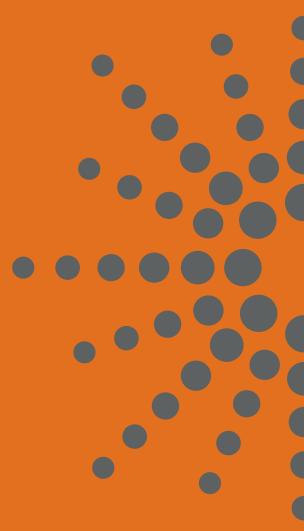




# Public Libraries in the United States Survey

**FISCAL YEAR 2013** 

March 2016



# SPECIAL THANKS TO THE PROJECT TEAMS FROM INSTITUTE OF MUSEUM AND LIBRARY SERVICES AND U.S. CENSUS BUREAU

#### **INSTITUTE OF MUSEUM AND LIBRARY SERVICES**

Dr. Kathryn K. Matthew Director

The Institute of Museum and Library Services is the primary source of federal support for the nation's 123,000 libraries and 35,000 museums. Our mission is to inspire libraries and museums to advance innovation, lifelong learning, and cultural and civic engagement. Our grant making, policy development, and research help libraries and museums deliver valuable services that make it possible for communities and individuals to thrive. To learn more, visit https://www.imls.gov and follow us on Facebook and Twitter.

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#### **CONTACT INFORMATION**

#### **INSTITUTE OF MUSEUM AND LIBRARY SERVICES**

955 L'Enfant Plaza North, SW Suite 4000 Washington, D.C. 20024-2135 202-653-IMLS (4657) www.imls.gov

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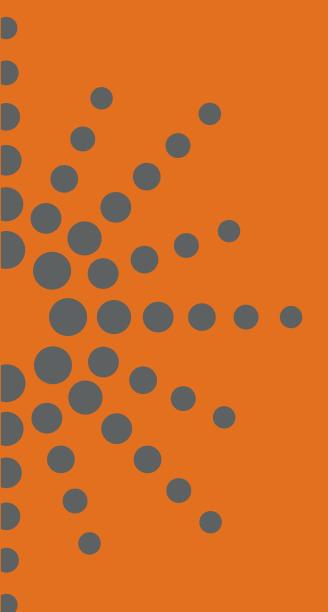
#### **COVER PHOTOS**

Left: Free computers and Wi-Fi help people get what they need online
at Pierce County Library System, Tacoma, Washington. Photo by Chris Tumbusch
Center: Chicago Public Library main library, Chicago, Illinois
Right: Former Mayor Bill Purcell (left) and former Mayor Phil Bredesen (right) lead parade of citizens
carrying books to the Nashville Public Library. (2001) Photo by Gary Layda



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# **HIGHLIGHTS**

OF THE PUBLIC LIBRARY SURVEY,

Fiscal Year 2013

For public libraries in the United States, FY 2013 was characterized by stabilization. After post-recession declines in circulation, revenue, and staffing, these measures of public library use and resources remained similar to prior year levels.

Use of some library services, such as circulation and visitation, showed a brief increase during the recession, followed by decreases back to pre-recession levels. Although some measures of public library service have begun to stabilize, other measures have continued their long-term trends. Programs and attendance continue to increase. Libraries continue to add to their digital holdings, including e-books and downloadable audio and video. While public libraries continue to provide access to technology through public access computers and Internet access, user sessions of public access computers are decreasing.



# **Introduction to the Report**

Public libraries provide program, services, and information resources for individuals, families, businesses, and all types of community organizations. As lifelong learning institutions, libraries help equip people with skills and knowledge required for success in a rapidly changing society.

By providing access to collections, technology, and community spaces, public libraries enhance civic life, drawing people together for a free exchange of information and ideas. They respond to their communities with programming that addresses the health, education, and workforce development needs of local residents. Libraries are trusted places where people can gain assistance with research and information needs from knowledgeable library staff. In communities across the nation, local public libraries complement commercial development activity and provide attractive neighborhood amenities in residential settings. As they meet the needs of the people through the resources and services they provide, public libraries play a critical role as community gathering places.<sup>1</sup>

The Public Libraries in the United States Survey (PLS) collects data on library services, including where they are

offered and how they are changing to meet the needs of the public. These data, supplied annually by more than 97 percent of public libraries across the country, provide information that policymakers and practitioners can use to make informed decisions about the support and strategic management of libraries.

This report has two parts: Pubic Libraries in the United States and Public Library Indicators. Part One, Public Libraries in the United States, provides a national-level analysis that aggregates data from all 50 states and the District of Columbia to provide national estimates and trends. Part Two, Public Library Indicators, provides an overall level of performance for key metrics and serves as a gauge to evaluate important changes in public library use, services, and resources. Indicators are calculated as per-capita estimates, so they provide a way to compare performance across libraries.

#### **DATA AND ANALYSIS**

The PLS is a universe survey, which means that information is collected from all public libraries in the United States. When information is available from an entire population, estimates are made by summing units to the population or subpopulation. In the present report, national estimates are aggregate totals based on summing data across all public libraries to the national level. For estimates based

<sup>1</sup> Oldenburg, R. (1999). The Great Good Place: Cafes, Coffee Shops, Bookstores, Bars, Hair Salons, and Other Hangouts at the Heart of a Community. Marlowe & Company: New York.; Council on Library and Information Resources (2005). Library as Place: Rethinking Roles, Rethinking Space. CLIR: Washington, DC.; Aabo, S. & Audunson, R. (2012). Use of library space and the library as place. Library and Information Science Research, 34 (2), 138-149.

#### **Introduction to the Report**

on subpopulations, such as state, region, or locale, data are summed up to the level of the subpopulation.

A public library is established under state laws or regulations to serve a community, district, or region. In this document, we report only on public libraries that meet all criteria in the definition of a public library developed by the Federal-State Cooperative System (FSCS). Under this definition, a public library meets, at a minimum, the following criteria:

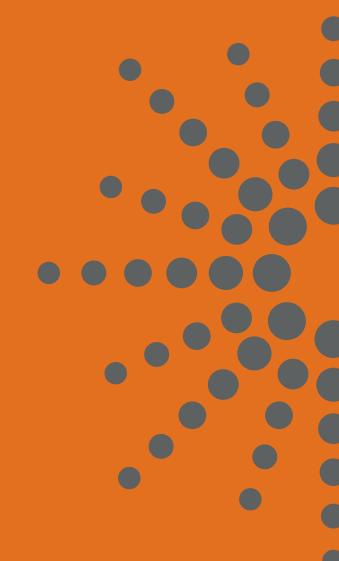
- An organized collection of printed or other library materials, or a combination thereof;
- Paid staff;
- An established schedule in which services of the staff are available to the public;
- Facilities necessary to support such a collection, staff, and schedule; and
- Supported in whole or in part with public funds.

A community may have one or more individual public libraries or may be served by a public library system, which may have a central library and multiple branches or bookmobiles. Any reference to a public library in this report refers to the administrative entity, which may be a single-outlet library or a multiple-branch library system. References to outlets refer to central libraries, branch libraries, and bookmobiles.

In this report, we examine trends across time and relationships between variables. In these analyses, it might appear that one estimate is larger than another. However, a test may reveal that the apparent difference is not a statistical difference. In cases where there is no statistical difference, the difference is not reported as such. In the analyses of the data for this report, we used a variety of statistical tests, including analyses of variance, correlation, and multilevel modeling to examine relationships between investment and use. Significance was set at an alpha level of .001.

All calculations in the PLS report are based on unrounded estimates. At times, the reader may find a calculation, such as a percentage change, is not identical to the calculation obtained by using the rounded values shown in the report or supplemental tables.

<sup>2</sup> In the PLS, an administrative entity is defined as the agency that is legally established under local or state law to provide public library service to the population of a local jurisdiction.



# **PART ONE:**

Public Libraries in the United States, Fiscal Year 2013



Public libraries are important institutions that provide valuable resources and services to communities across the nation. In fiscal year 2013, there were 9,091 public libraries in the United States. Public libraries are in almost every community.

In FY 2013, there were 484 public libraries in cities, 2,315 in suburbs, 2,214 in towns, and 4,078 in rural areas. Most public libraries (76.8 percent) served a population area of fewer than 25,000 people. Public libraries provided access to information and services through 16,545 branches and bookmobiles. Across the U.S., 304.8 million people lived within a public library service area, or 95.6 percent of the total population. This translates to 3.0 public libraries and 5.4 outlets for every 100,000 people across the U.S. There is a relationship between locale and size of population served (Table A). Many libraries (44.9 percent) are rural libraries, and most city libraries (93.6 percent) serve populations of 25,000 or more.

TABLE A. PUBLIC LIBRARIES BY LOCALE AND SIZE OF POPULATION SERVED, FY 2013

	CITY	SUBURB	TOWN	RURAL	TOTAL
Fewer than 2,500	3	67	100	2,305	2,475
2,500 to 9,999	9	517	965	1,264	2,755
10,000 to 25,000	19	783	684	267	1,753
25,000 or more	453	948	465	242	2,108
Total	484	2,315	2,214	4,078	9,091

SOURCE: Institute of Museum and Library Services, Public Libraries Survey, Fiscal Year 2013.

In the following analysis, we examined public libraries as a group. We describe several metrics of library use and investment in aggregated form, combining information from all libraries into a single national estimate. These national-level estimates provide an overall picture of the use of library resources and services, including how these measures have changed over time. We examine public library resources and services within the context of the relationship of investments and use (Figure 1).

FIGURE 1. THE EFFECT OF INVESTMENT ON PUBLIC LIBRARY USE

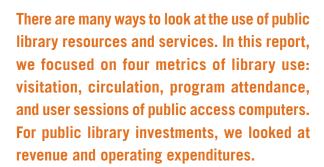
# **INVESTMENTS**

- Revenue
- Staffing
- Resources: Collections Programs Computers

### **PUBLIC LIBRARY USE**

- Visitation
- Circulation
- Program Attendance
- Computer Use

<sup>1</sup> According to the U.S. Census Bureau, the total population of the United States at the end of FY 2013 (July 1, 2014) was 318,857,056. For more information see http://www.census.gov/popest/.



To examine how expenditures have been directed toward meeting needs in their communities, we also included library services and resources. We selected resources and services that parallel the indicators of use: staff size, collection size, number of programs, and number of public access computers. Each of these indicators—for use and investments—is described in aggregate in order to provide a national estimate. This provides answers to questions such as how many visits there were to public libraries across the U.S. We also provided information about how much these estimates have changed from previous years.

#### LIBRARY USE

#### **VISITATION**

In FY 2013, there were 1.5 billion in-person visits to public libraries across the U.S., the equivalent of over 4.0 million visits each day. Although this reflects an increase of 17.6 percent over 10 years, libraries have experienced a decrease in physical visitation of 8.2 percent since a peak in FY 2009. When looking at trends in visitation, it is critical to interpret this metric with caution. The PLS collects data on the number of in-person visits to public libraries, but it does not collect similar data on virtual visitation. Similar to retailers and businesses over the past decade, public libraries have been increasing their virtual presence and their digital resources and services in order to meet the needs of the 21st century public. The activities of the many patrons who use these virtual services are not reflected in this metric. We are working on developing metrics that, together with in-person visitation, will enhance our understanding of the way people access and interact with public library resources to provide a more comprehensive metric for library use.

#### **CIRCULATION**

Public libraries have varied collections available to the public, including print books, audio books, DVDs, and e-books. Circulation is the number of materials that have been checked out for use. Public libraries circulated 2.4 billion materials in FY 2013, a 10-year increase of 25.4 percent. There has been a slowing in overall circulation in recent years, with a decrease of 3.6 percent since a peak in FY 2010. However, circulation has not declined at the same rate as in-person visitation, which may be explained by the increase in access to digital materials that can be accessed remotely.

Circulation of children's materials has seen long term increases which may be related to increases in library programming aimed at early childhood learning and summer reading. Libraries lent 835.6 million children's books and materials in FY 2013. This is a 10-year increase of 22.7 percent, remaining stable over recent years.

#### **PROGRAM ATTENDANCE**

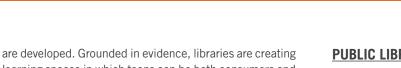
As a critical resource in many communities, public libraries continually adjust programming to meet the needs of their service areas. Public libraries serve as valuable learning spaces in their local communities, linking with support services and providing learning spaces. There were 96.5 million attendees<sup>2</sup> at public library programs in FY 2013. In support of the role of public libraries as gathering places, attendance at public library programs has continued to increase over prior years, with an increase of 28.6 percent for all programs since FY 2006.

Children under 18 years comprised 23.1 percent of the total U.S. population in FY 2013.<sup>3</sup> To meet the needs of this segment of the population, public libraries provide programming targeted to children and young adults. Children's programming at libraries has long been a popular community resource. In addition to story hour, children's librarians have continued to meet the needs of their communities through scientifically-based programs to foster early learning and school readiness. There were 67.4 million attendees at children's programs, a 10-year increase of 29.7 percent.

Libraries have had programs and services developed for young adults for many years, but over the past decade there has been a reconceptualization in the way these programs

<sup>2</sup> The number of attendees is not an accounting of individual people, but rather may include multiple incidences of people who participated in more than one program.

<sup>3</sup> Source: U.S. Census Bureau, American Fact Finder: http://www.census.gov/quickfacts/table/PST045215/00.



are developed. Grounded in evidence, libraries are creating learning spaces in which teens can be both consumers and creators of content. In FY 2013, there were 6.1 million attendees at young adult programming, a two-year increase of 15.2 percent.<sup>4</sup>

### PUBLIC ACCESS INTERNET COMPUTER USE SESSIONS

Access to information and technology and the skills to use them are critical requirements for living in our modern world. Public libraries play a critical role in providing valuable resources, such as access to the Internet and computers. The PLS provides a metric for the use of these resources: the number of uses (sessions) of public access Internet computers. There were 333.9 million user sessions on public-access computer terminals in public libraries in FY 2013. This is a decrease of 9.2 percent from FY 2010. Many public libraries offer broadband, which can be accessed not only through the library-provided computers, but also through patrons' personal devices that they bring to the library. Although the uses of public access Internet computers may be decreasing, we will be exploring how to capture the many different ways that people use and access public library wireless and broadband services in future surveys.

#### **PUBLIC LIBRARY INVESTMENTS**

Public investments allow libraries to provide access to many popular services and resources. Financial investments are made by the public at the local, state, and federal levels. Public libraries direct these revenues to be spent in ways that support their local communities through services and resources. Although services may vary from place to place, most library expenditures are used to provide public resources such as the collection of materials for loan, varied programming, digital access, and knowledgeable staff. The PLS collects key measures of investment in public libraries: the financial investments of revenue and operating expenditures, collection size, the number of programs, the number of public-access Internet computers, and levels of staffing.

#### **REVENUE**

In FY 2013, the public invested over \$11.5 billion in revenue to public libraries (Figure 2). After adjusting for inflation<sup>5</sup>, this reflects no change from the prior year and a 10-year increase of 7.5 percent. Over \$9.9 billion of public libraries' revenues (85.7 percent) came from local governments, reflecting a 10-year increase of 16.5 percent, a continuation

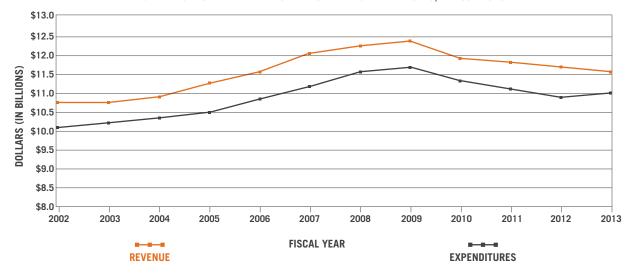


FIGURE 2. PUBLIC LIBRARY REVENUE AND OPERATING EXPENDITURES. FY 2002-2013

SOURCE: Public Library Survey, FY 2002-2013, Institute of Museum and Library Services/National Center for Education Statistics

<sup>4</sup> The PLS first collected information on young adult programming in FY 2009. Because not all libraries reported on this measure when it was introduced, this analysis uses FY 2011 as a baseline.

<sup>5</sup> All financial trends reported are adjusted for inflation using a GDP deflator. For more information, see Appendix B, Note 2.

#### Public Libraries in the United States, Fiscal Year 2013

of the increased share of library budgets. Revenue from state governments was \$805.4 million, 7.0 percent of the total revenue in FY 2013. Although state contributions to library revenues have been steadily declining, with a 10-year decrease of 35.9 percent, there was no change in revenues from states from FY 2012. The federal government provided 0.5 percent of total public library revenues. The remaining 6.8 percent of public library revenues came from other sources.

#### **OPERATING EXPENDITURES**

Total operating expenditures for public libraries were \$10.9 billion in FY 2013, unchanged from expenditures from FY 2012 after adjusting for inflation. This is an increase of 9.1 percent over 10 years. The highest operating expenditures were for staffing expenses, which accounted for \$7.4 billion of the total operating expenditures (67.2 percent). Although most of the expenditures for staffing are apportioned for salaries (73.7 percent), changes in the cost of health care have had a stronger impact on expenditures. Within staffing expenditures, \$1.9 billion was spent on benefits. Although flat from the prior year, this budget item has increased by 54.0 percent over 10 years.

Over \$1.2 billion was spent on collections in FY 2013, unchanged from the prior year. Overall, expenditures on collections have been decreasing by 14.5 percent over 10 years. Although most public library collections expenditures still go to print materials (60.5 percent), changes in the composition of collection expenditures illustrate the ways in which public libraries are adjusting to the new models of service delivery, particularly regarding digital materials. Expenditures on electronic materials, such as e-books, were \$239.3 million in FY 2013. More importantly, expenditures on electronic materials have increased by 186.8 percent over 10 years.

#### **SERVICES AND RESOURCES**

#### **COLLECTIONS**

Public librarians curate their collections to meet the needs of the communities they serve. Collections comprise both physical and digital materials, which may include print books, e-books, DVDs, and downloadable audio files. The average collection size across all public libraries was 116,481.6 items (median = 46,948.0), including printed materials, e-books, audio and video in all formats. Collections ranged from the smallest, with 399 materials, to the largest at 24,119,329.

Print materials still make up most of public libraries' collections. There were 774.7 million print materials available at public libraries in FY 2013. This is a decrease of 4.7 percent since FY 2008, the highest volume over the prior 10 years. Public libraries also provide access to audio and video materials, including audio books and DVDs of popular movies. These collections have continued to grow. Public libraries had 46.6 million audio materials, a 10-year increase of 30.8 percent, and 59.2 million video materials, a 10-year increase of 107.0 percent.

In FY 2013, 6,569 public libraries reported having e-books, an increase of 14.6 percent from FY 2012. For libraries that reported having e-books, their e-book holdings ranged from one to 398,013 books. The average number of e-books at U.S. public libraries in FY 2013 was 20,170.0 (median = 8,770).

In addition to e-books, public libraries provide access to digital audio and video materials. Like e-books, these materials can be downloaded and used either on devices loaned by the library or on patrons' personal devices. Most public libraries (67.3 percent) offered downloadable audio materials in FY 2013. Those libraries that offered this service ranged from 1 to 147,925 audio downloads, an average of 7,056.5 (median = 4,229.0). There were 2,725 public libraries to offer video downloads in FY 2013. Holdings ranged from one to 14,676 files, with an average of 1,016.1 (median = 321.0).

#### **PUBLIC LIBRARY PROGRAMS**

Public libraries are committed to providing opportunities for learning experiences that educate and inspire people throughout their lifetime. Programs vary from digital learning and job training for adults, makerspaces for young adults, and summer reading programs and storytime for children. Public libraries have been increasing their program offerings over the previous decade. Public libraries offered 4.3 million programs in FY 2013, a one-year increase of 6.6 percent.

In FY 2013, there were 73.7 million children under the age of 18 years living in the United States, amounting to 23.1 percent of the total population. There were 2.5 million programs directed toward children. This was an increase of 5.4 percent from the prior year and a five-year increase of 9.0 percent. Public libraries offered 384,017 programs for young adults, a one-year increase of 7.2 percent.



#### **PUBLIC ACCESS INTERNET COMPUTERS**

A core function of public libraries is to facilitate open access to information and ideas. In the 21st century, public libraries accomplish this by providing public access to computers and the Internet, serving as technology access points for communities. There were 278,733 public-access Internet computers available at public libraries across the nation. This reflects a one-year increase of 2.8 percent and 10-year increase of 98.5 percent.

#### **PUBLIC LIBRARY STAFF**

One of the most important assets found in public libraries is the knowledgeable library workforce. Public library services were supported by 137,183 total full-time equivalent (FTE) staff.<sup>6</sup> Staffing levels had fluctuated over the 10-year period prior to FY 2013. Staffing levels at public libraries declined during the recession, decreasing by 5.4 percent from a high of 145,070 in FY 2008, but stabilizing by FY 2013.

Librarians comprised 34.6 percent of total staff, with 47,441 librarian FTEs. This was a 10-year increase of 6.1 percent. There were 3.9 librarian FTEs per 25,000 people, a 3.9 percent decrease since FY 2002. Two-thirds (67.1 percent) of librarians had a master's of library science from an American Library Association-accredited graduate program. Half of public libraries (52.5 percent) had at least one librarian on staff with an ALA-MLS degree.

# SUMMARY OF NATIONAL-LEVEL ESTIMATES OF PUBLIC LIBRARY USE AND INVESTMENTS

In FY 2013, public libraries experienced continued stabilization for several measures of library investments and use, including revenue and staffing. Program offerings and attendance have continued to increase, both in the long and short term trends, demonstrating the important role that libraries play in their communities in lifelong learning and service provision. Although in-person visitation has been declining, circulation has not decreased at the same rate. Public libraries continue to provide access to technology through public-access Internet computers and wi-fi connectivity. Use sessions of public-access computers have declined since FY 2009, which may be related to increases in the use of personal devices.

<sup>6</sup> Full time equivalent (FTE) refers to 40 hours of work per week. For example, two people who work a part-time schedule of 20 hours per week are equal to 1.0 FTE.



# **PART TWO:**

**Public Library Indicators** 

Public library indicators are a set of metrics that provide a snapshot of the status of public libraries. They provide an overall level of performance for key metrics and serve as a gauge of changes in public library use, service, and resources.

Indicators are calculated as per-capita estimates, adjusting for population, and, as such, they provide a way to compare performance across libraries. They focus on public library use, financial health, resources, and staffing.

#### **SECTION 1. USE OF PUBLIC LIBRARY SERVICES**

**INDICATOR 1.1.** Visitation per Capita

**INDICATOR 1.2.** Circulation per Capita

INDICATOR 1.3. Program Attendance per Capita

INDICATOR 1.4. Public Access Computer Usage per Capita

#### **SECTION 2. FINANCIAL HEALTH OF PUBLIC LIBRARIES**

INDICATOR 2.1. Revenue per Capita

**INDICATOR 2.2.** Operating Revenue per Capita

#### **SECTION 3. PUBLIC LIBRARY RESOURCES**

INDICATOR 3.1. Collection Materials per Capita

INDICATOR 3.2. Program Offerings per Capita

INDICATOR 3.3. Public Access Computers per 5,000

#### **SECTION 4. PUBLIC LIBRARY STAFFING**

INDICATOR 4.1. Total Staff per 25,000

INDICATOR 4.2. Total Librarians per 25,000

INDICATOR 4.3. Ratio of ALA-Accredited MLS Librarians



This section contains indicators relating to the usage of public library services. These indicators include public library visitation, circulation of public library materials, attendance at public programming, usage of public access computers, and reference transactions. Each indicator provides a detailed look at how public libraries are used by the people they serve.

		PERCENT CHANGE		
PUBLIC LIBRARY USE	FY 2013	1-year (FY 2012)	4-year (FY 2009)	10-year (FY 2002)
INDICATOR 1.1. Visitation per Capita	4.8	-3.2%	-10.6%	+6.7%
INDICATOR 1.2. Circulation per Capita				
Total Circulation per Capita	7.8	-2.7%	-4.3%	+13.6%
Circulation of Children's Materials per Capita	2.7	-2.8%	-0.4%	+10.9%
INDICATOR 1.3. Program Attendance per Capita				
Total Program Attendance per 1,000 people	316.8	+3.5%	+9.0%	-
Children's Program Attendance per 1,000 people	221.1	+3.7%	+6.7%	+17.5%
Young Adult Program Attendance per 1,000 people	20.1	+7.0%	-	-
INDICATOR 1.4. Public-Access Computer Uses per Capita	1.1	-2.6%	-10.6%	-

<sup>\*</sup>Note: Not all data elements have been collected for 10 years. The table reports the longest trend information available on the PLS.

#### **SECTION 2. FINANCIAL HEALTH OF PUBLIC LIBRARIES**

This section contains metrics for understanding the financial stability of public libraries. Most public library services and resources are dependent on how public libraries receive and spend money. The metrics include revenue per capita and expenditures per capita. These indicators focus solely on operating revenue and expenditures, excluding capital expenses.

		PERCENT CHANGE		
PUBLIC LIBRARY FINANCIALS	FY 2013	1-year (FY 2012)	4-year (FY 2009)	10-year (FY 2002)
INDICATOR 2.1. Revenue per Capita	\$37.90	-1.7%	-9.1%	-2.7%
Revenue per Capita from Local Government	\$32.49	-0.1%	-9.1%	+5.5%
Revenue per Capita from State Government	\$2.64	0.0%	-15.9%	-42.0%
Revenue per Capita from Federal Government	\$0.17	-15.0%	0.0%	-22.7%
Revenue per Capita from Other Sources	\$2.60	-18.2%	-21.0%	-22.8%
INDICATOR 2.2. Operating Expenditure per Capita	\$35.96	-0.1%	-8.6%	-1.2%
Expenditure per Capita on Staffing	\$24.17	-0.7%	-7.8%	+2.7%
Expenditure per Capita on Collections	\$4.07	-0.5%	-13.6%	-22.5%
Expenditure per Capita on Other Costs	\$7.72	+2.1%	-8.5%	+1.6%



#### SECTION 3. PUBLIC LIBRARY RESOURCES

This section contains indicators relating to resources and services that are provided by public libraries. These resource indicators include a public library's collection (books, e-books, audio materials, video materials, and databases), program offerings, and public access computers.

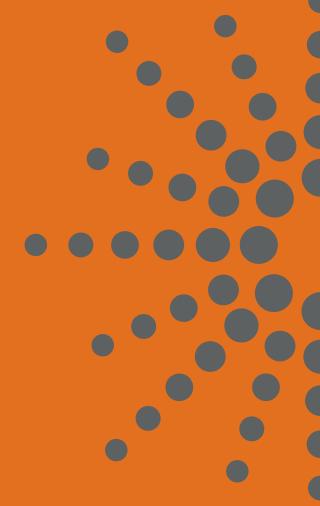
		PERCENT CHANGE		
PUBLIC LIBRARY RESOURCES	FY 2013	1-year (FY 2012)	4-year (FY 2009)	10-year (FY 2002)
INDICATOR 3.1. Collection Materials per Capita				
Books per 1,000 people	2541.9	-1.9%	-7.2%	-10.2%
INDICATOR 3.2. Programs per Capita				
Total Programs per 1,000 people	14.0	+5.9%	+12.4%	-
Programs for Children per 1,000 people	8.2	+4.7%	+3.2%	-
Programs for Young Adults per 1,000 people	1.3	+6.8%	-	-
INDICATOR 10. Public Access Computers per Capita	4.6	+2.0%	+16.9%	+79.9%

<sup>\*</sup>Note: Not all data elements have been collected for 10 years. The table reports the longest trend information available on the PLS.

#### **SECTION 4. PUBLIC LIBRARY STAFFING**

This section contains indicators relating to the public library workforce. Staff at public libraries ensure that resources, services, and facilities are accessible, available, and well managed. Moreover, beyond collection development and resource management, library staff address information needs by providing programming, answering reference questions, and supporting research. In the PLS, public library staff is measured in full-time equivalents (FTE) and consists of three categories: librarians, ALA-MLS librarians, and other paid staff. Indicators associated with public library staffing are staff per 25,000 people, public librarians per 25,000 people, and the distribution and ratio of public librarians with American Library Association (ALA) accredited Master's Degree of Library and Information Studies (MLS) degrees. These metrics help to indicate whether or not there is enough staffing to address the needs of the population and measure professionalism in librarianship.

		PERCENT CHANGE		
PUBLIC LIBRARY STAFFING	FY 2013	1-year (FY 2012)	4-year (FY 2009)	10-year (FY 2002)
INDICATOR 4.1. Staffing per 25,000 people	11.2	-0.5%	-7.4%	-8.5%
INDICATOR 4.2. Librarians per 25,000 people	3.9	+0.5%	-3.7%	-3.9%
INDICATOR 4.3. % Librarians with ALA-accredited MLS	67.1%	-0.1%	-2.4%	-1.1%



# **Technical Appendices**

Appendix A. About the Public Libraries Survey
Appendix B. Technical Notes



The Public Libraries Survey (PLS) is a voluntary survey conducted annually by the Institute of Museum and Library Services (IMLS). IMLS collects these data under the mandate in the Museum and Library Services Act of 2010 (PL 111-340) as stated in Section 210. The U.S. Census Bureau is the data collection agent for IMLS. The fiscal year (FY) 2013 survey is the 26th in the series.

### SURVEY PURPOSE AND DATA ITEMS INCLUDED IN THIS REPORT

The PLS provides a national census of public libraries and their public service outlets (see Key Library Terminology below). These data are useful to federal, state, and local policymakers; library and public policy researchers; and the public, journalists, and others.

This report provides summary information about public libraries in the 50 states and the District of Columbia for FY 2013.¹ It covers service measures such as number of uses (sessions) of public Internet computers, number of Internet computers used by the general public, reference transactions, interlibrary loans, circulation, library visits, children's program attendance, and circulation of children's materials. It also includes information about size of collection, staffing, operating revenue and expenditures, type of legal basis, and number and type of public library service outlets. This report is based on the final data file.

The PLS is designed as a universe survey. The survey frame consists of 9,290 public libraries (9,228 public libraries in the 50 states and the District of Columbia and 62 public libraries in the outlying areas of American Samoa, Guam, the Northern Mariana Islands, Puerto Rico and the Virgin Islands), as identified by state library agencies.

The survey frame includes 140 public libraries that do not meet all the criteria in the FSCS Public Library Definition (see item 203 of the Administrative Entity definitions for the criteria). These libraries are included in the data files because they qualify as public libraries under state law. However, in this FY 2013 report, the 140 non-FSCS libraries are excluded from the tables and analysis. There were 19 public libraries that were closed during FY 2013 (STATSTRU on the data file), which were also excluded. This resulted in a total of 9,091 public libraries in the 50 states and the District of Columbia.

A total of 9,048 of the 9,290 public libraries in the survey frame responded to the FY 2013 PLS (including American Samoa, Guam, Puerto Rico, and the non-FSCS libraries), for a unit response rate of 97.4 percent.<sup>2</sup> Item response rates are included in the tables in this report.<sup>3</sup> The data were submitted over the Internet via a web-based reporting system (see Data Collection in Appendix B, Note 3, for more information).

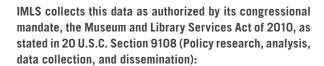
#### **CONGRESSIONAL AUTHORIZATION**

Two separate laws cover the protection of the confidentiality of individually identifiable information collected by the Institute of Museum and Library Services—the Privacy Act of 1974 and the E-Government Act of 2002. The Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity of Information Disseminated by the Institute of Museum and Library Services are prepared under the Treasury and General Government Appropriations Act for Fiscal Year 2001, Section 515(b).

<sup>1</sup> The fiscal year reporting period varied among states and among local jurisdictions in some states. Please See Reporting Period in Appendix B, Note 3, for more information.

<sup>2</sup> There were 196 public libraries that did not report data in FY 2013, but for which data were imputed (indicated by variable RSTATUS). These data are on the file and are used in this report.

<sup>3</sup> The item response rates in the total line of the tables do not include the outlying areas or libraries that do not meet FSCS criteria.



#### 20 U.S.C. SECTION 9108. POLICY RESEARCH, ANALYSIS, DATA COLLECTION, AND DISSEMINATION

#### (a) IN GENERAL

The Director shall annually conduct policy research, analysis, and data collection to extend and improve the Nation's museum, library, and information services.

#### (b) REQUIREMENTS

The policy research, analysis, and data collection shall be conducted in ongoing collaboration (as determined appropriate by the Director), and in consultation, with—

- (1) State library administrative agencies;
- (2) National, State, and regional library and museum organizations;
- (3) Other relevant agencies and organizations.

#### (c) OBJECTIVES

The policy research, analysis, and data collection shall be used to—

- (1) Identify national needs for and trends in museum, library, and information services;
- (2) Measure and report on the impact and effectiveness of museum, library, and information services throughout the United States, including the impact of Federal programs authorized under this chapter;
- (3) Identify best practices; and
- (4) Develop plans to improve museum, library, and information services of the United States and to strengthen national, State, local, regional, and international communications and cooperative networks.

#### (d) DISSEMINATION

Each year, the Director shall widely disseminate, as appropriate to accomplish the objectives under subsection (c), the results of the policy research, analysis, and data collection carried out under this section.

IMLS library survey activities will be designed to address high-priority library data needs; provide consistent, reliable, complete, and accurate indicators of the status and trends of state and public libraries; and report timely, useful, and high-quality data to the U.S. Congress, the States, other education policymakers, practitioners, data users, and the general public.

#### **KEY LIBRARY TERMINOLOGY**<sup>4</sup>

- Public library. A public library is an entity that is established under state enabling laws or regulations to serve a community, district, or region, and that provides at least the following: (1) an organized collection of printed or other library materials, or a combination thereof; (2) paid staff; (3) an established schedule in which services of the staff are available to the public; (4) the facilities necessary to support such a collection, staff, and schedule; and (5) is supported in whole or in part with public funds.
- Administrative entity. An administrative entity is the agency that is legally established under local or state law to provide public library service to the population of a local jurisdiction. The administrative entity may have a single public library service outlet, or it may have more than one public library service outlet (Note: In this report, the term public library means an administrative entity).
- Public library service outlet. Public libraries can have one or more outlets that provide direct service to the public. The three types of public library service outlets included in this report are central library outlets, branch library outlets, and bookmobile outlets. Information on a fourth type of outlet, books-by-mail-only outlets, was collected but omitted from this report because these outlets are not open to the public. The four outlet types are defined in Appendix C in item 709 of the definitions. Table 3 reports data concerning public library service outlets.

<sup>4</sup> More detailed definitions of the terms used in this report can be found in the data documentation, IMLS publication IMLS-2015-PLS-02, Data File Documentation: Public Libraries Survey: Fiscal Year 2013. The data documentation is available for download from the IMLS website: www.imls.gov/PLS.



#### **SUPPLEMENTAL TABLES**

As a supplement to this report, IMLS has provided tables to make available additional data about the findings in this report. These tables offer statistics at both the national and state level for variables presented in this report, as well as additional variables found in the PLS data files. Tables 1 through 1B provide overview data by state about the number of public libraries and population of legal service area. Tables 2 through 31 are in sets of two each. The base table in each set (Tables 2 through 31) displays data for the nation as a whole and for each of the 50 states and the District of Columbia. The "A" table in each set displays the same data by 11 ranges of population of legal service area. Tables 30 through 33 include data about square footage. Tables A1 through A13 are state rankings on key variables. The supplemental tables are available only online: www.imls.gov.

#### **SURVEY QUESTIONNAIRE AND DATA ELEMENTS**

The questionnaire for the PLS is developed in partnership between IMLS and its stakeholders in the library community, specifically the Library Statistics Working Group and the State Data Coordinators. The questionnaire used in the FY 2013 survey is published in the data documentation, Data File Documentation: Public Libraries Survey: Fiscal Year 2013 (IMLS-2015–PLS-02), available online at www.imls. gov/PLS. In addition to the survey, the data documentation provides definitions of items, including those used in this report.

#### HISTORY OF THE PUBLIC LIBRARIES SURVEY

In 1985, the National Center for Education Statistics (NCES) and the American Library Association (ALA) conducted a

pilot project in 15 states to assess the feasibility of a federal-state cooperative program for the collection of public library data. The project was jointly funded by NCES and the U.S. Department of Education's former Library Programs (LP) office. In 1987, the project's final report recommended the development of a nationwide data collection system. The Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-297) charged NCES with developing a voluntary Federal-State Cooperative System (FSCS) for the annual collection of public library data. To carry out this mandate, a task force was formed by NCES and the National Commission on Libraries and Information Science (NCLIS), and the FSCS was established in 1988.

The first survey report in this series, Public Libraries in 50 States and the District of Columbia: 1989, which included data from 8,699 public libraries in 50 states and the District of Columbia, was released by NCES in 1991. A data file and survey report have been released annually since then. The states have always submitted their data electronically, via customized personal computer survey software through FY 2004, and via a web-based application beginning in FY 2005.

The Museum and Library Services Act transferred the Library Programs Office, including the library statistics program, from the Department of Education to IMLS. On October 1, 2007, the survey was transferred from NCES to IMLS. The FY 2006 survey was collected by NCES and released by IMLS. The FY 2013 survey is the seventh PLS data collection and release by IMLS.

5 This was superseded by the National Education Statistics Act of 1994 (P.L. 103-382) and, more recently, by the Education Sciences Reform Act of 2002.



In this report, we present statistics for metrics related to aspects of financial, operational, and service activities in public libraries in the United States. National level summaries of these metrics are presented for FY 2013, and 10-year trends are presented for many metrics from FY 2003 through FY 2013. Some data elements, such as the number of young adult programs offered, were added to the survey more recently. For analyses of these metrics, changes were reported based on the fiscal year in which the data element was introduced. In the indicators, metrics are also broken out and presented by state, region or locality.

#### **PER-CAPITA**

For long-term trends, statistics are often presented in per capita metrics, which controls for population growth and allows for standardized comparison of metrics over time. For this, we used the unduplicated population of the legal service area served by each public library.¹ In addition to analyses based on per-person in a public library's service area, trends in services are sometimes examined in terms of the number of visitors. By examining both per-capita and per-visit trends, we can see not only the role that public libraries play in their communities at-large, but also how people who come to public libraries use the resources available.

#### **LOCALE**

Federal agencies use a variety of ways to classify various community types. In this report, libraries were classified using a system of locale codes developed by the National Center for Education Statistics (NCES). Working with the U.S. Census Bureau, NCES revised these codes by using improved geocoding technology and the 2000 Office of Management and Budget (OMB) definitions of metropolitan statistical areas (MSA). Thus, the locale codes rely on proximity to an urbanized area, rather than population size and county boundaries. OMB updated the MSAs in 2010,<sup>2</sup> and the locale codes were updated accordingly.

Beginning with the FY 2008 data file, locale codes have been added to the outlet and administrative entity datasets for the PLS. Locale codes identify general characteristics about where a public library is situated. The codes allow users to quickly identify which library outlets and administrative

entities are located in cities, suburbs, towns, or rural areas. The locale codes are based on an address's proximity to an urbanized area, defined as a densely settled core with densely settled surrounding areas.

The locale code system classifies a territory into four major categories: urban, suburban, town, and rural (Table B-1-1). Each category has three sub-categories. For urban and suburban areas, gradations are based on population size: large, medium, or small. Towns and rural areas are subcategorized based on their distance from an urbanized area: fringe, distant, or remote. The coding methodology was developed by the Census Bureau as a way to identify the location of public schools for the Common Core of Data, a survey collected by NCES.

These locale codes provide a new way to analyze library services in the United States. By incorporating objective measures of rurality and urbanicity into the data files, researchers and practitioners can benchmark services in a fundamentally different way by basing comparisons on community attributes as well as the attributes of the libraries themselves. In other words, library services in rural remote areas can now be compared to library services in other rural remote areas within the same state or across the country by using a standardized rurality/urbanicity metric that is applied consistently to each library in the country. Once communities of interest have been selected, comparisons can be made to any data that are available in the PLS, whether they are related to aspects of finance, operations, or service.

As of FY 2008, each library outlet and administrative entity in the survey has been assigned one of the 12 locale codes. Starting with the FY 2009 survey data files, bookmobiles and books-by-mail only outlets were assigned locale codes. For the FY 2013 data file, all records were re-coded for geography.

#### **GEOGRAPHIC REGION**

Analyses in this report are also presented by geographic region. The PLS uses the geographic regional classification developed by the Bureau of Economic Analysis (BEA). The classification is comprised of eight geographic regions: New England, Mid-East, Great Lakes, Plains, Southeast, Southwest, Rocky Mountains, and Far West (Table B-1-2).

<sup>1</sup> Details about the unduplicated population can be found in the data documentation, Data File Documentation: Public Libraries Survey: Fiscal year 2011 (IMLS-2013-PLS-02), available online at www.imls.gov/PLS.

<sup>2</sup> The Office of Management and Budget (OMB) delineates geographic entities for metropolitan and micropolitan statistical areas for use by Federal agencies in collecting, tabulating, and publishing Federal statistics. To learn about the designation, see the notice in the Federal Register, Vol. 75, No. 123, pp. 37246-39052, published 06/28/2010. For more information, see http://www.census.gov/population/metro.



In analyses of the workforce, information on employment is classified according to full-time equivalent (FTE). FTE is a unit that measures the workload of an employed person. It is used to aid in comparisons of workload across contexts. An FTE of 1.0 indicates that the person is the equivalent to a full-time worker, usually 40 hours per week. An FTE of 0.5 indicate a person works part-time. So, if a library reports that they have 2.0 FTE, it may refer to 2 full-time employees or 4 part-time employees (each working approximately 20 hours per week).

#### TABLE B-1-1. URBAN-CENTRIC LOCALE CATEGORIES

#### CITY

LARGE: Territory inside an urbanized area and inside a principal city with population of 250,000 or more

MIDSIZE: Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000

SMALL: Territory inside an urbanized area and inside a principal city with population less than 100,000

#### **SUBURB**

LARGE: Territory outside a principal city and inside an urbanized area with population of 250,000 or more

MIDSIZE: Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000

SMALL: Territory outside a principal city and inside an urbanized area with population less than 100,000

#### TOWN

FRINGE: Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area

**DISTANT:** Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area

**REMOTE:** Territory inside an urban cluster that is more than 35 miles from an urbanized area

#### **RURAL**

**FRINGE:** Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster

**DISTANT:** Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster

**REMOTE:** Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster

SOURCE: U.S. Department of Education, National Center for Education Statistics (NCES), Common Core of Data (CCD), Identification of Locale Codes, from http://nces.ed.gov/ccd/rural\_locales.asp

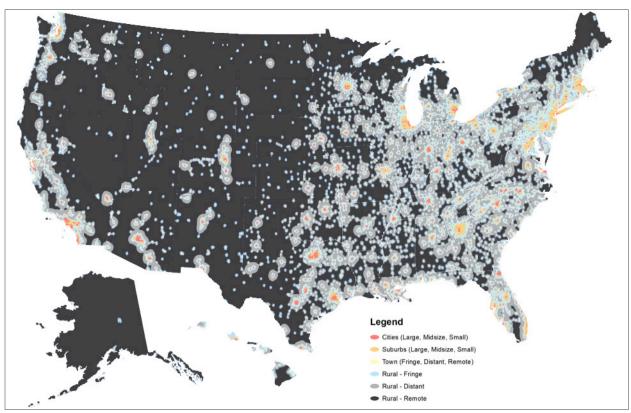




TABLE B-1-1. REGIONAL DESIGNATIONS USED IN THE PLS, FROM BUREAU OF ECONOMIC ANALYSIS

REGION	STATES	
NEW ENGLAND	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont	
MID-EAST	Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania	
GREAT LAKES	Illinois, Indiana, Michigan, Ohio, Wisconsin	
PLAINS	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota	
SOUTHEAST	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia	
SOUTHWEST	Arizona, New Mexico, Oklahoma, Texas	
ROCKY MOUNTAINS	UNTAINS Colorado, Idaho, Montana, Utah, Wyoming	
FAR WEST	Alaska, California, Hawaii, Nevada, Oregon, Washington	
OUTLYING AREAS	American Samoa, Guam, Northern Mariana Islands, Puerto Rico, Virgin Islands	

FIGURE B-1-1. LOCALE MAP: RURAL, TOWN, SUBURBAN, AND CITY LOCALES IN THE UNITED STATES, FY 2012



SOURCE: U.S. Census Bureau; Urban-centric Locale Codes, developed by the National Center for Education Statistics (NCES)



For financial trends that report dollar amounts over time, such as 10-year revenue trends, metrics are presented in constant dollars. Constant dollars are an adjusted value of currency that accounts for inflation. We use this adjustment in order to compare monetary values from one period to another. For the present analyses, inflation was accounted for using a GDP (gross domestic product) deflator,<sup>3</sup> as shown in **EQUATION B-2-1**:

(B-2-1)

 $GDP DEFLATOR = \frac{(NOMINAL GDP)}{DEFLA CDP} X 100$ 

In general, a real value is one in which the effect of inflation has been taken into account, and a nominal value is one in which the effect has not. Thus, the Real GDP is the value of all the goods and services produced in the United States expressed relative to some base year, and the Nominal GDP is the value of the same goods and services expressed in current prices.

To calculate the value in constant dollars for a target year, multiply a value from a base year by a ratio of the GDP Deflators from the base year and the target year. For example, to calculate the amount of revenue from the year 2002 in 2013 constant dollars, multiply the original value of revenue in 2002 by the ratio of the deflators from year 2013 to 2002 (see **EQUATION B-2-2**).

(B-2-2)

VALUE (constant 2013) (GDP DEFLATOR 2013) (GDP DEFLATOR 2002)

### NOTE 3. PUBLIC LIBRARIES IN THE UNITED STATES SURVEY, FY 2013

#### **SURVEY UNIVERSE**

The PLS is designed as a universe survey. The survey frame consists of 9,290 public libraries (9,228 public libraries in the 50 states and the District of Columbia and 62 public libraries in the outlying areas of American Samoa, Guam, the Northern Mariana Islands, Puerto Rico and the Virgin Islands), as identified by state library agencies. Military libraries that provide public library service and libraries that serve residents of institutions are not included in the sampling frame. The survey frame includes 140 public libraries that do not meet all the criteria in the FSCS Public Library Definition (see item 203 of the Administrative Entity definitions for the criteria). The non-FSCS libraries were included in the imputation process for non-response. These libraries are included in the data files because they qualify as public libraries under state law. However, in the FY 2013 report the non-FSCS libraries are excluded from the tables. An additional 19 public libraries that were closed during FY 2013 (STATSTRU on the data file) were also excluded. This resulted in a total of 9,048 public libraries in the 50 states and the District of Columbia.

#### **SURVEY RESPONSE**

- Unit Response. A total of 9,048 of the 9,290 public libraries in the survey frame responded to the FY 2013 PLS (including American Samoa, Guam, Puerto Rico and the 140 non-FSCS libraries), for a unit response rate of 97.4 percent. Public libraries are defined as respondents if they reported population of the legal service area and at least three of the five following items: total paid employees, total operating revenue, total operating expenditures, print materials, and total circulation (Note: Some individual survey items, such as population of legal service area, service outlets, and type of legal basis have a 100.0 percent response rate for their state because the state library agency provided these data for all public libraries in their state.).
- Total Response. The base for calculating response rates to individual survey items is the total number of libraries in the survey frame, including unit nonrespondents.
- Data File and Publication Response Rates. The total response rates on the data file differ from the total response rates in the published report because the nonresponding outlying areas of the Northern Mariana Islands and the Virgin Islands and the non-FSCS

<sup>3</sup> Information on US GDP was obtained from the Bureau of Economic Analysis (www.bea.gov).

libraries are included on the data file, but are not included in the publication. The responding outlying areas of Guam and Puerto Rico are included in the data file. However, only Guam is included in the publication due to low response rates in Puerto Rico. The response rates for the outlying territories are not included in the national totals in the publication.

Reporting period. The FY 2013 PLS requested data for state fiscal year 2013. Most state fiscal years are either a calendar year or July-June. In some states, the FY reporting period varied among local jurisdictions. These states are listed in the Other column in TABLE B-3-1. Regardless, each public library provided data for a 12-month period. The FY starting date and ending date of each public library are included on the data file.

#### **CALCULATIONS INCLUDED IN THE TABLES**

Percentages, rather than raw numbers, are used in some tables to provide a clearer picture of data patterns. Percentage distributions may not sum to 100 due to rounding. To obtain a raw number from a percentage distribution table, multiply the percentage for the item by the total for the item (the total may be in a different table). For example, in Table 5, the number of public libraries in the 50 states and the District of Columbia with municipal government as their legal basis is 4,717 (8,951 x 0.527). The percentages are rounded, so multiplying a percentage by a total may not give an exact count for a desired category.

Selected tables include per capita values for some items and per 1,000 population or per 5,000 population values for others (e.g., Tables 8 and 11). Scales (per capita, per 1,000, etc.) were selected to provide the clearest display of differences across categories in the data. The calculations are based on the total unduplicated population of legal service areas (instead of the total population of legal service areas) in order to eliminate duplicative reporting due to overlapping service areas. The state population estimate was not used as the basis for the calculations because some states have unserved populations. See Population items below for more information.

#### **QUESTIONNAIRE**

The questionnaire used in the FY 2013 survey is published in the data documentation, *Data File Documentation: Public Libraries Survey: Fiscal Year 2013* (IMLS-2015–PLS-02), available online at <a href="www.imls.gov/PLS">www.imls.gov/PLS</a>. In addition to the survey, the data documentation provides definitions of items, including those used in this report. A few key survey items are discussed below.

- Library Visits and Reference Transactions. Public libraries reported annual library visits and annual reference transactions based on actual counts, if available. Otherwise, annual estimates were provided based on a typical week in October, multiplied by 52.
- Population Items. The PLS has three population items: (1) Population of Legal Service Area for each public library, (2) Total Unduplicated Population of Legal Service Areas for each state, and (3) State Total Population Estimate. The population data are provided by the state library agency. The methods of calculation of the first two items vary significantly among states, and the state reporting periods also vary. The Total Unduplicated Population of Legal Service Areas does not include unserved areas and may vary from data provided by sources using standard methodology (e.g., the Census Bureau).

The total Population of Legal Service Area for all public libraries in a state may exceed the state's Total Unduplicated Population of Legal Service Areas or the State Total Population Estimate. This happens in states where there are overlaps in population of legal service areas served by individual libraries, resulting in the same population being counted twice. Twentynine states had such overlapping service areas in FY 2013 (Table B-3-2).

To enable meaningful state comparisons using total Population of Legal Service Area data (for example, the number of print materials per capita), the Population of Legal Service Area data were adjusted to eliminate duplicative reporting due to overlapping service areas. The Public Library Data File includes a derived unduplicated population of legal service area figure for each library for this purpose (the variable is called POPU\_UND). This value was prorated for each library by calculating the ratio of a library's Population of Legal

Service Area to the state's total Population of Legal Service Area and applying the ratio to the state's Total Unduplicated Population of Legal Service Areas. (The latter item is a single, state-reported figure found on the Public Library State Summary/State Characteristics Data File; the variable is called POPU\_UND on this file also.)

Paid Full-Time-Equivalent (FTE) Staff. Paid staff were reported in FTEs (Table 17). To ensure comparable data, 40 hours was set as the measure of full-time employment (for example, 60 hours per week of parttime work by employees in a staff category divided by the 40-hour measure equals 1.50 FTEs). FTE data were reported to two decimal places (rounded to one decimal place in the tables).

#### DATA COLLECTION

The FY 2013 PLS was released to the states over the Internet on January 15, 2014. States were placed into one of three reporting groups (with survey due dates of April 29, July 30, or August 20, 2014), based on their fiscal cycles or claim of extraordinary reporting hardship. States reported their data over the Internet via a web-based reporting system called WebPLUS (Web Public Library Universe System). WebPLUS was developed by the Census Bureau (the data collection agent). Edit follow-up was completed in late October of 2014. The editing process is described below.

#### **CAVEATS FOR USING THE DATA**

The data include imputations, at the unit and item levels, for non-responding libraries. See the Imputation section for a discussion of the imputation methodology. Comparisons to data prior to FY 1992 should be made with caution, as earlier data do not include imputations for nonresponse, and the percentage of libraries responding to a given item varied widely among the states.

State data comparisons should be made with caution because of differences in reporting periods (see Table B-3-1) and adherence to survey definitions. The definitions used by some states in collecting data from their public libraries may not be consistent with the PLS definitions.

The District of Columbia, while not a state, is included in this report. Special care should be used in comparing data for a city to state data. Caution should also be used in comparing Hawaii's data to other states as all public library data are reported under one entity, the Hawaii State Public Library System.

#### **EDITING**

- State Level. The respondent generates an edit report following direct data entry or import of their data into WebPLUS. The edit report, which can be viewed on-screen or printed, is used to identify and correct any errors, and to confirm the accuracy of data that generated edit warnings but required no change, before submitting the final file to the Census Bureau. In the FY 2013 PLS, four types of edit checks were performed:
  - 1. Relational edit checks.
  - 2. Out-of-range edit checks.
  - 3. Arithmetic edit checks.
  - 4. Blank, zero, or invalid data edit checks.

For more information on edit checks, see the PLS FY 2013 Data Documentation.

The WebPLUS application generates state summary tables (showing state totals for all numeric data items) and single-library tables (showing data for individual public libraries in a state). State item response tables are also generated. Respondents were encouraged to review the tables for data quality issues before submitting their data to IMLS. State data submissions also included a signed form from the Chief Officer of the State Library Agency certifying the accuracy of the data.

National Level. The Census Bureau and IMLS reviewed and edited the state data submissions, working closely with the PLS State Data Coordinators.



Imputation is a procedure for estimating a value for a specific data item where the response is missing. This section describes the imputation methods that were used to fill in the missing data items for the FY 2013 survey year. A total of 53 items were imputed.

The responding and nonresponding libraries were sorted into imputation cells based on OBE region code (Bureau of Economic Analysis region code, formerly Office of Business Economics) and the size of the population. Each state is assigned an OBE region code (e.g., O1- New England (CT, ME, MA, NH, RI, VT)). The cumulative root frequency method<sup>4</sup> was used to determine the imputation cells.

The imputation for nonresponding libraries was performed using the data calculated from respondents in their imputation cells. Item imputation was performed on each record with nonresponsive variables. Following are descriptions of each imputation method used for the Public Libraries Survey (PLS).

Imputations were performed in two stages. In the first stage, imputations were carried out for nearly all missing values using the following methods: prior year times mean growth rate, adjusted cell mean, cell mean, prior year ratio, cell median ratio, direct substitution of prior year data, cell

median, and special imputations. In the second stage, imputed values are adjusted for some missing values (based on the variable) using the following methods: obtained value by relationship of total to detail items, raking, special imputations, and consistency checks.

#### **NON-SAMPLING ERRORS**

Because all units in the universe are surveyed, the data are not subject to sampling error, but they are subject to non-sampling errors, such as errors in response, nonresponse errors, coverage errors arising from an incomplete listing of public libraries, coding errors, or processing errors.

Every effort is made to mitigate such errors. The editing efforts described above are designed to decrease the number of errors due to inaccurate response or due to processing problems. Imputation lessens the effect of nonresponse. Efforts are made to obtain complete listings of public libraries from the state library agencies. Although such efforts are made, some non-sampling error likely remains in the data.

Note: Errors in response to the audio and video download data were confirmed by some states. The data were incorrectly reported as 'units' instead of 'titles'. The incorrect data for these states were deleted from the data files.

<sup>4</sup> For more information on cumulative root frequency method, see Cochran, W. (1977) Sampling Techniques, 3rd edition. John Wiley & Sons, Inc.



TABLE B-3-1. REPORTING PERIODS OF PUBLIC LIBRARIES: FISCAL YEAR 2013

JULY 2012 THROUGH JUNE 2013	JANUARY 2013 THROUGH DECEMBER 2013	OTHER
Arizona	Arkansas	Alabama <sup>2</sup>
California	Colorado	Alaska <sup>3</sup>
Connecticut	Indiana	District of Columbia <sup>2</sup>
Delaware	Kansas	Florida <sup>2</sup>
Georgia	Louisiana	Idaho <sup>2</sup>
Hawaii	Minnesota	Illinois <sup>11</sup>
Iowa	North Dakota	Maine <sup>5</sup>
Kentucky	New Jersey	Michigan <sup>6</sup>
Maryland	Ohio	Mississippi <sup>2</sup>
Massachusetts	South Dakota	Missouri <sup>7</sup>
Montana	Washington	Nebraska <sup>4</sup>
Nevada	Wisconsin	New Hampshire <sup>8</sup>
New Mexico	Puerto Rico	New York <sup>9</sup>
North Carolina		Pennsylvania <sup>8</sup>
Oklahoma		Texas <sup>10</sup>
Oregon		Utah <sup>8</sup>
Rhode Island		Vermont <sup>4</sup>
South Carolina		Guam <sup>2</sup>
Tennessee		American Samoa <sup>2</sup>
Virginia		
West Virginia		
Wyoming		

SOURCE: Institute of Museum and Library Services, Survey of Public Libraries in the United States, Fiscal Year 2013.

The reporting period varies among localities for the states in this column; however, each public library provided data for a 12-month period.

October 2012 to September 2013. January 2012 to June 2013. January 2012 to December 2013.

April 2012 to December 2013.

December 2011 to September 2013. October 2011 to December 2013.

July 2012 to December 2013.

<sup>9</sup> March 2012 to December 2013.

<sup>10</sup> February 2012 to December 2013. 11 October 2011 to June 2013.



Arkansas	Minnesota
Arizona	Mississippi
Colorado	Missouri
Connecticut	Montana
Florida	New Hampshire
Idaho	New Jersey
Iowa	New York
Illinois	Rhode Island
Indiana	South Dakota
Kentucky	Tennessee
Louisiana	Vermont
Maine	Puerto Rico
Maryland	American Samoa
Massachusetts	
Michigan	
West Virginia	
Wyoming	

SOURCE: Institute of Museum and Library Services, Survey of Public Libraries in the United States, Fiscal Year 2013.



