



# Public Libraries in the United States

**FISCAL YEAR 2016**

MAY 2019





## Institute of Museum and Library Services

Kathryn K. Matthew  
Director

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### Cover Photos

Left: *The Pueblo Chieftain* publisher Jane Rawlings reads to a young reader at Rawlings Library in Colorado in support of September's adult literacy month. (Photo courtesy of Pueblo City-County Library District, Ann Boyden)

Middle: Madison Public Library's wide network of partners helps the library offer classes or direct one on one assistance on community needs including resume building, writing assistance, job application and placement, tax filing, computing for English learners, English for Parents, tutoring, exam proctoring, and personalized computer assistance. (Photo courtesy of Madison Public Library)

Right: The Orange County Library System gives kids a chance to practice their writing skills during a program that encourages them to write and illustrate their own autobiographies. (Photo courtesy of the Orange County Library System)

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# Executive Summary



The Institute of Museum and Library Services (IMLS), under the Museum and Library Services Act of 2018, administers the Public Libraries Survey (PLS) to collect data annually about how libraries serve the public. Since 1988, the PLS data provide insights on long-term trends in the changing role of public libraries in response to increasingly diverse information needs. These data help practitioners and policymakers identify community engagement, resource usage, needs for local services, and areas for future development. This report shows that over the past ten years, the economic recession of December 2007 to June 2009<sup>1</sup> impacted funding and staffing, but while funding has rebounded, staffing levels continue to stay flat. At the same time, public

libraries' services and resources have continued to diversify and expand.

The FY 2016 PLS annual census collected data from 98 percent of the public libraries<sup>2</sup> in all 50 states, the District of Columbia, and outlying territories. This report summarizes the findings from 9,057 active public libraries that met Federal and State Cooperative System (FSCS) criteria.<sup>3</sup> Ten-year trend data are provided for 11 key indicators, with two-year data (FY 2015 and FY 2016) provided for an additional 20 sub-indicators. This report provides information at the national and state levels and separately for libraries that serve different sizes and types of communities.

## Highlights

### Financial Health of Public Libraries (Indicators 1 & 2)

The financial health of public libraries has fluctuated over the 10 fiscal years between FY 2007 and FY 2016, most recently nearly recovering fully from the effects of the 2007–2009 recession.<sup>4</sup> Total operating revenue grew from \$12.59 billion in FY 2007 to \$12.75 billion in FY 2016, peaking in FY 2009 at \$12.91 billion. Total operating expenditures show a similar trend, which were at \$12.09 billion in FY 2016.

### Public Library Services, Resources, and Usage (Indicators 3–10)

Public libraries respond to the needs of their communities by providing diverse services and information resources. In FY 2016, there were 1.35 billion visits to public libraries. Patrons had access to 1.46 billion items and over a quarter million public-access Internet computers. From FY 2007 to FY 2016, public libraries have shifted from solely providing physical collections to offering a variety of electronic materials, most notably e-books. For example, in FY 2007 there were just 0.05 e-books per person in U.S. public libraries; by FY 2016 this had grown to over one e-book per person. Additionally, libraries are expanding services and programs desired by their communities. The 5.18 million programs offered by public libraries in FY 2016 (16.66 programs per 1,000 people) represent a substantial increase over the 3.28 million programs in FY 2007.

### Public Library Staffing (Indicator 11)

Over the past ten years, there has been an overall decline of almost one staff FTE per 25,000 people since FY 2007, from 12.40 FTE library staff to 11.27 FTE staff per 25,000 people in FY 2016.

<sup>1</sup> U.S. Business Cycle Expansions and Contractions. Retrieved from <http://www.nber.org/cycles>.

<sup>2</sup> 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. An outlet is a public library, such as a central library, branch library, or bookmobile that is attached to an administrative entity.

<sup>3</sup> The analyses presented in this report exclude 195 libraries: 175 libraries that did not meet the FSCS public library definition, 2 libraries that were in outlying areas, and the 18 libraries that were reported as permanently or temporarily closed in FY 2016.

<sup>4</sup> All financial data are in constant FY 2016 dollars. The U.S. Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)) does not provide margins of error associated with these estimates. Readers should take this into consideration when comparing financial data across years.



Table ES-1. Summary: FY 2016 PLS Indicators

PLS Indicators	FY 2016 Total Amount	Metrics <sup>1</sup>	
		FY 2016	FY 2015
<b>Public Library Financial Health</b>			
1. Total Operating Revenue <sup>2</sup>	\$12.75 billion	\$41.04 per person	\$40.37 per person
2. Total Operating Expenditures <sup>2</sup>	\$12.09 billion	\$38.91 per person	\$37.78 per person
<b>Public Library Resources, Services, and Usage</b>			
3. Collection Materials	1.46 billion	4.69 per person	4.28 per person
4. Circulation	2.23 billion	7.19 per person	7.30 per person
5. Library Visits <sup>3</sup>	1.35 billion	4.36 per person	4.48 per person
6. Reference Transactions	245.70 million	0.79 per person	0.82 per person
7. Programs Offered	5.18 million	16.66 per 1,000 people	15.21 per 1,000 people
8. Program Attendance	113.08 million	363.99 per 1,000 people	341.25 per 1,000 people
9. Public-Access Internet Computers	294,216	4.74 per 5,000 people	4.73 per 5,000 people
10. Public-Access Internet Computer User Sessions	276.44 million	0.89 per person	0.97 per person
<b>Public Library Staffing</b>			
11. Staffing	140,054 FTEs	11.27 FTEs per 25,000 people	11.19 FTEs per 25,000 people

<sup>1</sup> State-reported population data may derive from the U.S. Census Bureau ([www.census.gov/acs](http://www.census.gov/acs)), which does not publish margins of error associated with annual population estimates. Per person estimates in the table use the unduplicated population. Readers should take this into consideration when comparing data across years. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

<sup>2</sup> All financial data are in constant FY 2016 dollars. The U.S. Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)) does not provide margins of error associated with these estimates. Readers should take this into consideration when comparing data across years.

<sup>3</sup> This is the number of in-person visits to public libraries; digital visits to libraries were not counted in the FY 2016 PLS. Starting in FY 2018, the PLS will collect the number of visits to a library's website as one measure of virtual interaction with public libraries; IMLS anticipates including this element in reports beginning with the FY 2020 cycle.

SOURCE: IMLS, Public Libraries Survey, FY 2015–2016.

The FY 2016 PLS suggests that many of the long-term trends present in FY 2015 continued in FY 2016.<sup>5</sup> Both operating revenue and expenditures per person increased (Indicators 1 and 2), continuing the trends that began in FY 2013 and FY 2012, respectively. However, although the financial health of public libraries has improved steadily over the last three years, both operating revenue and expenditures remain below the levels seen before the economic recession that occurred from December 2007 to June 2009.

The FY 2016 PLS data also show that public libraries are continuing to adapt their collections (Indicator 3) to modern demands, by adding more

e-books and audio and video materials—both physical units and downloadable items—which now make up a larger portion of their collections. Overall, the 1.46 billion collection materials available to the public represented 4.69 materials per person, an increase from the 3.14 per person in FY 2007.

There were 1.35 billion visits to public libraries in FY 2016, or 4.36 visits per person (Indicator 5),<sup>6</sup> with just over 7 items checked out per person (circulation, Indicator 4). The public also accessed reference services at public libraries more than 245 million times in FY 2016 (Indicator 6).

<sup>5</sup> For more comprehensive trend analyses, please see the PLS FY 2015 report at: <https://www.imls.gov>.

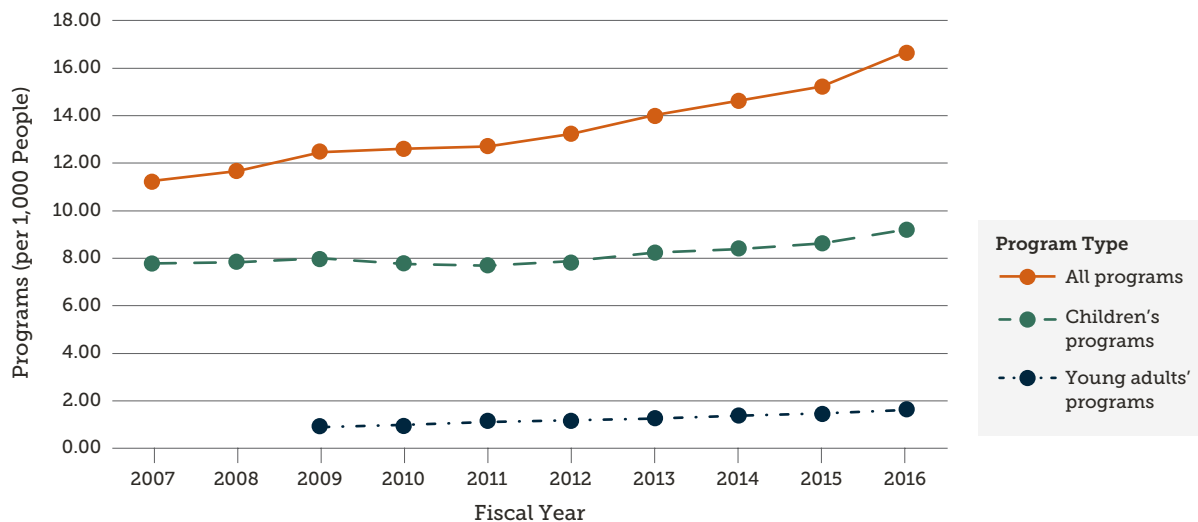
<sup>6</sup> This is the number of in-person visits to public libraries; digital visits to libraries were not counted in the FY 2016 PLS. Starting in FY 2018, the PLS will collect the number of visits to a library's website as one measure of virtual interaction with public libraries; IMLS anticipates this element will be included in reports beginning with the FY 2020 cycle.



The data also suggest that libraries' programming continues to expand, with both more programs offered and greater attendance in FY 2016 as compared to FY 2015 (Indicators 7 and 8). Total programs offered and young adults' programs offered per 1,000 people increased by 10 percent and nearly 10 percent, respectively, since FY 2015 (**Figure ES-1**). Over the last decade, library programs per 1,000 people increased by 48 percent, with substantial increases (83 percent)

in young adults' programs since FY 2009. Attendance at library programs per 1,000 people also increased since FY 2009 by about 35 percent overall and 67 percent for young adults' programs. The 5.18 million programs offered by public libraries, in topics ranging from information literacy and workforce skills to children's story times, were attended by more than 113 million people in FY 2016.

**Figure ES-1. Total Programs Offered per 1,000 People by Program Type, FY 2007–2016**



NOTE: Per 1,000 people estimates in the figure use the unduplicated population. Total programs does not equal the sum of children's programs and young adults' programs. Total programs may include other state-specific program data not collected or reported by the PLS. Data on young adults' programs were not collected until FY 2009, and therefore, 10-year trends are not available. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

The public continued to rely on public libraries to access the Internet (Indicators 9 and 10). The 294 thousand public-access Internet computers in public libraries each logged nearly 940 user sessions, on average, in FY 2016. Finally, libraries depend on professional staff, who administer programs and provide information services to their patrons. In FY 2016, there were 140,054 paid full-time equivalent staff at public libraries compared to 139,213 in FY 2015 (Indicator 11). Overall, just over two-thirds of full-time equivalent librarians held an American Library Association-accredited master's degree in library or information science.

The FY 2016 PLS annual report's 11 indicators continue the story from previous years: Public libraries are rebounding from the most recent economic recession, but staffing levels are staying flat. At the same time, public libraries are responding to their communities by expanding program offerings and continuing to provide access to physical and electronic materials to meet the public's information needs. These trends demonstrate that public libraries are gradually changing how they serve their communities. Further research is needed about how patrons access public libraries' collections and services, both inside and outside the physical building, as well as how staff skills can be continuously upgraded in the rapidly changing information environment.





# Introduction

Public libraries provide learning and information resources for individuals, families, businesses, and non-profits. By offering collections, technology, programming, and community spaces, public libraries enhance civic life and provide valuable contact points to various information resources that some individuals may not normally be able to access. Libraries not only serve as places where people can gain assistance with research and information needs from professional staff, but also as collective gathering spaces and important forums of community discourse. Libraries have an intimate relationship with their communities and offer programming that addresses the health, learning, and workforce development needs of residents. The role of the public library has grown over recent years, serving as a cornerstone of community engagement and development in communities.

The Public Libraries Survey (PLS) serves as a tool that facilitates both the examination of when, where, and how public library services are changing and how the public conceptualizes the role of these libraries. These data, supplied annually by more than 98 percent of public libraries across the country, provide long-term trend information that researchers, policymakers, and practitioners can use to make strategic data-based decisions about the support and management of public libraries. Appendix A provides additional background information about the PLS.

In FY 2016, there were 9,057 active public libraries in the United States that met the definition of a public library developed by the Federal and State Cooperative System (FSCS).<sup>1</sup> These public libraries provided access to information and services through 16,568 central and branch libraries and 659 bookmobiles in the United States. Approximately 311 million people lived within a

public library legal service area (LSA)—approximately 96 percent of the total U.S. population.<sup>2</sup> This translates to 2.80 public libraries and 5.33 outlets<sup>3</sup> for every 100,000 people in the United States. The number of public libraries varied by locale and population. In FY 2016, rural areas (4,002) had more public libraries than cities (490), suburbs (2,341), and towns (2,218) (**Figure N-1**). Furthermore, most public libraries (76.52 percent) served a population area of fewer than 25,000 people.

## Public Library Indicators

This report explores three key types of metrics for public libraries: (1) financial health, (2) resources, services, and usage, and (3) staffing. Each metric is composed of various indicators that provide an overall picture of the stability and utility of public libraries when examined together. In most cases, the indicators are calculated as per person, per 1,000 people, per 5,000 people, or per 25,000 people; thus, they provide a way to compare performance across libraries.<sup>4</sup> The various units are associated with the size of the raw indicators, so that indicators are transformed to an order of magnitude that is understandable. The 11 primary indicators associated with each metric are listed below; sub-indicators are used in some cases to show a finer level of detail.

### Public Library Financial Health

- Indicator 1. Total Operating Revenue per Person
- Indicator 2. Total Operating Expenditures per Person

### Public Library Resources, Services, and Usage

- Indicator 3. Collection Materials per Person
- Indicator 4. Circulation per Person
- Indicator 5. Library Visits per Person

<sup>1</sup>Analyses in this report exclude 195 libraries: 175 libraries that did not meet the FSCS public library definition in FY 2016, 18 libraries that were reported as permanently or temporarily closed in FY 2016 and 2 libraries in the outlying areas of American Samoa and Guam.

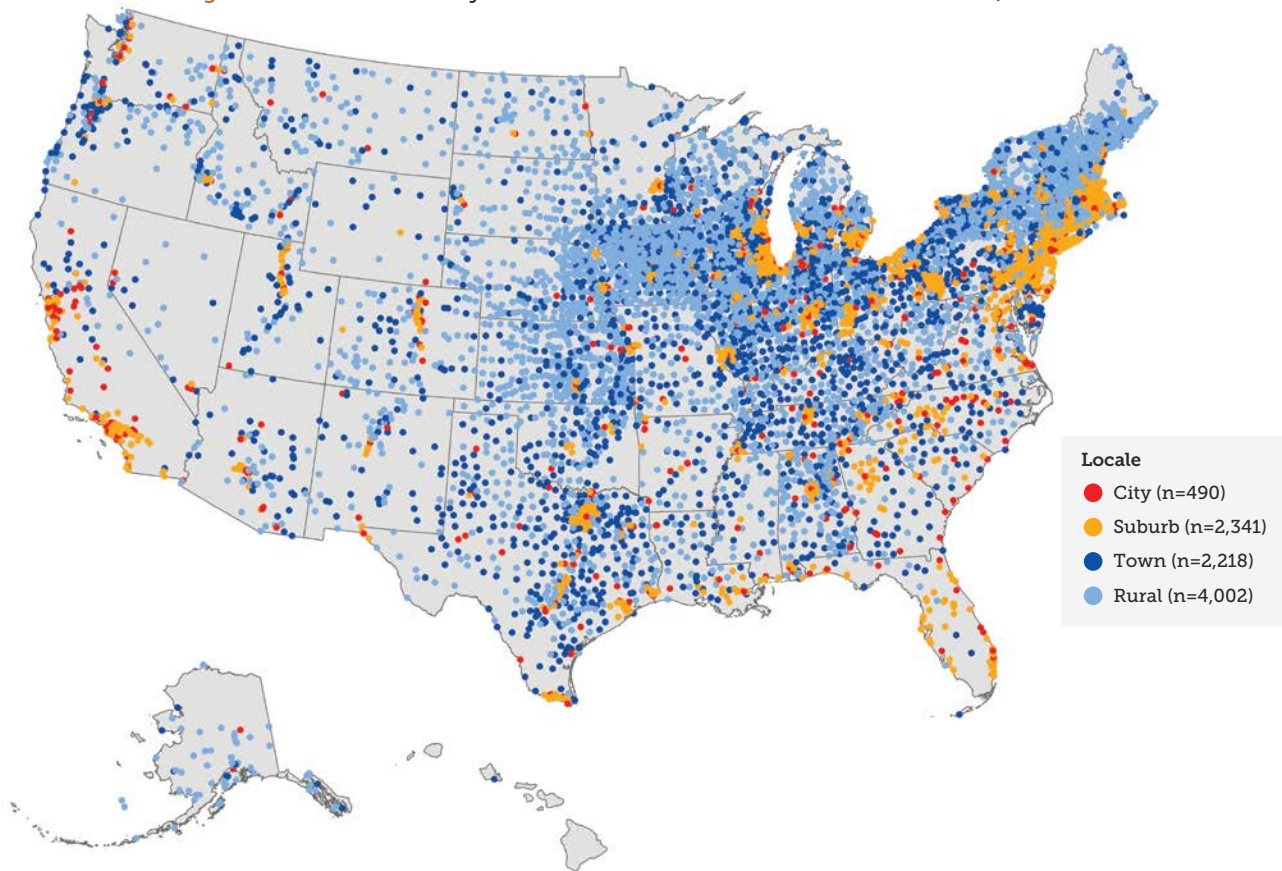
<sup>2</sup>In 2016, the U.S. population was 323,405,935. For more information, see <http://www.census.gov/popest/>.

<sup>3</sup>An outlet is a public library attached to an administrative entity, which is either a branch, central library, or bookmobile.

<sup>4</sup>Per person indicators are calculated using state-reported population data that may be derived from the U.S. Census Bureau ([www.census.gov/acs](http://www.census.gov/acs)), which does not publish margins of error associated with annual population estimates. Readers should take this into consideration when comparing data across years.



Figure N-1. Public Library Administrative Entities in the United States, FY 2016



NOTE: Locale could not be assigned for six library systems due to placement of outlet(s) outside of locale boundaries.  
SOURCE: IMLS, Public Libraries Survey, FY 2016.

- Indicator 6. Reference Transactions per Person
- Indicator 7. Total Programs Offered per 1,000 People
- Indicator 8. Total Program Attendance per 1,000 People
- Indicator 9. Public-Access Internet Computers per 5,000 People
- Indicator 10. Public-Access Internet Computer User Sessions per Person

## Public Library Staffing

- Indicator 11. Staffing (FTEs) per 25,000 People

## Methodology

The PLS is a universe survey, which means that information is solicited from all public libraries in the United States. The PLS questionnaire was

designed collaboratively by the IMLS, State Data Coordinators (SDCs), and the Library Statistics Working Group (LSWG).

In FY 2016, the PLS survey frame<sup>5</sup> consisted of 9,234 public libraries—9,232 public libraries in the 50 states and the District of Columbia and 2 public libraries in the outlying areas, as identified by state library agencies. The PLS survey frame includes public libraries that do not meet all the criteria outlined in the FSCS Public Library Definition but excludes libraries reported as permanently or temporarily closed in the fiscal year of data collection.<sup>6</sup>

Data were collected using the PLS Web Portal, an online data collection tool developed by the American Institutes for Research (AIR). After the data were collected, data review and imputation were performed.

<sup>5</sup>The survey frame is the list of all public libraries in the United States.

<sup>6</sup>In FY 2016, 175 libraries did not meet the FSCS public library definition and 18 libraries were reported as permanently or temporarily closed.



Historically, PLS response rates have been high. Since FY 2010, unit response to the PLS has been over 97 percent. In FY 2016, the unit response rate was 97.73 percent,<sup>7</sup> and most item-level response rates were above 91.61 percent.

For a detailed description of the PLS data collection methodology, see Appendix B.

## Data and Analysis

A public library is established under state laws or regulations to serve a community, district, or region. This report summarizes the findings from the 9,057 active public libraries in the United States in FY 2016 that met the definition of a public library developed by the FSCS.<sup>8</sup>

Under this definition, a public library must, at a minimum, meet the following criteria:

- Contain an organized collection of printed or other library materials, or a combination thereof;
- Have paid staff;
- Have an established schedule in which the services of the staff are available to the public;
- Have the facilities necessary to support such a collection, staff, and schedule; and
- Be 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.

Because the PLS is a universe collection, also referred to as a census, this report does not use inferential statistical tests to measure the statistical significance of differences between

groups. Inferential statistics are used when a random sample is taken from a population to make inferences about that population. In universe surveys such as the PLS, estimates of the total population or a subpopulation are made by summing the units in the population or subpopulation. In this report, national estimates are aggregate totals based on summing data across all public libraries to the national level. For estimates based on subpopulations, such as state or locale, data are summed up to the level of the subpopulation. There is no sampling error in universe surveys.

Data are analyzed at the national and state levels as well as by locale and size of population served.<sup>9</sup> All financial data presented in this report are in constant FY 2016 dollars.<sup>10</sup>

Population size served is measured using the population of the LSA. In the PLS, the LSA is the geographic space that a library serves. Some states have libraries with overlapping boundaries; therefore, multiple libraries could serve the same LSA population. To enable meaningful state comparisons using total population of legal service area data (for example, the number of print materials per person), the population of LSA data were adjusted to eliminate duplicative reporting because of overlapping service areas. All per person estimates in this report are calculated using the unduplicated population of legal service area.<sup>11</sup>

Most states have libraries in each of the locale types. The locale code system, developed by the U.S. Department of Education's National Center for Education Statistics (NCES), classifies a territory into four major categories: city, suburb, town, and rural.<sup>12</sup> Population size served is also separated into four categories (**Table N-1**). However, there are differences between locale and size of the population served. For instance, not all large populations served fall into the city locale, and similarly, not all small populations served fall into town or rural areas. Therefore, it is important to conduct both analyses. For additional details about locale definitions, see Appendix B.

<sup>7</sup>9,024 libraries out of the 9,234 libraries on the survey frame responded to the FY 2016 PLS.

<sup>8</sup>The analyses presented in this report exclude 175 libraries that did not meet the FSCS public library definition.

<sup>9</sup>The District of Columbia, although not a state, is included in the state analyses; special care should be used in comparing its data to states' data. Caution also should be used in making comparisons with the state of Hawaii, as Hawaii reports only one public library for the entire state.

<sup>10</sup>The U.S. Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)) does not provide margins of error associated with these estimates. Readers should take this into consideration when comparing data across years. See Appendix B for more information about adjusting for inflation.

<sup>11</sup>See Appendix B for more information about population estimates in the PLS.

<sup>12</sup>Locale code was assigned to each library system using two methodologies: (1) the geographic location of that library system's physical address and (2) the modal locale code among central and branch libraries of that library system (excluding bookmobile and books-by-mail-only outlets). This report uses the locale code assigned based on the modal locale code of associated stationary outlets.



## Organization of the Report

This report has three parts: (1) Public Library Financial Health, (2) Public Library Resources, Services, and Usage, and (3) Public Library Staffing. Each part of the report explores various indicators for these key metrics. The three sections of the report provide a national overview and highlight differences that are occurring across the United States on the main indicator and

relevant sub-indicators. Trend data are provided only at the national level. To provide a context for the trends, in general, this report highlights a change of 10 percent or more over time as meaningful. Differences on the main indicators are compared across the four locale types and four LSA population size groups. Finally, each section includes state-level maps to visualize variation on indicators across states.

**Table N-1.** Public Libraries by Locale and Population Size Served, FY 2016

Population Size Served	Locale				Total
	City	Suburb	Town	Rural	
Very large (>25,000)	457	984	460	226	2,127
Large (10,000–25,000)	22	779	692	268	1,761
Medium (2,500–9,999)	7	516	964	1,265	2,752
Small (<2,500)	4	62	102	2,243	2,411
<b>Total</b>	<b>490</b>	<b>2,341</b>	<b>2,218</b>	<b>4,002</b>	<b>9,051</b>

NOTE: Locale could not be assigned for six library systems due to placement of outlet(s) outside of locale boundaries.  
SOURCE: IMLS, Public Libraries Survey, FY 2016.



## **PART ONE:**

# Public Library Financial Health



## Overview

Most public library services and resources are dependent on how public libraries receive and spend money. Revenue and expenditures serve as gauges of change in public library resources. Total operating revenue is generated primarily from four sources: local government, state government, federal government, and other sources (e.g., fees, monetary gifts, grants, and donations). The mix of funding sources provides insights about investments in public libraries.

Public libraries use expenditures to pay for library resources, staffing, special projects, and other needs. There are three main types of operating expenses: collection (e.g., print materials, electronic materials, and other materials), staffing (e.g., salaries and benefits), and other expenditures (all other expenditures not reported under collection or staffing expenses). For example, other expenditures may include binding, supplies, repair or replacement of existing furnishings and equipment, and costs of computer hardware and software used to support library operations or to link to external networks, such as the Internet.

Operating expenditures are tied to operating revenue. Taken together, the two metrics—operating revenue and expenditures—indicate the financial health of libraries.

### Indicator 1. Total Operating Revenue per Person: \$41.04 (\$12.75 Billion Total)

### Indicator 2. Total Operating Expenditures per Person: \$38.91 (\$12.09 Billion Total)

Public investments at the local, state, and federal levels allow libraries to provide access to many popular services and resources. In FY 2016,

public libraries had \$12.75 billion in total revenue, or \$41.04 per person, and \$12.09 billion in expenditures, or \$38.91 per person (**Table 1-1**).

**Table 1-1.** Public Library Finances Summary, FY 2015–2016 (in Constant 2016 Dollars)

Indicator	FY 2016	FY 2015 <sup>1</sup>
<b>Indicator 1. Total Operating Revenue per Person</b>	<b>\$41.04</b>	<b>\$40.37</b>
Indicator 1.1 Operating Revenue per Person from Local Government	\$35.19	\$34.53
Indicator 1.2 Operating Revenue per Person from State Government	\$2.83	\$2.86
Indicator 1.3 Operating Revenue per Person from Federal Government	\$0.14	\$0.14
Indicator 1.4 Operating Revenue per Person from Other Sources	\$2.89	\$2.83
<b>Indicator 2. Total Operating Expenditures per Person</b>	<b>\$38.91</b>	<b>\$37.78</b>
Indicator 2.1 Operating Expenditures per Person on Staffing	\$25.93	\$25.25
Indicator 2.2 Operating Expenditures per Person on Collections	\$4.33	\$4.26
Indicator 2.3 Operating Expenditures per Person on Other Costs	\$8.65	\$8.27

<sup>1</sup> In constant 2016 dollars.

NOTE: Per person estimates in the table use the unduplicated population. Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2015–2016.

# PART ONE:

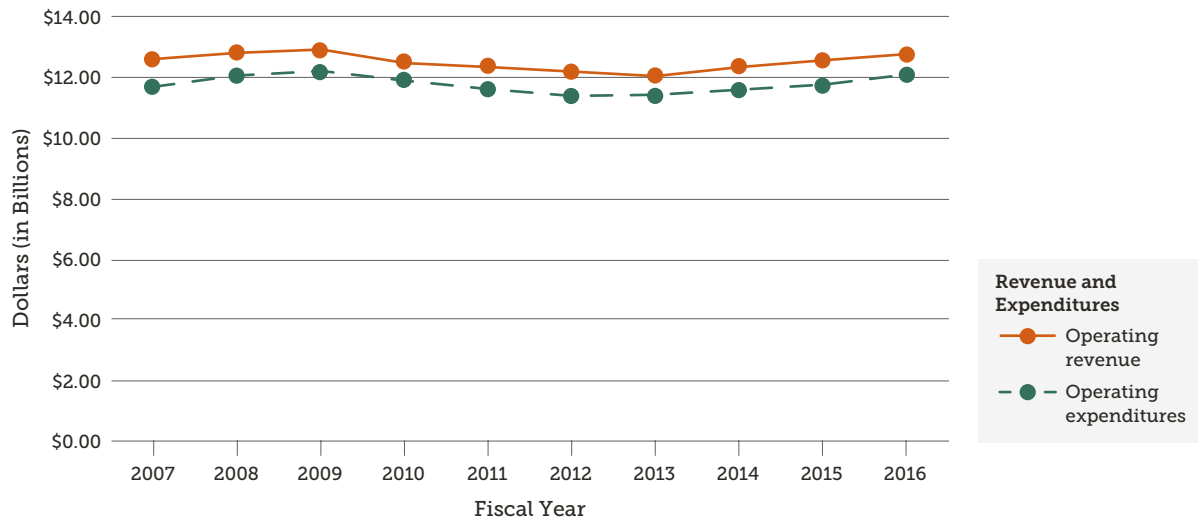
## Public Library Financial Health



Operating revenue and expenditures share a close relationship and are directly affected by the national economy. For example, the economic recession that occurred from December 2007 to June 2009<sup>13</sup>—which changed the financial operations of public libraries—was a period of declining economic activity that impacted communities throughout the United States.

Some metrics used in this report still show a sluggish recovery compared to pre-recession data. For instance, operating revenue and expenditures decreased between FY 2009 and FY 2013. However, both have increased over the last three fiscal years and appear to be moving closer to pre-recession values, though the rate of change from year to year is modest (**Figure 1-1**).

**Figure 1-1.** Total Operating Revenue and Expenditures in Billions, FY 2007–2016 (in Constant 2016 Dollars)



SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

<sup>13</sup>U.S. Business Cycle Expansions and Contractions. Retrieved from <http://www.nber.org/cycles>.

# PART ONE:

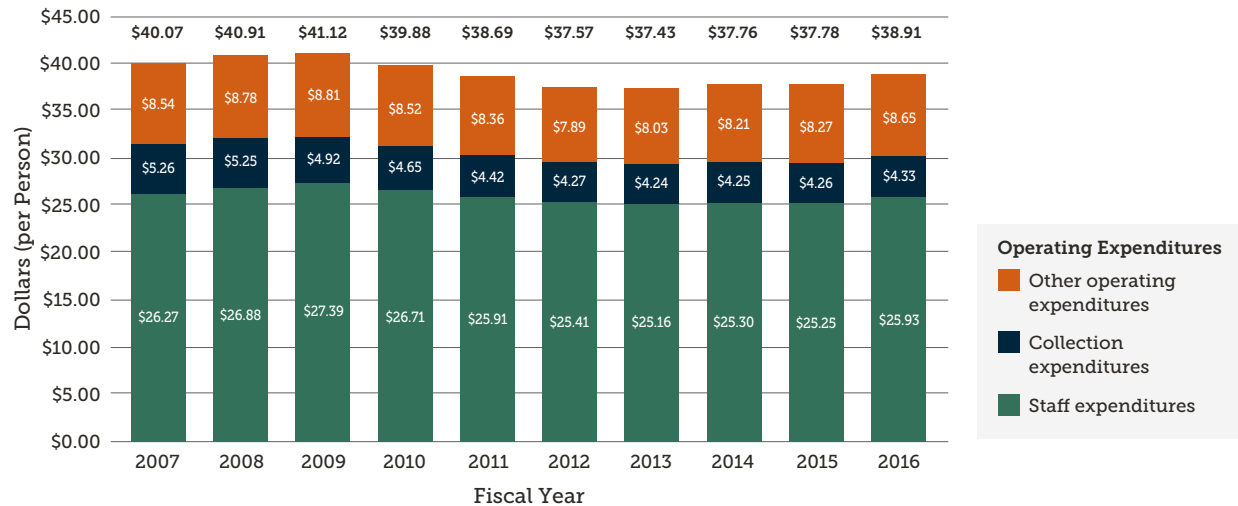
## Public Library Financial Health



Total operating expenditures per person were \$40.07 in FY 2007 and \$38.91 in FY 2016. Collection expenditures represented the smallest share of per

person operating expenditures but had the largest percentage decrease (17.68 percent) over the past 10 years (**Figure 1-2**).

**Figure 1-2.** Operating Expenditures per Person by Type of Expenditure, FY 2007–2016 (in Constant 2016 Dollars)



NOTE: Per person estimates in the figure use the unduplicated population. Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. The total operating expenditures is displayed on the very top of each bar, which is the sum of collection expenditures, other operating expenditures, and staff expenditures. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

### Locale and Population Size Estimates

Operating revenue and expenditures per person varied across locale types in FY 2016. Cities and suburbs had substantially higher revenue and expenditures per person than towns and rural areas (**Table 1-2** and **Table 1-3**). Total operating revenue and expenditures per person also varied by size of the population served. Libraries serving small populations had the highest total operating revenue and total operating expenditures per person; in comparison, libraries serving very large populations had the lowest total revenue and expenditures per person (**Table 1-2** and **Table 1-3**).

Across all locale types and population sizes, local government revenue constituted the majority of operating revenue. However, the proportion of revenue from local government was highest in libraries in cities (85.61 percent) and suburbs

(88.40 percent) than in towns (78.32 percent) and rural areas (80.01 percent) and in libraries that serve very large (85.99 percent) and large (86.37 percent) populations than in libraries that serve medium (82.35 percent) and small (77.63 percent) populations (**Table 1-2**).

Across all locale types and population sizes, staff expenditures represented about two-thirds (67 percent) of all operating expenditures. The proportion of staff expenditures relative to collections and other expenditures was relatively similar across locales and population size groups except for libraries that served small populations for which staff expenditures accounted for just over 60 percent of expenditures. In these libraries, other expenditures accounted for over one quarter of all operating expenditures.



# PART ONE:

## Public Library Financial Health



**Table 1-2.** Operating Revenue per Person by Source of Revenue, Locale, and Population Size Served, FY 2016

Category	Operating Revenue Source per Person				
	Total	Local	State	Federal	Other
Overall	\$41.04	\$35.19	\$2.83	\$0.14	\$2.89
<b>Locale</b>					
City	\$43.51	\$37.25	\$2.53	\$0.19	\$3.53
Suburb	\$44.20	\$39.07	\$2.68	\$0.08	\$2.37
Town	\$30.44	\$23.84	\$3.73	\$0.15	\$2.72
Rural	\$32.90	\$26.32	\$3.28	\$0.18	\$3.12
<b>Population Size Served</b>					
Very large (>25,000)	\$39.98	\$34.38	\$2.82	\$0.14	\$2.64
Large (10,000–25,000)	\$47.39	\$40.93	\$2.86	\$0.08	\$3.51
Medium (2,500–9,999)	\$45.61	\$37.56	\$2.92	\$0.14	\$4.99
Small (<2,500)	\$54.31	\$42.16	\$3.10	\$0.32	\$8.73

NOTE: Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Table 1-3.** Operating Expenditures per Person by Type of Expenditure, Locale, and Population Size Served, FY 2016

Category	Operating Expenditure Type per Person					
	Total	Staff	Collections			Other <sup>2</sup>
			Total Collections <sup>1</sup>	Print Materials	Electronic Materials	
Overall	\$38.91	\$25.93	\$4.33	\$2.43	\$1.10	\$8.65
<b>Locale</b>						
City	\$42.30	\$28.56	\$4.46	\$2.39	\$1.28	\$9.28
Suburb	\$41.44	\$27.54	\$4.78	\$2.61	\$1.24	\$9.13
Town	\$28.23	\$18.63	\$3.12	\$2.02	\$0.52	\$6.48
Rural	\$30.40	\$19.51	\$3.60	\$2.34	\$0.59	\$7.29
<b>Population Size Served</b>						
Very large (>25,000)	\$38.05	\$25.36	\$4.25	\$2.31	\$1.15	\$8.45
Large (10,000–25,000)	\$44.07	\$29.96	\$4.67	\$2.91	\$0.88	\$9.44
Medium (2,500–9,999)	\$42.34	\$27.72	\$4.84	\$3.32	\$0.59	\$9.79
Small (<2,500)	\$50.48	\$30.49	\$6.40	\$4.69	\$0.60	\$13.59

<sup>1</sup> Includes operating expenditures for other materials not reported separately in this table (e.g., microform, physical audio, physical video, DVD, and new formats).

<sup>2</sup> Other operating expenditures not included in staff or collections.

NOTE: Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

# PART ONE: Public Library Financial Health

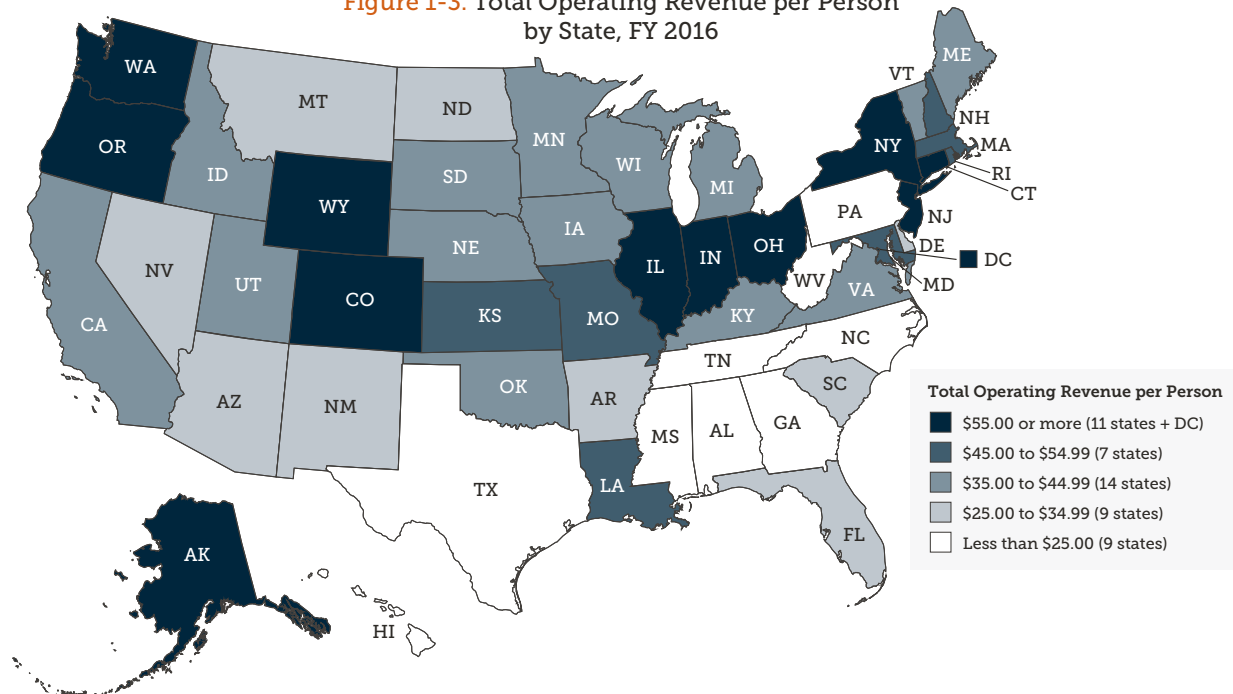


## State Estimates

In FY 2016, total operating revenue per person ranged from as high as \$83.91 in the District of Columbia and \$72.41 in New York to as low as \$18.75 in Georgia and \$19.00 in Mississippi. The majority of states had total operating revenue per person of \$44.99 or less (**Figure 1-3**). In FY 2016, total operating expenditures per person

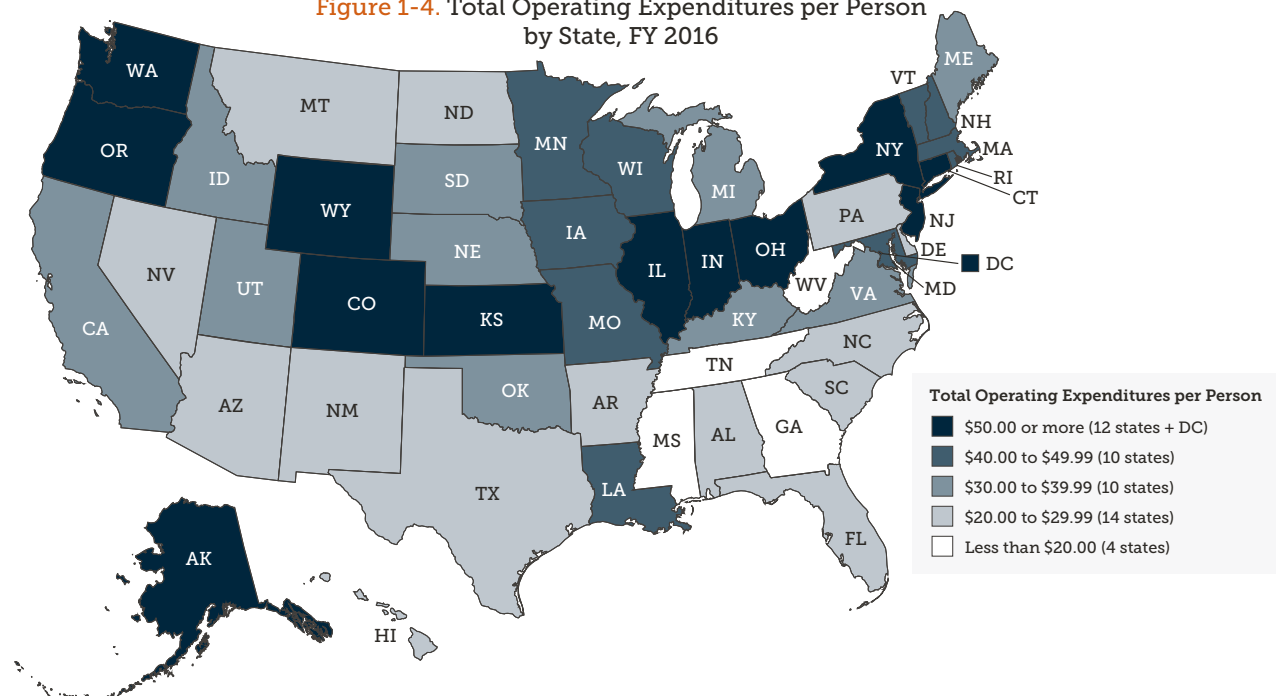
varied across the states, ranging from as high as \$82.91 in the District of Columbia and \$66.00 in New York to as low as \$16.86 per person in Mississippi and \$18.60 in Tennessee (**Figure 1-4**). See Appendix C for additional detail on operating revenue and expenditures per person by state.

**Figure 1-3. Total Operating Revenue per Person by State, FY 2016**



SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Figure 1-4. Total Operating Expenditures per Person by State, FY 2016**



SOURCE: IMLS, Public Libraries Survey, FY 2016.



## **PART TWO:**

# Public Library Resources, Services, and Usage



### Overview

Part Two of this report looks at indicators related to the resources and services that public libraries provide and how these resources and services are used by the public. These indicators provide information about a public library's collection (e.g., books, e-books, audio materials, video materials, and electronic materials) and circulation, visits and reference transactions, program offerings and attendance, and public-access Internet computer availability and usage. Part Two includes four sections. Section One explores collection materials and circulation, fundamental building blocks of public libraries. Next, Section Two examines library visits and reference transactions, which offer insight into library usage. Section Three looks at programs offered and attendance, in total and to children and young adults, all of which have increased over the last five and ten years. Finally, Section Four explores public-access Internet computers, which offer patrons who lack access to the Internet a space to participate in web-based services and activities at no charge.

### Section One: Collections and Circulation

Public libraries curate collections to improve the quality of service they provide to the public. Collection materials offer information to the public that can assist in addressing community needs and interests. To cultivate rich and diverse information, library collections<sup>14</sup> include many formats: physical books, e-books, audio materials, and video materials. Libraries make the materials in their collections available for circulation to the public. Circulation is an important measure of library utilization.<sup>15</sup>

Together, the collections and circulation per person metrics provide insight into the materials libraries collect and offer to the public and how the public engages with these materials. In this section, both total circulation and children's circulation are examined.<sup>16</sup> In response to states' needs to document ways in which libraries serve children, data elements that provide insights about children's services were added in 1992.

<sup>14</sup> For the purposes of this report, total collections are the sum of books, e-books, physical and downloadable audio materials, and physical and downloadable video materials. Data elements measuring electronic collections (i.e., local/other, state, and total electronic collections) were modified in FY 2015 and have not previously been included in this report as sub-indicators of total collections. Therefore, these elements are not included in analyses for this report but may be added in the future. Data elements measuring e-books and downloadable audio and video materials were modified in FY 2015; the data element measuring books was modified in FY 2016. Each of these data elements have previously been included in this report as sub-indicators of total collections. Therefore, these items were included for the FY 2016 analyses to maintain continuity with previous reports. Missing data for books, e-books, and downloadable audio and video materials were not imputed due to data element definitional changes; libraries with missing data are excluded from per person estimates.

<sup>15</sup> Total circulation is the total annual circulation of all library materials of all types, including renewals. The data element measuring total circulation was modified in FY 2016; missing data were not imputed. Libraries with missing data are excluded from per person estimates.

<sup>16</sup> Circulation of electronic materials, introduced to the PLS in FY 2013 as a separate data element, has not been collected consistently since its introduction (i.e., the data element definition changed in FY 2015 and again in FY 2016). Therefore, this item is not included as a sub-indicator for this report.



### Indicator 3. Collection Materials per Person: 4.69 (1.46 Billion Materials Total)

### Indicator 4. Circulation per Person: 7.19 (2.23 Billion Circulations Total)

In all, more than 1.46 billion collection materials were made available to the public in FY 2016.<sup>17</sup> Nationally, the number of collection materials per person increased from 4.28 to 4.69 materials per person between FY 2015 and FY 2016, with large increases in e-books and audio materials

(20.56 percent and 61.54 percent, respectively) (**Table 2-1**).<sup>18</sup> Although collection materials increased, total circulation per person was 7.19 in FY 2016, down from 7.30 in FY 2015 (**Table 2-1**), following the trend in overall circulation noted in **Figure 2-2**.

Table 2-1. Public Library Collections and Circulation Summary, FY 2015–2016

Indicator	FY 2016	FY 2015
<b>Indicator 3. Collection Materials per Person<sup>1</sup></b>	<b>4.69</b>	<b>4.28</b>
Indicator 3.1 Books per Person <sup>2</sup>	2.36	2.41
Indicator 3.2 E-books per Person <sup>3</sup>	1.29	1.07
Indicator 3.3 Audio Materials per Person <sup>4</sup>	0.84	0.52
Indicator 3.4 Video Materials per Person <sup>4</sup>	0.25	0.23
<b>Indicator 4. Circulation per Person<sup>2</sup></b>	<b>7.19</b>	<b>7.30</b>
Indicator 4.1 Children's Materials Circulation per Person	2.56	2.58

<sup>1</sup> Total excludes libraries missing data for books, e-books, downloadable audio materials, or downloadable video materials. Sub-indicators exclude libraries missing data for the respective data element only. As a result, sub-indicators will not sum to the total given the different denominators.

<sup>2</sup> Missing data were not imputed due to data element definition change in FY 2016. Libraries with missing data are excluded from this estimate.

<sup>3</sup> Missing data were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

<sup>4</sup> Includes physical and downloadable materials. Missing data for downloadable audio and video materials were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

NOTE: Per person estimates in the table use the unduplicated population and exclude libraries with missing data. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2015–2016.

Since FY 2007, there has been a rapid increase in the number of e-books and audio materials per person—over 2,400 percent and 425 percent, respectively (**Figure 2-1**). E-books now constitute 26.87 percent of all collection materials, up from 1.44 percent in FY 2007.<sup>19</sup>

Between FY 2007 and FY 2016, total collection materials per person increased by 49.36 percent from 3.14 to 4.69. This was most notable for e-books, as shown by the expansion of these collections in **Figure 2-1**. However, total circulation per person decreased overall since FY 2007, with annual declines noted after FY 2010, and children's circulation has varied little over the same ten year period (**Figure 2-2**).

<sup>17</sup> This includes all reported data for print materials, e-books, physical audio materials, downloadable audio materials, physical video materials, and downloadable video materials. It also includes items that have been purchased, leased, or licensed by the library, a consortium, the state library, a donor, or other person or entity. Items available through consortia for finite simultaneous use may be counted multiple times by member libraries.

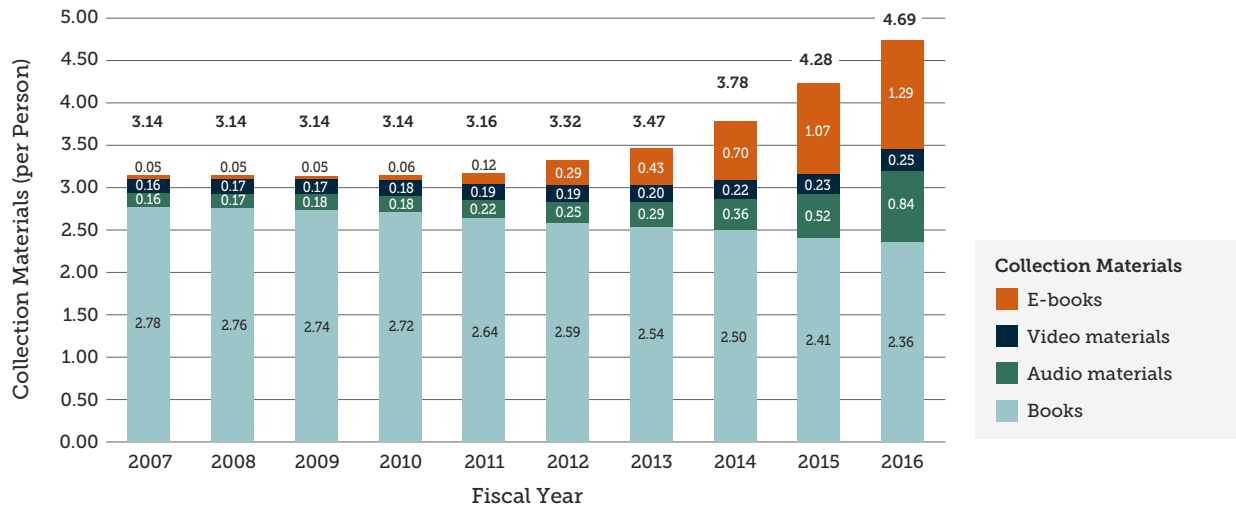
<sup>18</sup> Collection materials per person, Indicator 3, is the national sum of print materials, e-books, physical audio materials, downloadable audio materials, physical video materials, and downloadable video materials divided by the national sum of the unduplicated population served. In FY 2015, items capturing e-books and downloadable audio and video materials were not imputed due to data element definition changes; each contain missing data. In FY 2016, the item capturing print materials was not imputed due to data element definition changes and contains missing data. Therefore, to accurately generate an aggregate collections per person estimate, libraries missing any of these four items are excluded from both the numerator and the denominator. The calculation for the per person estimate of 4.69 is 1.36 billion materials divided by a national unduplicated population of 290.72 million.

<sup>19</sup> Percentage of collection materials is calculated as the total number of e-books divided by the total number of collection materials. A percentage of the per person estimate cannot be calculated because the details do not sum to the total.

# PART TWO: Public Library Resources, Services, and Usage



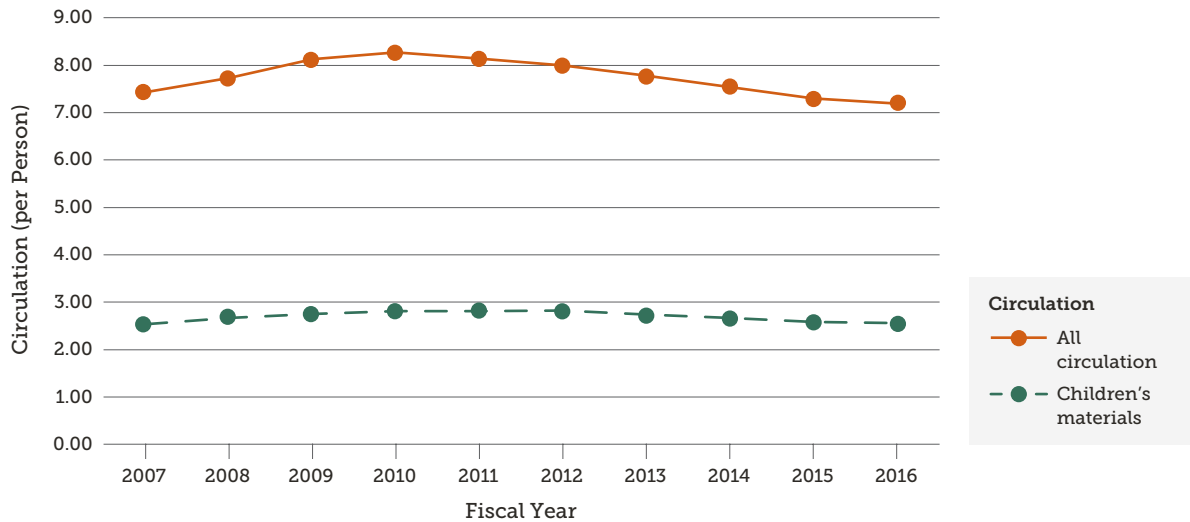
Figure 2-1. Collection Materials per Person by Material Type, FY 2007–2016



NOTE: Per person estimates in the figure use the unduplicated population and exclude libraries missing data. Missing data for e-books and downloadable audio and video materials were not imputed due to data element definition changes in FY 2015; missing data for books (print materials) were not imputed due to data element definition change in FY 2016. Libraries with missing data are excluded from these estimates. The total collection materials per person is displayed on the very top of each bar, which is the sum of e-books, video materials, audio materials, and books. Total excludes libraries missing data for books, e-books, downloadable audio materials, or downloadable video materials. Collection materials exclude libraries missing data for the respective material type only. As a result, material types will not sum to the total given the different denominators. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

Figure 2-2. Circulation and Children’s Materials Circulation per Person, FY 2007–2016



NOTE: Per person estimates in the figure use the unduplicated population and exclude libraries missing data. Missing data for total circulation was not imputed due to data element definition change in FY 2016. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

## PART TWO:

# Public Library Resources, Services, and Usage



### Locale and Population Size Estimates

Total collection materials per person and circulation per person varied by library locale in FY 2016. Total collection materials per person were substantially lower in cities (3.11), suburbs (4.12), and towns (6.56) than in rural areas (10.39) (**Table 2-2**). Similar to total collection materials, the more rural the locale, the greater the number of each type of material per person in the library's collection—that is, books, e-books, audio materials, and video materials. This was especially apparent for e-books; the number of e-books per person in libraries located in cities (0.29), suburbs (1.02), and towns (2.29) was much lower than in libraries located in rural areas (4.69) (**Table 2-2**).

Total circulation per person was higher in cities (7.07) and suburbs (8.12) than in towns (5.45) and rural areas (5.91). Children's materials circulation per person was also higher in cities (2.37) and suburbs (3.08) than in towns (1.81) and rural areas (1.97) (**Table 2-2**).

Collection materials per person also varied by population size served in FY 2016. Overall, the smaller the population size served, the greater the library's total collections per person. This was also true for each type of collection material: books, e-books, audio materials, and video materials (**Table 2-2**). E-books clearly exemplify this relationship, with libraries serving very large (0.52) and large (3.35) populations having substantially smaller numbers of e-books per person than libraries serving medium (7.30) and small (23.86) populations (**Table 2-2**). Circulation per person exhibited a similar relationship; that is, the smaller the population size served, the greater the total circulation per person. This relationship was less extreme for children's materials, where the variation in circulation per person across population size served was smaller than it was for total circulation per person.

**Table 2-2.** Collection Materials and Circulation per Person by Type, Locale, and Population Size Served, FY 2016

Category	Collection Materials per Person					Circulation per Person	
	Total Collection Materials <sup>1</sup>	Books <sup>2</sup>	E-books <sup>3</sup>	Audio Materials <sup>4</sup>	Video Materials <sup>4</sup>	Total Circulation <sup>2</sup>	Children's Materials Circulation
Overall	4.69	2.36	1.29	0.84	0.25	7.19	2.56
<b>Locale</b>							
City	3.11	2.21	0.29	0.39	0.20	7.07	2.37
Suburb	4.12	2.14	1.02	0.77	0.27	8.12	3.08
Town	6.56	2.70	2.29	1.65	0.27	5.45	1.81
Rural	10.39	3.46	4.69	1.64	0.37	5.91	1.97
<b>Population Size Served</b>							
Very large (>25,000)	3.24	2.02	0.52	0.59	0.21	7.10	2.53
Large (10,000–25,000)	9.22	3.46	3.35	1.77	0.39	7.72	2.77
Medium (2,500–9,999)	15.82	4.89	7.30	2.56	0.66	7.66	2.61
Small (<2,500)	43.01	10.38	23.86	7.37	0.97	8.50	2.73

<sup>1</sup> Total excludes libraries missing data for books, e-books, downloadable audio materials, or downloadable video materials. Collection material types exclude libraries missing data for the respective material type only. As a result, material types will not sum to the total given the different denominators.

<sup>2</sup> Missing data were not imputed due to data element definition change in FY 2016. Libraries with missing data are excluded from this estimate.

<sup>3</sup> Missing data were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

<sup>4</sup> Includes physical and downloadable materials. Missing data for downloadable audio and video materials were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

NOTE: Per person estimates in the table use the unduplicated population and exclude libraries with missing data.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

## PART TWO:

# Public Library Resources, Services, and Usage



### State Estimates

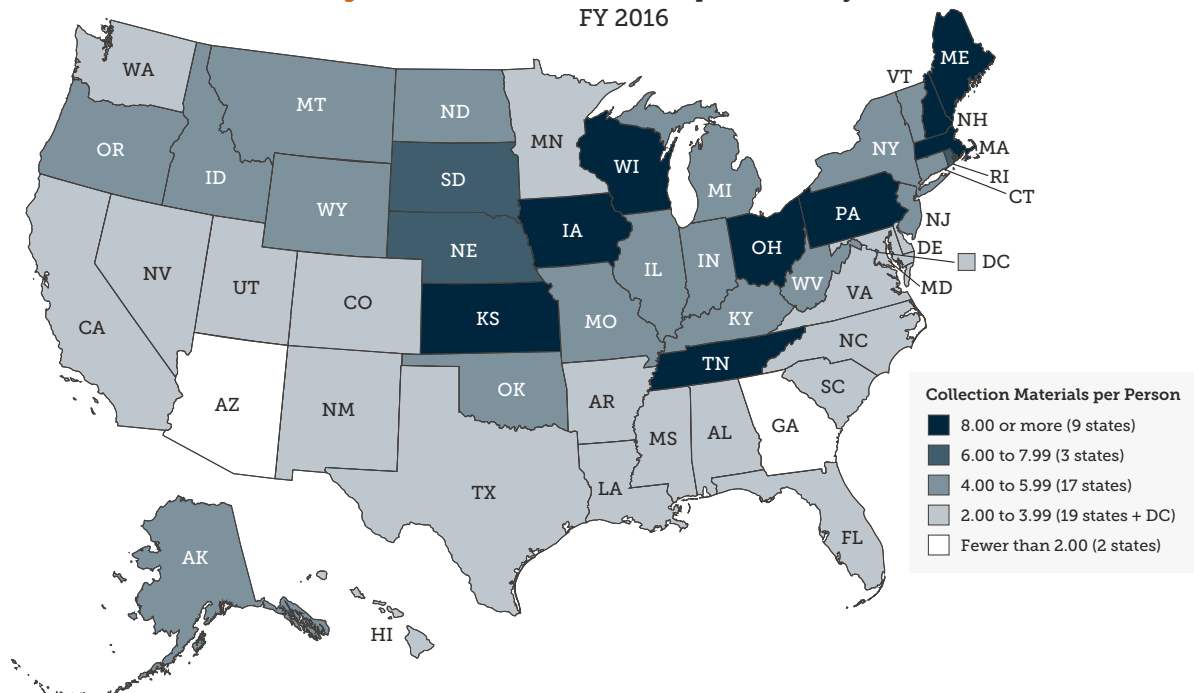
In FY 2016, total collection size per person varied across the 50 states and the District of Columbia, with nine states having collection materials per person greater than 8.00 and two states with fewer than 2.00 collection materials per person (**Figure 2-3**). Kansas had the highest total collection size per person in the nation (18.59). In contrast, Arizona had the lowest total collection size per person (1.74). See Appendix C for additional detail on collection materials per person by state.

Total circulation per person also varied across the 50 states and the District of Columbia in FY 2016 (**Figure 2-4**). Ohio and Oregon had the highest total circulation per person (16.02 and 15.48,

respectively). In contrast, Mississippi and West Virginia had the lowest total circulation per person (2.52 and 3.51, respectively).

In FY 2016, children's materials circulation per person also varied across the 50 states and the District of Columbia (**Figure 2-5**). Two states, Utah and Ohio, had the highest children's materials circulation per person (5.34 and 5.23, respectively). Conversely, Mississippi had the lowest children's materials circulation per person (0.82) and was the only state in the nation with children's materials circulation per person below 1.00. See Appendix C for additional detail on total circulation and children's materials circulation per person by state.

**Figure 2-3. Collection Materials per Person by State, FY 2016**



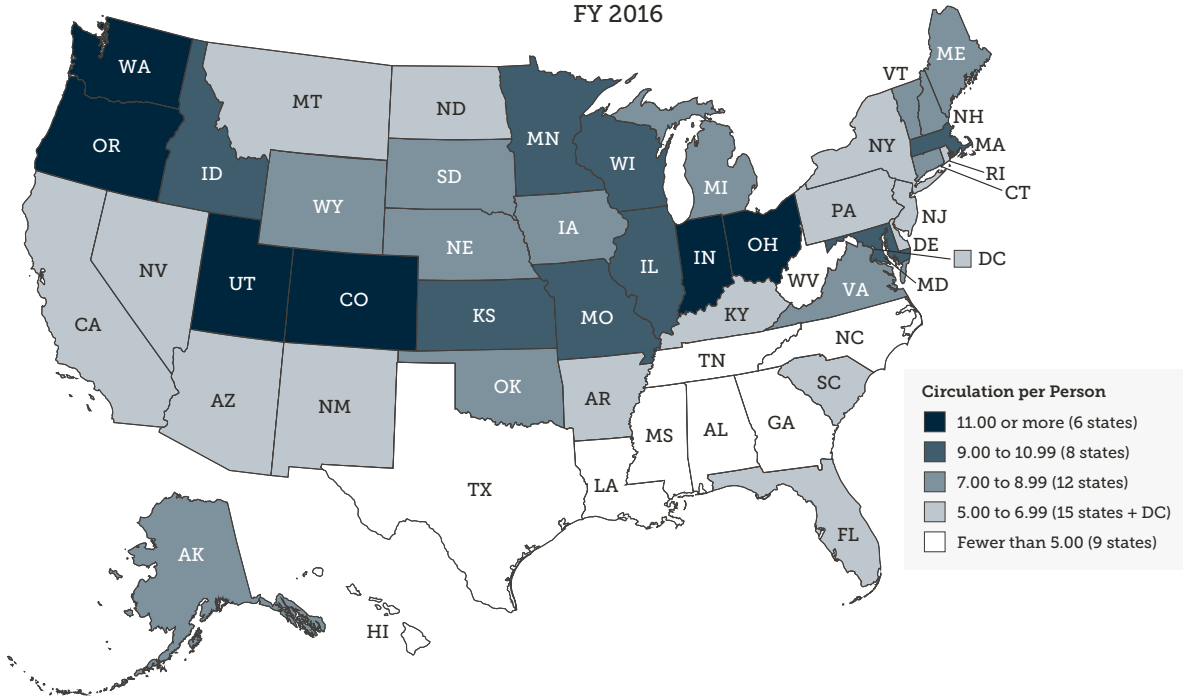
SOURCE: IMLS, Public Libraries Survey, FY 2016.



# PART TWO: Public Library Resources, Services, and Usage

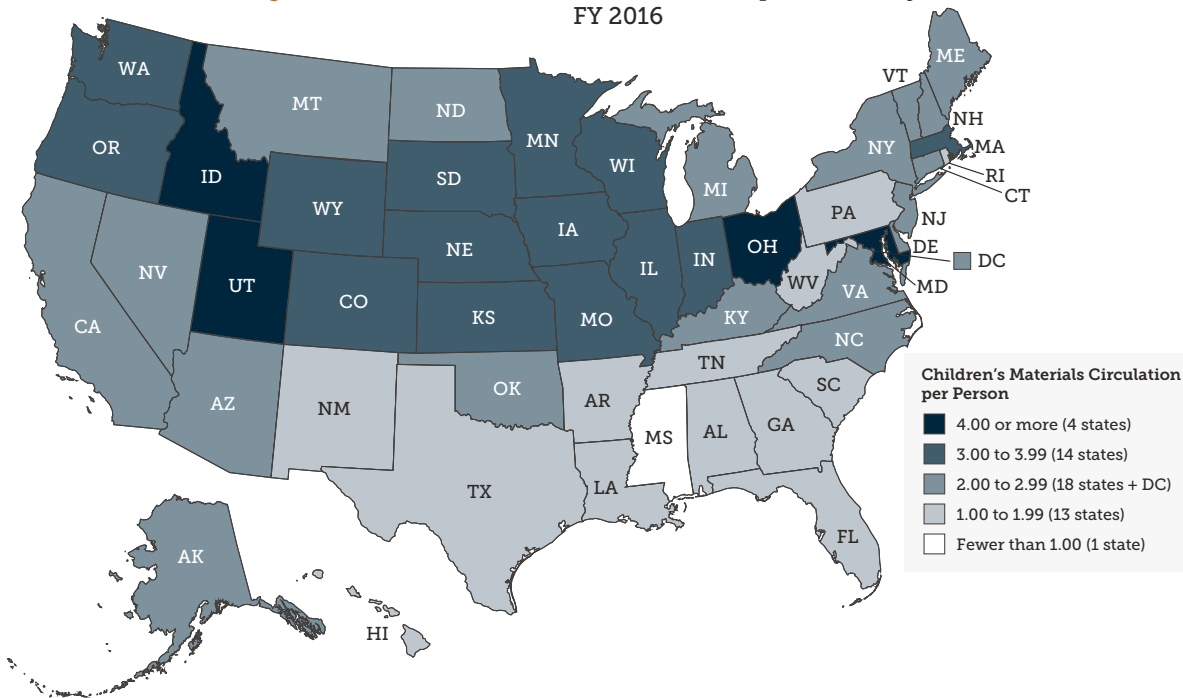


**Figure 2-4. Circulation per Person by State, FY 2016**



SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Figure 2-5. Children's Materials Circulation per Person by State, FY 2016**



SOURCE: IMLS, Public Libraries Survey, FY 2016.



## Section Two: Library Visits and Reference Transactions

Information on the number of visits that patrons make to public libraries is a traditional metric for understanding how community members engage with the physical services and facilities provided by public libraries, and by extension, how much they engage with the staff and resources located in public libraries. The public may visit libraries to check out collection materials, access the Internet, attend programs, or consult with librarians and staff. Visits per person, or the ratio of the total number of visits to a public library to the total number of individuals within the public library LSA, proves one useful metric about how libraries are used.<sup>20</sup> It is important to interpret trends in patron visits 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 visits.

Patron visits become even more meaningful in understanding physical library usage when examined in conjunction with reference transactions, in which library staff members use information sources to provide knowledge, recommendations, interpretation, or instruction in the use of information sources to public library patrons. Information sources can range from printed materials and catalogs to electronic databases and library computers. By examining these indicators together, one can gain a more detailed understanding of both the number of people using physical library services and the demand for staff member guidance and expertise in using them.

### Indicator 5. Library Visits per Person: 4.36 (1.35 Billion Total)

### Indicator 6. Reference Transactions per Person: 0.79 (245.70 Million Total)

In FY 2016, there were 1.35 billion visits to public libraries in the United States, for an average of 4.36 visits per person (**Table 2-3**). Nationally, library staff assisted library patrons via 245.70 million reference transactions, or 0.79 transactions per person, in FY 2016

(**Table 2-3**). Visits and reference transactions per person have declined each year since FY 2009. Over the last eight fiscal years, visits per person have decreased by 18.66 percent and reference transactions per person by 24.04 percent (**Figure 2-6**).

**Table 2-3.** Library Visits and Reference Transactions Summary, FY 2015–2016

Indicator	FY 2016	FY 2015
<b>Indicator 5. Library Visits per Person</b>	<b>4.36</b>	<b>4.48</b>
<b>Indicator 6. Reference Transactions per Person</b>	<b>0.79</b>	<b>0.82</b>

NOTE: Per person estimates in the table use the unduplicated population. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2015–2016.

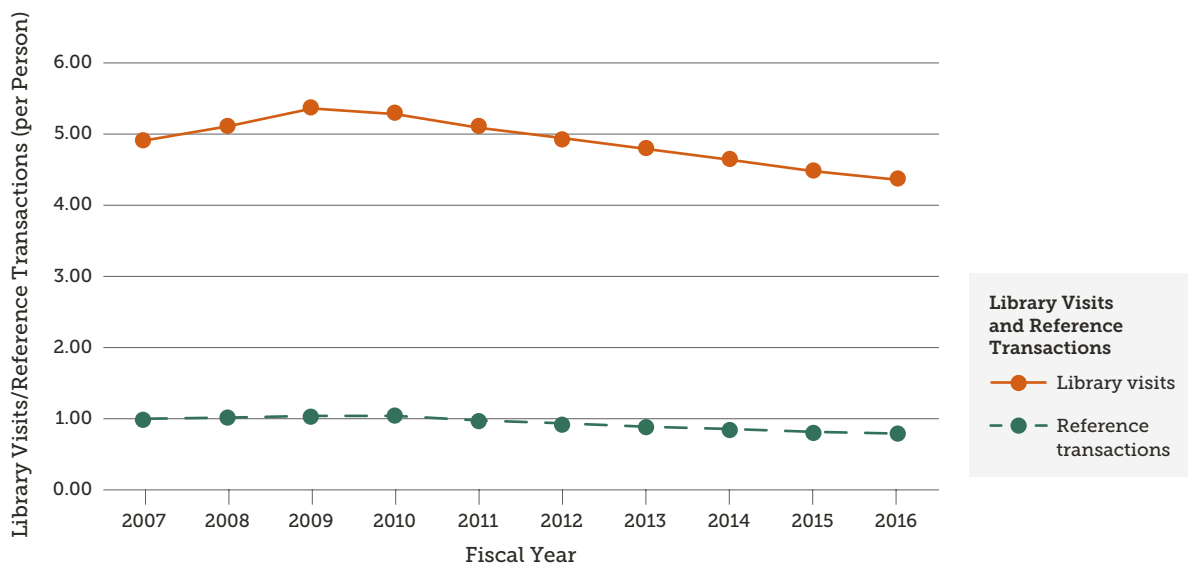
<sup>20</sup> This metric is based on a count of the number of people who physically entered a public library (i.e., foot traffic into the building). Counts are not based on individual people but, rather, the number of visits that a library records, regardless of whether a person previously visited the library. Starting in FY 2018, the PLS will collect the number of visits to a library’s website as one measure of virtual interaction with public libraries; this element will be reported in reports beginning with the FY 2020 cycle.

## PART TWO:

### Public Library Resources, Services, and Usage



Figure 2-6. Library Visits and Reference Transactions per Person, FY 2007–2016



NOTE: Per person estimates in the figure use the unduplicated population. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

#### Locale and Population Size Estimates

Library visits and reference transactions per person varied slightly across library locales. Overall, patrons visited suburban libraries on average 4.60 times during FY 2016, higher than in any other type of locale (**Table 2-4**). Reference transactions per person were substantially higher

in libraries in cities and suburbs than in towns and rural areas. Across population size groupings, there were more visits and reference transactions per person in libraries serving small service areas than in those serving larger populations (**Table 2-4**).

Table 2-4. Library Visits and Reference Transactions per Person by Locale and Population Size Served, FY 2016

Category	Library Visits per Person	Reference Transactions per Person
Overall	4.36	0.79
Locale		
City	4.23	0.85
Suburb	4.60	0.87
Town	4.12	0.55
Rural	4.02	0.59
Population Size Served		
Very large (>25,000)	4.09	0.79
Large (10,000–25,000)	5.74	0.76
Medium (2,500–9,999)	6.04	0.79
Small (<2,500)	6.72	0.93

NOTE: Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

## PART TWO:

# Public Library Resources, Services, and Usage

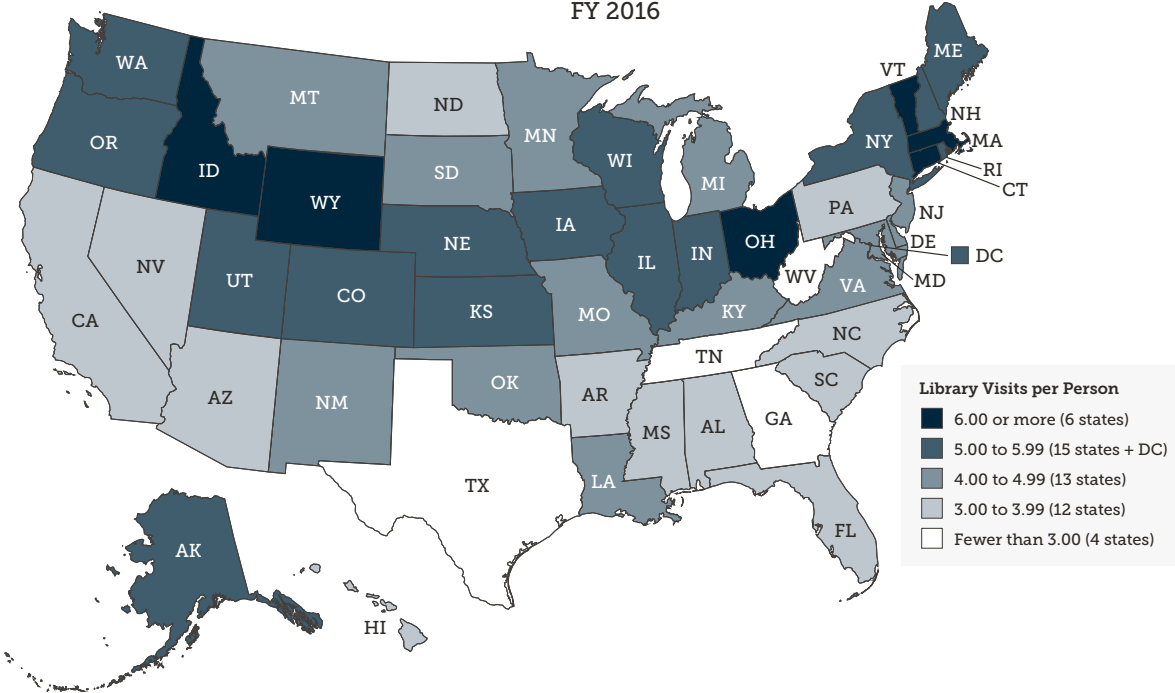


### State Estimates

Visits per person varied across the states, ranging from 6.44 in Ohio to 2.70 in Georgia (Figure 2-7). Twenty-one states and the District of Columbia

reported five or more visits per person, whereas four states—Georgia, Tennessee, Texas, and West Virginia—had fewer than three visits per person.

Figure 2-7. Library Visits per Person by State, FY 2016



SOURCE: IMLS, Public Libraries Survey, FY 2016.

## PART TWO:

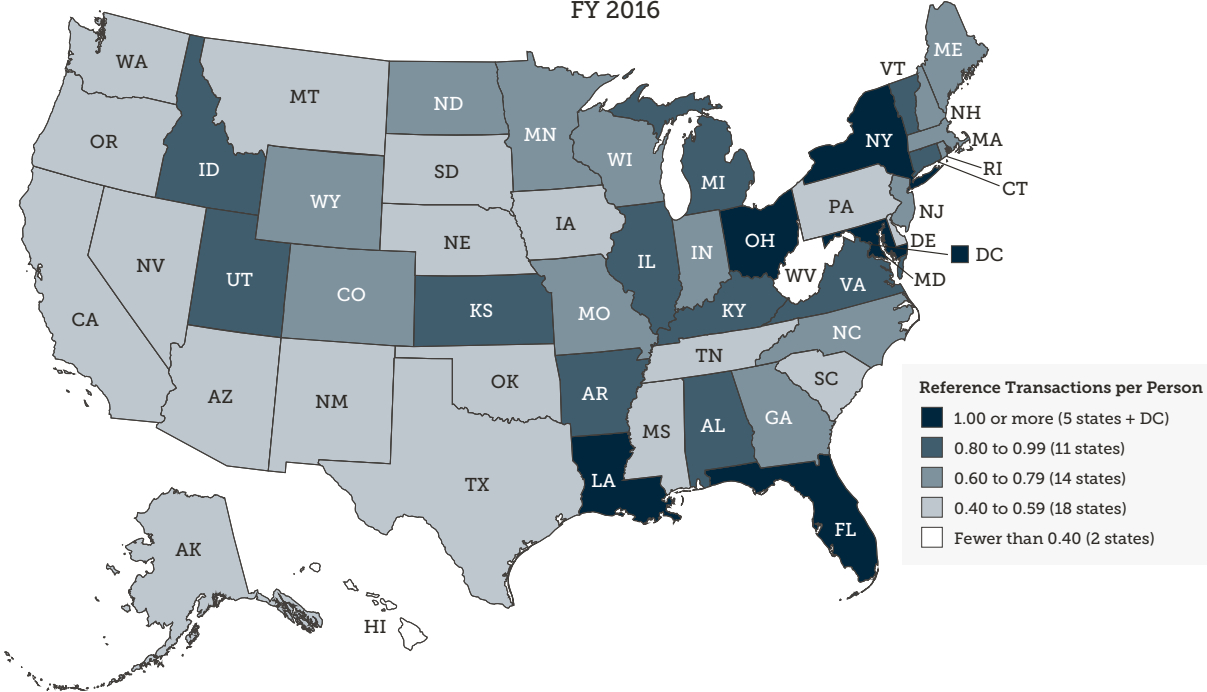
# Public Library Resources, Services, and Usage



In the majority of states, reference transactions per person varied from 0.40 to 0.99, but 16 states and the District of Columbia had more than 0.80 reference transactions per person. The lowest

number of reference transactions per person was in West Virginia (0.34). (**Figure 2-8**) See Appendix C for more detail on visits and reference transactions per person by state.

**Figure 2-8.** Reference Transactions per Person by State, FY 2016



SOURCE: IMLS, Public Libraries Survey, FY 2016.



### Section Three: Program Offerings and Attendance

Public library programming is designed to address the needs and issues that people face in their communities. These programs range in nature from building reading or digital literacy skills to employment readiness seminars to fitness and health-centered activities. The PLS captures information on the total number of programs offered, as well as the number of programs offered to two target populations: children (ages 11 and under) and young adults (ages 12–18).<sup>21</sup> In addition, the PLS captures attendance information for total programs offered, children’s programs, and young adults’ programs.<sup>22</sup>

Section Three examines indicators pertaining to public library program offerings and attendance per 1,000 people. The number of programs offered indicates how the library responds to needs in its community. Attendance metrics reflect the public response to library program offerings, with higher rates signaling greater public interest.

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#### Indicator 7. Total Programs Offered per 1,000 People: 16.66 (5.18 Million Total)

#### Indicator 8. Total Program Attendance per 1,000 People: 363.99 (113.08 Million Total)

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The PLS defines a program as any planned event which introduces the group attending to any of the broad range of library services or activities or which directly provides information to participants. These programs may cover use of the library, library services, or library tours. Programs may also provide educational, cultural, or recreational information, and are often designed to meet a specific social need.<sup>23</sup> In all, public libraries offered 5.18 million library programs in FY 2016 that were attended by 113.08 million patrons, continuing the trend of annual increases in library programming (9.53 percent increase compared to FY 2015) and attendance (6.66 percent increase compared to FY 2015). In 2015, 4.73 million programs were offered that were attended by 106.10 million people (**Table 2-5**).

Children’s and young adults’ program offerings make up approximately two-thirds of the total programs reported in the PLS. In FY 2016, public libraries offered 503,334 young adults’ programs, or 1.62 programs per 1,000 people; moreover, attendance at young adults’ programs per 1,000 people was 24.90 in FY 2016 (**Table 2-5**). Public libraries offered 2.85 million children’s programs, or 9.19 programs per 1,000 people, while attendance at children’s programs per 1,000 people was 245.90 in FY 2016.

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<sup>21</sup>Data on program offerings for adults are included in total program offerings rather than collected separately.

<sup>22</sup>The number of attendees is not an accounting of individual people; it may include multiple instances of the same person if that person participated in more than one program. Attendance captures the number of attendees at the targeted program, regardless of the age of attendees.

<sup>23</sup>Programs held at the library but not sponsored by the library are excluded (e.g., meeting room rental).

# PART TWO:

## Public Library Resources, Services, and Usage



Table 2-5. Public Library Programs Summary, FY 2015–2016

Indicator	FY 2016	FY 2015
<b>Indicator 7. Total Programs Offered per 1,000 People</b>	<b>16.66</b>	<b>15.21</b>
Indicator 7.1 Children’s Programs Offered per 1,000 People	9.19	8.61
Indicator 7.2 Young Adults’ Programs Offered per 1,000 People	1.62	1.47
<b>Indicator 8. Total Program Attendance per 1,000 People</b>	<b>363.99</b>	<b>341.25</b>
Indicator 8.1 Children’s Program Attendance <sup>1</sup> per 1,000 People	245.90	233.59
Indicator 8.2 Young Adults’ Program Attendance <sup>1</sup> per 1,000 People	24.90	23.18

<sup>1</sup> Attendance captures the number of attendees at the targeted program, regardless of the age of attendees.

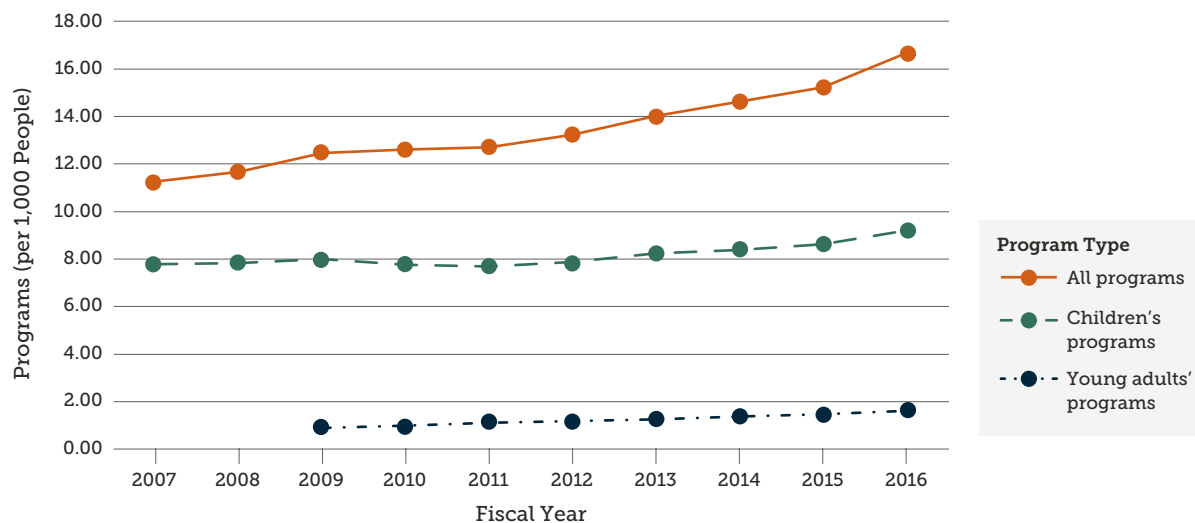
NOTE: Per 1,000 people estimates in the table use the unduplicated population. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2015–2016.

Between FY 2012 and FY 2016, total programs offered and program attendance per 1,000 people increased by 25.83 percent and 18.93 percent, respectively. Children’s programs offered per 1,000 people increased by 16.62 percent, and attendance at children’s programs per 1,000 people increased by 15.37 percent. Although the number of young adults’ programs offered per 1,000 people in FY 2016 was over five times lower

than the number of children’s programs offered (1.62 versus 9.19), the relative 1-year and 5-year percent change in both young adults’ programs offered and attendance was higher than that for programs targeted to children. Since FY 2012, young adults’ programs offered and attendance at such programs per 1,000 people have increased by 37.29 percent and 32.52 percent, respectively (Figures 2-9 and 2-10).

Figure 2-9. Total Programs Offered per 1,000 People by Program Type, FY 2007–2016



NOTE: Per 1,000 people estimates in the figure use the unduplicated population. Total programs does not equal the sum of children’s programs and young adults’ programs. Total programs may include other state-specific program data not collected or reported by the PLS. Data on young adults’ programs were not collected until FY 2009, and therefore, 10-year trends are not available. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

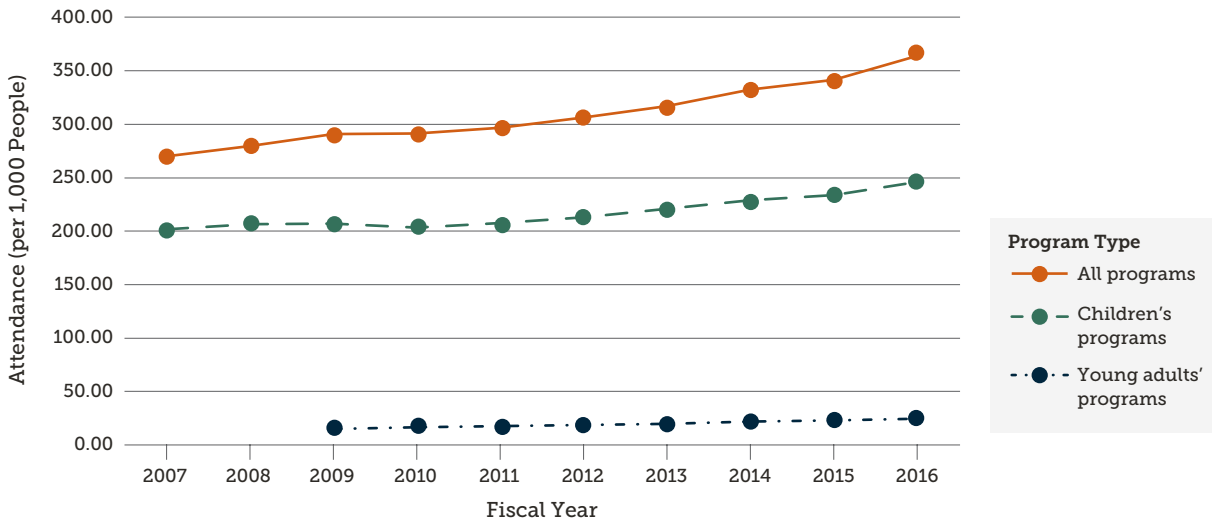
SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

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Figure 2-10. Total Program Attendance per 1,000 People by Program Type, FY 2007–2016



NOTE: Per 1,000 people estimates in the figure use the unduplicated population. Total programs does not equal the sum of children's programs and young adults' programs. Total programs may include other state-specific program data not collected or reported by the PLS. Data on young adults' programs were not collected until FY 2009, and therefore, 10-year trends are not available. Attendance captures the number of attendees at the targeted program, regardless of the age of attendees. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

### Locale and Population Estimates

Programs offered and program attendance per 1,000 people varied across locales in FY 2016. In general, the more rural the library's locale, the more total programs offered per 1,000 people and the higher the total program attendance per 1,000 people. This trend was also found for children's programs, with libraries in city locales offering approximately six fewer programs per 1,000 people than libraries in rural locales. Young adults' program offerings followed a similar pattern, with libraries in cities (1.50), suburbs (1.63), and towns (1.64) offering fewer programs per 1,000 people than libraries in rural areas (1.97) (**Table 2-6**).

Examining programs offered and attendance by population size shows similar results. Overall, the smaller the size of the LSA population, the greater the number of programs offered and program attendance in FY 2016. Children's programs and young adults' programs offered per 1,000 people also followed this trend.



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### Public Library Resources, Services, and Usage



**Table 2-6.** Total Programs Offered and Total Program Attendance per 1,000 People by Program Type, Locale, and Population Size Served, FY 2016

Category	Programs Offered per 1,000 People			Program Attendance per 1,000 People		
	Total Programs	Children's Programs	Young Adults' Programs	Total Programs	Children's Programs	Young Adults' Programs
Overall	16.66	9.19	1.62	363.99	245.90	24.90
Locale						
City	14.44	7.76	1.50	325.52	217.84	24.43
Suburb	16.62	8.91	1.63	385.25	259.46	26.42
Town	17.43	10.49	1.64	364.13	253.07	22.42
Rural	23.85	13.75	1.97	406.66	275.85	23.23
Population Size Served						
Very large (>25,000)	13.87	7.58	1.39	324.85	220.22	23.00
Large (10,000–25,000)	27.41	15.29	2.68	545.54	369.97	35.57
Medium (2,500–9,999)	37.71	21.26	3.16	624.26	414.47	34.69
Small (<2,500)	61.50	35.20	4.83	876.37	547.03	46.87

NOTE: Per 1,000 people estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

#### State Estimates

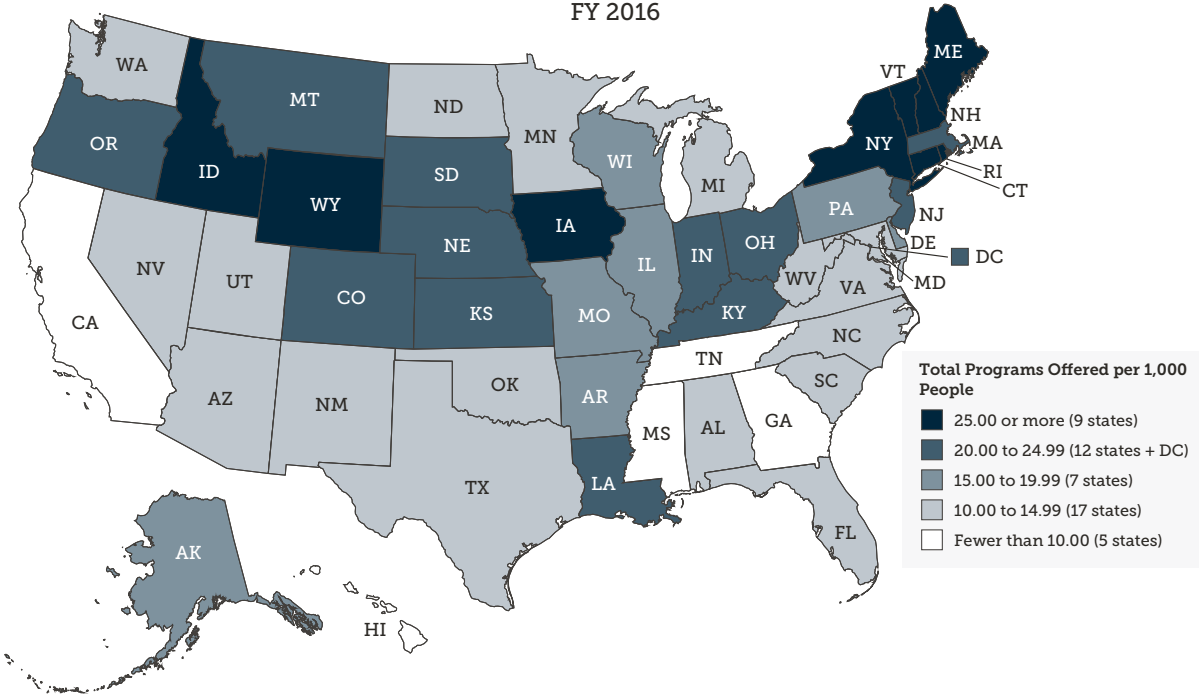
In FY 2016, the number of programs offered per 1,000 people varied across the states, from highs of 48.06 in Vermont, 40.60 in New Hampshire, and 38.10 in Maine, to lows of 7.76 in Georgia and 7.52 in Hawaii (**Figure 2-11**). Vermont reported the highest total attendance per 1,000 people (739.56), and Utah reported the second highest (642.10). Hawaii and Mississippi had the lowest total program attendance per 1,000 people in the nation (200.00 and 222.43, respectively) (**Figure 2-12**).

Nine states offered more than 15.00 children's programs per 1,000 people with three states having offered more than 20.00: Vermont (27.62), New Hampshire (22.02), and Maine (21.40). Ten states offered fewer than six children's programs per 1,000 people, with the lowest offerings in Georgia (4.28), Mississippi (5.02), and Tennessee (5.16) (**Figure 2-13**). Attendance per 1,000 people at children's programs ranged from a high of 477.78 in Utah to a low of 148.67 in Hawaii (**Figure 2-14**). Attendance at children's programs per 1,000 people was second highest in Wyoming (477.50).

# PART TWO: Public Library Resources, Services, and Usage

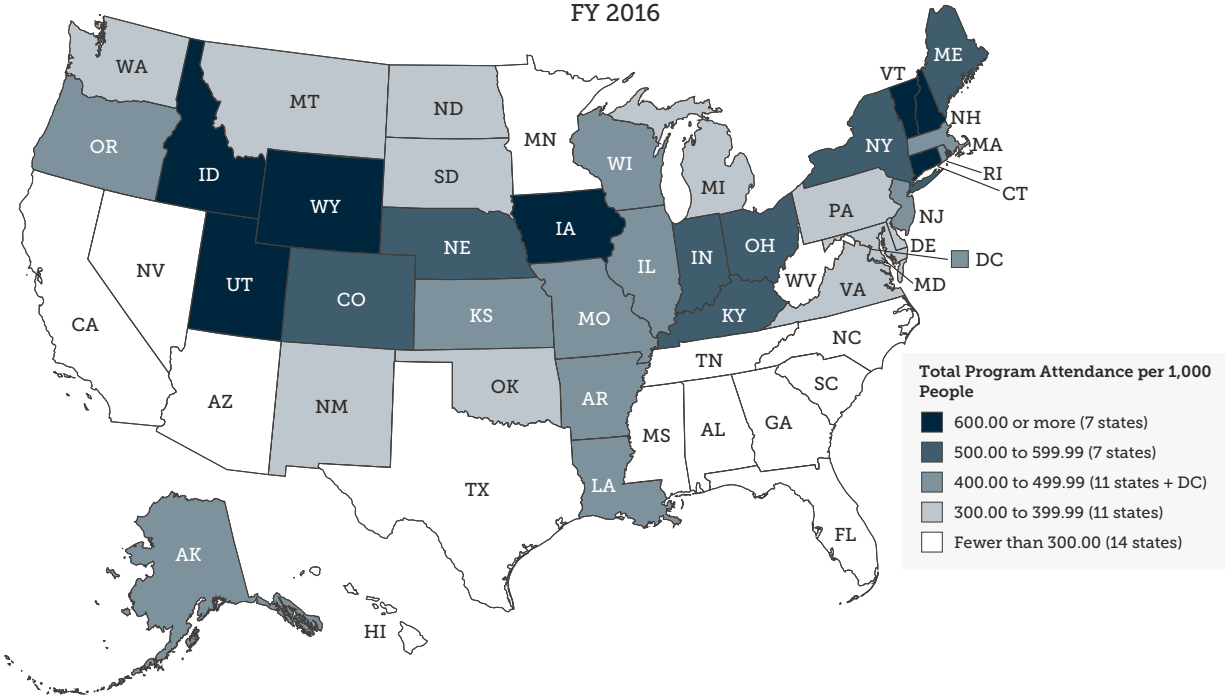


**Figure 2-11. Total Programs Offered per 1,000 People by State, FY 2016**



SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Figure 2-12. Total Program Attendance per 1,000 People by State, FY 2016**



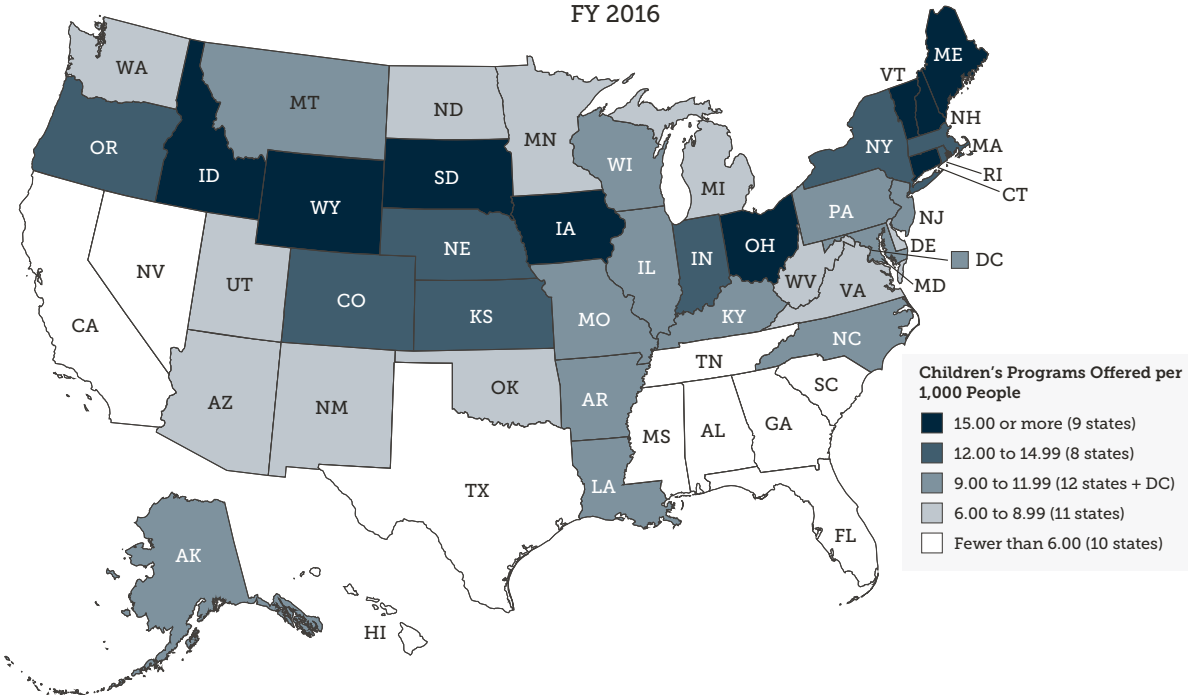
SOURCE: IMLS, Public Libraries Survey, FY 2016.

# PART TWO:

## Public Library Resources, Services, and Usage

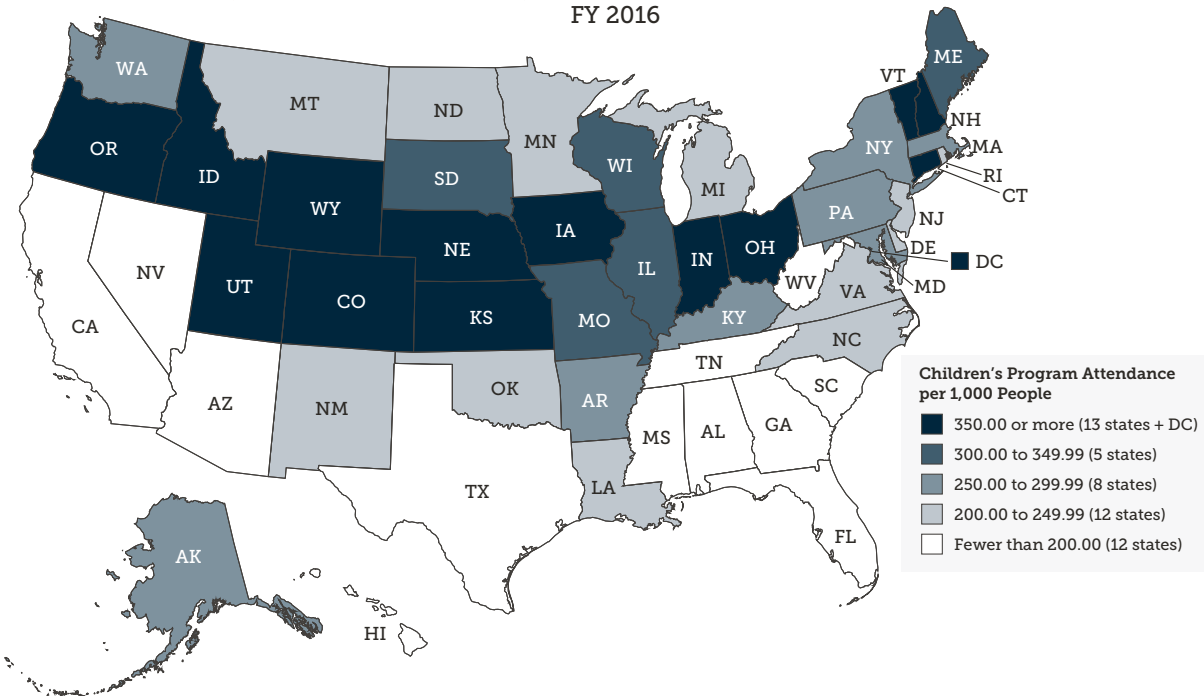


**Figure 2-13. Children's Programs Offered per 1,000 People by State, FY 2016**



SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Figure 2-14. Children's Program Attendance per 1,000 People by State, FY 2016**



NOTE: Attendance captures the number of attendees at the targeted program, regardless of the age of attendees.  
SOURCE: IMLS, Public Libraries Survey, FY 2016.

## PART TWO:

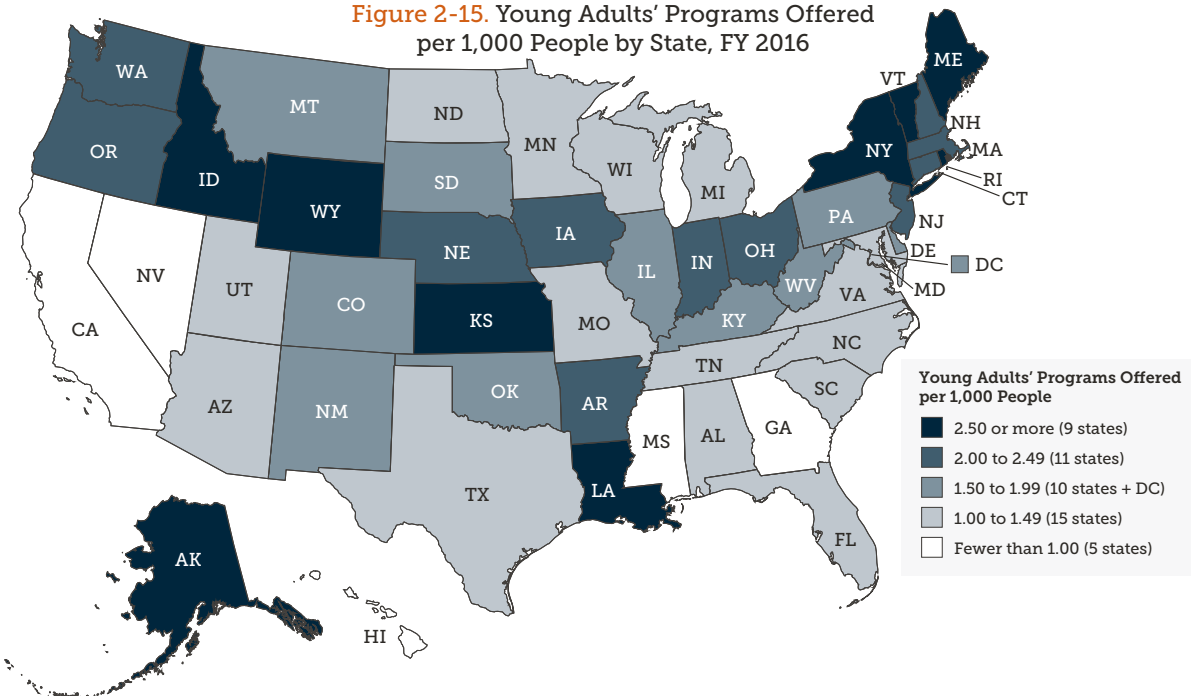
### Public Library Resources, Services, and Usage



The number of young adults' programs offered per 1,000 people and the attendance at these programs varied across the states (**Figure 2-15**). Wyoming offered the highest number of young adults' programs per 1,000 people (3.55) and had the highest attendance at these programs per 1,000 people (51.87). Conversely, Nevada, Mississippi, and Georgia offered the lowest number of young

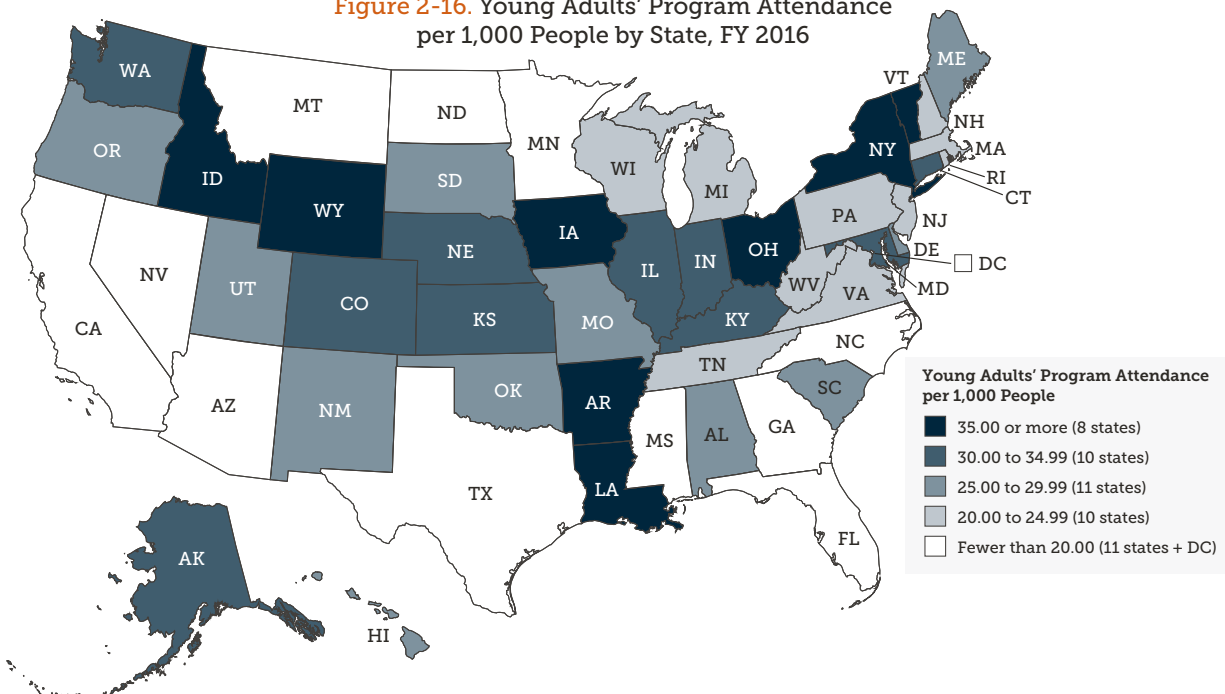
adults' programs per 1,000 people (0.57, 0.61, and 0.65, respectively); these three states also had the lowest attendance at young adults' programs per 1,000 people (10.99, 11.25, and 12.96, respectively) (**Figure 2-16**). See Appendix C for additional detail on programs offered and program attendance per 1,000 people by state.

**Figure 2-15. Young Adults' Programs Offered per 1,000 People by State, FY 2016**



SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Figure 2-16. Young Adults' Program Attendance per 1,000 People by State, FY 2016**



NOTE Attendance captures the number of attendees at the targeted program, regardless of the age of attendees.

SOURCE: IMLS, Public Libraries Survey, FY 2016.



## Section Four: Public-Access Internet Computers and Usage

A core function of public libraries is to provide patrons with open access to information resources. Access to the Internet is one of the many valuable resources public libraries provide, particularly helping those who otherwise lack access to web-connected computers or devices.<sup>24</sup> The public uses these resources for tasks ranging from searching and applying for jobs to researching information online.

Section Four describes the final two indicators of public library services, resources, and usage. These indicators report on the number of public-access Internet computers per 5,000 people and the number of public-access Internet computer user sessions per person.<sup>25</sup> These metrics describe public-access Internet computer availability in U.S. public libraries and help libraries and states determine the need for computers.

### Indicator 9. Public-Access Internet Computers per 5,000 People: 4.74 (294,216 Total)

### Indicator 10. Public-Access Internet Computer User Sessions per Person: 0.89 (276.44 Million Total)

In FY 2016, public libraries reported 294,216 public-access Internet computers, or 4.74 computers per 5,000 people, and 276.44 million user sessions, or nearly one session per person

(**Table 2-7**).<sup>26</sup> Nationally, public libraries reported 939.58 user sessions per public-access Internet computer and 17.76 public-access Internet computers per stationary outlet.

**Table 2-7.** Public-Access Internet Computers and User Sessions Summary, FY 2015–2016

Indicator	FY 2016	FY 2015
<b>Indicator 9. Public-Access Internet Computers per 5,000 People</b>	<b>4.74</b>	<b>4.73</b>
Indicator 9.1 Public-Access Internet Computers per Stationary Outlet <sup>1</sup>	17.76	17.77
<b>Indicator 10. Public-Access Internet Computer User Sessions per Person</b>	<b>0.89</b>	<b>0.97</b>

<sup>1</sup> Per stationary outlet was calculated by dividing the total number of public-access Internet computers in central and branch outlets by the total number of such outlets.

NOTE: Per 5,000 people and per person estimates in the table use the unduplicated population. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2015–2016.

<sup>24</sup> See *Rural and Lower-Income Counties Lag Nation in Internet Subscription*, available at <https://www.census.gov/library/stories/2018/12/rural-and-lower-income-counties-lag-nation-internet-subscription.html>.

<sup>25</sup> This does not include wireless Internet sessions. The item that captures wireless Internet sessions has been collected since FY 2014 but contains a large proportion of missing data. Therefore, this item is not included in analyses for this report.

<sup>26</sup> It is important to note that the PLS does not collect information on demand for public-access Internet computers or the duration of public-access Internet sessions.

## PART TWO:

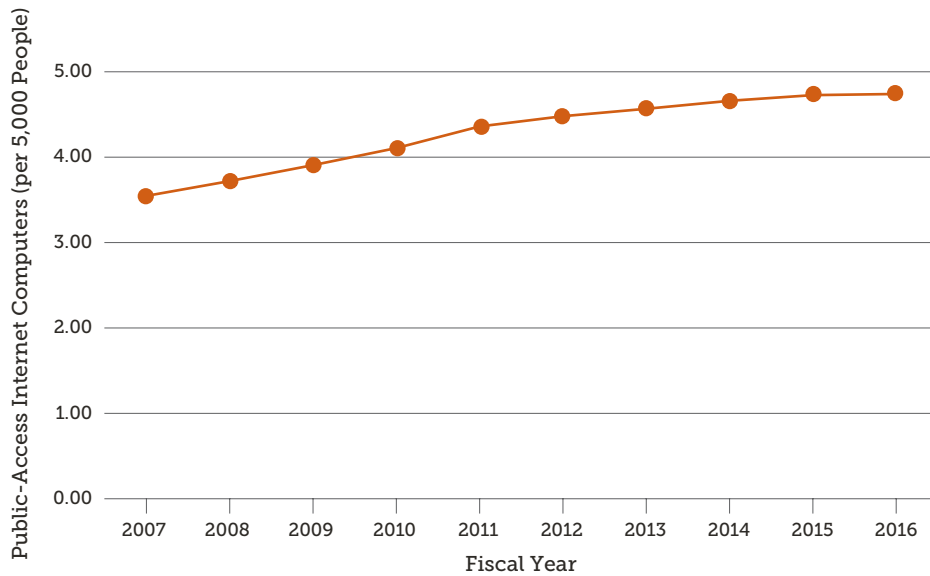
# Public Library Resources, Services, and Usage



In the first eight years of the past decade the number of public-access Internet computers at libraries increased and then leveled off in the past

two years (**Figures 2-17** and **2-18**) as user sessions per person declined in the latter part of the last decade (**Figure 2-19**).

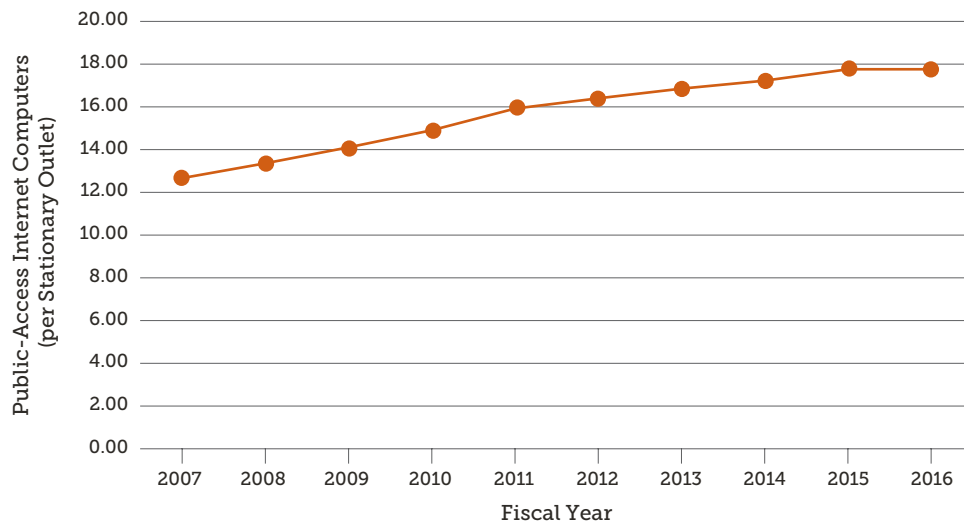
**Figure 2-17.** Public-Access Internet Computers per 5,000 People, FY 2007–2016



NOTE: Per 5,000 people estimates in the figure use the unduplicated population. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

**Figure 2-18.** Public-Access Internet Computers per Stationary Outlet, FY 2007–2016

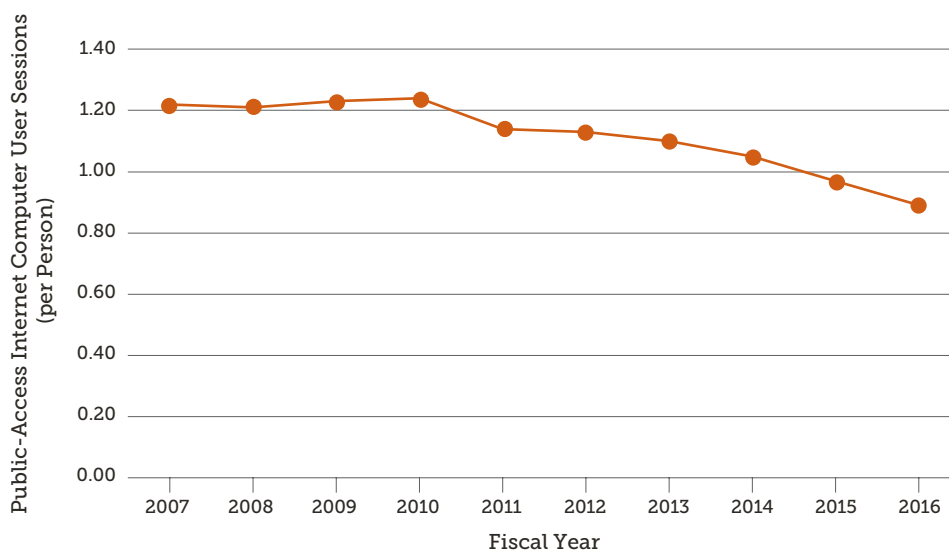


NOTE: Per stationary outlet was calculated by dividing the total number of public-access Internet computers in central and branch outlets by the total number of such outlets. Differences of less than 10 percent in estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.



Figure 2-19. Public-Access Internet Computer User Sessions per Person, FY 2007–2016



NOTE: Per person estimates in the figure use the unduplicated population. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

### Locale and Population Size Estimates

The number of public-access Internet computers per 5,000 people varied across locales in FY 2016, with higher availability of computers in public libraries in rural areas than in other locales. Public-access Internet computer user sessions per person showed little variation across locales in FY 2016. The number of public-access Internet computers per stationary outlet (i.e., central and branch libraries) varied by locale, with libraries in cities having more computers per stationary outlet (30.63) than libraries in all other locales (**Table 2-8**).

In FY 2016, libraries with small population service areas both offered more public-access Internet computers and logged more user sessions per person than libraries with larger population service areas. For every 5,000 people, libraries serving a small population size offered 23.68 computers versus 4.04 at libraries serving large populations. Libraries serving small populations have 1.58 user sessions per person in contrast to 0.86 at very large libraries. Libraries with a small LSA had fewer public-access Internet computers per stationary outlet compared to libraries serving populations of more than 25,000 people—5.72 vs. 23.93 (**Table 2-8**).

## PART TWO:

### Public Library Resources, Services, and Usage



**Table 2-8.** Public-Access Internet Computers per 5,000 People and per Stationary Outlet and User Sessions per Person by Locale, and Population Size Served, FY 2016

Category	Public-Access Internet Computers per 5,000 People	Public-Access Internet Computers per Stationary Outlet <sup>1</sup>	Public-Access Internet Computer User Sessions per Person
Overall	4.74	17.76	0.89
Locale			
City	4.26	30.63	0.92
Suburb	4.18	23.11	0.89
Town	5.35	14.21	0.81
Rural	8.11	8.42	0.88
Population Size Served			
Very large (>25,000)	4.04	23.93	0.86
Large (10,000–25,000)	6.36	15.65	0.98
Medium (2,500–9,999)	10.27	10.48	1.15
Small (<2,500)	23.68	5.72	1.58

<sup>1</sup> Per stationary outlet was calculated by dividing the total number of public-access Internet computers in central and branch outlets by the total number of such outlets.

NOTE: Per 5,000 people and per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

#### State Estimates

The number of public-access Internet computers per 5,000 people varied across the states in FY 2016, ranging from 9.28 in Vermont and 9.18 in Nebraska to 1.96 in Hawaii (**Figure 2-20**). Seven states had fewer than four computers per 5,000 people, while two states had more than nine. The number of public-access Internet computers per stationary outlet ranged from 38.46 in the District of Columbia to 6.52 in New Hampshire;

most states (32) had between 10.00 and 19.99 public-access Internet computers per stationary outlet (**Figure 2-21**). User sessions per person ranged from highs of 1.45 in Wyoming and 1.44 in the District of Columbia, to lows of 0.49 in West Virginia and 0.56 in Pennsylvania (**Figure 2-22**). See Appendix C for additional detail on public-access Internet computers by state.

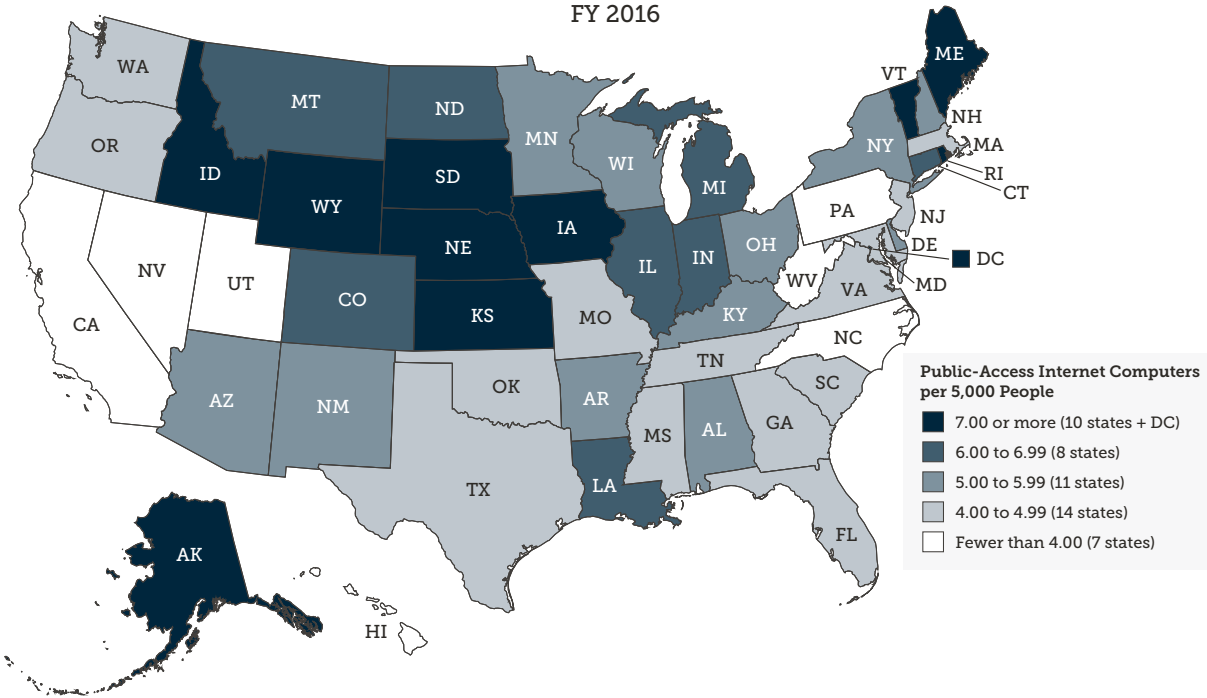


# PART TWO:

## Public Library Resources, Services, and Usage

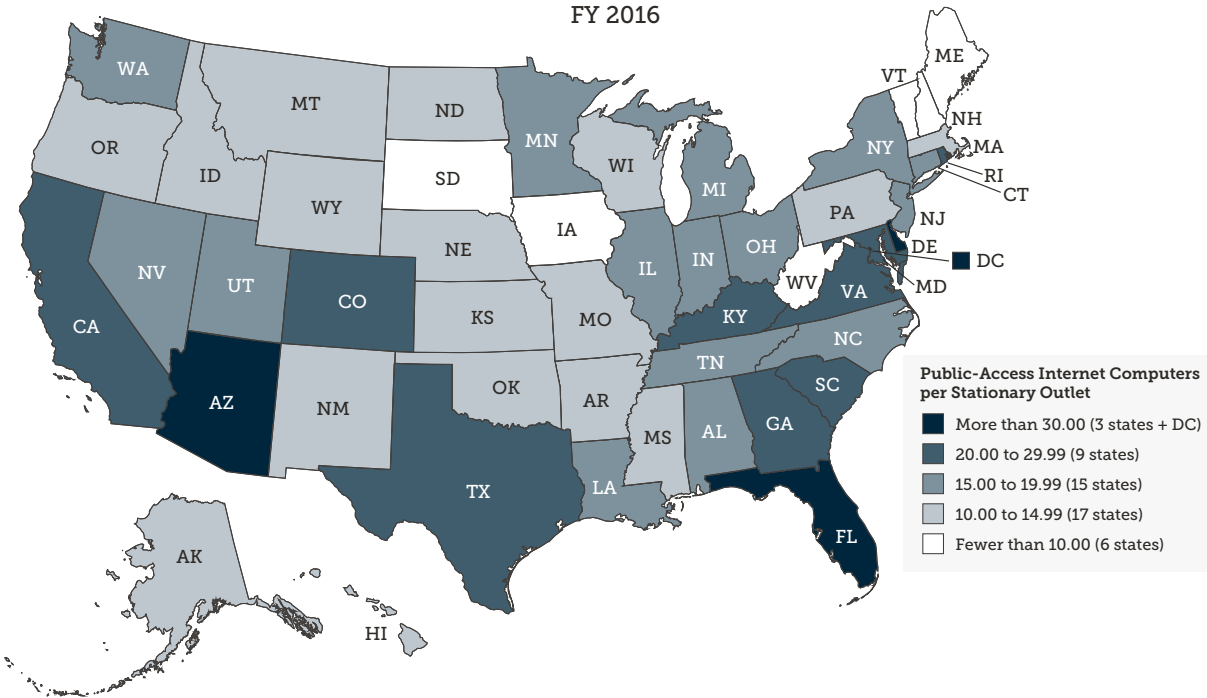


**Figure 2-20.** Public-Access Internet Computers per 5,000 People by State, FY 2016



SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Figure 2-21.** Public-Access Internet Computers per Stationary Outlet by State, FY 2016



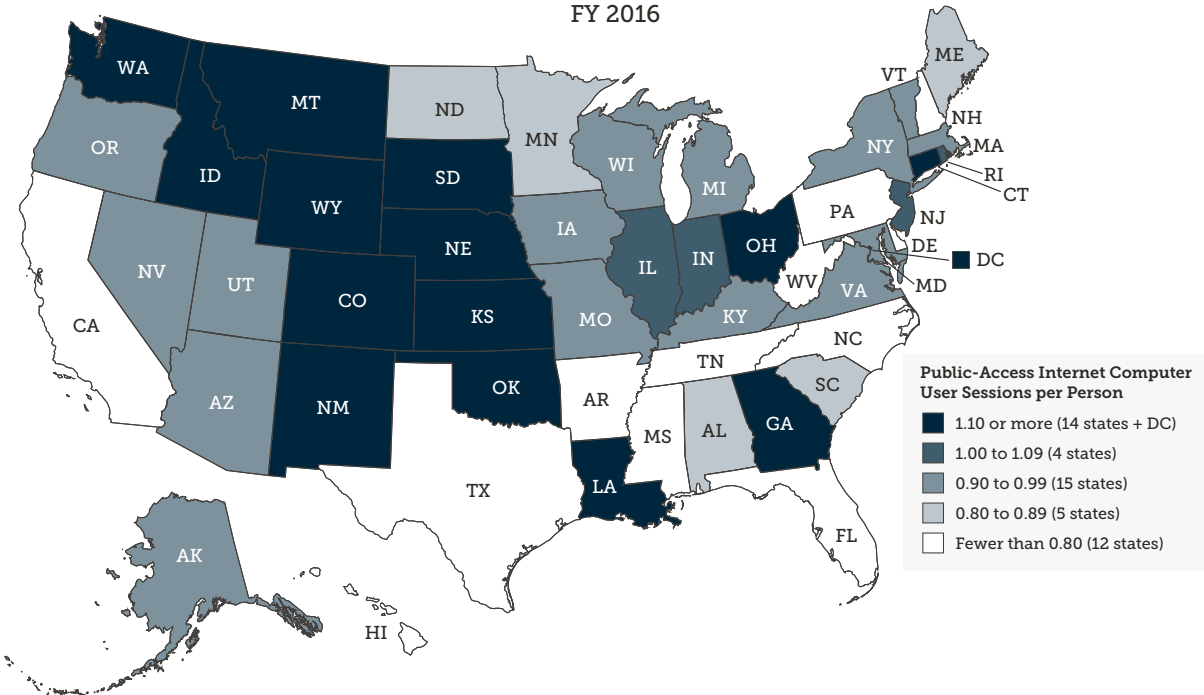
SOURCE: IMLS, Public Libraries Survey, FY 2016.

# PART TWO:

## Public Library Resources, Services, and Usage



Figure 2-22. Public-Access Internet Computer User Sessions per Person by State, FY 2016



SOURCE: IMLS, Public Libraries Survey, FY 2016.



## **PART THREE:**

# Public Library Staffing



## Overview

This section describes the public library staffing indicator and its components. Public library staff help to ensure that the services, resources, and facilities are accessible, available, and well managed. Beyond collection development and resource management, library staff help address information needs by providing programs, answering reference questions, and supporting patron research.

The total number of library staff includes librarians and other paid staff, such as paraprofessionals, information technology specialists, operations managers, and maintenance staff. In a public library, a librarian is a staff member who has special training and skills in the theoretical or scientific aspects of library work. Librarians with an American Library Association-accredited master’s degree in library or information science (commonly abbreviated as an ALA-MLS) typically have professional expertise grounded in theory and specialized skills that position them for more complex library responsibilities.

The PLS collects data on full-time-equivalent (FTE)<sup>27</sup> staff; thus, the data may contain decimal places because they include part-time staff. Public library staffing is represented by one indicator—FTE staff per 25,000 people—and three sub-indicators—librarians per 25,000 people, other staff per 25,000 people, and the percentage of public librarians with an ALA-MLS. These metrics indicate the extent to which members of the public have access to professionals in library and information sciences to address their information needs.

## Indicator 11. Staffing (FTEs) per 25,000 People: 11.27 (140,054 FTEs Total)

There were no marked differences in staffing levels between FY 2016 and FY 2015. In FY 2016, total staff per 25,000 people was 11.27 compared to 11.19 in FY 2015 (**Table 3-1**). Over one-third (35 percent) of all paid staff hold the title of librarian, and approximately 68 percent of those holding the title of librarian have an ALA-MLS

(**Table 3-1**). In the decade between FY 2007 and FY 2016, there was little variation in the number of FTEs with the title of librarian or librarians with an ALA-MLS per 25,000 people. However, the number of other paid staff per 25,000 people declined by 12.08 percent since FY 2007 (**Figure 3-1**).

**Table 3-1.** Public Library Staffing Summary, FY 2015–2016

Indicator	FY 2016	FY 2015
<b>Indicator 11: Staffing (FTEs) per 25,000 People</b>	<b>11.27</b>	<b>11.19</b>
<b>Indicator 11.1</b> Librarians per 25,000 People	3.92	3.86
<b>Indicator 11.2</b> Other Paid Staff per 25,000 People	7.35	7.34
<b>Indicator 11.3</b> Percentage of Librarians with ALA-MLS	68.36%	68.24%

NOTE: Per 25,000 people estimates in the table use the unduplicated population. Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.  
SOURCE: IMLS, Public Libraries Survey, FY 2015–2016.

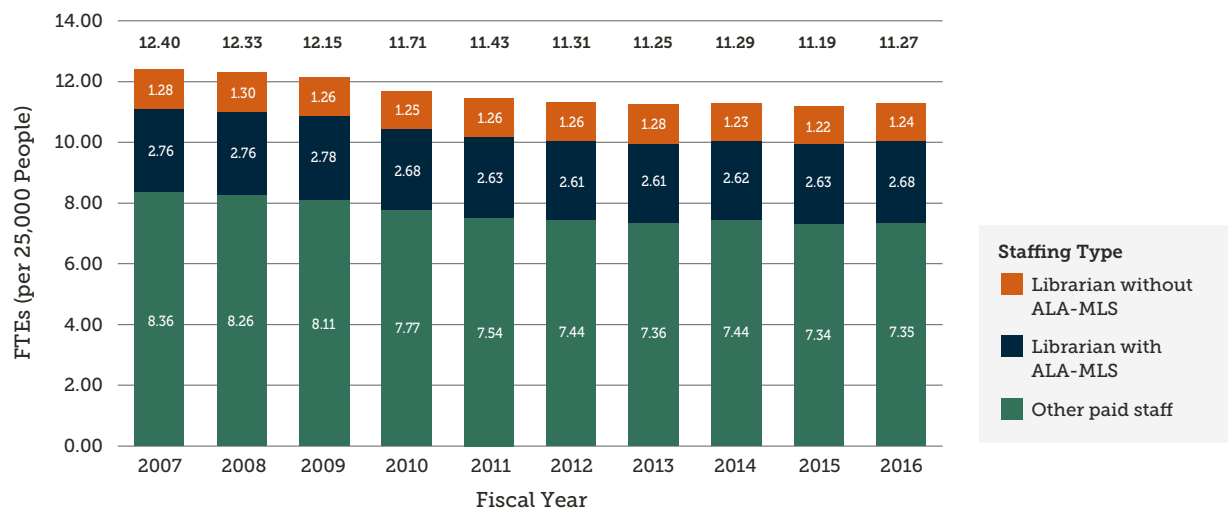
<sup>27</sup> In analyses of the workforce, information on employment is classified according to FTE status. FTE is a unit that measures the workload of an employed person and refers to 40 hours of work per week. For example, two people who work a part-time schedule of 20 hours per week are equal to 1.0 FTE.

# PART THREE:

## Public Library Staffing



Figure 3-1. Staffing (FTEs) per 25,000 People by Staffing Type, FY 2007–2016



NOTE: Per 25,000 people estimates are based on the unduplicated population. Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. The total number of FTE staff per 25,000 people is the sum of librarians without an ALA-MLS, librarians with an ALA-MLS, and other paid staff; the total is shown at the top of the chart. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

SOURCE: IMLS, Public Libraries Survey, FY 2007–2016.

### Locale and Population Size Estimates

The total number of library staff per 25,000 people varied slightly by locale. Libraries in rural areas had more staff (including librarians) per 25,000 people compared to libraries in all other locales. However, the percentage of librarians with an ALA-MLS was highest in city libraries (85.94 percent) and lowest in rural libraries (28.39 percent) (**Table 3-2**).

Libraries that serve small populations had more than twice as many total staff per 25,000 people as libraries that serve very large populations, and over five times the number of librarians. However, libraries that serve very large populations had a substantially higher percentage of ALA-MLS librarians (78.98 percent) than libraries that serve smaller populations (10.21 percent).

Table 3-2. Staffing (FTEs) per 25,000 People by Staffing Type, Locale, and Population Size Served, FY 2016

Category	Staffing (FTEs) per 25,000 People			Percentage of Librarians with ALA-MLS
	Total Staff	Librarians	Other Paid Staff	
Overall	11.27	3.92	7.35	68.36%
<b>Locale</b>				
City	10.94	3.26	7.68	85.94%
Suburb	11.57	3.99	7.58	78.11%
Town	10.67	4.16	6.52	41.80%
Rural	11.98	5.65	6.33	28.39%
<b>Population Size Served</b>				
Very large (>25,000)	10.46	3.28	7.18	78.98%
Large (10,000–25,000)	14.82	6.24	8.59	57.16%
Medium (2,500–9,999)	16.66	8.42	8.23	32.84%
Small (<2,500)	23.84	16.69	7.15	10.21%

NOTE: Per 25,000 people estimates in the table use the unduplicated population. Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

# PART THREE:

## Public Library Staffing

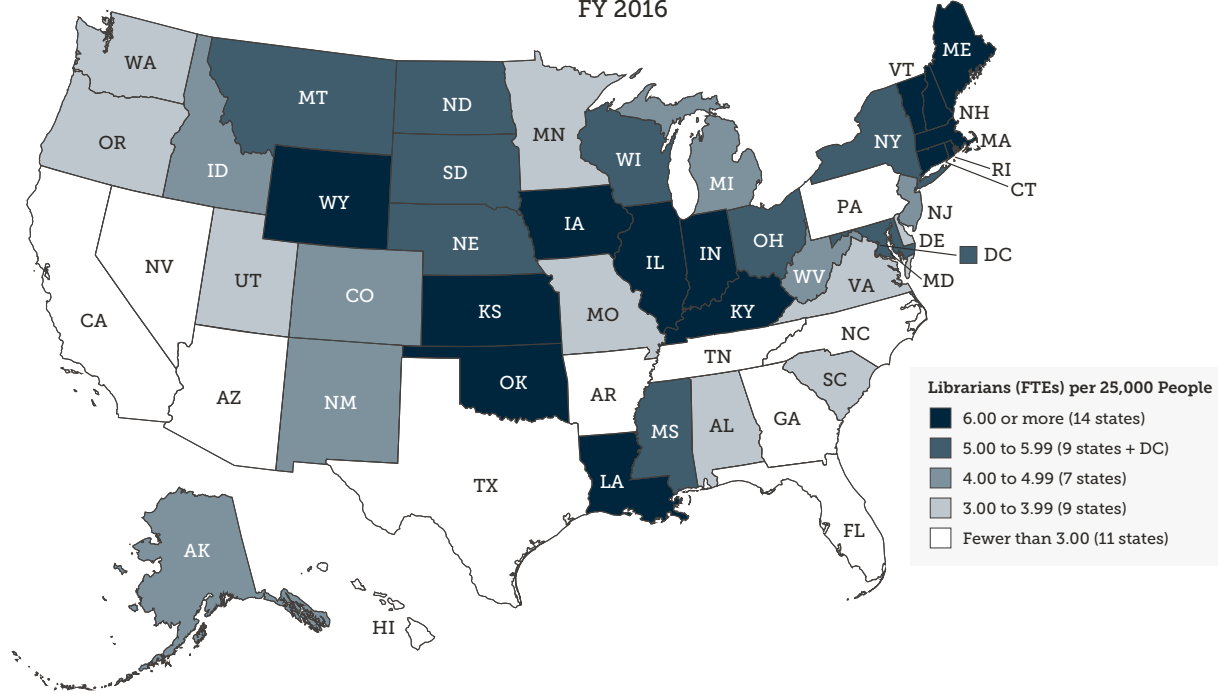


### State Estimates

The total number of library staff per 25,000 people was highest in the Ohio (19.75) and lowest in Georgia (6.48).<sup>28</sup> The number of librarians per 25,000 people varied across the states, from highs

of 9.81 in New Hampshire and 9.28 in Vermont, to lows of 1.49 in Georgia and 1.89 in Nevada (Figure 3-2). All but 11 states had three or more librarians per 25,000 people.

Figure 3-2. Librarians (FTEs) per 25,000 People by State, FY 2016



SOURCE: IMLS, Public Libraries Survey, FY 2016.

<sup>28</sup> A map displaying total staff per 25,000 people by state is not included in this report. See Appendix C, Table C-6 for additional detail on total staff by state.

# PART THREE:

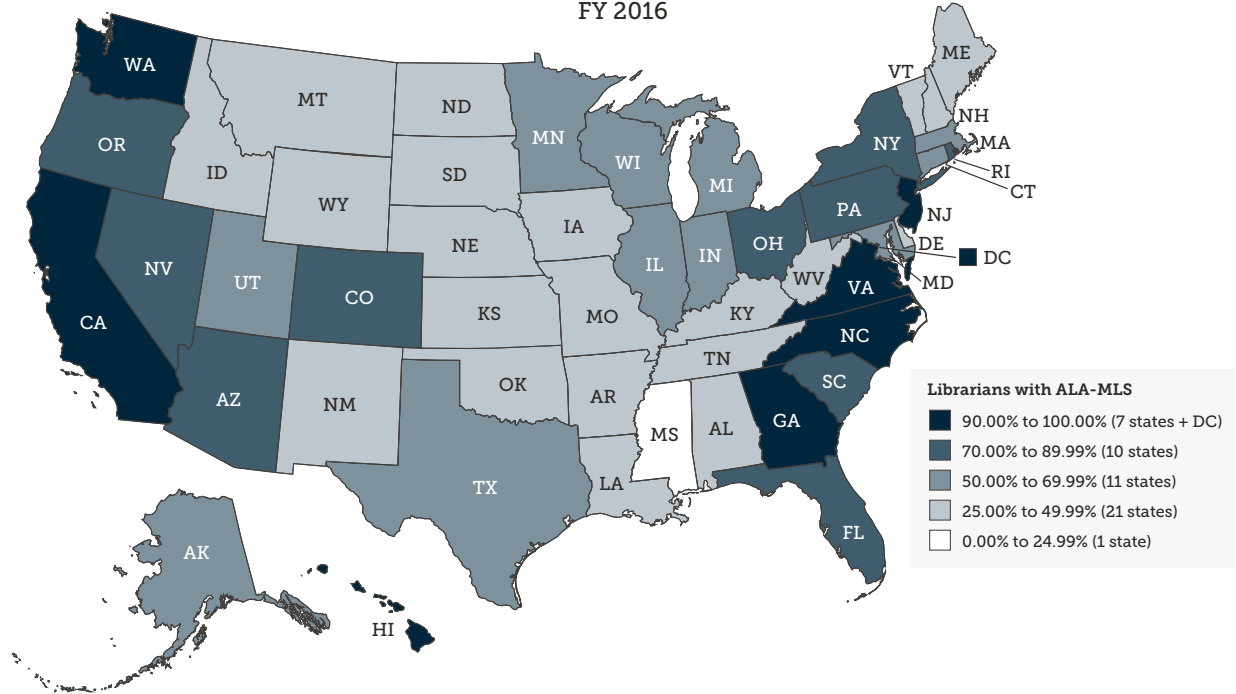
## Public Library Staffing



The percentage of librarians with an ALA-MLS also varied across the states, ranging from highs of 100 percent in the District of Columbia and Georgia to lows of 18.32 percent in Mississippi and 25.54

in West Virginia (**Figure 3-3**). See Appendix C for additional detail on staffing levels per 25,000 people by state.

**Figure 3-3.** Percentage of Librarians with an ALA-MLS by State, FY 2016



SOURCE: IMLS, Public Libraries Survey, FY 2016.



# APPENDICES

Appendix A: About the Public Libraries Survey

Appendix B: Technical Notes

Appendix C: PLS Indicators by State

Appendix D: PLS Indicators by Operational Budget Size



# APPENDIX A:

## About the Public Libraries Survey



### Appendix A. About the Public Libraries Survey

#### About the Public Libraries Survey

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 2018, as stated in Section 210. The American Institutes for Research is the data collection agent for IMLS. The FY 2016 survey is the 28th in the series.

#### 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 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) tasked NCES with developing a voluntary Federal-State Cooperative System (FSCS) for the annual collection of public library data.<sup>1</sup> To carry out this mandate, a task force was formed by NCES and the National Commission on Libraries and Information Science, 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 includes data from 8,699 public libraries in 50 states and the District of Columbia, was released by NCES in 1991. Since then, a data file and survey report have been released annually. The states 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 conducted by NCES and the data were released by IMLS. The FY 2016 survey is the eleventh PLS data collection released by IMLS.

#### Survey Purpose and Data Items Included in This Report

The PLS provides a national census of public libraries and their public service outlets (see the "Key Library Terminology" section of this report). 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 2016.<sup>2</sup> It covers service measures such as number of uses (sessions) of public-access Internet computers, number of public-access Internet computers used by the general public, reference transactions, interlibrary loans, circulation, library visits, children's program attendance, and circulation of children's materials. This report also includes information about collection size, 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. Appendix B, Note 1, provides detailed information about the data and methods for FY 2016.

#### Congressional Authorization

IMLS collects these data as authorized by its congressional mandate, the Museum and Library Services Act of 2018, as stated in 20 U.S.C. Section 9108 (Policy research, analysis, data collection, and dissemination):

#### Sec. 9108. Policy research, data collection, analysis and modeling, evaluation, and dissemination

##### (a) In general

The Director shall regularly support and conduct, as appropriate, policy research, data collection, analysis and modeling, evaluation,

<sup>1</sup>The Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-297) 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.

<sup>2</sup>The fiscal year reporting period varies among states and among local jurisdictions in some states. Please see Reporting Period in Appendix B, Note 1, for more information.



and dissemination of information to extend and improve the Nation's museum, library, and information services.

### **(b) Objectives**

The objectives of the policy research, data collection, analysis and modeling, evaluation, and dissemination of information carried out under this section include the following:

- (1) To enhance and expand the capacity of museums, libraries, and information services to anticipate, respond to, and meet the evolving needs of communities and the public, including by identifying trends and developments that may impact the need for and delivery of services.
- (2) To provide information and data on the role, value, and impact of museum, library, and information resources, including the identification of trends and potential gaps in the availability and use of museum and library services by their communities and the public.
- (3) To measure the effectiveness of museums, libraries, and information services throughout the United States, including the impact of Federal programs authorized under this Act.
- (4) To identify indicators and outcomes that can be used to create enhancements to the efficiency and efficacy of museum, library, and information services.
- (5) To promote advancement and growth in museum, library, and information services through sharing of best practices and effective strategies in order to better serve the people of the United States.
- (6) To facilitate planning for, and building of, institutional capacity in order to improve—
  - (A) museum, library, and information services at the national, State, local, and regional levels; and
  - (B) international communications and cooperative networks.
- (7) To support and enhance collaborative professional networks and consortia that use shared, meaningful, and actionable data analysis and modeling to advance museum, library, and information services and address community needs.

### **(c) Authority to contract and enter into other arrangements**

The Director is authorized to enter into grants, contracts, cooperative agreements, and other arrangements with Federal agencies, public and private organizations, and other entities with expertise the Director determines appropriate, to further the objectives described in subsection (b) and to carry out the responsibilities under subsection (f).

### **(d) Consultation and Public Engagement**

In carrying out subsection (a) and in furtherance of the objectives described in subsection (b), the Director—

- (1) shall conduct ongoing collaboration (as determined appropriate by the Director) and consult with—
  - (A) State library administrative agencies; and
  - (B) National, State, tribal, and regional museum and library organizations; and
- (2) may also collaborate or consult with—
  - (A) cooperative networks of geographic- or discipline-based museums and libraries; and
  - (B) Other applicable agencies, organizations (including international organizations), entities (including entities with expertise in the fields of data collection, analysis and modeling, and evaluation), and community stakeholders.

### **(e) Assistance to museums and libraries**

The Director shall provide technical support and assistance (and other resources, to the extent practicable) to ensure consistency in data reporting and help the museum and library fields with meeting the objectives of this section.

### **(f) Dissemination**

#### **(1) In general—**

Each year, the Director shall widely disseminate, as appropriate to further the objectives described in subsection (b)—

- (A) the results, data, reports, findings, studies, surveys, and other information obtained under this section;

# APPENDIX A:

## About the Public Libraries Survey



- (B) the means and approaches by which the objectives described in subsection (b) were accomplished; and
- (C) information regarding the manner and extent to which collaboration and consultation were conducted, as required by subsection (d).

### (2) Formats to be used—

The information described in paragraph (1) shall be shared in formats that facilitate access and ease of use and are searchable.

### (g) Authorization of appropriations

#### (1) In general

There are authorized to be appropriated to carry out this section \$3,500,000 for each of the fiscal years 2020 through 2025.

#### (2) Availability of funds

Sums appropriated under paragraph (1) for any fiscal year shall remain available for obligation until expended.

### Key Library Terminology<sup>3</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 the services of the staff are available to the public; (4) the facilities necessary to support such a collection, staff, and schedule; and (5) support 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 may have one or more outlets that provide direct services to the public. This report includes information on three types of public library service outlets: 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.

### Supplementary Tables

As a supplement to this report, IMLS has provided 48 tables to make available additional data about the findings in this report. These tables offer both national- and state-level statistics for variables presented in this report, as well as for additional variables found in the PLS data files. Tables 1 through 1B provide overview data by state about the number of public libraries and the population of the legal service areas. Tables 2 through 33 appear in sets of two each. The base table in each set (Tables 2 through 33) displays data for the nation 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 34 through 35 include data about public library size. Tables 36 through 48 provide state rankings on key variables. The supplementary tables are available online only at [www.imls.gov](http://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 LSWG and SDCs. The questionnaire used in the FY 2016 survey is published in the data documentation, *Data File Documentation: Public Libraries Survey: Fiscal Year 2016*, available at [www.imls.gov](http://www.imls.gov). In addition to the survey, the data documentation provides definitions of items, including those used in this report.

<sup>3</sup>More detailed definitions of the terms used in this report can be found in the PLS data documentation, *Data File Documentation: Public Libraries Survey: Fiscal Year 2016*. The data documentation is available for download from the IMLS website: [www.imls.gov](http://www.imls.gov).



## Appendix B. Technical Notes

Appendix B includes three technical notes. Note 1 includes detailed information about the PLS administration, response, and data use. Note 2 describes commonly used measures in this report. Note 3 provides information on adjusting for inflation, which is used when reporting on financial data over time.

### Note 1. Public Libraries Survey, FY 2016

#### Survey Universe

The PLS is a universe survey. Unlike sample surveys, which collect data from a portion of the population, universe surveys collect data from the entire population. In FY 2016, the survey frame consisted of 9,234 public libraries (9,232 public libraries in the 50 states and the District of Columbia and 2 public libraries in the outlying areas of American Samoa and Guam), as identified by state library agencies. The frame consisted of all libraries that were not reported as closed in FY 2016, plus any changes registered with IMLS outside of the prior data collection period. States reported changes to the frame as part of the FY 2016 data collection. Coverage and other forms of non-sampling errors are discussed in the “Non-sampling Errors” section below.

The FY 2016 survey frame includes 175 public libraries that do not meet all the criteria outlined in the FSCS Public Library Definition (see item 203 of the Administrative Entity Data Element Definitions in the PLS data documentation for the criteria). Military libraries that provide public library service and libraries that serve residents of institutions are not included in the survey frame. The FY 2016 public-use data file also includes 18 records for public libraries that were permanently or temporarily closed in FY 2016, but they are generally not considered to be part of the survey frame.

#### Data Collection

The FY 2016 PLS began collecting data from 50 states, the District of Columbia, and the outlying areas in January 2017. States were placed into one of three reporting groups (with survey due dates of April 21, July 28, or August 18, 2017) based on their fiscal cycles. State Data Coordinators were contacted by email and asked to report their data over the Internet via the PLS Web Portal, a Web-

based application developed by AIR (the data collection agent for the FY 2016 PLS). Edit follow-up was completed in October 2017. The editing process is described in the “Editing” subsection below. The survey was conducted in English.

#### Survey Response

**Unit response.** A total of 9,024 of 9,234 public libraries in the survey frame responded to the FY 2016 PLS,<sup>4</sup> for a unit response rate of 97.73 percent. Unit respondents are defined as public libraries for which the population of the legal service area and at least three of the five following items are reported: total number of paid employees, total operating revenue, total operating expenditures, total number of print materials, and total circulation.<sup>5</sup> All response rates were calculated using American Association for Public Opinion Research (AAPOR) Response Rate #2.

**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 reported numbers of public libraries.** PLS data files and publication tables report different numbers of public libraries. Public libraries in outlying areas and libraries that do not meet FSCS public library definitions are treated differently in the data files and publication tables, as follows:

1. Libraries that do not meet FSCS public library definitions are included in the data files but excluded from publication tables and national totals.
2. Responding public libraries in outlying areas are, whenever possible, included in both the data files and publication tables; however, national totals in publication tables include only the 50 states and the District of Columbia, and exclude outlying areas and libraries that do not meet the FSCS public library definition.
3. All libraries, including those that do conform to the FSCS definition of a public library, are included in the aggregate counts in the State Summary/State

<sup>4</sup>Including American Samoa and Guam.

<sup>5</sup>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 because the state library agency provided these data for all public libraries in their state.

# APPENDIX B:

## Technical Notes



Characteristics Data File. For this reason, the Public Library Data File is the primary source for producing the publication tables because libraries that do not meet the FSCS definition can be excluded from the aggregations.

New data items are not imputed or included in the publication tables until the new data have been collected for three years; see the “Imputation” section below for more information on which variables were imputed and the methods used.

**Reporting period.** The FY 2016 PLS requested data for state fiscal year 2016. Most state fiscal years encompass either a calendar year or July to June. In some states, the FY reporting period varies among local jurisdictions. These states are listed in the “Other” column in **Table B-1**. Regardless, most public libraries provided data for at least a 12-month period. The FY starting date and ending date of each public library are included in the data file.

**Table B-1.** Reporting Periods of Public Libraries, FY 2016

July 2015 through June 2016	January 2016 through December 2016	October 2015 through September 2016	Other <sup>1</sup>
Arizona	Arkansas	Alabama	Alaska <sup>2</sup>
California	Colorado	District of Columbia	Illinois <sup>3</sup>
Connecticut	Indiana	Florida	Maine <sup>4</sup>
Delaware	Kansas	Idaho	Michigan <sup>5</sup>
Georgia	Louisiana	Mississippi	Missouri <sup>6</sup>
Hawaii	Minnesota	American Samoa	Nebraska <sup>7</sup>
Iowa	New Jersey	Guam	New Hampshire <sup>8</sup>
Kentucky	North Dakota		New York <sup>9</sup>
Maryland	Ohio		Texas <sup>10</sup>
Massachusetts	Pennsylvania		Utah <sup>8</sup>
Montana	South Dakota		Vermont <sup>7</sup>
Nevada	Washington		
New Mexico	Wisconsin		
North Carolina			
Oklahoma			
Oregon			
Rhode Island			
South Carolina			
Tennessee			
Virginia			
West Virginia			
Wyoming			

<sup>1</sup> The reporting period varies among localities for the states in this column; however, each public library provided data for a 12-month period.

<sup>2</sup> January 2015 to June 2016.

<sup>3</sup> December 2014 to June 2016.

<sup>4</sup> April 2015 to December 2016.

<sup>5</sup> December 2014 to September 2016.

<sup>6</sup> October 2014 to October 2016.

<sup>7</sup> January 2015 to December 2016.

<sup>8</sup> July 2015 to December 2016.

<sup>9</sup> April 2015 to December 2016.

<sup>10</sup> February 2015 to December 2016.

SOURCE: IMLS, Public Libraries Survey, FY 2016.



### Calculations Included in the Tables

Selected tables include per person values for some items and “per 1,000 population” or “per 5,000 population” values for others (e.g., Tables 2-6 and 2-8). Scales (per person, per 1,000, etc.) were selected to provide the clearest display of differences across categories in the data. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

The calculations are based on the total, unduplicated population of legal service areas (instead of the total population of legal service areas) to eliminate duplicative reporting because of overlapping service areas. The state population estimate was not used as the basis for the calculations because some states have unserved populations. See the “Population items” subsection below for more information.

### Questionnaire

The questionnaire used in the FY 2016 survey is published in the data documentation, *Data File Documentation Public Libraries Survey: Fiscal Year 2016*, available at [www.ims.gov](http://www.ims.gov). 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 next.

**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 library visits and reference transaction activity during 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 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 in which there are overlaps in population of legal service areas served by individual libraries, resulting in the same population being counted twice. Twenty-four states had such overlapping service areas in FY 2016 (**Table B-2**).

**Table B-2.** States with Public Libraries with Overlapping Service Areas: FY 2016

Alaska	Maine	North Carolina
Arkansas	Massachusetts	Oklahoma
Colorado	Michigan	Oregon
Connecticut	Minnesota	Rhode Island
Florida	Mississippi	Texas
Indiana	New Hampshire	Utah
Iowa	New Jersey	Vermont
Kentucky	New Mexico	
Louisiana	New York	

SOURCE: IMLS, Public Libraries Survey, FY 2016.



To enable meaningful state comparisons using total Population of Legal Service Area data (for example, the number of print materials per person), the Population of Legal Service Area data were adjusted to eliminate duplicative reporting because of overlapping service areas. The Public Library Data File includes a derived, unduplicated Population of Legal Service Area value 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 (POPU\_LSA) to the **state's** total Population of Legal Service Area (POPU\_UND) and applying the ratio to the state's Total Unduplicated Population of Legal Service Areas (POPU\_UND). The latter item (POPU\_UND) is a single, state-reported figure found in the Public Library State Summary/State Characteristics Data File.

**Paid, Full-Time Equivalent Staff.** Paid staff were reported in FTEs (**Tables 3-1** and **3-2**). To ensure comparable data, 40 hours was set as the measure of full-time employment (for example, 60 hours per week of part-time 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.

### Caveats for Data Use

Because the PLS is a universe collection, also referred to as a census, this report does not use inferential statistical tests to measure the statistical significance of differences between groups. Inferential statistics are used when a random sample is taken from a population to make inferences about that population. In universe surveys such as the PLS, estimates of the total population or a subpopulation are made by summing the units in the population or subpopulation. In this report, national estimates are aggregate totals based on summing data across all public libraries to the national level. For estimates based on subpopulations, such as state or locale, data are summed up to the level of the subpopulation. There is no sampling error in universe surveys.

The data include imputations, at the unit and item levels, for nonresponding libraries. See the "Imputation" section on the next page for a discussion of the imputation methodology. Comparisons to data prior to FY 1992 should be made with caution because 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 (**Table B-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, although not a state, is included in this report. Special care should be used in comparing data for a city to those for a state. Caution also should be used in comparing Hawaii's data to those of other states because all public library data in Hawaii are reported under one entity, the Hawaii State Public Library System.

### Editing

**State level.** Respondents generated an Edit Report following direct data entry or import of their data into the PLS Web Portal. The Edit Report, which can be viewed on screen or printed, was used to identify and correct any errors—and to confirm the accuracy of data that generated edit warnings but did not require changes—before submitting the final file to AIR.

In the FY 2016 PLS, four types of edit checks were performed:

1. Relational edit checks;
2. Out-of-range edit checks;
3. Arithmetic edit checks; and
4. Blank, zero, or invalid data edit checks.

For more information on edit checks, see the [PLS FY 2016 Data Documentation](#).

The PLS Web Portal generates state summary tables (showing state totals for all numeric data items), single-library tables (showing data for individual public libraries in a state), and state item response tables. Respondents were encouraged to review the tables for data quality issues before submitting their data. After the data were submitted through the PLS Web Portal, the Chief Officer (CO) of the state library administrative agency received an automated email with a request to review and certify the accuracy of the data.



**National level.** AIR and IMLS reviewed and edited the state data submissions, working closely with the PLS SDCs.

### Imputation

Imputation is a procedure for estimating a value for a specific data item for which the response is missing. Imputations were performed in two stages using 11 different methods. In the first stage, imputations were carried out for nearly all missing values using the following methods: prior-year value multiplied by cell mean growth rate, adjusted cell mean, cell median, prior-year ratio, current-year cell median ratio, direct substitution of prior-year data, cell median, and special imputations. In the second stage, imputed values were adjusted for some missing values (based on the variable) using the following methods: obtained value by relationship of total to detail items, raking of detail items to match total, and consistency checks. The imputation method used depends on the variable's content, the availability of prior-year data for the specific observation being imputed, and the availability of one or more highly correlated variables for the specific observation. In many instances, data were imputed using aggregated information for libraries with similar characteristics, which was obtained by grouping together libraries in imputation strata. Missing data were imputed for the 50 states and the District of Columbia, but not for the outlying areas. In total, 47 items were imputed. For more detail on imputation procedures, see the *PLS FY 2016 Data Documentation*.

### Non-sampling Errors

In universe surveys such as the PLS, information is collected from every member of the population and estimates of the total population or a subpopulation are made by summing the units in the population or subpopulation. Because all units in the public library universe are surveyed, these data are not subject to sampling error. However, 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 below are designed to decrease the number of errors resulting from inaccurate responses or 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 errors likely remain in the data.

Undercoverage errors are estimated to be minimal because states are incentivized to register new libraries with IMLS to access discounts provided through the Universal Service Schools and Libraries Program (more commonly known as E-rate), as well as other benefits afforded to public libraries (e.g., Tech Soup). Overcoverage occurs when libraries are not reported as closed. In addition, overcoverage will occur if data users do not account for libraries in the dataset that do not meet the definition of a public library developed by the FSCS.

Measurement errors are associated with data entry errors, significant structure changes, and complex concepts. There are no formal studies that estimate bias and variance due to measurement errors for PLS.

Unit nonresponse, which is measured at the library level, has minimal bias due to high response rates in the 50 states, but there may be high nonresponse bias in outlying territories due to non-reporting.

Item nonresponse bias was generally low. However, it may be higher for items that are consistently missing data from certain AEs and outlets. Newly added items are subject to high item nonresponse bias.

Processing errors are considered average for PLS administrative data collection because no reported data values are changed during data processing. Processing errors exist in edit check and imputation processes and depend on the quality of prior years' data.

### Note 2. Commonly Used Measures

This report presents 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 2016, and 5- and 10-year trends are presented for many metrics from FY 2007 through FY 2016. Some data elements, such as the number of young adults' programs offered, were added to the survey after FY 2005. Over the past 5 years (between FY 2012 and FY 2016), trend





analyses were performed for these metrics. In the indicators, metrics are also broken out and presented by locality, population size of the service area, and state.

### Per Person

Many items presented in this report are measured per person. *Per person* is the measure of an item divided by the unduplicated population of the legal service area.<sup>6</sup> Per person metrics control for population changes over time and allow for standardized comparison of metrics. In some cases, items are measured per 1,000, 5,000, and 25,000 people for illustration purposes. As with per person metrics, these measures help standardize comparisons over time. Differences of less than 10 percent in per person estimates over time are generally not highlighted as meaningful in this report.

### Locale

Federal agencies use a variety of ways to classify community types. In this report, libraries are classified using a system of locale codes developed by NCES. Working with the U.S. Census Bureau, NCES revised these codes by using improved geocoding technology and the 2010 Office of Management and Budget definitions of metropolitan statistical areas.<sup>7</sup> Thus, locale codes rely on proximity to an urbanized area, rather than population size and county boundaries.

Beginning with the FY 2008 data file, locale codes were added to the PLS outlet and administrative entity datasets. 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. For FY 2016, locale codes were assigned to public library systems using two methodologies. The first methodology assigned locale code based on the geocoded latitude and longitude values of the

administrative entity's physical addresses. The second methodology assigned locale code based on the modal locale code among central and branch libraries of that library system (excluding bookmobile and books-by-mail-only outlets); this is the locale code used in the report.

The NCES locale coding system classifies areas into four major categories: urban, suburban, town, and rural (**Table B-3**). Each category has three subcategories. 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.

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 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 PLS was 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 2016 data file, all records were coded for geography. Administrative entities were assigned locale codes based on the modal locale codes among central and branch libraries of that library system (excluding bookmobile and books-by-mail-only outlets).

<sup>6</sup>Details about the unduplicated population can be found in the data documentation, *Data File Documentation: Public Libraries Survey: Fiscal year 2016*, available at [www.imls.gov](http://www.imls.gov).

<sup>7</sup>The Office of Management and Budget delineates geographic entities for metropolitan and metropolitan 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 June 28, 2010.



Table B-3. Urban-Centric Locale Categories

City
<b>Large:</b> Territory inside an urbanized area and inside a principal city with population of 250,000 or more
<b>Midsized:</b> Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000
<b>Small:</b> Territory inside an urbanized area and inside a principal city with population less than 100,000
Suburb
<b>Large:</b> Territory outside a principal city and inside an urbanized area with population of 250,000 or more
<b>Midsized:</b> Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000
<b>Small:</b> Territory outside a principal city and inside an urbanized area with population less than 100,000
Town
<b>Fringe:</b> Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area
<b>Distant:</b> Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area
<b>Remote:</b> Territory inside an urban cluster that is more than 35 miles from an urbanized area
Rural
<b>Fringe:</b> 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
<b>Distant:</b> 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
<b>Remote:</b> 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, Identification of Locale Codes, from [https://nces.ed.gov/programs/edge/docs/NCES\\_LOCALE\\_USERSMANUAL\\_2016012.pdf](https://nces.ed.gov/programs/edge/docs/NCES_LOCALE_USERSMANUAL_2016012.pdf).

### Full-Time Equivalent

In analyses of the workforce, information on employment is classified according to FTE status. 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 of a full-time worker, who usually works 40 hours per week. An FTE of 0.5 indicates a person who works half time. If a library reports that it has 2.0 FTEs, it may be referring to two full-time employees or four part-time employees (each of whom works approximately 20 hours per week).



### Note 3. Adjusting for Inflation: Financial Indicators and Calculations

For financial trends that report dollar amounts over time, such as 5- and 10-year revenue trends, metrics are represented in *constant dollars*. Constant dollars are an adjusted value of currency that accounts for inflation. We use this adjustment to compare monetary values from one period to another. For FY 2016 analyses, inflation was accounted for using a GDP deflator,<sup>8</sup> as shown in **Equation B-3.1**:

$$\text{GDPDeflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100 \quad (\text{B-3.1})$$

In general, a real value is one in which the effects of inflation have been accounted for, and a nominal value is one in which the effects have not. Thus, the *real GDP* is the value of all the goods and services produced in the United States expressed relative to a 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 2007 in 2016 constant dollars, multiply the original value of revenue in 2007 by the ratio of the deflators from year 2016 to 2007 (see **Equation B-3.2**).

$$\text{Value}_{(\text{constant } 2016 \text{ dollars})} = \text{Value}_{2007} \times \frac{\text{GDP Deflator 2016}}{\text{GDP Deflator 2007}} \quad (\text{B-3.2})$$

<sup>8</sup>Information on the U.S. GDP was obtained from the Bureau of Economic Analysis ([www.bea.gov](http://www.bea.gov)).

# APPENDIX C:

## PLS Indicators by State



### Appendix C. PLS Indicators by State

Table C-1. Operating Revenue and Operating Expenditures per Person by State, FY 2016

State	Operating Revenue Source per Person					Operating Expenditure Type per Person			
	Total	Local	State	Federal	Other Sources	Total	Staff	Collections	Other
Total <sup>1</sup>	\$41.04	\$35.19	\$2.83	\$0.14	\$2.89	\$38.91	\$25.93	\$4.33	\$8.65
Alabama	\$22.41	\$19.64	\$0.76	\$0.22	\$1.80	\$21.79	\$15.15	\$2.21	\$4.42
Alaska	\$59.18	\$53.37	\$1.27	\$1.36	\$3.18	\$56.38	\$37.95	\$3.69	\$14.74
Arizona	\$27.11	\$25.71	\$0.21	\$0.17	\$1.02	\$26.66	\$15.65	\$3.73	\$7.29
Arkansas	\$29.98	\$25.87	\$1.95	#	\$2.16	\$26.89	\$17.25	\$3.59	\$6.05
California	\$38.12	\$35.83	\$0.37	\$0.13	\$1.79	\$36.50	\$23.15	\$3.36	\$9.99
Colorado	\$63.32	\$58.86	\$0.29	\$0.16	\$4.00	\$56.20	\$36.21	\$7.30	\$12.69
Connecticut	\$57.55	\$49.43	\$0.35	\$0.16	\$7.61	\$59.91	\$44.02	\$5.59	\$10.31
Delaware	\$27.60	\$21.86	\$4.17	\$0.02	\$1.55	\$27.26	\$19.21	\$2.47	\$5.58
District of Columbia	\$83.91	\$80.85	\$0.00	\$1.36	\$1.70	\$82.91	\$61.79	\$5.39	\$15.73
Florida	\$28.73	\$26.42	\$1.14	\$0.07	\$1.10	\$26.94	\$16.12	\$3.22	\$7.61
Georgia	\$18.75	\$14.80	\$2.75	\$0.05	\$1.15	\$18.90	\$13.21	\$1.65	\$4.04
Hawaii	\$24.93	\$0.00	\$22.65	\$0.80	\$1.47	\$24.34	\$16.94	\$2.67	\$4.72
Idaho	\$41.02	\$36.78	\$1.31	\$0.02	\$2.91	\$37.99	\$24.04	\$4.45	\$9.50
Illinois	\$68.49	\$62.54	\$2.59	\$0.25	\$3.10	\$64.48	\$42.45	\$6.94	\$15.09
Indiana	\$56.02	\$49.59	\$3.38	\$0.19	\$2.87	\$51.56	\$32.27	\$7.16	\$12.13
Iowa	\$42.33	\$38.00	\$0.86	\$0.03	\$3.44	\$40.40	\$28.04	\$5.14	\$7.22
Kansas	\$53.68	\$47.42	\$1.64	\$0.03	\$4.58	\$51.77	\$31.35	\$5.90	\$14.52
Kentucky	\$42.15	\$39.16	\$1.33	\$0.06	\$1.60	\$34.02	\$21.38	\$4.76	\$7.88
Louisiana	\$52.85	\$50.19	\$1.09	\$0.17	\$1.39	\$46.60	\$27.75	\$5.20	\$13.65
Maine	\$39.50	\$29.02	\$0.32	\$0.02	\$10.14	\$39.73	\$27.85	\$3.71	\$8.17
Maryland	\$48.99	\$34.50	\$9.23	\$0.38	\$4.88	\$46.95	\$34.49	\$5.81	\$6.65
Massachusetts	\$45.06	\$40.04	\$1.40	\$0.09	\$3.54	\$46.81	\$33.47	\$5.68	\$7.66
Michigan	\$43.51	\$40.11	\$1.11	\$0.03	\$2.26	\$38.53	\$24.18	\$4.56	\$9.78
Minnesota	\$41.56	\$36.06	\$1.52	\$0.01	\$3.96	\$40.62	\$25.55	\$4.46	\$10.61
Mississippi	\$19.00	\$12.46	\$2.93	\$0.21	\$3.39	\$16.86	\$11.33	\$1.47	\$4.07
Missouri	\$46.90	\$42.66	\$0.65	\$0.62	\$2.97	\$44.03	\$25.57	\$6.55	\$11.91
Montana	\$30.06	\$27.93	\$0.57	#	\$1.56	\$26.50	\$18.86	\$2.96	\$4.68
Nebraska	\$37.89	\$35.79	\$0.37	\$0.03	\$1.70	\$36.53	\$24.59	\$4.75	\$7.19
Nevada	\$33.47	\$22.64	\$8.04	\$0.45	\$2.34	\$29.33	\$20.29	\$3.89	\$5.15
New Hampshire	\$46.14	\$42.69	\$0.03	#	\$3.42	\$45.78	\$33.88	\$4.74	\$7.16
New Jersey	\$55.30	\$52.73	\$0.47	\$0.02	\$2.08	\$52.26	\$37.99	\$4.65	\$9.63
New Mexico	\$31.72	\$27.92	\$2.25	\$0.15	\$1.40	\$29.62	\$19.09	\$4.78	\$5.75
New York	\$72.41	\$59.67	\$3.07	\$0.24	\$9.43	\$66.00	\$47.90	\$5.57	\$12.53
North Carolina	\$22.39	\$19.73	\$1.46	\$0.18	\$1.02	\$21.72	\$15.21	\$2.33	\$4.17
North Dakota	\$29.25	\$24.97	\$2.38	#	\$1.90	\$28.34	\$18.38	\$4.11	\$5.85

See notes at end of table.

# APPENDIX C:

## PLS Indicators by State



**Table C-1.** Operating Revenue and Operating Expenditures per Person by State, FY 2016—Continued

State	Operating Revenue Source per Person					Operating Expenditure Type per Person			
	Total	Local	State	Federal	Other Sources	Total	Staff	Collections	Other
Ohio	\$69.83	\$31.02	\$32.68	\$0.03	\$6.10	\$64.00	\$40.22	\$8.94	\$14.84
Oklahoma	\$38.31	\$35.21	\$0.62	\$0.20	\$2.28	\$35.76	\$23.23	\$4.88	\$7.64
Oregon	\$63.43	\$59.69	\$0.19	\$0.11	\$3.45	\$57.99	\$38.23	\$5.79	\$13.97
Pennsylvania	\$23.05	\$13.17	\$4.78	\$0.12	\$4.98	\$28.32	\$19.09	\$2.87	\$6.36
Rhode Island	\$47.84	\$32.60	\$7.89	\$0.44	\$6.91	\$46.70	\$34.17	\$3.41	\$9.12
South Carolina	\$30.49	\$27.45	\$2.01	\$0.07	\$0.97	\$28.11	\$19.30	\$3.89	\$4.92
South Dakota	\$35.93	\$34.00	\$0.00	\$0.54	\$1.38	\$34.35	\$23.07	\$4.32	\$6.96
Tennessee	\$19.11	\$17.96	\$0.06	\$0.04	\$1.06	\$18.60	\$12.46	\$2.24	\$3.90
Texas	\$21.03	\$20.29	#	\$0.01	\$0.72	\$20.62	\$14.16	\$2.56	\$3.89
Utah	\$36.45	\$34.48	\$0.41	\$0.13	\$1.44	\$34.83	\$22.47	\$4.87	\$7.49
Vermont	\$42.20	\$33.22	\$0.00	\$0.23	\$8.75	\$43.35	\$29.57	\$4.32	\$9.46
Virginia	\$35.21	\$31.67	\$1.85	\$0.21	\$1.48	\$34.60	\$24.37	\$3.68	\$6.55
Washington	\$61.26	\$58.18	\$0.08	\$0.09	\$2.92	\$58.57	\$40.05	\$7.75	\$10.77
West Virginia	\$21.89	\$14.68	\$5.36	\$0.27	\$1.58	\$19.68	\$12.89	\$2.84	\$3.95
Wisconsin	\$43.19	\$38.42	\$0.76	\$0.08	\$3.94	\$40.32	\$27.62	\$4.30	\$8.40
Wyoming	\$58.20	\$54.78	#	\$0.01	\$3.41	\$57.23	\$42.52	\$4.56	\$10.15
Outlying areas									
American Samoa	\$8.13	\$0.00	\$5.76	\$2.11	\$0.27	\$5.61	\$4.01	\$0.27	\$1.33
Guam	\$7.34	\$7.30	\$0.00	\$0.00	\$0.04	\$5.35	\$5.17	\$0.09	\$0.09

# Rounds to zero.

<sup>1</sup> Total includes the 50 states and the District of Columbia but excludes outlying areas, libraries that closed or temporarily closed in FY 2016, and libraries that do not meet the FSCS Public Library Definition.

NOTE: Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

# APPENDIX C:

## PLS Indicators by State



Table C-2. Collection Materials and Circulation per Person by State, FY 2016

State	Collection Materials per Person					Circulation per Person	
	Total <sup>1</sup>	Books <sup>2</sup>	E-books <sup>3</sup>	Audio Materials <sup>4</sup>	Video Materials <sup>4</sup>	Total <sup>2</sup>	Children's Materials
Total <sup>5</sup>	4.69	2.36	1.29	0.84	0.25	7.19	2.56
Alabama	3.21	1.95	0.84	0.28	0.15	4.30	1.40
Alaska	5.34	3.20	0.94	0.80	0.41	7.42	2.41
Arizona	1.74	1.13	0.37	1.92	0.15	6.56	2.06
Arkansas	2.88	2.27	0.23	0.17	0.21	5.22	1.60
California	2.54	1.60	0.27	0.51	0.15	5.35	2.25
Colorado	3.27	1.96	0.49	0.55	0.27	11.80	3.85
Connecticut	4.01	4.01	†	††	††	8.06	2.78
Delaware	2.64	1.62	0.50	0.23	0.29	6.59	2.02
District of Columbia	3.39	2.73	0.36	0.08	0.23	6.52	2.22
Florida	2.57	1.47	0.16	0.75	0.19	5.54	1.72
Georgia	1.90	1.62	0.07	0.09	0.11	3.68	1.56
Hawaii	2.39	2.07	0.04	0.16	0.12	4.39	1.79
Idaho	4.00	3.08	0.26	0.37	0.28	10.87	4.77
Illinois	5.65	3.44	1.38	0.55	0.30	9.14	3.76
Indiana	5.84	3.72	1.16	0.57	0.39	12.21	3.75
Iowa	8.71	3.90	2.84	1.62	0.35	8.78	3.10
Kansas	18.59	3.58	11.43	3.30	0.38	9.92	3.78
Kentucky	5.67	2.06	2.66	0.68	0.27	6.79	2.14
Louisiana	3.48	2.51	0.37	0.32	0.28	4.58	1.02
Maine	8.64	5.15	1.68	1.43	0.39	7.55	2.75
Maryland	2.52	1.76	0.23	0.33	0.20	9.81	4.29
Massachusetts	10.23	4.54	4.29	0.69	0.36	9.27	3.10
Michigan	4.38	3.00	0.58	0.52	0.29	7.86	2.58
Minnesota	3.98	2.63	0.88	0.28	0.19	9.25	3.70
Mississippi	2.27	1.89	0.06	0.19	0.13	2.52	0.82
Missouri	4.14	2.93	0.65	0.32	0.24	9.80	3.25
Montana	5.25	2.66	1.38	1.00	0.22	6.06	2.10
Nebraska	7.98	3.62	2.61	1.51	0.24	8.17	3.79
Nevada	2.11	1.43	0.09	0.34	0.25	6.92	2.27
New Hampshire	10.31	4.35	3.04	2.52	0.37	7.85	2.87
New Jersey	4.56	3.10	0.50	0.60	0.36	6.29	2.42
New Mexico	3.32	2.51	0.25	0.33	0.23	5.67	1.73
New York	5.60	3.55	1.24	0.47	0.32	6.76	2.17
North Carolina	2.24	1.55	0.42	0.16	0.10	4.99	2.18
North Dakota	5.14	3.21	1.20	0.49	0.24	6.34	2.14

See notes at end of table.

# APPENDIX C:

## PLS Indicators by State



**Table C-2.** Collection Materials and Circulation per Person by State, FY 2016—Continued

State	Collection Materials per Person					Circulation per Person	
	Total <sup>1</sup>	Books <sup>2</sup>	E-books <sup>3</sup>	Audio Materials <sup>4</sup>	Video Materials <sup>4</sup>	Total <sup>2</sup>	Children's Materials
Ohio	13.78	3.48	6.45	3.04	0.81	16.02	5.23
Oklahoma	4.01	2.30	0.90	0.32	0.21	7.03	2.00
Oregon	5.57	2.67	1.56	1.07	0.28	15.48	3.40
Pennsylvania	9.53	1.98	1.47	4.71	0.44	5.12	1.80
Rhode Island	6.31	3.37	1.87	0.81	0.26	6.13	1.95
South Carolina	2.62	1.94	0.22	0.30	0.16	5.43	1.99
South Dakota	6.10	3.62	1.54	0.72	0.22	7.77	3.10
Tennessee	8.24	1.81	3.92	1.47	0.27	4.13	1.46
Texas	2.23	1.57	0.27	0.26	0.14	4.62	1.84
Utah	3.61	2.21	0.47	0.73	0.25	12.00	5.34
Vermont	5.80	4.74	0.32	0.37	0.36	7.57	2.97
Virginia	3.56	2.07	0.76	0.30	0.20	8.21	2.91
Washington	2.77	1.81	0.45	0.31	0.23	12.09	3.96
West Virginia	5.32	2.65	1.85	0.62	0.20	3.51	1.06
Wisconsin	16.08	3.20	9.75	2.77	0.42	9.93	3.61
Wyoming	5.83	3.94	0.91	0.67	0.39	8.23	3.03
Outlying areas							
American Samoa	0.75	0.71	0.02	0.01	0.01	0.30	0.15
Guam	1.69	1.69	#	#	#	0.21	0.00

# Rounds to zero.

† Not applicable. No reported data available.

†† Not applicable. No reported data for downloadable materials. Total estimate not calculated.

<sup>1</sup> Total excludes libraries missing data for books, e-books, downloadable audio materials, or downloadable video materials. Collection material types exclude libraries missing data for the respective material type only. As a result, material types may not sum to the total given the possible different denominators for each material type by state.

<sup>2</sup> Missing data were not imputed due to data element definition change in FY 2016. Libraries with missing data are excluded from this estimate.

<sup>3</sup> Missing data were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

<sup>4</sup> Includes physical and downloadable materials. Missing data for downloadable audio and video materials were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

<sup>5</sup> Total includes the 50 states and the District of Columbia but excludes outlying areas, libraries that closed or temporarily closed in FY 2016, and libraries that do not meet the FSCS Public Library Definition.

NOTE: Per person estimates in the table use the unduplicated population and exclude libraries with missing data.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

# APPENDIX C:

## PLS Indicators by State



**Table C-3. Library Visits and Reference Transactions per Person by State, FY 2016**

State	Library Visits per Person	Reference Transactions per Person	State	Library Visits per Person	Reference Transactions per Person
Total <sup>1</sup>	4.36	0.79	Montana	4.35	0.49
Alabama	3.35	0.95	Nebraska	5.12	0.50
Alaska	5.35	0.53	Nevada	3.36	0.52
Arizona	3.70	0.59	New Hampshire	5.45	0.67
Arkansas	3.98	0.80	New Jersey	4.86	0.76
California	3.97	0.53	New Mexico	4.36	0.57
Colorado	5.97	0.70	New York	5.32	1.41
Connecticut	6.04	0.93	North Carolina	3.34	0.64
Delaware	4.36	0.49	North Dakota	3.26	0.75
District of Columbia	5.77	1.18	Ohio	6.44	1.56
Florida	3.53	1.17	Oklahoma	4.10	0.57
Georgia	2.70	0.73	Oregon	5.79	0.59
Hawaii	3.14	0.39	Pennsylvania	3.55	0.58
Idaho	6.17	0.90	Rhode Island	5.46	0.60
Illinois	5.72	0.88	South Carolina	3.40	0.58
Indiana	5.47	0.72	South Dakota	4.89	0.46
Iowa	5.87	0.59	Tennessee	2.90	0.52
Kansas	5.46	0.80	Texas	2.81	0.55
Kentucky	4.10	0.99	Utah	5.42	0.89
Louisiana	4.33	1.15	Vermont	6.26	0.81
Maine	5.89	0.64	Virginia	4.32	0.80
Maryland	4.64	1.43	Washington	5.47	0.53
Massachusetts	6.06	0.72	West Virginia	2.82	0.34
Michigan	4.74	0.87	Wisconsin	5.47	0.71
Minnesota	4.41	0.66	Wyoming	6.03	0.75
Mississippi	3.01	0.46	Outlying areas		
Missouri	4.94	0.62	American Samoa	1.05	0.03
			Guam	0.45	0.10

<sup>1</sup> Total includes the 50 states and the District of Columbia but excludes outlying areas, libraries that closed or temporarily closed in FY 2016, and libraries that do not meet the FSCS Public Library Definition.

NOTE: Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.



# APPENDIX C:

## PLS Indicators by State



**Table C-4.** Total Programs Offered and Program Attendance per 1,000 People by Program Type and State, FY 2016

State	Programs Offered per 1,000 People			Program Attendance per 1,000 People		
	Total Programs	Children's Programs	Young Adults' Programs	Total Programs	Children's Programs	Young Adults' Programs
Total <sup>1</sup>	16.66	9.19	1.62	363.99	245.90	24.90
Alabama	10.91	5.30	1.34	268.96	169.67	25.18
Alaska	19.67	11.87	2.72	402.33	278.44	30.75
Arizona	11.80	6.06	1.12	241.70	166.37	16.81
Arkansas	18.02	10.28	2.30	426.02	284.85	42.49
California	9.93	5.92	0.99	250.75	190.27	15.30
Colorado	22.60	14.07	1.94	516.37	367.64	30.13
Connecticut	30.87	16.62	2.30	627.99	382.47	32.70
Delaware	18.07	7.87	1.67	340.87	210.65	28.30
District of Columbia	20.48	11.80	1.77	466.40	381.16	13.63
Florida	12.59	5.54	1.00	250.60	152.11	17.99
Georgia	7.76	4.28	0.65	235.71	150.27	12.96
Hawaii	7.52	5.63	0.94	200.00	148.67	27.96
Idaho	25.29	16.69	3.02	615.84	471.60	45.04
Illinois	19.19	11.35	1.97	432.22	300.66	30.83
Indiana	23.61	13.69	2.44	544.71	365.34	33.89
Iowa	28.49	18.41	2.49	614.59	474.26	38.39
Kansas	23.88	14.78	2.72	464.42	350.81	34.40
Kentucky	22.21	11.90	1.87	555.41	277.80	32.99
Louisiana	20.68	9.97	2.91	403.82	218.36	38.43
Maine	38.10	21.39	2.60	571.31	336.69	29.37
Maryland	14.51	9.11	1.32	385.62	280.42	34.37
Massachusetts	22.83	12.70	2.03	430.29	290.21	23.17
Michigan	14.95	7.85	1.35	360.17	226.36	23.34
Minnesota	12.71	7.85	1.19	285.60	218.09	14.92
Mississippi	8.63	5.02	0.61	222.43	154.73	11.25
Missouri	18.17	9.27	1.29	427.16	302.95	28.47
Montana	20.36	11.36	1.76	360.98	244.57	17.99
Nebraska	22.47	14.15	2.36	530.59	419.10	33.06
Nevada	10.81	5.61	0.57	295.42	171.79	10.99
New Hampshire	40.60	22.02	2.44	608.22	388.63	22.27
New Jersey	23.16	11.35	2.08	401.46	240.44	24.98
New Mexico	12.95	7.49	1.68	315.83	218.27	26.23
New York	31.33	13.24	3.39	538.84	281.85	44.68
North Carolina	14.13	9.20	1.28	295.93	235.59	17.97
North Dakota	12.86	8.96	1.35	309.62	240.59	19.70

See notes at end of table.

# APPENDIX C:

## PLS Indicators by State



**Table C-4.** Total Programs Offered and Program Attendance per 1,000 People by Program Type and State, FY 2016—Continued

State	Programs Offered per 1,000 People			Program Attendance per 1,000 People		
	Total Programs	Children's Programs	Young Adults' Programs	Total Programs	Children's Programs	Young Adults' Programs
Ohio	24.53	15.56	2.50	557.68	406.35	42.96
Oklahoma	12.41	6.78	1.58	349.91	235.63	26.56
Oregon	20.75	13.52	2.26	488.95	378.46	26.74
Pennsylvania	19.37	11.49	1.71	361.02	254.75	23.96
Rhode Island	27.90	13.00	2.74	448.31	205.54	24.80
South Carolina	11.50	5.78	1.02	254.84	169.67	26.07
South Dakota	20.52	15.53	1.81	394.76	323.50	28.89
Tennessee	9.93	5.16	1.45	234.33	161.43	21.54
Texas	10.97	5.86	1.07	262.00	186.72	17.03
Utah	12.70	8.04	1.28	642.10	477.78	27.90
Vermont	48.06	27.62	2.87	739.56	476.64	45.42
Virginia	13.65	8.34	1.06	319.25	218.97	20.87
Washington	14.51	8.09	2.14	353.69	250.82	33.75
West Virginia	13.52	8.64	1.53	254.91	190.04	20.27
Wisconsin	18.59	11.36	1.49	436.56	318.35	22.43
Wyoming	29.10	19.73	3.55	624.08	477.50	51.87
Outlying areas						
American Samoa	4.93	4.93	0.00	97.19	97.19	0.00
Guam	8.19	4.81	2.35	55.92	52.37	2.10

<sup>1</sup> Total includes the 50 states and the District of Columbia but excludes outlying areas, libraries that closed or temporarily closed in FY 2016, and libraries that do not meet the FSCS Public Library Definition.

NOTE: Per 1,000 people estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

# APPENDIX C:

## PLS Indicators by State



**Table C-5.** Public-Access Internet Computers per 5,000 People and per Stationary Outlet and User Sessions by State, FY 2016

State	Public-Access Internet Computers per 5,000 People	Public-Access Internet Computers per Stationary Outlet <sup>1</sup>	Public-Access Internet Computer User Sessions per Person
Total <sup>2</sup>	4.74	17.76	0.89
Alabama	5.45	17.39	0.84
Alaska	7.60	11.29	0.92
Arizona	5.50	34.05	0.97
Arkansas	5.28	11.75	0.64
California	2.91	20.40	0.75
Colorado	6.09	25.05	1.23
Connecticut	6.28	18.68	1.20
Delaware	5.86	34.63	0.66
District of Columbia	7.34	38.46	1.44
Florida	4.20	31.66	0.76
Georgia	4.51	23.32	1.15
Hawaii	1.96	11.24	0.59
Idaho	7.04	13.43	1.16
Illinois	6.59	19.93	1.06
Indiana	6.96	19.88	1.08
Iowa	8.20	8.88	0.99
Kansas	7.42	10.10	1.15
Kentucky	5.65	24.21	0.95
Louisiana	6.01	16.66	1.13
Maine	8.11	8.10	0.87
Maryland	4.38	27.34	0.91
Massachusetts	4.83	13.95	0.90
Michigan	6.22	18.99	0.95
Minnesota	5.27	16.15	0.87
Mississippi	4.81	12.07	0.79
Missouri	4.50	13.61	0.99
Montana	6.57	11.09	1.24
Nebraska	9.18	11.03	1.20
Nevada	2.32	16.00	0.92
New Hampshire	5.59	6.52	0.59
New Jersey	4.71	19.15	1.00
New Mexico	5.26	14.89	1.13
New York	5.01	18.19	0.93
North Carolina	3.78	19.67	0.65
North Dakota	6.10	10.58	0.86

See notes at end of table.

# APPENDIX C:

## PLS Indicators by State



**Table C-5.** Public-Access Internet Computers per 5,000 People and per Stationary Outlet and User Sessions by State, FY 2016—Continued

State	Public-Access Internet Computers per 5,000 People	Public-Access Internet Computers per Stationary Outlet <sup>1</sup>	Public-Access Internet Computer User Sessions per Person
Ohio	5.83	18.79	1.39
Oklahoma	4.99	14.85	1.12
Oregon	4.27	13.40	0.95
Pennsylvania	3.23	12.96	0.56
Rhode Island	7.08	21.39	1.00
South Carolina	4.60	22.28	0.84
South Dakota	7.29	7.82	1.36
Tennessee	4.33	19.56	0.73
Texas	4.08	23.79	0.60
Utah	3.75	17.42	0.91
Vermont	9.28	6.58	0.96
Virginia	4.64	21.50	0.91
Washington	4.15	17.03	1.11
West Virginia	3.91	8.42	0.49
Wisconsin	5.54	13.87	0.90
Wyoming	7.56	11.66	1.45
Outlying areas			
American Samoa	1.66	10.00	0.07
Guam	19.92	105.83	0.01

<sup>1</sup> Per stationary outlet was calculated by dividing the total number of public-access Internet computers in central and branch outlets by the total number of such outlets.

<sup>2</sup> Total includes the 50 states and the District of Columbia but excludes outlying areas, libraries that closed or temporarily closed in FY 2016, and libraries that do not meet the FSCS Public Library Definition.

NOTE: Per 5,000 people and per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

# APPENDIX C:

## PLS Indicators by State



**Table C-6. Staffing (FTEs) per 25,000 People and Percentage of Librarians with an ALA-MLS by State, FY 2016**

State	Total Paid Staff (FTEs) per 25,000 People	Librarians (FTEs) per 25,000 People	Percentage of Librarians with an ALA-MLS
Total <sup>1</sup>	11.27	3.92	68.36%
Alabama	9.24	3.96	45.55%
Alaska	11.95	4.22	52.56%
Arizona	7.45	2.03	84.92%
Arkansas	9.60	2.95	49.96%
California	7.42	2.11	94.37%
Colorado	15.49	4.63	72.30%
Connecticut	16.20	7.68	69.78%
Delaware	9.06	3.41	49.11%
District of Columbia	19.63	5.62	100.00%
Florida	7.77	2.43	87.03%
Georgia	6.48	1.49	100.00%
Hawaii	9.60	2.72	98.72%
Idaho	14.19	4.10	46.20%
Illinois	18.22	6.86	67.73%
Indiana	18.03	6.01	66.36%
Iowa	14.48	8.51	28.98%
Kansas	17.36	7.13	39.41%
Kentucky	12.85	7.04	29.43%
Louisiana	14.46	6.36	38.84%
Maine	14.91	7.78	45.45%
Maryland	13.97	5.46	50.34%
Massachusetts	14.19	7.14	67.36%
Michigan	12.16	4.52	69.99%
Minnesota	10.03	3.73	64.71%
Mississippi	7.46	5.29	18.32%
Missouri	14.58	3.75	37.36%
Montana	10.07	5.04	33.65%
Nebraska	13.49	5.85	32.90%
Nevada	7.04	1.89	76.02%
New Hampshire	16.23	9.81	46.09%
New Jersey	13.29	4.04	95.86%
New Mexico	10.05	4.27	46.20%
New York	16.28	5.50	85.58%
North Carolina	7.54	2.05	92.79%
North Dakota	9.16	5.15	34.00%

See notes at end of table.

# APPENDIX C:

## PLS Indicators by State



**Table C-6.** Staffing (FTEs) per 25,000 People and Percentage of Librarians with an ALA-MLS by State, FY 2016—Continued

State	Total Paid Staff per 25,000 People	Librarians per 25,000 People	Percentage of Librarians with an ALA-MLS
Ohio	19.75	5.75	73.04%
Oklahoma	12.35	6.35	42.19%
Oregon	13.10	3.73	82.54%
Pennsylvania	9.30	2.92	79.59%
Rhode Island	14.57	6.43	80.12%
South Carolina	10.26	3.18	79.73%
South Dakota	11.74	5.84	27.97%
Tennessee	7.39	2.27	49.16%
Texas	6.80	2.41	69.30%
Utah	10.78	3.33	60.45%
Vermont	15.24	9.28	33.38%
Virginia	11.72	3.07	90.13%
Washington	13.69	3.15	90.85%
West Virginia	8.88	4.81	25.54%
Wisconsin	13.20	5.02	62.53%
Wyoming	18.83	7.04	38.65%
Outlying areas			
American Samoa	4.15	0.42	100.00%
Guam	3.45	0.00	†

† Not applicable.

<sup>1</sup> Total includes the 50 states and the District of Columbia but excludes outlying areas, libraries that closed or temporarily closed in FY 2016, and libraries that do not meet the FSCS Public Library Definition.

NOTE: Per 25,000 people estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

# APPENDIX D:

## PLS Indicators by Operational Budget Size



### Appendix D. PLS Indicators by Operational Budget Size

#### Introduction

Appendix D presents an exploratory analysis for each of the 11 primary indicators by operational budget size. Operational budget size is categorized into five groups (i.e., very large, large, medium, small, and very small), ranging from less than \$50,000.00 to \$1,000,000.00 or more, based on the library's reported total operating revenue.

**Table D-1** shows the percentage of libraries in each operational budget size category.

#### Operating Revenue and Expenditures

Total operating revenue per person varied, as expected, by operational budget size, whereas federal revenue and other revenue per person was mostly constant. However, the proportion

of federal revenue and other revenue of all revenue per person varied between each of the budget categories. Notably, the proportion of revenue from other sources ranged from 6.43 percent in libraries with very large operating budgets to 15.72 percent in libraries with very small budgets. Similarly, the proportion of federal revenue ranged from 0.32 percent in libraries with very large budgets to 0.77 percent in libraries with very small budgets. Conversely, the proportion of local revenue ranged from 75.66 percent in libraries with very small budgets to 86.44 percent in libraries with very large budgets. (**Table D-2**)

This suggests that as budget sizes decrease, libraries rely on revenue from other and federal sources more than libraries with larger budgets that receive more funding from local government.

**Table D-1.** Percentage of Libraries by Operational Budget Size, FY 2016

Operational Budget Size	Total Libraries	Percent of All Libraries
Very large (\$1,000,000 or more)	2,038	22.50%
Large (\$250,000–\$999,999)	2,421	26.73%
Medium (\$100,000–\$249,999)	1,780	19.65%
Small (\$50,000–\$99,999)	1,280	14.13%
Very small (<\$50,000)	1,538	16.98%
Total	9,057	100.00%

NOTE: Percentages may not sum to 100 due to rounding.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

**Table D-2.** Operating Revenue per Person by Source of Revenue and Operational Budget Size, FY 2016

Category	Operating Revenue Source per Person				
	Total	Local	State	Federal	Other
Overall	\$41.04	\$35.19	\$2.83	\$0.14	\$2.89
Operational Budget Size					
Very large (\$1,000,000 or more)	\$43.85	\$37.90	\$2.98	\$0.14	\$2.82
Large (\$250,000–\$999,999)	\$31.91	\$26.24	\$2.46	\$0.12	\$3.10
Medium (\$100,000–\$249,999)	\$24.02	\$19.06	\$1.55	\$0.12	\$3.30
Small (\$50,000–\$99,999)	\$22.51	\$17.14	\$1.57	\$0.14	\$3.67
Very small (<\$50,000)	\$17.79	\$13.46	\$1.40	\$0.14	\$2.80

NOTE: Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

## APPENDIX D:

### PLS Indicators by Operational Budget Size



Total operating expenditures per person also varied by operating budget size, with variation seen across each type of expenditure apart from the cost of print materials per person. The proportion of operating expenditures spent on other expenses not included in staff and collections ranged from 22.19 percent in libraries with very large operating budgets to 26.04 percent in libraries with very small budgets. Similarly, a greater proportion of total expenditures are spent

on collections in libraries with very small budgets (14.68 percent) compared to libraries with very large budgets (11.10 percent). Conversely, the proportion of all expenditures spent on staff (i.e., salaries and benefits) is less in libraries with very small budgets (59.28 percent) compared to libraries with very large budgets (66.71 percent). (**Table D-3**) This suggest that as budget sizes decrease, libraries distribute more funds to expenditures needs other than staff or collections.

**Table D-3.** Operating Expenditures per Person by Type of Expenditure and Operational Budget Size, FY 2016

Category	Operating Expenditure Type per Person					
	Total	Staff	Collections			Other <sup>2</sup>
			Total Collections <sup>1</sup>	Print Materials	Electronic Materials	
Overall	\$38.91	\$25.93	\$4.33	\$2.43	\$1.10	\$8.65
<b>Operational Budget Size</b>						
Very large (\$1,000,000 or more)	\$41.57	\$27.73	\$4.62	\$2.49	\$1.26	\$9.22
Large (\$250,000–\$999,999)	\$30.02	\$20.11	\$3.27	\$2.19	\$0.48	\$6.64
Medium (\$100,000–\$249,999)	\$22.82	\$14.86	\$2.77	\$2.03	\$0.25	\$5.19
Small (\$50,000–\$99,999)	\$22.58	\$13.94	\$2.95	\$2.27	\$0.20	\$5.70
Very small (<\$50,000)	\$18.43	\$10.93	\$2.71	\$2.17	\$0.19	\$4.80

<sup>1</sup> Includes operating expenditures for other materials not reported separately in this table (e.g., microform, physical audio, physical video, DVD, and new formats).

<sup>2</sup> Other operating expenditures not included in staff or collections.

NOTE: Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding. Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

### Collections and Circulation

Total collection materials per person and circulation per person varied by operational budget size. Libraries with very large operating budgets had 3.50 per person, while those with very small budgets of less than \$50,000 had an average of 28.91 collection materials per person. This general relationship between operating budget and collections per person was similar for each type of material. This was especially apparent for e-books. Libraries with very large budgets had substantially fewer E-books per person (0.59) than libraries with very small budgets (15.65 per person). (**Table D-4**)

Conversely, total circulation per person was higher in libraries with very large budgets (7.59) than all other budget categories. Children's materials circulation varied by budget size, though to a lesser extent. Libraries with very large operating budgets circulated 2.71 children's materials per person, versus 1.18 children's materials per person in libraries with very small budgets. (**Table D-4**) The pattern observed in collections and circulation per person by budget size mirrors that of collections and circulation by locale and population size.



# APPENDIX D:

## PLS Indicators by Operational Budget Size



**Table D-4.** Collection Materials and Circulation per Person by Type and Operational Budget Size, FY 2016

Category	Collection Materials per Person					Circulation per Person	
	Total Collection Materials <sup>1</sup>	Books <sup>2</sup>	E-books <sup>3</sup>	Audio Materials <sup>4</sup>	Video Materials <sup>4</sup>	Total Circulation <sup>2</sup>	Children's Materials Circulation
Overall	4.69	2.36	1.29	0.84	0.25	7.19	2.56
<b>Operational Budget Size</b>							
Very large (\$1,000,000 or more)	3.50	2.14	0.59	0.57	0.23	7.59	2.71
Large (\$250,000–\$999,999)	7.66	2.95	2.93	1.63	0.34	5.90	2.09
Medium (\$100,000–\$249,999)	12.61	3.54	5.47	2.66	0.41	4.80	1.61
Small (\$50,000–\$99,999)	18.62	4.82	9.18	2.87	0.47	4.71	1.56
Very small (<\$50,000)	28.91	6.73	15.65	5.11	0.53	3.55	1.18

<sup>1</sup> Total excludes libraries missing data for books, e-books, downloadable audio materials, or downloadable video materials. Collection material types exclude libraries missing data for the respective material type only. As a result, material types will not sum to the total given the different denominators.

<sup>2</sup> Missing data were not imputed due to data element definition change in FY 2016. Libraries with missing data are excluded from this estimate.

<sup>3</sup> Missing data were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

<sup>4</sup> Includes physical and downloadable materials. Missing data for downloadable audio and video materials were not imputed due to data element definition change in FY 2015. Libraries with missing data are excluded from this estimate.

NOTE: Per person estimates in the table use the unduplicated population and exclude libraries with missing data.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

### Library Visits and Reference Transactions

Library visits per person and reference transactions per person varied across operating budget size. Libraries with large operating budgets were visited by more people than libraries in other budget categories. Additionally, libraries with

very large operating budgets also served patrons with more reference transactions per person than libraries other budget categories. Library visits per person ranged from 2.93 visits in libraries with very small budgets to 4.36 visits in libraries with very large budgets (**Table D-5**).

**Table D-5.** Library Visits and Reference Transactions per Person by Operational Budget Size, FY 2016

Category	Library Visits per Person	Reference Transactions per Person
Overall	4.36	0.79
<b>Operational Budget Size</b>		
Very large (\$1,000,000 or more)	4.36	0.85
Large (\$250,000–\$999,999)	4.65	0.57
Medium (\$100,000–\$249,999)	3.80	0.57
Small (\$50,000–\$99,999)	3.60	0.50
Very small (<\$50,000)	2.93	0.42

NOTE: Per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

## APPENDIX D:

### PLS Indicators by Operational Budget Size



#### Programs Offered and Program Attendance

Total programs offered per 1,000 people varied by operational budget size. Libraries with very large operational budgets offered fewer programs per 1,000 people (15.11) than the national estimate (16.66) and all other budget categories (**Table D-6**). Libraries with very large operating budgets account for over 73 percent of all programs offered and served 81 percent of the total unduplicated population, as reported in the PLS. While these libraries are offering fewer programs on a per person basis, they are offering more programs overall. A similar pattern of variation is seen in children's programs offerings per 1,000 people, but less variation is seen in young adults' program offerings per 1,000 people.

Program attendance per 1,000 people varied somewhat by operational budget size. Libraries with very large operating budgets saw less attendance per 1,000 people (352.08) than the national estimate (363.99) and all other budget categories. Compared to program offerings, however, there was less variation in total attendance per 1,000 people between libraries with very large budgets and libraries with very small budgets (356.03). There was not a clear pattern in attendance at children's programs and young adults' programs by operational budget size. Libraries with large operating budgets seeing the highest attendance at children's programs (297.36) and libraries with very small budgets seeing the highest attendance at young adults' programs (25.52). (**Table D-6**)

**Table D-6.** Total Programs Offered and Total Program Attendance per 1,000 People by Program Type and Operational Budget Size, FY 2016

Category	Programs Offered per 1,000 People			Program Attendance per 1,000 People		
	Total Programs	Children's Programs	Young Adults' Programs	Total Programs	Children's Programs	Young Adults' Programs
Overall	16.66	9.19	1.62	363.99	245.90	24.90
Operational Budget Size						
Very large (\$1,000,000 or more)	15.11	8.15	1.53	352.08	236.52	25.24
Large (\$250,000–\$999,999)	22.09	12.91	1.94	427.63	297.36	24.40
Medium (\$100,000–\$249,999)	24.54	14.24	2.05	383.80	260.01	21.13
Small (\$50,000–\$99,999)	28.62	17.09	2.11	417.16	286.63	19.98
Very small (<\$50,000)	28.09	16.12	2.46	356.03	226.94	25.52

NOTE: Per 1,000 people estimates in the table use the unduplicated population.  
SOURCE: IMLS, Public Libraries Survey, FY 2016.

#### Public-Access Internet Computers

The number of public-access Internet-connected computers per 5,000 people varied across the operating budget size categories. Institutions with larger budgets tend to have more computers per branch or central library than those with smaller budgets. Indeed, libraries with very large operating budgets account for over two-thirds (72%) of all public-access, Internet-connected computers in the PLS. However, the number of

computer user sessions per 5,000 people did not vary, indicating that computers are being used comparably regardless of the library's budget size. In other words, while the metric of computer user sessions per capita is essentially unvarying across institutional budget size, smaller libraries operate with fewer total computers even though this number represents a higher number per 5,000 people in their service area.

# APPENDIX D:

## PLS Indicators by Operational Budget Size



**Table D-7.** Public-Access Internet Computers per 5,000 People and per Stationary Outlet and User Sessions per Person by Operational Budget Size, FY 2016

Category	Public-Access Internet Computers per 5,000 People	Public-Access Internet Computers per Stationary Outlet <sup>1</sup>	Public-Access Internet Computer User Sessions per Person
Overall	4.74	17.76	0.89
<b>Operational Budget Size</b>			
Very large (\$1,000,000 or more)	4.24	24.89	0.90
Large (\$250,000–\$999,999)	5.58	13.77	0.84
Medium (\$100,000–\$249,999)	8.19	10.47	0.84
Small (\$50,000–\$99,999)	10.46	6.73	0.82
Very small (<\$50,000)	15.40	4.82	0.81

<sup>1</sup> Per stationary outlet was calculated by dividing the total number of public-access Internet computers in central and branch outlets by the total number of such outlets.

NOTE: Per 5,000 people and per person estimates in the table use the unduplicated population.

SOURCE: IMLS, Public Libraries Survey, FY 2016.

### Staffing (FTEs)

The total number of FTE library staff per 25,000 people did not vary widely by operational budget size, keeping close to the national estimate of 11.27. However, the number of FTE librarians and other paid staff per 25,000 people and the percentage of ALA-MLS librarians did vary by operational budget size. Libraries with very large operating budgets employed fewer FTE librarians (3.57) and more other paid staff (7.71) per 25,000 people compared to libraries with very small operating budgets (9.24 and 2.31, respectively).

Libraries with very large operating budgets also employed a substantially higher proportion (80.10 percent) of ALA-MLS librarians compared to libraries in all other budget categories—particularly when compared to libraries with very small budgets (6.62 percent). **(Table D-8)** This suggests that the composition of staffing varies depending on operational budget size, such that libraries with larger operating budgets are more likely to employ ALA-MLS librarians as compared to libraries with smaller budgets.

**Table D-8.** Staffing (FTEs) per 25,000 People by Staffing Type and Operational Budget Size, FY 2016

Category	Full-Time Equivalents per 25,000 People			Percentage of Librarians with ALA-MLS
	Total Staff	Librarians	Other Paid Staff	
Overall	11.27	3.92	7.35	68.36%
<b>Operational Budget Size</b>				
Very large (\$1,000,000 or more)	11.28	3.57	7.71	80.10%
Large (\$250,000–\$999,999)	11.42	4.91	6.51	46.99%
Medium (\$100,000–\$249,999)	10.50	5.49	5.00	21.08%
Small (\$50,000–\$99,999)	11.33	7.38	3.95	10.01%
Very small (<\$50,000)	11.55	9.24	2.31	6.62%

NOTE: Per 25,000 people estimates in the table use the unduplicated population. Calculations are based on unrounded estimates; therefore, reported totals may differ due to rounding.

SOURCE: IMLS, Public Libraries Survey, FY 2016.



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