info. center	19.5	42.9	18.9	18.6
Administrative	16.1	42.1	20.9	20.9
Computer tech/Info. resources mgmt.	25.7	35.1	23.0	16.2
Education	28.1	50.0	8.3	13.5
Legal	26.2	49.2	9.8	14.8
Research/Technical	12.0	54.4	10.8	22.8
Other ^c	11.1	33.3	0.0	55.6
III. Mission/subject area				
Presidential	0.0	66.7	11.1	22.2
National ^c	5.6	27.8	5.6	61.1
Academic	24.4	43.9	14.6	17.1
Science and technology	15.1	43.9	18.9	22.1
Health and medicine	25.8	50.4	8.1	15.7
General	17.6	37.7	29.7	15.1
Law	25.9	50.6	11.1	12.4
Multitype	16.0	36.0	16.0	32.0
Training center and/or instructional school	15.2	54.6	12.1	18.2
IV. Public access				
Services available or provided to gen. public ^c	19.1	45.6	16.6	18.7
Services not available or provided to gen. public	18.7	43.4	17.6	20.3
V. Level of automation				
First quintile (least automated)	12.0	39.6	15.2	33.2
Second quintile	16.7	48.1	12.1	23.1
Third quintile	16.9	42.3	23.3	17.5
Fourth quintile	24.5	47.8	18.2	9.5
Fifth quintile (most highly automated) ^c	28.4	44.0	19.4	8.2

(a) Other collections include government documents or nongovernment reports, manuscripts, cartographic materials, audiovisual materials (such as graphic materials, sound recordings, motion pictures, and video recordings), and special format materials (such as braille, recordings, large print, or electronic devices) for individuals unable to read standard print.

(b) Respondents were instructed to report a change as "significant" if the increase or decrease was greater than 10 percent.

(c) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 14 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.7.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 2.8— Trends in federally appropriated funding in federal libraries and information centers (FL and IC) from 1992–1994^a

FL & IC Category	% reporting significant increases in funding ^b	% reporting no change in funding	% reporting significant decreases in funding ^b	% for which this does not apply
TOTAL (all federal libraries and information centers)	15.2%	54.2%	23.0%	7.6%
I. Organizational structure				
Autonomous ^c	16.3	54.6	21.6	7.6
Headquarters or main	15.3	50.0	27.1	7.7
Branch or nonautonomous	8.5	58.1	25.6	7.8
II. Nature of parent organization				
Library/Info. center	15.0	51.0	25.4	8.6
Administrative	15.7	51.9	26.2	6.3
Computer tech/Info. resources mgmt.	10.4	54.6	28.6	6.5
Education	21.3	57.5	16.0	5.3
Legal	20.0	52.3	20.0	7.7
Research/Technical	11.3	65.4	15.1	8.2
Other ^c	11.1	44.4	0.0	44.4
III. Mission/subject area				
Presidential	0.0	55.6	33.3	11.1
National ^c	5.3	84.2	5.3	5.3
Academic	17.5	47.5	30.0	5.0
Science and technology	10.0	55.4	24.4	10.2
Health and medicine	22.0	63.3	8.2	6.5
General	18.8	41.1	37.6	2.5
Law	23.3	53.5	16.3	7.0
Multitype	5.9	51.0	31.4	11.8
Training center and/or instructional school	6.3	50.0	31.3	12.5
IV. Public access				
Services available or provided to gen. public ^c	12.9	57.1	22.3	7.6
Services not available or provided to gen. public	18.1	50.4	24.0	7.6
V. Level of automation				
First quintile (least automated)	17.6	47.7	22.7	12.1
Second quintile	15.2	57.8	20.2	6.8
Third quintile	15.3	60.3	19.1	5.3
Fourth quintile	13.5	55.6	25.0	6.0
Fifth quintile (most highly automated) ^c	13.5	48.1	31.6	6.8

(a) Federally appropriated funds are approved by Congress for appropriation by federal agencies.

(b) Respondents were instructed to report a change as "significant" if the increase or decrease was greater than 10 percent.

(c) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Lines 01 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.8.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Federal libraries and information centers with health and medicine or law missions had the highest percentages reporting significant increases (23.3 percent and 22.0 percent, respectively) in federal funding. Those with a presidential mission had the lowest; none reported significant increases in federal funding. Federal libraries and information centers with a general mission had one of the higher percentages reporting significant decreases (37.6 percent), while those with a national mission or a health and medicine mission had the lowest percentages reporting significant decreases (5.3 percent and 8.2 percent, respectively).

The response percentages for federal libraries and information centers with a science and technology mission followed the pattern for all federal libraries and information centers in the United States: 55.4 percent reported no significant changes, 24.4 percent reported significant decreases, and 10.0 percent reported significant increases. However, the pattern of responses for federal libraries and information centers with a health and medicine mission differed: although the majority indicated no significant changes (63.3 percent), a higher percentage reported significant increases in federal funding (22.0 percent) than reported significant decreases (8.2 percent).

In the **public access** category, federal libraries and information centers that make available or provide services to the general public had a higher percentage reporting no significant changes in their federal funding than did their counterparts that do not offer or provide services to the public (57.1 compared to 50.4 percent). Federal libraries and information centers that do not make available or provide services to the general public had a higher percentage reporting significant increases in federal funding (18.1 compared to 12.9 percent) and a slightly higher percentage reporting decreases (24.0 compared to 22.3 percent).

The pattern of trends in federally appropriated funding for federal libraries and information centers by **level of automation** suggests somewhat decreased funding for the most highly automated federal libraries and information centers and somewhat increased funding for the lesser automated counterparts. For example, a higher percentage of the least automated federal libraries and information centers reported significant increases in federal funding since 1992 compared to those most automated, with the findings reversed for reports of significant decreases in funding. It may be that this reflects efforts to “catch up” the least automated federal libraries and information centers in terms of the use and availability of new technologies.

Square Footage

A measure of resources available to support library and information center services is the square footage of the physical plant. However, with the move towards increasing availability of information in electronic form, libraries and information centers can acquire and maintain more and more information, materials, and documents without necessarily having to increase correspondingly their physical space. Nevertheless, average square footage and square footage indexed by volumes and current subscriptions still serve as indicators of support. As shown in table 2.9, in 1994 the average square footage of federal libraries and information centers was about 11,204 square feet, and federal libraries and information centers averaged 0.2 square feet per volume or volume equivalent and 2.9 square feet per current subscription. There was substantial variation in mean square footage, but much less variation when square footage was indexed either by volume or volume equivalent or current subscriptions. The data appear to show that there was no pattern or relationship among the average square footage, the square footage indexed by volume or volume equivalent, and the square footage indexed by current subscription.

Electronic Collections

Electronic collections are becoming more readily available and many more users of federal libraries and information centers are able and have the desire to access information electronically. The data on percentage of federal libraries and information centers with any electronic collections are presented in table 2.10. In 1994, just over a third of federal libraries and information centers that

Table 2.9— Mean square footage and square footage indexed by volumes or volume equivalents in print and current subscriptions in print in federal libraries and information centers (FL and IC) in 1994

FL & IC Category	Mean Square Footage	Square Footage by volume/volumes equivalents	Square footage by current subscriptions
Total (all federal libraries and information centers)	11,203.8	0.2	2.9
I. Organizational structure			
Autonomous ^a	11,218.0	0.2	19.5
Headquarters or main	14,531.8	0.2	0.6
Branch or nonautonomous	6,941.9	0.7	48.4
II. Nature of parent organization			
Library/Info. center	7,180.4	0.2	21.0
Administrative	9,179.3	0.2	0.9
Computer tech/Info. resources mgmt.	6,420.2	0.2	17.4
Education	11,388.9	0.4	33.3
Legal	11,399.6	0.2	13.5
Research/Technical	4,961.9	0.2	12.7
Other ^a	—	—	—
III. Mission/subject area			
Presidential	36,504.0	—	—
National ^a	226,277.8	0.2	17.9
Academic	30,869.4	0.3	47.8
Science and technology	5,536.3	0.2	16.0
Health and medicine	3,788.0	—	11.6
General	7,579.3	0.3	39.4
Law	12,073.0	0.2	15.3
Multitype	5,856.4	—	—
Training center and/or instructional school	5,962.0	0.4	43.5
IV. Public access			
Services available or provided to gen. public ^a	15,107.8	0.2	2.3
Services not available or provided to gen. public	6,193.6	0.3	17.6
V. Level of automation			
First quintile (least automated)	2,716.8	0.2	14.9
Second quintile	5,803.3	0.4	32.7
Third quintile	6,024.8	0.3	19.9
Fourth quintile	9,479.1	0.2	0.7
Fifth quintile (most highly automated) ^a	44,710.4	0.2	18.0

— Too few cases for a reliable estimate.

(a) The Library of Congress is included in each of these subcategories. In 1994, the total square footage of the Library of Congress was 3 million square feet.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Data in this table are taken from Part C, Question 1 and Part D, Question 3, Column 1, Lines 01 and 05 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.9.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 2.10— Percentage of federal libraries and information centers (FL and IC) with any electronic collections in 1994

FL & IC Category	% of libraries with any electronic collections
TOTAL (all federal libraries and information centers)	33.8%
I. Organizational structure	
Autonomous ^a	36.0
Headquarters or main	43.8
Branch or nonautonomous	28.1
II. Nature of parent organization	
Library/Info. center	37.7
Administrative	33.9
Computer tech/Info. resources mgmt.	50.0
Education	48.3
Legal	35.1
Research/Technical	27.6
Other ^a	0.0
III. Mission/subject area	
Presidential	25.0
National ^a	11.1
Academic	61.8
Science and technology	39.3
Health and medicine	34.2
General	32.3
Law	32.9
Multitype	31.7
Training center and/or instructional school	43.3
IV. Public access	
Services available or provided to gen. public ^a	37.3
Services not available or provided to gen. public	35.0
V. Level of automation	
First quintile (least automated)	19.0
Second quintile	32.0
Third quintile	35.8
Fourth quintile	50.2
Fifth quintile (most highly automated) ^a	59.6

(a) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C2.10.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey

responded to the Federal Libraries and Information Centers Survey had any electronic collections. In each of the five main categories of federal libraries and information centers, there was variability across subcategories in the percentages of libraries and information centers that reported having any electronic collections. For example, percentage estimates in category II, nature of parent organization, ranged from 0 percent to 50.0 percent. In category III, mission/subject area, the range in these estimates was from 11.1 percent to 61.8 percent.

In the **organizational structure** category, headquarters/main federal libraries and information centers had the highest percentage reporting any electronic collections (43.8 percent), and branch/non-autonomous federal libraries and information centers had the lowest reporting any of these collections (28.1 percent).

Federal libraries and information centers that reported to **parent organizations** with education or computer technology/information resources management responsibilities had the highest percentages with electronic collections (48.3 percent and 50.0 percent, respectively).

In the **mission/subject area** category, federal libraries and information centers with an academic mission had the highest percentage reporting any electronic collections (61.8 percent). Almost 40 percent of federal libraries and information centers with a science and technology mission reported having any electronic collections, while 34.2 percent of those with a health and medicine mission reported having any electronic collections.

In the **public access** category, federal libraries and information centers that make available or provide services to the general public had a slightly higher percentage reporting availability of any electronic collections compared to those that do not make available or provide services to the general public (37.3 percent compared to 35.0 percent).

As perhaps expected, decreasing **levels of automation** were associated with decreasing percentages of libraries and information centers having any electronic collections. Nearly 60 percent of the most highly automated libraries and information centers (i.e., in the fifth quintile) reported having any electronic collections, while only 19.0 percent of the least highly automated libraries and information centers (i.e., in first quintile) reported having any electronic collections.

Chapter 3: Staff

Overview

The level of services provided by federal libraries and information centers is highly dependent on staff resources. In 1978, for example, a total of 20,526 full-time equivalent (FTE) staff members were utilized in the 1,728 federal libraries that participated in the federal libraries survey conducted in that year. About 27 percent of this staff total were reported by the three national libraries (i.e., the Library of Congress, National Library of Medicine, and National Agricultural Library), and more than one-half of the total employees were reported by military departments of the executive branch. Insofar as employee classifications, the 1978 survey results indicated that 49 percent of total federal library staff were appropriated fund employees, 6 percent were paid from non-appropriated funds, 21 percent were assigned military personnel, and 24 percent were not classified. Less than half of all federal libraries responding to the 1978 survey reported employment of one or more professional librarians, however this estimate does not take into account the likely professional status of the many local employees in federal libraries overseas. (The 1994 survey of federal libraries excluded overseas and domestic school libraries from its respondent population.)

Since the last survey of the federal libraries conducted in 1978, staffing has been impacted by declines in funding, reorganizations, and the impetus of technological innovation. In some cases, libraries and information centers have also had to meet increasing demands for services without corresponding increases in resources. Balancing these demands and the funding resources to meet them has resulted in changes in staffing, contracting out functions and projects, and training or retraining of existing staff to assume new roles and responsibilities. This chapter focuses on the staff resources in federal libraries and information centers in fiscal year 1994 and trends from 1992 to 1994 in staff positions, contracted services, and training activities.

In 1994, federal libraries and information centers that responded to the Federal Libraries and Information Center Survey reported employing over 12,500 federal FTE staff. About 40 percent of this staff total was reported by the three national libraries. These libraries and information centers averaged 10.2 federal FTE staff, with over 16 percent at grade 13 or above. The majority of federal libraries and information centers reported in 1994 that, from 1992 to 1994, they experienced no significant changes in the number of staff positions at the management/supervisory, professional, and technician/support staff levels. However, of these three staffing levels, there appeared to have been the most stability at the management/supervisory level and the least stability at the technician/support staff level. Where there were significant changes in each of the three staffing categories, more federal libraries and information centers reported significant decreases than reported significant increases in positions. Less than one in three federal libraries and information centers reported that trends in contracting out functions and projects from 1992 to 1994 applied to them. Most of those that did report indicated that they experienced no significant changes. Of the others, about twice as many reported significant increases than reported significant decreases. Although the majority of responding federal libraries and information centers reported that they experienced no significant changes in their staff training and retraining efforts from 1992 to 1994, more reported significant decreases than significant increases.

Staffing in Federal Libraries and Information Centers

The data in table 3.1 show that total and mean numbers of federal FTE staff and percentages of staff who were at grade 13 or above varied across subcategories of federal libraries and information centers. These differences are likely a function of many factors, including the needs of their respective users, available funding, and policy decisions made in response to balancing demands and resources. Further, subcategories that included one or more of the three major national libraries—the Library of Congress, the National Library of Medicine, and the National Agricultural Library—had a much higher total number of federal FTE staff, one of the higher mean numbers of federal FTE staff, and one of the higher percentages of staff at grade 13 or above. These national libraries must respond to a much wider variety of client needs and, therefore, require staff with more specialized skills than other libraries or information centers.

Table 3.1— Federal full-time equivalent (FTE) staff in federal libraries and information centers (FL and IC) in 1994^a

FL & IC Category	# of federal FTE staff	Mean # of federal FTE staff	% of federal FTE staff who are grade 13 or above
TOTAL (all federal libraries and information centers)	12,528	10.2	16.12%
I. Organizational structure			
Autonomous ^b	8,367	10.0	17.46
Headquarters or main	3,438	19.3	14.25
Branch or nonautonomous	699	5.1	9.25
II. Nature of parent organization			
Library/Info. center	3,568	10.0	11.83
Administrative	2,184	5.9	11.52
Computer tech/Info. resources mgmt.	477	6.0	17.82
Education	534	5.4	4.49
Legal	401	6.0	11.72
Research/Technical	815	4.9	9.44
Other ^b	4,543	504.8	24.49
III. Mission/subject area			
Presidential	210	23.3	11.91
National ^b	7,013	350.7	21.25
Academic	691	16.4	8.68
Science and technology	1,955	4.4	14.22
Health and medicine	799	3.1	1.69
General	949	4.5	14.80
Law	531	5.9	9.54
Multitype	262	4.9	1.69
Training center and/or instructional school	118	3.6	5.61
IV. Public access			
Services available or provided to gen. public ^b	10,463	16.1	17.71
Services not available or provided to gen. public	2,065	4.1	8.03
V. Level of automation			
First quintile (least automated)	482	1.8	2.45
Second quintile	2,948	10.7	11.93
Third quintile	822	4.2	7.91
Fourth quintile	1,711	6.5	12.08
Fifth quintile (most highly automated) ^b	6,564	47.6	21.08

(a) Includes employees only, not contract staff on-site.

(b) The Library of Congress is included in each of these subcategories. In 1994, the Library of Congress reported a total Federal FTE staff of 4,511.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–IV in the table may not sum total survey universe due to rounding.

NOTE: Data in this table are taken from Part I, Question 1, Lines 01-04, and Part I, Question 2, Line 01 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C3.1.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Taking a more focused look at federal libraries and information centers with science and technology and health and medicine missions, there was little difference between them in the average numbers of federal FTE staff on hand, but science and technology federal libraries and information centers had more of these staff at grade 13 or above than did their health and medicine counterparts (4.4 federal FTE staff and 14.22 percent at grade 13 or above compared to 3.1 federal FTE staff with 1.69 percent at grade 13 or above).

Trends in Staffing Positions

For the 1994 survey, staff in federal libraries and information centers were classified into three levels: management/supervisory, professional, and technician/support staff. The majority of federal libraries and information centers reported no significant changes in the number of positions in any of the three categories from 1992 to 1994. The data in tables 3.2, 3.3, and 3.4 show that 66.6 percent of libraries and information centers reported no significant changes in management/supervisory positions, 62.0 percent reported no significant changes in professional staffing, and 55.3 percent reported no significant changes in technician/support staff positions. These percentages appear to indicate that there was more stability at the management/supervisory level than at the professional level and still less stability at the technician/support staff level. In all three levels, more federal libraries and information centers reported significant decreases than significant increases with respect to staffing. The difference between the percentages reporting decreases compared to increases was greatest at the technician/support staff level, followed by the professional level, and finally, by the management/supervisory level.

In the **organizational structure** category, autonomous federal libraries and information centers had one of the higher percentages reporting significant increases in management/supervisory positions (2.6 percent), while those with a headquarters/main structure had the highest percentage reporting significant increases in professional (7.3 percent) and technician/support staff (7.1 percent) positions. Headquarters/main federal libraries and information centers had the highest percentage reporting significant decreases in management/supervisory (15.6 percent) and technician/support staff (29.6 percent) positions, while those with a branch/non-autonomous structure had the highest percentage reporting significant decreases in professional positions (21.1 percent).

Federal libraries and information centers that reported to **parent organizations** with education functions had the highest percentage reporting no significant changes in management/supervisory positions (80.9 percent), while those that reported to parent organizations with legal responsibilities had among the highest percentages reporting no significant change in professional (75.0 percent) and in technician/support staff (65.6 percent) positions. Very small percentages reported significant increases in any of the staffing positions, but those that reported to parent organizations with legal responsibilities had among the highest percentages in both professional (9.4 percent) and technician/support staff (9.4 percent) positions. In terms of significant decreases, federal libraries and information centers that reported to parent organizations with computer technology/information resources management responsibilities had the highest percentage reporting significant decreases in management positions (17.3 percent); those that reported to parent organizations with research/technical responsibilities had the highest percentage reporting decreases in professional positions (19.2 percent); and those that reported to parent organizations with administrative functions had one of the highest percentages reporting decreases in technician/support positions (31.0 percent).

An examination of the mission/subject area category shows again that the majority of responding federal libraries and information centers reported no significant changes for each of the staffing levels. Where increases and decreases in allocated positions were reported, they almost always favored decreases—that is, more of the responding federal libraries and information centers in this category reported decreases in allocated positions than reported increases. Responding federal libraries and information centers with science and technology and health and medicine mission certainly followed this pattern. In addition, the reported decreases in allocated positions across the

Table 3.2— Allocated federal positions in federal libraries and information centers (FL and IC): Trends in management or supervisory staffing from 1992–1994

FL & IC Category	% reporting significant FTE staff increases ^a	% reporting no change in FTE staff	% reporting significant FTE staff decreases ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	2.4%	66.6%	12.1%	18.8%
I. Organizational structure				
Autonomous ^b	2.6	67.2	11.6	18.7
Headquarters or main	1.8	67.1	15.6	15.6
Branch or nonautonomous	2.4	63.0	11.0	23.6
II. Nature of parent organization				
Library/Info center	3.1	64.2	13.3	19.4
Administrative	2.3	68.2	11.8	17.8
Computer tech/Info. resources mgmt.	1.3	61.3	17.3	20.0
Education	3.2	80.9	5.3	10.6
Legal	3.1	76.9	3.1	16.9
Research/Technical	1.3	58.6	15.9	24.2
Other ^b	0.0	50.0	12.5	37.5
III. Mission/subject area				
Presidential	0.0	88.9	11.1	0.0
National ^b	5.6	77.8	16.7	0.0
Academic	0.0	79.5	10.3	10.3
Science and technology	2.5	59.3	14.6	23.6
Health and medicine	2.9	72.3	7.4	17.4
General	2.6	68.4	14.3	14.8
Law	2.3	79.1	2.3	16.3
Multitype	2.0	54.0	22.0	22.0
Training center and/or instructional school	0.0	63.3	13.3	23.3
IV. Public access				
Services available or provided to gen. public ^b	2.5	67.3	13.3	17.0
Services not available or provided to gen. public	2.4	65.8	10.6	21.2
V. Level of automation				
First quintile (least automated)	1.6	56.6	5.6	36.1
Second quintile	2.7	66.9	14.2	16.2
Third quintile	2.7	67.9	11.2	18.2
Fourth quintile	2.4	72.6	15.7	9.3
Fifth quintile (most highly automated) ^b	3.1	72.7	14.8	9.4

(a) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 04 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C3.2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 3.3— Allocated federal positions in federal libraries and information centers (FL and IC): Trends in professional staffing from 1992–1994

FL & IC Category	% reporting significant FTE staff increases ^a	% reporting no change in FTE staff	% reporting significant FTE staff decreases ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	5.1%	62.0%	16.0%	16.9%
I. Organizational structure				
Autonomous ^b	4.9	63.7	14.6	16.8
Headquarters or main	7.3	60.4	18.3	14.0
Branch or nonautonomous	3.1	54.7	21.1	21.1
II. Nature of parent organization				
Library/Info. center	4.4	58.7	17.4	19.6
Administrative	5.8	62.5	15.6	16.1
Computer tech/Info. resources mgmt.	9.1	63.6	15.6	11.7
Education	2.2	64.1	17.4	16.3
Legal	9.4	75.0	4.7	10.9
Research/Technical	3.2	60.9	19.2	16.7
Other ^b	0.0	50.0	0.0	50.0
III. Mission/subject area				
Presidential	11.1	33.3	55.6	0.0
National ^b	5.6	77.8	16.7	0.0
Academic	0.0	65.8	18.4	15.8
Science and technology	4.5	58.8	17.8	19.0
Health and medicine	2.9	68.1	12.0	17.0
General	7.2	59.0	17.4	16.4
Law	8.2	75.3	5.9	10.6
Multitype	11.8	52.9	23.5	11.8
Training center and/or instructional school	0.0	50.0	16.7	33.3
IV. Public access				
Services available or provided to gen. public ^b	4.5	63.6	17.7	14.2
Services not available or provided to gen. public	5.8	60.0	13.9	20.3
V. Level of automation				
First quintile (least automated)	2.5	55.9	9.4	32.2
Second quintile	4.3	59.9	17.1	18.7
Third quintile	3.8	64.1	17.9	14.1
Fourth quintile	8.9	67.2	17.4	6.5
Fifth quintile (most highly automated) ^b	6.0	64.7	21.1	8.3

(a) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 05 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C3.3.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Table 3.4— Allocated federal positions in federal libraries and information centers (FL and IC): Trends in technician and staff support positions from 1992–1994

FL & IC Category	% reporting significant FTE staff increases ^a	% reporting no change in FTE staff	% reporting significant FTE staff decreases ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	6.0%	55.3%	26.7%	12.0%
I. Organizational structure				
Autonomous ^b	5.9	55.5	25.9	12.6
Headquarters or main	7.1	53.9	29.6	9.5
Branch or nonautonomous	4.7	56.3	27.3	11.7
II. Nature of parent organization				
Library/Info. center	7.1	57.4	25.3	10.1
Administrative	4.6	52.0	31.0	12.5
Computer tech/Info. resources mgmt.	7.7	53.9	29.5	9.0
Education	4.4	63.3	21.1	11.1
Legal	9.4	65.6	9.4	15.6
Research/Technical	5.6	50.9	29.2	14.3
Other ^b	0.0	50.0	12.5	37.5
III. Mission/subject area				
Presidential	0.0	55.6	44.4	0.0
National ^b	5.9	52.9	41.2	0.0
Academic	2.6	66.7	23.1	7.7
Science and technology	5.6	52.8	27.1	14.5
Health and medicine	5.7	64.8	18.4	11.1
General	6.9	43.6	40.1	9.4
Law	10.6	64.7	9.4	15.3
Multitype	4.0	56.0	34.0	6.0
Training center and/or instructional school	3.2	51.6	25.8	19.4
IV. Public access				
Services available or provided to gen. public ^b	6.6	55.0	26.1	12.3
Services not available or provided to gen. public	5.2	55.7	27.4	11.6
V. Level of automation				
First quintile (least automated)	4.7	53.7	18.4	23.1
Second quintile	4.6	58.0	28.4	9.1
Third quintile	6.5	56.2	26.0	11.4
Fourth quintile	8.4	53.6	30.0	8.0
Fifth quintile (most highly automated) ^b	5.9	55.6	34.1	4.4

(a) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 06 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C.3.4.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

three types of positions were greater for federal libraries and information centers with a science and technology mission than for their health and medicine counterparts.

For federal libraries and information centers that responded to the 1994 Federal Libraries and Information Centers Survey, providing **public access** was associated with decreases in allocated positions across the three types. For management or supervisory positions, professional positions, and technician support positions, responding federal libraries and information centers that provided public access reported larger percentage decreases in allocated positions than did their counterparts not serving the public directly.

Across all **levels of automation**, decreases in allocated positions outpaced increases in these positions where any significant staffing changes were reported. Responding federal libraries and information centers with the least amount of automation (i.e., the first quintile) had the lowest percentages reporting significant FTE staff decreases across the three types of positions.

Contracting for Functions and Projects

To meet increasing demands for services, federal libraries and information centers have the option of contracting for functions and projects. The data presented in table 3.5 show that 30.3 percent of federal libraries and information centers reported on contracting functions and projects (i.e., 69.7 percent reported the item did not apply to them). However, the survey did not provide an estimate of the federal libraries and information centers that are *wholly* contracted. Of those that did report on trends, 19.7 percent reported no significant changes in their contracting practices, and more reported significant increases than reported significant decreases in contracting.

In the **organizational structure** category, federal libraries and information centers with a headquarters/main structure had the highest percentage reporting a significant increase (13.6 percent) in contracting practices from 1992 to 1994. Part of the reason for this finding is that a higher percentage of autonomous and branch/non-autonomous federal libraries and information centers reported that these trends did not apply to them.

Higher percentages of federal libraries and information centers that reported to **parent organizations** with computer technology/information resources management, legal, or research/technical functions reported increases in contracting for functions or projects (13 percent, 12.7 percent, and 11.2 percent, respectively) than did federal libraries and information centers with other parent organizations. In contrast, much smaller percentages of federal libraries and information centers reported significant decreases in contracting: those that reported to parent organizations with library/information center, research/technical, or education responsibilities had the highest percentages (4.9 percent, 4.4 percent, and 4.2 percent, respectively).

In the **mission/subject area** category, increases in contracting out were much more pronounced than decreases when changes in contracting practices were reported. For federal libraries and information centers with a science and technology mission, for example, almost twice as many respondents reported increases as reported decreases in contracting out. In comparison, among respondent federal libraries and information centers with a health and medicine mission about four times as many reported increases as reported decreases in contracting out, although the percentages of these respondents who reported the item did not apply to them was nearly one-third higher than for those with science and technology missions.

More federal libraries and information centers providing **public access** responded that this item on trends in contracting applied to them than did those not providing this access. Proportionally, however, the patterns of responses for both subcategories were about the same; that is, the largest percentages reported no change over time in contracting patterns, and larger percentages reported increases in contracting than reported decreases.

Table 3.5— Trends in contracting for projects or functions in federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in contracting ^a	% reporting no change in contracting	% reporting significant decreases in contracting ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	7.3%	19.7%	3.3%	69.7%
I. Organizational structure				
Autonomous ^b	6.2	19.0	2.9	72.0
Headquarters or main	13.6	25.4	5.3	55.6
Branch or nonautonomous	6.1	16.8	2.3	74.8
II. Nature of parent organization				
Library/Info. center	4.6	18.3	4.9	72.2
Administrative	6.7	18.7	2.5	72.1
Computer tech/Info. resources mgmt.	13.0	33.8	0.0	53.3
Education	5.3	13.7	4.2	76.8
Legal	12.7	15.9	0.0	71.4
Research/Technical	11.2	22.4	4.4	62.1
Other ^b	0.0	37.5	0.0	62.5
III. Mission/subject area				
Presidential	11.1	44.4	0.0	44.4
National ^b	5.6	22.2	0.0	72.2
Academic	7.3	19.5	2.4	70.7
Science and technology	9.8	25.5	5.0	59.8
Health and medicine	6.5	16.2	1.6	75.7
General	3.4	11.2	3.4	82.0
Law	10.8	19.3	0.0	69.9
Multitype	5.8	25.0	5.8	63.5
Training center and/or instructional school	0.0	9.1	3.0	87.9
IV. Public access				
Services available or provided to gen. public ^b	8.5	22.4	3.7	65.4
Services not available or provided to gen. public	5.8	16.2	2.9	75.2
V. Level of automation				
First quintile (least automated)	1.9	12.0	2.3	83.8
Second quintile	6.4	16.1	2.3	75.3
Third quintile	5.2	20.6	3.6	70.6
Fourth quintile	10.3	24.9	4.4	60.5
Fifth quintile (most highly automated) ^b	17.2	30.6	5.2	47.0

(a) Respondents were instructed to report a change as “significant” if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 15 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C3.5.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

Increasing levels of automation were associated with increasing percentages reporting on the use of contracted services. That is, the more automated a library or information center, the more likely it was to report on trends in contracting: 53.0 percent in the fifth quintile (i.e., the most automated) but only 16.2 percent in the first quintile. Of those respondents in the fifth quintile of automation, it is also important to note that proportionally more reported increases in contracting from 1992 to 1994 (17.2 percent, or approximately one-third of those who responded that the item a contracting applied to them) than did respondents in the other subcategories. These indicators of the relationship between automation and contracting may point to a deficiency in the numbers of federal library and information center staff with needed expertise in computer technology and may indicate a necessary staffing requirement.

Staff Training Activities

With changing service demands, particularly with regard to advanced technologies, it might be expected that staff would need more training or retraining support. However, the data in table 3.6 indicate that the majority of federal libraries and information centers (58.9 percent) responding to the 1994 Federal Libraries and Information Centers Survey reported no significant changes in their staff training or retraining activities over the years 1992 to 1994. In addition, these data show that a slightly higher percentage (15.9 percent) indicated they had experienced significant decreases in training activities for staff than reported significant increases (14.2 percent) in these activities. Instead of reflecting a diminishing need for staff training, these numbers may be indicators of a lack of funding or the pressure of competing priorities.

A pattern of responses similar to that for federal libraries and information centers generally was evident in many of the subcategories, although there were some differences. For example, in some cases, the percentages reporting significant decreases were considerably larger than the percentages reporting significant increases, such as federal libraries and information centers with a branch/non-autonomous structure or those with general or multitype missions. In addition, there were subcategories in which more federal libraries and information centers reported significant increases than significant decreases in training, such as those with a headquarters/main structure; those that reported to parent organizations with legal or research/technical responsibilities; those with presidential, health and medicine, or law missions; and those in the fifth quintile of automation (the most automated).

In the **organizational structure** category, headquarters/main federal libraries and information centers had the highest percentage reporting significant increases in training (17.0 percent), while those with a branch/non-autonomous structure had the highest percentage reporting training decreases (26.3 percent). Headquarters/main and autonomous federal libraries and information centers had the highest percentages reporting no significant changes in training and retraining activities (61.4 percent and 60.3 percent, respectively).

In the **nature of parent organization** category, federal libraries and information centers that reported to parent organizations with legal responsibilities had one of the highest percentages reporting significant increases (17.5 percent), while those that reported to parent organizations with administrative responsibilities had the highest percentage reporting significant decreases (19.1 percent) in training.

In the **mission/subject area** category, decreases in staff training activities were equal to or exceeded increases in more than half of the subcategories. However, for responding federal libraries and information centers with presidential, health and medicine, or law missions, this pattern was reversed. Compared to federal libraries and information centers with a science and technology mission, which reported higher percentages with decreases than increases in staff training (17.7 versus 15.3 percent), health and medicine federal libraries and information centers reported higher percentages with training increases than decreases (13.9 versus 8.6 percent).

Table 3.6— Trends in staff training and retraining in federal libraries and information centers (FL and IC) from 1992–1994

FL & IC Category	% reporting significant increases in training/retraining ^a	% reporting no change in training/retraining	% reporting significant decreases in training/retraining ^a	% for which this does not apply
TOTAL (all federal libraries and information centers)	14.2%	58.9%	15.9%	11.0%
I. Organizational structure				
Autonomous ^b	13.9	60.3	14.7	11.2
Headquarters or main	17.0	61.4	13.5	8.2
Branch or nonautonomous	12.8	47.4	26.3	13.5
II. Nature of parent organization				
Library/Info. center	13.7	58.4	16.3	11.6
Administrative	14.4	56.5	19.1	10.0
Computer tech/Info. resources mgmt.	14.3	64.9	16.9	3.9
Education	14.1	64.1	14.1	7.6
Legal	17.5	60.3	7.9	14.3
Research/Technical	13.9	58.8	12.7	14.6
Other ^b	11.1	55.6	0.0	33.3
III. Mission/subject area				
Presidential	33.3	55.6	11.1	0.0
National ^b	15.8	68.4	15.8	0.0
Academic	12.8	61.5	12.8	12.8
Science and technology	15.3	56.0	17.7	11.1
Health and medicine	13.9	66.1	8.6	11.4
General	12.2	54.2	23.9	9.8
Law	15.5	60.7	7.1	16.7
Multitype	9.6	63.5	17.3	9.6
Training center and/or instructional school	15.2	51.5	24.2	9.1
IV. Public access				
Services available or provided to gen. public ^b	14.4	59.5	16.6	9.6
Services not available or provided to gen. public	14.1	58.1	15.1	12.8
V. Level of automation				
First quintile (least automated)	8.1	50.6	14.2	27.2
Second quintile	13.5	61.8	16.5	8.2
Third quintile	15.0	62.7	16.6	5.7
Fourth quintile	14.3	64.0	15.9	5.8
Fifth quintile (most highly automated) ^b	26.7	54.2	17.6	1.5

(a) Respondents were instructed to report a change as "significant" if the increase or decrease was greater than 10 percent.

(b) The Library of Congress is included in each of these subcategories.

NOTE: Numbers of federal libraries and information centers within the five categories labeled I–V in the table may not sum to the total survey universe due to item non-response.

NOTE: Row percentages are based on responding federal libraries and information centers and may not sum to 100 percent due to rounding.

NOTE: Data in this table are taken from Part J, Question 2, Line 18 of the Federal Libraries and Information Centers Survey.

NOTE: Response rates and standard errors for this table may be found in appendix C, table C3.6.

SOURCE: U.S. Department of Education, National Center for Education Statistics, 1994 Federal Libraries and Information Centers Survey.

The patterns of response in the **public access** category were similar for responding federal libraries and information centers whether or not they provided public services. For both subcategories, more than half reported no significant changes in training or retraining activities from 1992 to 1994 and higher percentages reported decreases than increases in staff training activities over the period.

In the **level of automation** category, the most highly automated federal libraries and information centers (i.e, in the fifth quintile) had the highest percentage reporting increases in training/retraining activities. This was the single subcategory of respondents for which the percentage reporting training increases was greater than the percentage reporting training decreases.

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*Appendix A: 1994
Federal Libraries and
Information Centers
Survey*

Appendix B: *Technical Notes*

Description of Survey Procedures

The 1994 Federal Libraries and Information Centers Survey

The survey was the production of a collaboration of the Federal Library and Information Center Committee (FLICC) of the Library of Congress and the National Center for Education Statistics (NCES). The FLICC Survey Working Group (SWG) in 1996 included eight federal library and information center professionals, plus liaisons from the FLICC Executive Board (FEB), the Census Bureau, NCES, and a FLICC staff liaison.

The survey was designed to collect data to update federal library statistics, last collected in 1978, and to collect statistics for the first time on federal information centers, by getting comprehensive, current, and detailed data for policy analysis, trend analysis, and operation assessment at the national and state levels.

Scope

A locator questionnaire was mailed to 3,000 facilities in the spring of 1994 to determine universe eligibility, which included federal information centers for the first time. A variety of sources were searched to develop the initial universe list used as the basis of the mailing list for the locator questionnaire. The primary source lists were the Oryx Directory of Federal Libraries and the Federal Library and Information Network (FEDLINK) mailing list. Additional source lists included the Federal Health Care Libraries Directory, The U.S. Department of Navy Libraries list, the 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.

Approximately 700 overseas units were excluded from the federal libraries and information centers universe due to logistical problems with the data collection. School libraries were excluded both to reduce reporting burden and because their mission and function differ from most federal libraries and information centers. (NCES conducts a separate survey of School Library Media Centers and Library Media Center Specialists that includes these schools.) Approximately 1,700 additional facilities were excluded from the initial universe because they were out of the scope of the survey definitions, they had combined with another facility, they duplicated other facilities in the universe, or they were closed.

The federal libraries and information centers survey was mailed to 1,570 facilities in the United States in January 1995. Of these facilities, 336 withdrew because they were not federal libraries or information centers as stipulated by the survey (see below), including such facilities as public affairs offices, agency locator services, records management facilities, publications distribution facilities, and computer centers.

Respondents reported on information for fiscal year 1994 (the complete fiscal year that ended prior to October 1, 1994); a typical week in fiscal year 1994, in which the federal library or information center is open its regular hours (without holidays) and conducts its regular activities of the library/information center; and the last three fiscal years from 1992 (ended prior to October 1, 1992) through 1994 (ended prior to October 1, 1994). Participating facilities were instructed to return all surveys by March 3, 1995.

Respondents were instructed to include data for domestic locations only (within the United States), and to exclude all foreign branch operations located outside of the 50 states and the District of Columbia. For the purposes of the survey, data reported for Puerto Rico, the Virgin Islands, and U.S. territories were excluded.

Variable Definitions

A library was defined as an organization that includes among its functions selection, acquisition, organization, preservation, retrieval, and provision of access to information resources; an information center was defined as an organization that performs the function of linking requestors with appropriate information resources through established mechanisms, such as database searching, providing referral, answering specific questions, or by other means. A federal library or information center was defined as a facility (a) staffed with at least one paid part-time or full-time librarian, technical information specialist, library technician, archivist, or other trained person whose principal function is to assist others in meeting their information needs; (b) considered to be a federal government operation or receiving a majority (at least half) of its funding from federal appropriations; and (c) that either supports the information needs of a federal agency or supplies information as part of the agency's mission. For the purposes of the survey, a facility is included whether it is open to the public or not.

Organization and Structure

A library was defined as an autonomous library or information center if it had a separate facility, collection, and staff, a defined clientele, and full operational control, including the principal operating budget; a headquarters or main library or information center if it was designated as either a single-unit library serving administrative headquarters, a central user unit with administrative and directional control of other libraries, or the single-unit library or center of a multi-unit library; and a branch if it was designated as a nonautonomous, user-service unit with quarters separate from the central library and with a permanent collection of materials, a permanent staff, and a regular schedule for opening.

Libraries and information centers were also defined by the nature of the parent organization to which they report. Parent organizations are characterized by their primary operational function: library and information center; administrative (for example, planning, finance, facilities); education (for example, outreach, public programs, training); legal (for example, legal counsel); research/technical functions (for example, sciences, mechanics, industrial arts, historical, cultural); computer technology and information resources management; or other.

Mission and Clientele, Fiscal Year 1994

Mission area in fiscal year 1994 categorizes libraries and information centers in terms of the agencies they serve and their primary subject-matter area and clientele (for example, agency staff, targeted populations, general public). Mission and subject areas were stratified as follows:

- (a) Presidential libraries and information centers, which specialize in the official records, memorabilia, literature, and other materials concerning the affairs of Presidents of the United States;
- (b) National libraries and information centers (for example, Library of Congress, National Library of Medicine, National Agricultural library, and National Technical Information Service), that have legally mandated, government-wide responsibilities and missions which include concern for both national and international matters;
- (c) Academic libraries and information centers, which comprise those intended to serve the faculties and students in colleges, universities, graduate, and postgraduate schools (for example, U.S. Military Academy, U.S. Naval Academy);
- (d) Science and technology libraries and information centers, which encompass engineering, technology research, and science fields of interest; special libraries, whose special or technical collections and services serve a specialized clientele and whose mission plan and scope of collections and services are limited to the subject interests of the host or parent organization or agency, but are not predominantly devoted to engineering and sciences, health and medicine, or law;

- (e) Health and medicine libraries and information centers, which have collections and services predominantly devoted to medicine and the health sciences;
- (f) General libraries and information centers, which provide services to meet cultural, information, education, and recreation needs of a defined clientele (for example, libraries on military bases). These include libraries serving penal institutions and hospital (patient's) libraries and information centers, which include those autonomous service units that are located in hospital facilities and are operated primarily to serve library needs of patients in the facility but are not part of post or base library systems;
- (g) Law libraries and information centers, which house collections and services predominantly legal in nature;
- (h) Multitype libraries and information centers, whose nonautonomous or semi-autonomous collections, branches, or facilities of more than one type support a variety of mission plans and subject-matter interests, with each component serving separately defined user groups that may not overlap; and
- (i) Training center and/or instructional technical school libraries and information centers, which support nondegree-granting education (vocational) centers.

Respondents were asked to select the single category which fit them best.

Facilities, Fiscal Year 1994

Federal library and information center facilities in fiscal year 1994 were defined as the net area, in square feet, of space assigned for library purposes. Total space assigned to library functions is the sum of all areas on all floors that have been used in furtherance of the library's mission (for example, space for readers, storage areas for collections).

Collections, Fiscal Year 1994

Federal library and information center collections measure the total number of the library's materials on September 30, 1994 for each type of material listed. Collections were stratified by volumes, volume equivalents, or, the paper equivalent in another medium such as microform or compact disk, and titles. Multiple copies of the same edition of a title in the same format were reported as one title. A unit of a library's collection was defined as an individual physical item of library material (e.g., a reel, card, slide, disk, sheet, volume, cartridge, etc.). If any title was duplicated in an other medium as well as paper, it was counted under each medium.

Collection categories included (a) book collections (excluding bound periodicals, microforms, documents, and technical reports), book volumes, defined as any number of printed or written sheets bound together, and book titles; (b) periodical collections, periodical volumes (i.e., the publisher's volume), periodical noncurrent titles, or, titles held for which new issues are no longer being received, and current subscriptions, excluding and including loose-leaf subscriptions; (c) government documents or non-government reports, comprising those publications bearing a government imprint, and technical reports; (d) other materials, which comprised all other materials not included in the above categories; (e) audiovisual materials; and (f) special format materials (e.g., braille, recordings) for individuals unable to read standard print.

Each category was then divided between the number held in print, microform (for example, photographically reduced data), and electronic media, which were defined as any machine-readable serials, monographs, or databases in electronic form, excluding disks accompanying paper and on-line products provided by large database utilities.

Service Activities, Fiscal Year 1994

Service activities in fiscal year 1994 were defined as requests and searches per typical week made in person, by telephone, electronically, or through correspondence. These services included transac-

tions that required professional library staff in locating and supplying information from on-site or external sources (including analysis or interpretation of literature, selection and assemblage of library material to answer inquiries, and acting as a clearinghouse or referring to other expert sources), and on-line searches, and CD-ROM and Internet searches.

Loan transactions involved transactions made in direct circulation of materials to users (and include routing of periodicals to users outside libraries-information centers). Each book charged was counted as a single transaction. Inter-library loans were those items received in answer to a specific title, author, or subject request, or materials lent to other libraries or information centers not under the same administration. Bulk-loan or rental-collection transactions were not included.

Other services performed in fiscal year 1994 included such services as Selective Dissemination of Information (i.e., performance of ongoing research for patrons); and outreach services, provided to patrons within and outside the primarily facilities served (e.g., book mobiles, clinical and circuit libraries, and regional services).

Expenditures, Fiscal Year 1994

Operating expenditures represent costs incurred for the necessary provision of library service, such as personnel, library materials, binding, supplies, repair or replacement, and costs of operation and maintenance of the facility, including salaries and wages, collection resource expenditures, books and periodical back files, periodicals subscriptions, microform material expenditures, audiovisual material expenditures (does not include printed materials that have been photographically reduced in microform), commercial electronic media, and various other materials (e.g., manuscripts and cartographic materials), preservation, furnishings and equipment, computer hardware and software, bibliographic utilities, and contract costs. Capital expenditures were defined as costs incurred for the acquisition of or addition to fixed assets.

Budgeted Staff, Fiscal Year 1994

Budgeted staff for fiscal year 1994 was calculated as the number of those employees who were full-time equivalent in filled positions (excluding building maintenance, volunteers, and contract staff), including federal and non-federal staff, assigned military personnel, and trust fund employees as of September 30, 1994. This number also includes full- and part-time employees permanently assigned to the library, but paid by an alternative library or agency.

Data Collection Procedures

Standard Errors

The estimates in the tables in this report are subject to sampling variability. The standard errors represent the accuracy of each estimate. Note that standard errors do not incorporate the effects of biases due to item nonresponse, measurement error, data processing error, or other possible systematic error. Standard errors for each table in this report are included in appendix C.

The comparisons in the text have been tested for statistical significance to ensure that the differences are larger than might be expected due to sampling variation. These statistical tests were based on *t* statistics. Generally, whether a difference is considered significant is determined by calculating a *t* value for the difference between a pair of means, or proportions, and comparing its value to published tables of values (adjusted for the numbers of comparisons being made at one time) at alpha levels. The alpha level is an a priori statement of the probability of inferring that a difference exists when, in fact, it does not.

Response Rates

The final survey response rates are reported in appendix C. Because each indicator presented in the report is stratified by five categories (i.e., structure, organizational component to which the unit reports, mission area, public service, and level of automation), response rates vary between measures within any one table. Item nonresponse varies between category, and library response rates overlap across categories on any given table. For these reasons, indicator values are calculated within these five categories.

Imputation

All estimates in this report are based on nonmissing data values provided by survey participants. When percentages are calculated for the various federal library and information center trends (tables 1.2, 1.3, 1.5, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 3.2, 3.3, 3.4, 3.5, 3.6), they are based solely on the data provided by respondents (i.e., the percentages reported used the total number of *respondent* libraries and information centers as their base).

Statistical Procedures

Means were calculated by dividing the total of one variable for that category of institutions by the total of a secondary variable for that category (numerators and denominators are based on the sums of the respective variables for the various categories; the same set of institutions was used in the numerator and denominator for each mean calculation).

All per FTE staff numbers are computed as the ratio of the sum total of a numerator to the sum total of FTE staff within a category. Ratios involving total collection size are calculated as the total of a sum of the category to the total collection size reported by federal libraries and information centers without category. Ratios calculated in terms of mean library numbers are computed as the ratio of the sum of the category numerator to the total number of libraries and information centers within a category.

Appendix C: Tables of Standard Errors and Response Rates

Table C1.1— Standard error (for table 1.1) of total and average gate count per typical week in federal libraries and information centers (FL and IC) in 1994

FL & IC Category	# of FL & IC	Response rate	Standard error of total # gate count	Standard error of average # gate count
TOTAL (all federal libraries and information centers)	1234	67%	34517.8	41.7
I. Organizational structure				
Autonomous	838	70	28412.8	48.2
Headquarters or main	181	71	17755.4	138.7
Branch or nonautonomous	140	77	7271.7	67.3
II. Nature of parent organization				
Library/Info. center	361	75	16514.5	60.7
Administrative	372	77	21114.4	74.1
Computer tech/Info. resources mgmt.	81	67	2263.2	41.9
Education	98	65	11471.8	179.3
Legal	67	58	—	—
Research/Technical	170	65	7801.4	70.9
Other	9	44	—	—
III. Mission/subject area				
Presidential	9	78	28.2	4.0
National	20	90	15749.3	875.0
Academic	42	86	11955.1	332.1
Science and technology	447	68	7928.7	26.2
Health and medicine	256	61	—	—
General	211	91	16679.2	87.3
Law	90	57	—	—
Multitype	53	68	5930.2	164.7
Training center and/or instructional school	33	91	8843.0	294.8
IV. Public access				
Services available or provided to gen. public	658	69	29681.2	65.4
Services not available or provided to gen. public	503	74	17652.1	47.2
V. Level of automation				
First quintile (least automated)	272	75	8512.9	41.5
Second quintile	278	72	8602.8	43.0
Third quintile	198	70	12670.0	91.2
Fourth quintile	267	67	12793.8	71.9
Fifth quintile (most highly automated)	139	75	25154.4	241.8

— Too few cases to provide a reliable estimate

Table C1.2— Standard error (for table 1.2) of trends in level of service offered to primary clientele in federal libraries and information centers (FL and IC) from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in level of service	Standard error % reporting no change in level of service	Standard error % reporting sig. decreases in level of service	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	91%	0.04	0.04	0.02	0.01
I. Organizational structure						
Autonomous	838	96	0.06	0.06	0.03	0.02
Headquarters or main	181	96	0.26	0.27	0.11	0.07
Branch or nonautonomous	140	95	0.32	0.34	0.18	0.10
II. Nature of parent organization						
Library/Info. center	361	96	0.13	0.14	0.07	0.05
Administrative	372	97	0.12	0.13	0.07	0.03
Computer tech/Info. resources mgmt.	81	98	0.60	0.60	0.19	0.00
Education	98	96	0.47	0.50	0.26	0.15
Legal	67	99	0.72	0.74	0.18	0.26
Research/Technical	170	97	0.27	0.28	0.12	0.08
Other	9	89	3.68	5.56	0.00	5.38
III. Mission/subject area						
Presidential	9	100	3.70	3.70	0.00	0.00
National	20	90	2.02	2.03	0.00	0.00
Academic	42	95	1.10	1.18	0.71	0.51
Science and technology	447	95	0.10	0.11	0.04	0.03
Health and medicine	256	97	0.19	0.19	0.06	0.07
General	211	98	0.21	0.23	0.15	0.06
Law	90	97	0.52	0.53	0.12	0.17
Multitype	53	98	0.87	0.93	0.60	0.00
Training center and/or instructional school	33	100	1.48	1.54	0.73	0.73
IV. Public access						
Services available or provided to gen. public	658	95	0.07	0.07	0.03	0.03
Svcs. not available or provided to gen. public	503	97	0.09	0.10	0.04	0.03
V. Level of automation						
First quintile (least automated)	272	95	0.16	0.17	0.08	0.09
Second quintile	278	97	0.16	0.17	0.09	0.05
Third quintile	198	98	0.24	0.25	0.11	0.05
Fourth quintile	267	97	0.18	0.18	0.08	0.02
Fifth quintile (most highly automated)	139	96	0.35	0.36	0.17	0.09

Table C1.3— Standard error (for table 1.3) of trends in charging of fees to users for functions or services in federal libraries and information centers (FL and IC) from 1992-1994^a

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in level of service	Standard error % reporting no change in level of service	Standard error % reporting sig. decreases in level of service	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	90%	0.01	0.03	0.01	0.03
I. Organizational structure						
Autonomous	838	96	0.02	0.04	0.01	0.05
Headquarters or main	181	94	0.12	0.21	0.06	0.23
Branch or nonautonomous	140	95	0.09	0.26	0.10	0.29
II. Nature of parent organization						
Library/Info. center	361	95	0.05	0.11	0.03	0.12
Administrative	372	97	0.04	0.10	0.02	0.12
Computer tech/Info. resources mgmt.	81	95	0.23	0.41	0.00	0.45
Education	98	96	0.15	0.35	0.15	0.39
Legal	67	94	0.18	0.46	0.18	0.51
Research/Technical	170	96	0.11	0.18	0.05	0.21
Other	9	100	0.00	4.90	0.00	4.90
III. Mission/subject area						
Presidential	9	100	0.00	5.56	3.70	5.86
National	20	95	0.00	2.50	0.00	2.50
Academic	42	98	0.00	0.78	0.37	0.84
Science and technology	447	95	0.05	0.08	0.02	0.09
Health and medicine	256	97	0.05	0.14	0.02	0.15
General	211	95	0.07	0.19	0.03	0.19
Law	90	93	0.00	0.32	0.12	0.33
Multitype	53	96	0.44	0.68	0.00	0.77
Training center and/or instructional school	33	97	0.00	0.53	0.00	0.53
IV. Public access						
Services available or provided to gen. public	658	95	0.03	0.06	0.01	0.06
Svcs. not available or provided to gen. public	503	96	0.03	0.07	0.02	0.07
V. Level of automation						
First quintile (least automated)	272	95	0.06	0.12	0.04	0.14
Second quintile	278	97	0.06	0.13	0.03	0.14
Third quintile	198	98	0.04	0.20	0.04	0.21
Fourth quintile	267	95	0.06	0.13	0.02	0.14
Fifth quintile (most highly automated)	139	96	0.19	0.28	0.11	0.32

Table C1.4— Standard error (for table 1.4) of percentage of services^a requiring client payment and percentage of federal libraries and information centers (FL and IC) with these services in 1994

FL & IC Category	# of FL & IC	Response rate	Standard error % of services requiring client payment ^b	Response rate	Standard error % of FL & IC with any services that require client payment
TOTAL (all federal libraries and information centers)	1234	82%	0.02	92%	0.02
I. Organizational structure					
Autonomous	838	88	0.03	98	0.03
Headquarters or main	181	84	0.15	98	0.19
Branch or nonautonomous	140	86	0.15	98	0.17
II. Nature of parent organization					
Library/Info. center	361	88	0.07	97	0.08
Administrative	372	87	0.06	99	0.07
Computer tech/Info. resources mgmt.	81	88	0.36	98	0.42
Education	98	88	0.09	100	0.17
Legal	67	85	0.12	96	0.34
Research/Technical	170	86	0.12	99	0.17
Other	9	89	4.36	100	5.41
III. Mission/subject area					
Presidential	9	100	1.77	100	4.13
National	20	80	1.92	100	2.35
Academic	42	81	0.17	100	0.40
Science and technology	447	87	0.05	98	0.07
Health and medicine	256	88	0.03	99	0.07
General	211	87	0.10	97	0.07
Law	90	84	0.14	96	0.27
Multitype	53	91	1.00	98	0.88
Training center and/or instructional school	33	97	0.78	100	0.83
IV. Public access					
Services available or provided to gen. public	658	86	0.04	98	0.05
Services not available or provided to gen. public	503	88	0.04	98	0.05
V. Level of automation					
First quintile (least automated)	272	91	0.11	99	0.09
Second quintile	278	86	0.08	97	0.10
Third quintile	198	87	0.07	99	0.11
Fourth quintile	267	88	0.07	98	0.10
Fifth quintile (most highly automated)	139	84	0.20	100	0.25

Table C1.5— Standard error (for table 1.5) of trends in charging to other libraries for inter-library loans made by federal libraries and information centers (FL and IC) from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in charging ^a	Standard error % reporting no change in charging	Standard error % reporting sig. decreases in charging ^a	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	91%	0.01	0.03	0.01	0.03
I. Organizational structure						
Autonomous	838	97	0.01	0.04	0.01	0.04
Headquarters or main	181	95	0.09	0.16	0.06	0.18
Branch or nonautonomous	140	94	0.09	0.20	0.10	0.23
II. Nature of parent organization						
Library/Info. center	361	96	0.03	0.09	0.03	0.10
Administrative	372	97	0.03	0.08	0.02	0.09
Computer tech/Info. resources mgmt.	81	96	0.14	0.33	0.00	0.36
Education	98	97	0.10	0.36	0.15	0.39
Legal	67	94	0.00	0.46	0.00	0.46
Research/Technical	170	96	0.00	0.18	0.00	0.18
Other	9	100	0.00	3.70	0.00	3.70
III. Mission/subject area						
Presidential	9	100	0.00	5.00	3.70	5.56
National	20	95	0.00	1.54	0.00	1.54
Academic	42	100	0.00	0.71	0.37	0.78
Science and technology	447	95	0.02	0.07	0.02	0.08
Health and medicine	256	98	0.06	0.15	0.00	0.16
General	211	97	0.05	0.11	0.03	0.12
Law	90	93	0.00	0.33	0.00	0.33
Multitype	53	98	0.00	0.50	0.26	0.56
Training center and/or instructional school	33	100	0.00	0.00	0.00	0.00
IV. Public access						
Services available or provided to gen. public	658	96	0.01	0.05	0.01	0.05
Svcs. not available or provided to gen. public	503	97	0.02	0.06	0.02	0.06
V. Level of automation						
First quintile (least automated)	272	96	0.00	0.11	0.02	0.11
Second quintile	278	96	0.04	0.11	0.03	0.12
Third quintile	198	98	0.05	0.16	0.05	0.17
Fourth quintile	267	97	0.05	0.13	0.02	0.13
Fifth quintile (most highly automated)	139	98	0.11	0.24	0.09	0.27

Table C1.6— Standard error (for table 1.6) of weekly requests or searches and annual direct-user loan transactions per federal FTE staff in federal libraries and information centers (FL and IC) in 1994

FL & IC Category	# of FL & IC	Response rate	Standard error # of requests/searches per federal FTE staff per typical week ^a	Response rate	Standard error annual # of loan transactions per federal FTE staff ^b
TOTAL (all federal libraries and information centers)	1234	71%	0.46	90%	17.78
I. Organizational structure					
Autonomous	838	70	0.36	90	30.75
Headquarters or main	181	62	—	86	63.80
Branch or nonautonomous	140	78	0.63	92	41.71
II. Nature of parent organization					
Library/Info. center	361	70	1.05	91	60.32
Administrative	372	72	0.44	92	31.71
Computer tech/Info. resources mgmt.	81	69	1.78	88	42.07
Education	98	68	4.06	93	76.42
Legal	67	72	0.83	85	12.75
Research/Technical	170	64	—	81	29.27
Other	9	56	3.06	100	0.79
III. Mission/subject area					
Presidential	9	89	0.52	100	18.92
National	20	85	1.07	100	8.35
Academic	42	62	—	100	117.58
Science and technology	447	68	0.49	85	12.56
Health and medicine	256	74	0.60	91	22.26
General	211	66	1.24	94	67.42
Law	90	71	0.80	83	20.72
Multitype	53	60	—	92	213.81
Training center and/or instructional school	33	76	13.50	100	266.64
IV. Public access					
Services available or provided to gen. public	658	69	0.73	89	17.92
Services not available or provided to gen. public	503	70	0.34	90	22.66
V. Level of automation					
First quintile (least automated)	272	76	0.53	91	32.87
Second quintile	278	74	0.72	87	48.54
Third quintile	198	65	1.17	89	44.80
Fourth quintile	267	66	0.70	89	35.02
Fifth quintile (most highly automated)	139	60	—	94	42.96

— Too few cases to provide a reliable estimate

Table C1.7— Standard error (for table 1.7) of inter-library loan transactions in federal libraries and information centers (FL and IC) in 1994^a—continued on next page

FL & IC Category	# of FL & IC	Response rate	Standard error total # of inter-library loan requests received (borrowed)	Response rate	Standard error average # of inter-library loan requests received (borrowed)
TOTAL (all federal libraries and information centers)	1234	95%	67,663.5	95%	57.6
I. Organizational structure					
Autonomous	838	95	51,895.0	95	65.0
Headquarters or main	181	95	40,907.1	95	237.8
Branch or nonautonomous	140	93	9,972.9	93	76.7
II. Nature of parent organization					
Library/Info. center	361	95	25,130.6	95	73.1
Administrative	372	96	43,998.6	96	122.9
Computer tech/Info. resources mgmt.	81	98	16,649.9	98	210.8
Education	98	100	13,964.6	100	142.5
Legal	67	90	2,905.2	90	48.4
Research/Technical	170	89	38,184.4	89	252.9
Other	9	100	1,856.5	100	206.3
III. Mission/subject area					
Presidential	9	89	29.2	89	3.7
National	20	100	13,553.1	100	677.7
Academic	42	100	15,777.4	100	375.7
Science and technology	447	93	39,910.7	93	95.9
Health and medicine	256	96	44,896.7	96	182.5
General	211	97	12,261.5	97	60.1
Law	90	91	5,260.7	91	64.2
Multitype	53	96	11,022.3	96	216.1
Training center and/or instructional school	33	100	862.3	100	26.1
IV. Public access					
Services available or provided to gen. public	658	95	59,986.6	95	95.5
Services not available or provided to gen. public	503	94	30,488.7	94	64.3
V. Level of automation					
First quintile (least automated)	272	94	6,094.8	94	23.7
Second quintile	278	95	21,655.0	95	82.3
Third quintile	198	92	13,679.4	92	74.8
Fourth quintile	267	96	28,001.3	96	109.4
Fifth quintile (most highly automated)	139	98	51,737.8	98	380.4

Table C1.7— Standard error (for table 1.7) of inter-library loan transactions in federal libraries and information centers (FL and IC) in 1994^a—continued

FL & IC Category	Response rate	Standard error total # of inter-library loan requests filled (sent out)	Response rate	Standard error average # of inter-library loan requests filled (sent out)
TOTAL (all federal libraries and information centers)	95%	247,940.1	95%	212.3
I. Organizational structure				
Autonomous	94	244,888.1	94	309.6
Headquarters or main	94	35,248.9	94	206.1
Branch or nonautonomous	94	13,811.8	94	105.4
II. Nature of parent organization				
Library/Info. center	96	230,685.8	96	668.7
Administrative	94	86,408.5	94	246.9
Computer tech/Info. resources mgmt.	98	5,172.9	98	65.5
Education	98	11,886.0	98	123.8
Legal	90	2,395.3	91	39.3
Research/Technical	89	17,772.8	89	116.9
Other	100	17,581.2	100	1953.5
III. Mission/subject area				
Presidential	89	483.9	89	60.5
National	100	229,650.4	100	11482.5
Academic	100	8,679.6	100	206.7
Science and technology	93	35,421.6	93	85.4
Health and medicine	96	79,074.2	96	322.8
General	95	7,806.4	95	39.0
Law	91	3,420.2	91	41.7
Multitype	96	3,492.6	96	68.5
Training center and/or instructional school	97	2,175.5	97	68.0
IV. Public access				
Services available or provided to gen. public	95	246,764.7	95	392.9
Services not available or provided to gen. public	93	20,555.1	93	44.0
V. Level of automation				
First quintile (least automated)	94	13,253.4	94	51.8
Second quintile	93	75,907.9	93	293.1
Third quintile	92	13,381.4	92	73.5
Fourth quintile	96	21,184.1	96	82.4
Fifth quintile (most highly automated)	96	232,949.9	96	1738.4

Table C1.8— Standard errors (for table 1.8) of percentage of federal libraries and information centers (FL and IC that offered services^a in 1994—continued on next page

FL & CL Category	# of FL & IC	Response rate	Standard error of % that provide centralized technical services	Response rate	Standard error of % that prepare published bibliographies
TOTAL (all federal libraries and information centers)	1234	92%	0.04	92%	0.04
I. Organizational structure					
Autonomous	838	98	0.06	98	0.06
Headquarters or main	181	98	0.26	98	0.28
Branch or nonautonomous	140	98	0.36	98	0.34
II. Nature of parent organization					
Library/Info. center	361	97	0.14	97	0.14
Administrative	372	99	0.14	99	0.13
Computer tech/Info. resources mgnt.	81	98	0.63	98	0.60
Education	98	100	0.51	100	0.51
Legal	67	96	0.77	96	0.71
Research/Technical	170	99	0.29	99	0.28
Other	9	100	5.86	100	5.86
III. Mission/subject area					
Presidential	9	100	3.70	100	5.56
National	20	100	2.51	100	2.45
Academic	42	100	1.17	100	1.17
Science and technology	447	98	0.11	98	0.11
Health and medicine	256	99	0.20	99	0.20
General	211	97	0.23	97	0.24
Law	90	96	0.57	96	0.54
Multitype	53	98	0.97	98	0.82
Training center and/or instructional school	33	100	1.54	100	1.53
IV. Public access					
Services available or provided to gen. public	658	98	0.08	98	0.08
Services not available or provided to gen. public	503	98	0.10	98	0.10
V. Level of automation					
First quintile (least automated)	272	99	0.18	99	0.16
Second quintile	278	97	0.18	97	0.18
Third quintile	198	99	0.26	99	0.25
Fourth quintile	267	98	0.19	98	0.19
Fifth quintile (most highly automated)	139	100	0.31	100	0.36

Table C1.8— Standard errors (for table 1.8) of percentage of federal libraries and information centers (FL and IC that offered services^a in 1994—continued on next page

FL & CL Category	Response rate	Standard error of % that produce other publications	Response rate	Standard error of % that produce on-line or CD-ROM databases	Response rate	Standard error of % that provide translation services
TOTAL (all federal libraries and information centers)	92%	0.04	92%	0.03	92%	0.02
I. Organizational structure						
Autonomous	98	0.06	98	0.04	98	0.03
Headquarters or main	98	0.28	98	0.25	98	0.17
Branch or nonautonomous	98	0.33	98	0.25	98	0.14
II. Nature of parent organization						
Library/Info. center	97	0.13	97	0.11	97	0.06
Administrative	99	0.13	99	0.09	99	0.06
Computer tech/Info. resources mgnt.	98	0.63	98	0.49	98	0.40
Education	100	0.49	100	0.41	100	0.18
Legal	96	0.77	96	0.70	96	0.27
Research/Technical	99	0.29	99	0.23	99	0.18
Other	100	4.90	100	5.56	100	4.90
III. Mission/subject area						
Presidential	100	5.86	100	0.00	100	0.00
National	100	2.35	100	2.22	100	1.54
Academic	100	1.20	100	1.11	100	0.37
Science and technology	98	0.11	98	0.09	98	0.07
Health and medicine	99	0.19	99	0.14	99	0.09
General	97	0.19	97	0.11	97	0.07
Law	96	0.57	96	0.50	96	0.21
Multitype	98	0.91	98	0.84	98	0.27
Training center and/or instructional school	100	1.50	100	0.88	100	0.53
IV. Public access						
Services available or provided to gen. public	98	0.08	98	0.06	98	0.04
Svcs. not available or provided to gen. public	98	0.09	98	0.07	98	0.05
V. Level of automation						
First quintile (least automated)	99	0.15	99	0.11	99	0.07
Second quintile	97	0.17	97	0.13	97	0.07
Third quintile	99	0.24	99	0.18	99	0.10
Fourth quintile	98	0.19	98	0.15	98	0.11
Fifth quintile (most highly automated)	100	0.36	100	0.35	100	0.26

Table C1.8— Standard errors (for table 1.8) of percentage of federal libraries and information centers (FL and IC that offered services^a in 1994—continued

FL & CL Category	Response rate	Standard error of % that provide SDI services	Response rate	Standard error of % that provide outreach services	Response rate	Standard error of % that perform professional consultation
TOTAL (all federal libraries and information centers)	92%	0.04	92%	0.04	92%	0.04
I. Organizational structure						
Autonomous	98	0.06	98	0.06	98	0.06
Headquarters or main	98	0.28	98	0.28	98	0.28
Branch or nonautonomous	98	0.35	98	0.36	98	0.36
II. Nature of parent organization						
Library/Info. center	97	0.14	97	0.14	97	0.14
Administrative	99	0.14	99	0.13	99	0.13
Computer tech/Info. resources mgnt.	98	0.60	98	0.63	98	0.64
Education	100	0.50	100	0.47	100	0.51
Legal	96	0.79	96	0.68	96	0.79
Research/Technical	99	0.29	99	0.28	99	0.30
Other	100	5.56	100	5.86	100	3.70
III. Mission/subject area						
Presidential	100	0.00	100	5.56	100	5.56
National	100	2.45	100	0.00	100	2.05
Academic	100	1.19	100	1.03	100	1.17
Science and technology	98	0.11	98	0.11	98	0.11
Health and medicine	99	0.18	99	0.19	99	0.20
General	97	0.21	97	0.21	97	0.21
Law	96	0.58	96	0.49	96	0.57
Multitype	98	0.94	98	0.91	98	0.94
Training center and/or instructional school	100	1.53	100	0.88	100	1.48
IV. Public access						
Services available or provided to gen. public	98	0.08	98	0.08	98	0.08
Svcs. not available or provided to gen. public	98	0.10	98	0.09	98	0.10
V. Level of automation						
First quintile (least automated)	99	0.17	99	0.14	99	0.17
Second quintile	97	0.18	97	0.17	97	0.17
Third quintile	99	0.25	99	0.24	99	0.25
Fourth quintile	98	0.18	98	0.19	98	0.19
Fifth quintile (most highly automated)	100	0.29	100	0.36	100	0.35

Table C1.9— Standard errors (for table 1.0) of number of available technologies and available technologies and availability of specific technologies in federal libraries and information centers (FL and IC) in 1994—continued on next page

FL & IC Category	# of Libraries	Response Rate	Standard error % with E-Mail	Standard error % with FAX	Standard error % with LAN	Standard error % with WAN
TOTAL (all federal libraries and information centers)	1234	93%	0.04	0.03	0.04	0.04
I. Organizational structure						
Autonomous	838	99	0.05	0.05	0.06	0.05
Headquarters or main	181	99	0.20	0.19	0.26	0.25
Branch or nonautonomous	140	100	0.31	0.23	0.35	0.30
II. Nature of parent organization						
Library/Info. center	361	99	0.12	0.11	0.14	0.11
Administrative	372	99	0.12	0.10	0.13	0.11
Computer tech/Info. resources mgnt.	81	100	0.35	0.44	0.48	0.59
Education	98	100	0.36	0.35	0.51	0.41
Legal	67	96	0.49	0.57	0.74	0.75
Research/technical	170	100	0.23	0.21	0.26	0.26
Other	9	100	3.70	3.70	5.86	4.90
III. Mission/subject area						
Presidential	9	100	0.00	0.00	0.00	0.00
National	20	100	1.12	1.12	2.35	2.22
Academic	42	100	0.90	0.84	1.17	1.11
Science and technology	447	99	0.08	0.07	0.10	0.10
Health and medicine	256	100	0.13	0.13	0.20	0.15
General	211	99	0.24	0.21	0.23	0.15
Law	90	97	0.35	0.42	0.53	0.55
Multitype	53	100	0.89	0.77	0.91	0.75
Training center and/or instructional school	33	100	1.32	1.37	1.52	0.73
IV. Public access						
Services available or provided to gen. public	658	99	0.06	0.05	0.07	0.07
Svcs. not available or provided to gen. public	503	99	0.09	0.08	0.10	0.08
V. Level of automation						
First quintile (least automated)	272	99	0.18	0.18	0.16	0.07
Second quintile	278	100	0.14	0.14	0.18	0.13
Third quintile	198	100	0.17	0.15	0.23	0.20
Fourth quintile	267	100	0.09	0.09	0.14	0.17
Fifth quintile (most highly automated)	139	100	0.00	0.10	0.12	0.34

Table C1.9— Standard errors (for table 1.9) of number of available technologies and availability of specific technologies in federal libraries and information centers (FL and IC) in 1994—continued

FL & IC Category	Standard error % with Internet	Standard error % with client/server interface	Standard error % with magnetic tape	Standard error % with CD-ROM	Standard error % with WORM
TOTAL (all federal libraries and information centers)	0.04	0.04	0.02	0.04	0.01
I. Organizational structure					
Autonomous	0.06	0.06	0.03	0.05	0.02
Headquarters or main	0.27	0.27	0.16	0.24	0.08
Branch or nonautonomous	0.36	0.34	0.17	0.34	0.06
II. Nature of parent organization					
Library/Info. center	0.14	0.13	0.08	0.12	0.04
Administrative	0.14	0.13	0.07	0.12	0.04
Computer tech/Info. resources mgnt.	0.51	0.62	0.39	0.33	0.19
Education	0.51	0.43	0.32	0.41	0.00
Legal	0.79	0.65	0.00	0.65	0.20
Research/Technical	0.28	0.29	0.19	0.27	0.10
Other	5.86	4.90	4.90	5.86	0.00
III. Mission/subject area					
Presidential	0.00	0.00	0.00	4.90	0.00
National	1.12	2.45	2.35	2.56	1.12
Academic	1.14	1.20	0.84	0.99	0.00
Science and technology	0.11	0.11	0.07	0.09	0.04
Health and medicine	0.20	0.17	0.09	0.16	0.04
General	0.22	0.16	0.08	0.22	0.03
Law	0.58	0.45	0.12	0.49	0.17
Multitype	0.94	0.87	0.44	0.77	0.26
Training center and/or instructional school	1.53	1.26	1.37	1.32	0.53
IV. Public access					
Services available or provided to gen. public	0.08	0.07	0.04	0.06	0.02
Services not available or provided to gen. public	0.10	0.09	0.05	0.09	0.03
V. Level of automation					
First quintile (least automated)	0.11	0.07	0.03	0.18	0.03
Second quintile	0.18	0.13	0.06	0.16	0.00
Third quintile	0.24	0.24	0.15	0.18	0.07
Fourth quintile	0.14	0.19	0.10	0.08	0.05
Fifth quintile (most highly automated)	0.06	0.21	0.34	0.09	0.20

Table C1.10— Standard error (for table 1.10) of percentage of functions that were automated prior to and after 1991 in federal libraries and information centers (FL and IC)^a

FL& IC Category	# of FL & IC	Response rate	Standard error % functions automated as of 1994	Standard error % functions automated before 1991	Standard error % functions automated since 1991	Standard error % functions for which automation under development
TOTAL (all federal libraries and information centers)	1234	92%	0.03	0.03	0.02	0.02
I. Organizational structure						
Autonomous	838	98	0.04	0.04	0.03	0.03
Headquarters or main	181	99	0.19	0.18	0.13	0.12
Branch or nonautonomous	140	96	0.28	0.23	0.18	0.21
II. Nature of parent organization						
Library/Info. center	361	97	0.10	0.10	0.07	0.07
Administrative	372	98	0.10	0.09	0.07	0.06
Computer tech/Info. resources mgmt.	81	99	0.40	0.37	0.27	0.21
Education	98	100	0.35	0.33	0.19	0.23
Legal	67	97	0.44	0.39	0.29	0.32
Research/Technical	170	99	0.20	0.20	0.14	0.13
Other	9	89	7.11	7.38	1.35	3.12
III. Mission/subject area						
Presidential	9	89	4.94	3.26	2.62	3.95
National	20	85	2.72	2.55	0.64	1.25
Academic	42	98	0.80	0.76	0.58	0.55
Science and technology	447	98	0.08	0.08	0.06	0.04
Health and medicine	256	98	0.13	0.12	0.09	0.09
General	211	98	0.17	0.14	0.12	0.13
Law	90	98	0.34	0.30	0.21	0.21
Multitype	53	100	0.75	0.64	0.45	0.38
Training center and/or instructional school	33	100	1.09	1.08	0.69	0.64
IV. Public access						
Services available or provided to gen. public	658	98	0.05	0.05	0.04	0.03
Svcs. not available or provided to gen. public	503	98	0.07	0.07	0.05	0.05
V. Level of automation						
First quintile (least automated)	272	97	0.06	0.05	0.04	0.04
Second quintile	278	97	0.09	0.09	0.06	0.07
Third quintile	198	100	0.13	0.12	0.12	0.12
Fourth quintile	267	100	0.10	0.12	0.09	0.10
Fifth quintile (most highly automated)	139	100	0.14	0.23	0.22	0.13

Table C2.1— Standard error (for table 2.1) of total numbers of volumes or volume equivalents in print held by federal libraries and information centers (FL and IC) in 1994

FL & IC Category	# of FL & IC	Response rate	Standard error for total # of volumes or volume equivalents	Response rate	Standard error for average # of volumes or volume equivalents
TOTAL (all federal libraries and information centers)	1234	92%	16825884.0	92%	14850.7
I. Organizational structure					
Autonomous	838	91	16640867.5	91	21895.9
Headquarters or main	181	93	2408201.1	93	14249.7
Branch or nonautonomous	140	92	249883.4	92	1937.1
II. Nature of parent organization					
Library/Info. center	361	92	1958334.4	92	5916.4
Administrative	372	90	2755387.8	90	8200.6
Computer tech/Info. resources mgmt.	81	89	488362.7	89	6782.8
Education	98	91	642464.5	91	7218.7
Legal	67	93	652778.6	93	10528.7
Research/Technical	170	93	907109.1	93	5741.2
Other	9	100	16402757.3	100	1822528.6
III. Mission/subject area					
Presidential	9	89	46253.0	89	5781.6
National	20	100	16430422.6	100	821521.1
Academic	42	98	1315303.3	98	32080.6
Science and technology	447	90	2143846.2	90	5306.6
Health and medicine	256	88	159210.1	88	707.6
General	211	96	345144.2	96	1708.6
Law	90	93	835838.7	93	9950.5
Multitype	53	83	274394.5	83	6236.2
Training center and/or instructional school	33	97	97940.1	97	3060.6
IV. Public access					
Services available or provided to gen. public	658	91	16786233.4	91	28164.8
Services not available or provided to gen. public	503	92	879474.2	92	1895.4
V. Level of automation					
First quintile (least automated)	272	92	423580.1	92	1701.1
Second quintile	278	90	309591.3	90	1243.3
Third quintile	198	92	472182.7	92	2594.4
Fourth quintile	267	91	2196125.4	91	9000.5
Fifth quintile (most highly automated)	139	94	16563090.6	94	127408.4

Table C2.2— Standard error (for table 2.2) of total numbers of current subscriptions in print held by federal libraries and information centers (FL and IC) in 1994

FL & IC Category	# of FL & IC	Response rate	Standard error of total # of current subscriptions in print	Response rate	Standard error of average # of current subscriptions in print
TOTAL (all federal libraries and information centers)	1234	97%	179249.6	97%	149.6
I. Organizational structure					
Autonomous	838	97	177509.4	97	217.3
Headquarters or main	181	95	23861.3	95	138.7
Branch or nonautonomous	140	96	3491.5	96	26.1
II. Nature of parent organization					
Library/Info. center	361	98	23967.4	98	67.7
Administrative	372	95	53080.7	95	150.4
Computer tech/Info. resources mgmt.	81	95	4716.3	95	61.3
Education	98	99	3667.5	99	37.8
Legal	67	96	18126.6	96	283.2
Research/Technical	170	99	14242.6	99	84.8
Other	9	100	167431.0	100	18603.4
III. Mission/subject area					
Presidential	9	100	62.4	100	6.9
National	20	100	168490.3	100	8424.5
Academic	42	100	7857.1	100	187.1
Science and technology	447	96	16505.8	96	38.5
Health and medicine	256	99	4718.0	99	18.7
General	211	98	47736.2	98	230.6
Law	90	93	18978.5	93	225.9
Multitype	53	91	2516.8	91	52.4
Training center and/or instructional school	33	100	1038.8	100	31.5
IV. Public access					
Services available or provided to gen. public	658	96	177834.4	96	280.5
Services not available or provided to gen. public	503	98	21455.3	98	43.7
V. Level of automation					
First quintile (least automated)	272	96	16052.6	96	61.7
Second quintile	278	96	5728.2	96	21.5
Third quintile	198	96	49128.6	96	258.6
Fourth quintile	267	99	10922.8	99	41.4
Fifth quintile (most highly automated)	139	99	170091.8	99	1241.6

Table C2.3— Standard error (for table 2.3) of trends in volume of monographs purchased by federal libraries and information centers (FL and IC) from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in monographs	Standard error % reporting no change in monographs	Standard error % reporting sig. decreases in monographs	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	89%	0.02	0.04	0.03	0.03
I. Organizational structure						
Autonomous	838	95	0.04	0.06	0.05	0.05
Headquarters or main	181	94	0.17	0.27	0.24	0.18
Branch or nonautonomous	140	93	0.15	0.32	0.31	0.34
II. Nature of parent organization						
Library/Info. center	361	95	0.09	0.13	0.12	0.11
Administrative	372	94	0.08	0.13	0.12	0.10
Computer tech/Info. resources mgmt.	81	94	0.45	0.59	0.57	0.33
Education	98	97	0.36	0.50	0.36	0.34
Legal	67	91	0.53	0.72	0.39	0.64
Research/Technical	170	95	0.18	0.29	0.21	0.23
Other	9	100	0.00	5.56	3.70	5.86
III. Mission/subject area						
Presidential	9	100	3.70	5.86	5.86	0.00
National	20	85	0.00	1.80	1.52	2.16
Academic	42	100	1.03	1.19	1.06	0.62
Science and technology	447	93	0.06	0.11	0.09	0.09
Health and medicine	256	97	0.15	0.19	0.14	0.12
General	211	94	0.12	0.22	0.21	0.20
Law	90	91	0.38	0.53	0.35	0.44
Multitype	53	94	0.50	0.92	0.74	0.83
Training center and/or instructional school	33	97	0.00	1.47	1.25	1.49
IV. Public access						
Services available or provided to gen. public	658	94	0.05	0.07	0.06	0.06
Svcs. not available or provided to gen. public	503	95	0.06	0.10	0.08	0.08
V. Level of automation						
First quintile (least automated)	272	93	0.10	0.17	0.12	0.18
Second quintile	278	95	0.11	0.18	0.13	0.15
Third quintile	198	96	0.15	0.25	0.22	0.19
Fourth quintile	267	96	0.12	0.18	0.17	0.07
Fifth quintile (most highly automated)	139	96	0.26	0.35	0.35	0.06

Table C2.4— Standard error (for table 2.4) of trends in dollars expended for monographs in federal libraries and information centers (FL and IC) from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in dollars	Standard error % reporting no change in dollars	Standard error % reporting sig. decreases in dollars	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	89%	0.03	0.04	0.03	0.03
I. Organizational structure						
Autonomous	838	94	0.05	0.06	0.05	0.05
Headquarters or main	181	95	0.21	0.27	0.23	0.18
Branch or nonautonomous	140	93	0.18	0.31	0.29	0.34
II. Nature of parent organization						
Library/Info. center	361	94	0.10	0.13	0.11	0.11
Administrative	372	95	0.10	0.13	0.11	0.11
Computer tech/Info. resources mgmt.	81	93	0.51	0.59	0.54	0.30
Education	98	97	0.43	0.51	0.37	0.34
Legal	67	93	0.62	0.71	0.39	0.65
Research/Technical	170	94	0.21	0.29	0.20	0.23
Other	9	100	0.00	5.56	3.70	5.86
III. Mission/subject area						
Presidential	9	100	3.70	5.86	5.56	3.70
National	20	90	1.12	1.53	1.81	2.30
Academic	42	100	1.14	1.18	0.95	0.62
Science and technology	447	92	0.08	0.11	0.09	0.09
Health and medicine	256	96	0.17	0.19	0.13	0.11
General	211	94	0.14	0.22	0.21	0.20
Law	90	92	0.47	0.53	0.35	0.44
Multitype	53	92	0.60	0.91	0.60	0.83
Training center and/or instructional school	33	100	0.53	1.48	1.26	1.50
IV. Public access						
Services available or provided to gen. public	658	93	0.06	0.07	0.06	0.06
Svcs. not available or provided to gen. public	503	95	0.07	0.10	0.08	0.08
V. Level of automation						
First quintile (least automated)	272	93	0.12	0.16	0.12	0.18
Second quintile	278	94	0.13	0.17	0.12	0.15
Third quintile	198	96	0.19	0.25	0.21	0.19
Fourth quintile	267	96	0.16	0.18	0.16	0.07
Fifth quintile (most highly automated)	139	96	0.29	0.35	0.33	0.09

Table C2.5— Standard error (for table 2.5) of trends in number of serial subscriptions in federal libraries and information centers (FL and IC) from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in subscriptions	Standard error % reporting no change in subscriptions	Standard error % reporting sig. decreases in subscriptions	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	90%	0.03	0.04	0.03	0.02
I. Organizational structure						
Autonomous	838	96	0.04	0.06	0.05	0.03
Headquarters or main	181	96	0.12	0.27	0.25	0.12
Branch or nonautonomous	140	94	0.20	0.35	0.31	0.26
II. Nature of parent organization						
Library/Info. center	361	95	0.09	0.14	0.12	0.07
Administrative	372	97	0.08	0.13	0.12	0.07
Computer tech/Info. resources mgmt.	81	96	0.44	0.61	0.60	0.14
Education	98	98	0.32	0.47	0.35	0.25
Legal	67	94	0.53	0.72	0.59	0.31
Research/Technical	170	96	0.19	0.29	0.24	0.16
Other	9	100	3.70	5.86	0.00	5.86
III. Mission/subject area						
Presidential	9	100	0.00	5.56	4.90	3.70
National	20	90	0.00	2.18	1.53	2.37
Academic	42	98	0.84	1.18	0.99	0.62
Science and technology	447	95	0.07	0.11	0.10	0.06
Health and medicine	256	98	0.15	0.19	0.16	0.09
General	211	96	0.14	0.23	0.23	0.10
Law	90	93	0.40	0.52	0.42	0.17
Multitype	53	96	0.44	0.93	0.85	0.56
Training center and/or instructional school	33	100	0.89	1.53	1.37	0.89
IV. Public access						
Services available or provided to gen. public	658	95	0.05	0.07	0.07	0.04
Svcs. not available or provided to gen. public	503	96	0.07	0.10	0.09	0.04
V. Level of automation						
First quintile (least automated)	272	94	0.12	0.18	0.14	0.13
Second quintile	278	96	0.12	0.18	0.15	0.11
Third quintile	198	97	0.17	0.25	0.22	0.11
Fourth quintile	267	97	0.12	0.18	0.18	0.06
Fifth quintile (most highly automated)	139	98	0.23	0.36	0.35	0.00

Table C2.6— Standard errors (for table 2.6) of trends in dollars expended for serials in federal libraries and information centers (FL and IC) from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in dollars	Standard error % reporting no change in dollars	Standard error % reporting sig. decreases in dollars	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	89%	0.04	0.04	0.03	0.02
I. Organizational structure						
Autonomous	838	95	0.05	0.06	0.05	0.03
Headquarters or main	181	96	0.25	0.26	0.24	0.13
Branch or nonautonomous	140	94	0.27	0.34	0.30	0.28
II. Nature of parent organization						
Library/Info. center	361	95	0.12	0.13	0.11	0.08
Administrative	372	96	0.12	0.13	0.12	0.08
Computer tech/Info. resources mgmt.	81	94	0.59	0.51	0.57	0.23
Education	98	98	0.49	0.51	0.30	0.26
Legal	67	94	0.61	0.72	0.53	0.31
Research/Technical	170	95	0.26	0.29	0.20	0.17
Other	9	100	4.90	4.90	3.70	5.86
III. Mission/subject area						
Presidential	9	100	0.00	5.56	4.90	3.70
National	20	90	1.12	2.18	0.00	2.30
Academic	42	98	1.11	1.19	0.71	0.62
Science and technology	447	93	0.10	0.10	0.09	0.07
Health and medicine	256	98	0.19	0.19	0.13	0.08
General	211	95	0.19	0.23	0.22	0.11
Law	90	93	0.49	0.54	0.39	0.17
Multitype	53	96	0.74	0.92	0.81	0.64
Training center and/or instructional school	33	100	1.19	1.52	1.26	1.19
IV. Public access						
Services available or provided to gen. public	658	95	0.07	0.07	0.06	0.05
Svcs. not available or provided to gen. public	503	95	0.09	0.10	0.08	0.05
V. Level of automation						
First quintile (least automated)	272	94	0.14	0.18	0.14	0.14
Second quintile	278	96	0.15	0.18	0.13	0.12
Third quintile	198	96	0.23	0.24	0.21	0.14
Fourth quintile	267	96	0.18	0.17	0.16	0.06
Fifth quintile (most highly automated)	139	97	0.35	0.34	0.31	0.00

Table C2.7— Standard errors (for table 2.7) of trends in dollars expended for other collections in federal libraries and information centers (FI and IC) from 1992-1994^a

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in dollars	Standard error % reporting no change in dollars	Standard error % reporting sig. decreases in dollars	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	88%	0.03	0.04	0.03	0.03
I. Organizational structure						
Autonomous	838	95	0.05	0.06	0.04	0.05
Headquarters or main	181	93	0.22	0.26	0.23	0.19
Branch or nonautonomous	140	91	0.18	0.33	0.27	0.32
II. Nature of parent organization						
Library/Info. center	361	94	0.11	0.13	0.11	0.11
Administrative	372	95	0.10	0.13	0.11	0.11
Computer tech/Info. resources mgmt.	81	91	0.52	0.57	0.50	0.44
Education	98	98	0.46	0.51	0.28	0.35
Legal	67	91	0.63	0.72	0.43	0.51
Research/Technical	170	93	0.19	0.28	0.18	0.24
Other	9	100	3.70	5.56	0.00	5.86
III. Mission/subject area						
Presidential	9	100	0.00	5.56	3.70	4.90
National	20	90	1.12	2.18	1.12	2.37
Academic	42	98	1.02	1.18	0.84	0.90
Science and technology	447	92	0.08	0.11	0.08	0.09
Health and medicine	256	97	0.17	0.19	0.11	0.14
General	211	94	0.18	0.22	0.21	0.17
Law	90	90	0.47	0.53	0.33	0.35
Multitype	53	94	0.68	0.89	0.68	0.86
Training center and/or instructional school	33	100	1.10	1.53	1.00	1.19
IV. Public access						
Services available or provided to gen. public	658	93	0.06	0.07	0.06	0.06
Svcs. not available or provided to gen. public	503	95	0.08	0.10	0.07	0.08
V. Level of automation						
First quintile (least automated)	272	92	0.12	0.17	0.13	0.17
Second quintile	278	95	0.13	0.18	0.12	0.15
Third quintile	198	95	0.19	0.24	0.21	0.19
Fourth quintile	267	95	0.16	0.18	0.14	0.11
Fifth quintile (most highly automated)	139	96	0.32	0.35	0.28	0.20

Table C2.8— Standard error (for table 2.8) of trends in federally appropriated funding in federal libraries and information centers (FL and IC) from 1992-1994^a

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in funding	Standard error % reporting no change in funding	Standard error % reporting sig. decreases in funding	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	89%	0.03	0.04	0.03	0.02
I. Organizational structure						
Autonomous	838	95	0.04	0.06	0.05	0.03
Headquarters or main	181	94	0.19	0.27	0.24	0.14
Branch or nonautonomous	140	92	0.19	0.34	0.30	0.18
II. Nature of parent organization						
Library/Info. center	361	94	0.10	0.13	0.12	0.08
Administrative	372	94	0.10	0.13	0.12	0.06
Computer tech/Info. resources mgmt.	81	95	0.37	0.60	0.55	0.30
Education	98	96	0.41	0.50	0.37	0.23
Legal	67	97	0.59	0.74	0.59	0.40
Research/Technical	170	94	0.18	0.27	0.20	0.16
Other	9	100	3.70	5.86	0.00	5.86
III. Mission/subject area						
Presidential	9	100	0.00	5.86	5.56	3.70
National	20	95	1.12	1.82	1.12	1.12
Academic	42	95	0.89	1.18	1.08	0.51
Science and technology	447	92	0.06	0.11	0.09	0.07
Health and medicine	256	96	0.16	0.19	0.11	0.10
General	211	96	0.18	0.23	0.23	0.07
Law	90	96	0.46	0.55	0.40	0.28
Multitype	53	96	0.44	0.93	0.87	0.60
Training center and/or instructional school	33	97	0.73	1.52	1.41	1.00
IV. Public access						
Services available or provided to gen. public	658	94	0.05	0.07	0.06	0.04
Svcs. not available or provided to gen. public	503	95	0.08	0.10	0.08	0.05
V. Level of automation						
First quintile (least automated)	272	94	0.14	0.18	0.15	0.12
Second quintile	278	95	0.13	0.17	0.14	0.09
Third quintile	198	95	0.18	0.24	0.19	0.11
Fourth quintile	267	94	0.13	0.18	0.16	0.09
Fifth quintile (most highly automated)	139	96	0.24	0.35	0.33	0.18

Table C2.9— Standard error (for table 2.9) of square footage indexed by volumes or volume equivalents in print and current subscriptions in print in federal libraries and information centers (FL and IC) in 1994—continued on next page

FL & IC Category	# of FL & IC	Response rate	Standard error of mean square footage	Response rate	Standard error Sq. footage by volume/vol. equivalents
TOTAL (all federal libraries and information centers)	1234	78%	3,172.28	72%	0.00
I. Organizational structure					
Autonomous	838	84	4,322.13	76	0.00
Headquarters or main	181	80	1,946.33	75	0.00
Branch or nonautonomous	140	81	1,342.39	77	0.02
II. Nature of parent organization					
Library/Info. center	361	84	1,164.71	77	0.00
Administrative	372	85	933.55	77	0.00
Computer tech/Info. resources mgmt.	81	81	1,141.05	74	0.01
Education	98	83	2,382.41	76	0.00
Legal	67	81	3,657.57	75	0.01
Research/Technical	170	79	647.44	76	0.00
Other	9	56	—	56	—
III. Mission/subject area					
Presidential	9	67	—	67	—
National	20	85	174,287.00	85	0.00
Academic	42	90	5,975.87	88	0.00
Science and technology	447	83	469.80	76	0.00
Health and medicine	256	77	401.95	67	—
General	211	91	479.91	87	0.00
Law	90	76	3,094.16	71	0.00
Multitype	53	75	845.47	62	—
Training center and/or instructional school	33	97	1,065.64	94	0.01
IV. Public access					
Services available or provided to gen. public	658	82	5,628.81	75	0.00
Services not available or provided to gen. public	503	83	470.84	78	0.00
V. Level of automation					
First quintile (least automated)	272	81	206.46	75	0.00
Second quintile	278	78	573.75	71	0.00
Third quintile	198	83	626.19	77	0.00
Fourth quintile	267	84	1,158.21	77	0.00
Fifth quintile (most highly automated)	139	93	23,318.46	86	0.00

— Too few cases to provide a reliable estimate

Table C2.9— Standard error (for table 2.9) of square footage indexed by volumes or volume equivalents in print and current subscriptions in print in federal libraries and information centers (FL and IC) in 1994—continued

FL & IC Category	Response rate	Standard error Sq. footage by current subscriptions
TOTAL (all federal libraries and information centers)	76%	0.09
I. Organizational structure		
Autonomous	82	0.05
Headquarters or main	77	0.05
Branch or nonautonomous	78	1.32
II. Nature of parent organization		
Library/Info. center	82	0.14
Administrative	82	0.05
Computer tech/Info. resources mgmt.	79	0.36
Education	83	0.52
Legal	76	0.92
Research/Technical	78	0.27
Other	56	—
III. Mission/subject area		
Presidential	67	—
National	85	0.31
Academic	90	0.73
Science and technology	81	0.09
Health and medicine	77	0.08
General	89	0.24
Law	71	0.76
Multitype	68	—
Training center and/or instructional school	97	1.79
IV. Public access		
Services available or provided to gen. public	80	0.10
Services not available or provided to gen. public	82	0.13
V. Level of automation		
First quintile (least automated)	78	0.42
Second quintile	76	0.30
Third quintile	80	0.43
Fourth quintile	83	0.04
Fifth quintile (most highly automated)	91	0.10

— Too few cases to provide a reliable estimate

Table C2.10— Standard error (for table 2.10) of percentage of federal libraries and information centers (FL and IC) with any electronic collections in 1994

FL & IC Category	# of FL & IC	Response rate	Standard error % of libraries with any electronic collections
TOTAL (all federal libraries and information centers)	1234	88%	0.04
I. Organizational structure			
Autonomous	838	87	0.07
Headquarters or main	181	85	0.33
Branch or nonautonomous	140	86	0.37
II. Nature of parent organization			
Library/Info. center	361	89	0.15
Administrative	372	85	0.15
Computer tech/Info. resources mgmt.	81	86	0.72
Education	98	91	0.57
Legal	67	85	0.85
Research/Technical	170	85	0.31
Other	9	89	0.00
III. Mission/subject area			
Presidential	9	89	5.79
National	20	90	1.80
Academic	42	81	1.45
Science and technology	447	85	0.13
Health and medicine	256	91	0.20
General	211	90	0.25
Law	90	84	0.62
Multitype	53	77	1.15
Training center and/or instructional school	33	91	1.68
IV. Public access			
Services available or provided to gen. public	658	86	0.09
Services not available or provided to gen. public	503	87	0.11
V. Level of automation			
First quintile (least automated)	272	91	0.16
Second quintile	278	88	0.19
Third quintile	198	89	0.27
Fourth quintile	267	84	0.22
Fifth quintile (most highly automated)	139	78	0.45

Table C3.1— Standard errors (for table 3.1) for federal full-time equivalent (FTE) staff in federal libraries and information centers (FL and IC) in 1994^a—continued on next page

FL & IC Category	FL & IC	Response rate	Standard error # of FTE Staff
TOTAL (all federal libraries and information centers)	1234	99%	4907.4
I. Organizational structure			
Autonomous	838	100	4522.7
Headquarters or main	181	98	1900.5
Branch or nonautonomous	140	99	119.2
II. Nature of parent organization			
Library/Info. center	361	99	1916.6
Administrative	372	99	276.9
Computer tech/Info. resources mgmt.	81	99	95.9
Education	98	100	81.1
Legal	67	100	76.5
Research/Technical	170	99	138.7
Other	9	100	4507.0
III. Mission/subject area			
Presidential	9	100	29.6
National	20	100	4769.8
Academic	42	100	158.9
Science and technology	447	98	185.5
Health and medicine	256	100	65.5
General	211	100	71.6
Law	90	100	89.3
Multitype	53	100	62.8
Training center and/or instructional school	33	100	23.3
IV. Public access			
Services available or provided to gen. public	658	99	4902.2
Services not available or provided to gen. public	503	99	141.1
V. Level of automation			
First quintile (least automated)	272	100	26.2
Second quintile	278	99	1899.0
Third quintile	198	99	76.4
Fourth quintile	267	99	180.3
Fifth quintile (most highly automated)	139	99	4510.7

Table C3.1— Standard errors (for table 3.1) for federal full-time equivalent (FTE) staff in federal libraries and information centers (FL and IC) in 1994^a—continued

FL & IC Category	Response rate	Standard error for mean # of federal FTE staff	Response rate	Standard error for % of federal FTE staff who are grade 13 or above
TOTAL (all federal libraries and information centers)	99%	4.01	99%	0.088
I. Organizational structure				
Autonomous	99	5.42	100	0.133
Headquarters or main	98	10.68	98	0.064
Branch or nonautonomous	99	0.86	99	0.062
II. Nature of parent organization				
Library/Info. Center	99	5.37	99	0.085
Administrative	100	0.75	99	0.086
Computer tech/Info. resources mgmt.	99	1.20	99	0.399
Education	100	0.83	100	0.108
Legal	100	1.14	100	0.198
Research/Technical	99	0.83	99	0.074
Other	100	500.78	100	0.031
III. Mission/subject area				
Presidential	100	3.29	100	0.409
National	100	238.49	100	0.641
Academic	100	3.78	100	0.466
Science and technology	98	0.42	98	0.076
Health and medicine	100	0.26	100	0.065
General	100	0.34	100	0.044
Law	100	0.99	100	0.221
Multitype	100	1.18	100	0.349
Training center and/or instructional school	100	0.71	100	0.222
IV. Public access				
Services available or provided to gen. public	99	7.52	99	0.119
Services not available or provided to gen. public	99	0.28	99	0.055
V. Level of automation				
First quintile (least automated)	100	0.10	100	0.040
Second quintile	99	6.91	99	0.107
Third quintile	100	0.39	99	0.075
Fourth quintile	99	0.69	99	0.108
Fifth quintile (most highly automated)	99	32.69	99	0.209

Table C3.2— Standard errors (for table 3.2) of allocated federal positions in federal libraries and information centers (FL and IC): Trends in management or supervisory staffing from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. FTE staff increases	Standard error % reporting no change in FTE staff	Standard error % reporting sig. FTE staff decreases	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	87%	0.01	0.04	0.02	0.03
I. Organizational structure						
Autonomous	838	93	0.02	0.05	0.04	0.04
Headquarters or main	181	92	0.07	0.25	0.19	0.19
Branch or nonautonomous	140	91	0.10	0.33	0.21	0.29
II. Nature of parent organization						
Library/Info. center	361	90	0.05	0.13	0.09	0.10
Administrative	372	94	0.04	0.12	0.08	0.10
Computer tech/Info. resources mgmt.	81	93	0.14	0.58	0.45	0.48
Education	98	96	0.18	0.40	0.23	0.31
Legal	67	97	0.26	0.62	0.26	0.56
Research/Technical	170	92	0.06	0.28	0.21	0.24
Other	9	89	0.00	5.56	3.68	5.38
III. Mission/subject area						
Presidential	9	100	0.00	3.70	3.70	0.00
National	20	90	1.11	2.03	1.81	0.00
Academic	42	93	0.00	0.94	0.70	0.70
Science and technology	447	90	0.03	0.10	0.08	0.09
Health and medicine	256	95	0.06	0.17	0.10	0.14
General	211	93	0.07	0.21	0.16	0.16
Law	90	96	0.16	0.44	0.16	0.40
Multitype	53	94	0.26	0.92	0.77	0.77
Training center and/or instructional school	33	91	0.00	1.41	1.00	1.24
IV. Public access						
Services available or provided to gen. public	658	93	0.02	0.07	0.05	0.06
Svcs. not available or provided to gen. public	503	92	0.03	0.09	0.06	0.08
V. Level of automation						
First quintile (least automated)	272	92	0.04	0.17	0.08	0.17
Second quintile	278	94	0.06	0.16	0.12	0.13
Third quintile	198	94	0.08	0.23	0.16	0.19
Fourth quintile	267	93	0.06	0.16	0.13	0.10
Fifth quintile (most highly automated)	139	92	0.12	0.31	0.25	0.20

Table C3.3— Standard errors (for table 3.3) of allocated federal positions in federal libraries and information centers (FL and IC): Trends in professional staffing from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. FTE staff increases ^a	Standard error % reporting no change in FTE staff	Standard error % reporting sig. FTE staff decreases ^a	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	86%	0.02	0.04	0.03	0.03
I. Organizational structure						
Autonomous	838	92	0.02	0.06	0.04	0.04
Headquarters or main	181	91	0.14	0.26	0.20	0.18
Branch or nonautonomous	140	91	0.12	0.34	0.28	0.28
II. Nature of parent organization						
Library/Info. center	361	89	0.05	0.13	0.10	0.10
Administrative	372	93	0.06	0.13	0.09	0.10
Computer tech/Info. resources mgmt.	81	95	0.35	0.58	0.44	0.39
Education	98	94	0.15	0.48	0.38	0.37
Legal	67	96	0.43	0.64	0.31	0.46
Research/Technical	170	92	0.10	0.28	0.22	0.21
Other	9	89	0.00	5.56	0.00	5.56
III. Mission/subject area						
Presidential	9	100	3.70	5.56	5.86	0.00
National	20	90	1.11	2.03	1.81	0.00
Academic	42	90	0.00	1.09	0.89	0.84
Science and technology	447	89	0.04	0.10	0.08	0.08
Health and medicine	256	94	0.06	0.18	0.12	0.15
General	211	92	0.12	0.22	0.17	0.17
Law	90	94	0.30	0.47	0.26	0.33
Multitype	53	96	0.60	0.93	0.79	0.60
Training center and/or instructional school	33	91	0.00	1.47	1.09	1.38
IV. Public access						
Services available or provided to gen. public	658	91	0.03	0.07	0.06	0.05
Svcs. not available or provided to gen. public	503	93	0.04	0.09	0.07	0.08
V. Level of automation						
First quintile (least automated)	272	90	0.05	0.17	0.10	0.16
Second quintile	278	92	0.07	0.17	0.13	0.14
Third quintile	198	93	0.09	0.23	0.19	0.17
Fourth quintile	267	93	0.10	0.17	0.14	0.09
Fifth quintile (most highly automated)	139	96	0.17	0.34	0.29	0.19

Table C3.4— Standard error (for table 3.4) of allocated federal positions in federal libraries and information centers (FL and IC): Trends in technician and staff support positions from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. FTE staff increases	Standard error % reporting no change in FTE staff	Standard error % reporting sig. FTE staff decreases	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	88%	0.02	0.04	0.03	0.02
I. Organizational structure						
Autonomous	838	94	0.03	0.06	0.05	0.04
Headquarters or main	181	93	0.14	0.27	0.24	0.16
Branch or nonautonomous	140	91	0.14	0.34	0.31	0.22
II. Nature of parent organization						
Library/Info. center	361	93	0.07	0.13	0.12	0.08
Administrative	372	95	0.05	0.13	0.12	0.09
Computer tech /Info. resources mgmt.	81	96	0.32	0.61	0.56	0.35
Education	98	92	0.20	0.47	0.40	0.31
Legal	67	96	0.43	0.70	0.43	0.53
Research/Technical	170	95	0.13	0.29	0.26	0.20
Other	9	89	0.00	5.56	3.68	5.38
III. Mission/subject area						
Presidential	9	100	0.00	5.86	5.86	0.00
National	20	85	1.11	2.37	2.33	0.00
Academic	42	93	0.37	1.10	0.98	0.62
Science and technology	447	92	0.05	0.11	0.10	0.08
Health and medicine	256	95	0.09	0.18	0.15	0.12
General	211	96	0.12	0.23	0.23	0.14
Law	90	94	0.33	0.52	0.32	0.39
Multitype	53	94	0.36	0.92	0.88	0.44
Training center and/or instructional school	33	94	0.53	1.49	1.31	1.18
IV. Public access						
Services available or provided to gen. public	658	93	0.04	0.07	0.06	0.05
Svcs. not available or provided to gen. public	503	96	0.04	0.10	0.09	0.06
V. Level of automation						
First quintile (least automated)	272	94	0.08	0.18	0.14	0.15
Second quintile	278	95	0.07	0.17	0.16	0.10
Third quintile	198	93	0.12	0.24	0.21	0.16
Fourth quintile	267	94	0.10	0.18	0.17	0.10
Fifth quintile (most highly automated)	139	97	0.17	0.35	0.34	0.15

Table C3.5— Standard error (for table 3.5) of trends in contracting out for projects or functions in federal libraries and information centers (FL and IC) from 1992-1994^a

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in contracting	Standard error % reporting no change in contracting	Standard error % reporting sig. decreases in contracting	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	90%	0.02	0.03	0.01	0.04
I. Organizational structure						
Autonomous	838	96	0.03	0.05	0.02	0.05
Headquarters or main	181	93	0.18	0.23	0.12	0.27
Branch or nonautonomous	140	94	0.17	0.26	0.10	0.30
II. Nature of parent organization						
Library/Info. center	361	96	0.06	0.10	0.06	0.12
Administrative	372	97	0.07	0.10	0.04	0.12
Computer tech/Info. resources mgmt.	81	95	0.41	0.57	0.00	0.60
Education	98	97	0.23	0.35	0.20	0.43
Legal	67	94	0.49	0.53	0.00	0.66
Research/Technical	170	95	0.18	0.24	0.12	0.28
Other	9	89	0.00	5.38	0.00	5.39
III. Mission/subject area						
Presidential	9	100	3.70	5.86	0.00	5.86
National	20	90	1.11	2.02	0.00	2.18
Academic	42	98	0.62	0.94	0.37	1.08
Science and technology	447	94	0.06	0.10	0.05	0.11
Health and medicine	256	96	0.09	0.14	0.05	0.16
General	211	97	0.09	0.15	0.09	0.18
Law	90	92	0.33	0.42	0.00	0.49
Multitype	53	98	0.44	0.82	0.44	0.91
Training center and/or instructional school	33	100	0.00	0.88	0.53	1.00
IV. Public access						
Services available or provided to gen. public	658	95	0.04	0.06	0.03	0.07
Svcs. not available or provided to gen. public	503	96	0.05	0.07	0.03	0.08
V. Level of automation						
First quintile (least automated)	272	95	0.05	0.12	0.05	0.13
Second quintile	278	96	0.09	0.13	0.05	0.15
Third quintile	198	98	0.11	0.20	0.09	0.23
Fourth quintile	267	95	0.11	0.16	0.07	0.18
Fifth quintile (most highly automated)	139	96	0.27	0.33	0.16	0.35

Table C3.6— Standard errors (for table 3.6) of trends in staff training and retaining in federal libraries and information centers (FL and IC) from 1992-1994

FL & IC Category	# of FL & IC	Response rate	Standard error % reporting sig. increases in training/ retraining	Standard error % reporting no change in training/ retraining	Standard error % reporting sig. decreases in training/ retraining	Standard error % for which this does not apply
TOTAL (all federal libraries and information centers)	1234	90%	0.03	0.04	0.03	0.02
I. Organizational structure						
Autonomous	838	96	0.04	0.06	0.04	0.04
Headquarters or main	181	94	0.20	0.26	0.18	0.15
Branch or nonautonomous	140	95	0.23	0.35	0.31	0.24
II. Nature of parent organization						
Library/Info. center	361	95	0.09	0.13	0.10	0.09
Administrative	372	97	0.09	0.13	0.10	0.08
Computer tech/Info. resources mgmt.	81	95	0.42	0.59	0.45	0.23
Education	98	94	0.35	0.48	0.35	0.26
Legal	67	94	0.55	0.71	0.39	0.51
Research/Technical	170	97	0.20	0.29	0.19	0.20
Other	9	100	3.70	5.86	0.00	5.56
III. Mission/subject area						
Presidential	9	100	5.56	5.86	3.70	0.00
National	20	95	1.82	2.32	1.82	0.00
Academic	42	93	0.78	1.13	0.78	0.78
Science and technology	447	95	0.08	0.11	0.08	0.07
Health and medicine	256	96	0.13	0.18	0.11	0.12
General	211	97	0.15	0.23	0.20	0.14
Law	90	93	0.39	0.53	0.28	0.40
Multitype	53	98	0.56	0.91	0.71	0.56
Training center and/or instructional school	33	100	1.10	1.54	1.32	0.88
IV. Public access						
Services available or provided to gen. public	658	95	0.05	0.07	0.06	0.04
Svcs. not available or provided to gen. public	503	96	0.07	0.10	0.07	0.07
V. Level of automation						
First quintile (least automated)	272	96	0.10	0.18	0.13	0.16
Second quintile	278	96	0.12	0.17	0.13	0.10
Third quintile	198	97	0.18	0.24	0.19	0.12
Fourth quintile	267	97	0.13	0.18	0.13	0.09
Fifth quintile (most highly automated)	139	94	0.31	0.35	0.27	0.09