



Public Libraries in the United States Survey

FISCAL YEAR 2012

December 2014

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December 2014 in the United States of America.
This publication is available only on the Web at www.imls.gov/research.
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Cover Photos

Left: Public health nurses have regular hours at many of the Pima County Public Library's location.

Center: A youth services department in one of Hartford Public Library's locations.

Right: Public access computers at the Athens-Clarke County Library.

Citation

Swan, D. W., Grimes, J., Owens, T., Miller, K., Arroyo, J., Craig, T., Dorinski, S., Freeman M., Isaac, N., O'Shea, P., Padgett, R., & Schilling, P. (2014). Public Libraries in the United States Survey: Fiscal Year 2012 (IMLS-2015-PLS-01). Institute of Museum and Library Services. Washington, DC.

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Introduction

Public libraries provide learning and information resources for individuals, families, businesses, and nonprofit organizations. In their role as community anchor institutions, they create opportunities for people of all ages through access to collections and technology. Public libraries support community improvement by providing programming that addresses the health, education, and workforce development needs of local residents. Libraries are places where people can gain assistance with research and information needs from knowledgeable library staff. In communities across the nation, local public libraries complement commercial development activity and provide attractive neighborhood amenities in residential settings.

The Public Libraries in the United States Survey (PLS) examines when, where, and how library services are changing to meet the needs of the public. These data, supplied annually by more than 97 percent of public libraries across the country, provide information that policymakers and practitioners can use to make informed decisions about the support and strategic management of libraries.

This report has three parts: Public Libraries in the United States, Public Library Indicators, and State Profiles.

Part One, Public Libraries in the United States, provides a national-level analysis that aggregates data from all 50 states and the District of Columbia to provide national estimates and trends. We also used statistical modeling to examine the relationship between investment in and use of public libraries. In addition, we examined whether the relationship we observed between investment and use in individual libraries was consist-

ent for all libraries. In most cases, we found that when investment increases, use increases, and when investment decreases, use decreases.

Part Two, Public Library Indicators, was introduced in the FY 2010 report. The indicators provide an overall level of performance for key metrics and serve as a gauge to evaluate important changes in public library use, services, and resources. Indicators are calculated as per-capita estimates, so they provide a way to compare performance across libraries. Results for each indicator are also broken out for examination at the regional, state, and local levels.

Part Three, State Profiles (online only), provides public library statistics for individual states, including each of the 50 states, the District of Columbia, and Puerto Rico. The profiles contrast public library statistics at the state level to corresponding regional and national statistics. The state profiles are available online at www.imls.gov/PLS2012.

Data and Analysis

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

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

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

A community may have one or more individual public libraries or may be served by a public library system, which may have a central library and multiple branches or bookmobiles. Any reference to a public library in this report refers to the administrative entity¹, which may be a single-outlet library or a multiple-branch library system. References to outlets refer to central libraries, branch libraries, and bookmobiles.

In FY 2012, we added an edit check for the FSCS flag that would check each library's response to the FSCS flag against the library data for the definitional criteria. For example, if a public library provided data that met the five definitional criteria listed above, we checked to see the response for the FSCS flag (data element 203). If there was a mismatch, the state data coordinator was contacted to confirm whether or not the library should be marked as meeting the FSCS criteria. This check resulted in an increase in the number of libraries in the analytic sample for this report. Although this reflects an increase in the number of public libraries that meet the FSCS definition, it does not necessarily reflect an increase in public libraries that have reported on the PLS.

Also in FY 2012, the locale codes were updated based on data from the 2010 decennial Census. As a result, some libraries were reclassified. The biggest change was from libraries that were coded as rural in FY 2011 to suburb in FY 2012. These changes may be the result of different factors, such as changes in population demographics or improved accuracy in the geocoding process.

In this report, we examine trends across time and

relationships between variables. While last year's report examined these relationships over time, in the FY 2012 report we used techniques to model the variability in libraries due to state-level factors. In these analyses, it might appear that one estimate is larger than another. However, a test may reveal that the apparent difference is not a statistical difference. In cases where there is no statistical difference, the difference is not reported as such. In the analyses of the data for this report, we used a variety of statistical tests, including analyses of variance, correlation, and multilevel modeling to examine relationships between investment and use. Significance was set at an alpha level of .001.

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

¹ In the PLS, an administrative entity is defined as the agency that is legally established under local or state law to provide public library service to the population of a local jurisdiction.

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Part One: Public Libraries in the United States

National Level Data and Trends

Public libraries are important institutions that provide valuable resources and services to communities across the nation. In fiscal year 2012 (FY 2012), there were 9,082 public libraries in the United States (**Figure N-1**)¹. Public libraries are in almost every community. In FY 2012, there were 487 public libraries in cities, 2,325 in suburbs, 2,209 in towns, and 4,061 in rural areas. Most public libraries (76.7 percent) served a population area of fewer than 25,000 people. Public libraries provided access to information and services through 17,219 branches and bookmobiles. Across the U.S., 302.6 million people lived in within a public library service area, 96.4 percent of the total population². This translates to 3.0 public libraries and 5.7 outlets for every 100,000 people across the U.S.

In the following analysis, we examined public libraries as a group and as individual entities. We describe several metrics of library use and investment in aggregated form, combining information from all libraries into a single national estimate. These national-level estimates provide an overall picture of the use of library resources and services, including how these measures have changed over time. Although it is important to look at how public libraries are doing as a group, aggregated estimates can mask differences at the local level. After the national estimates, we present an analysis of the relationship between public library investments and use. This analysis is done using a technique that examines the effect of resources on use for each individual library, and then summarizes those effects to provide an overall estimate of the relationship. We used multilevel modeling to examine the effect of investments on use while also accounting for the variation in public libraries due to differences between states.

There are many ways to look at the use of public library resources and services. In this report, we focused on four metrics of **library use**: visitation, circulation, program attendance, and user sessions of public access computers. For **public library investments**, we looked at revenue and operating expenditures. To examine how expenditures have been directed toward meeting needs in their communities, we also included **library services and resources**. We selected resources and services that parallel the indicators of use: staff size, collec-

tion size, number of programs, and number of public access computers. Each of these indicators—for use and investments—is described in aggregate in order to provide a national estimate. This provides answers to questions such as how many visits there were to public libraries across the U.S. We also provided information about how much these estimates have changed from previous years.

Library Use

Visitation

In FY 2012, there were 1.5 billion in-person visits to public libraries across the U.S., the equivalent of over 4.1 million visits each day. Although this reflects a 10-year increase of 20.7 percent, there has been a decrease in physical visitation since a peak in FY 2009. When looking at trends in visitation, it is critical to interpret this metric with caution. The PLS collects data on the number of in-person visits to public libraries, but it does not collect similar data on virtual visitation. Much like retailers and businesses, public libraries have been increasing their virtual presence and their digital resources and services in order to meet the needs of the 21st century public.

Visitation per capita was 4.9, a 1-year decrease of 2.7 percent and 10-year increase of 10.2 percent. There were 170.6 million registered borrowers across public libraries in the U.S., a 6-year increase of 5.4 percent. Librarians and staff fielded 284.3 million reference transactions in FY 2012, a 1-year decrease of 3.0 percent.

Circulation

Public libraries have varied collections available to the public, including print books, audio books, DVDs, and e-books. Circulation is the number of materials that have been checked out for use. In FY 2012, there were 2.2 billion materials circulated in public libraries. This was a 10-year increase of 28.0 percent. Public libraries circulated 852.0 million children's materials, accounting for 35.2 percent of total circulation. This represents a 10-year increase of 25.07 percent. Circulation per capita was 8.0, a 1-year decrease of 1.72 percent and 10-year increase of 16.79 percent.

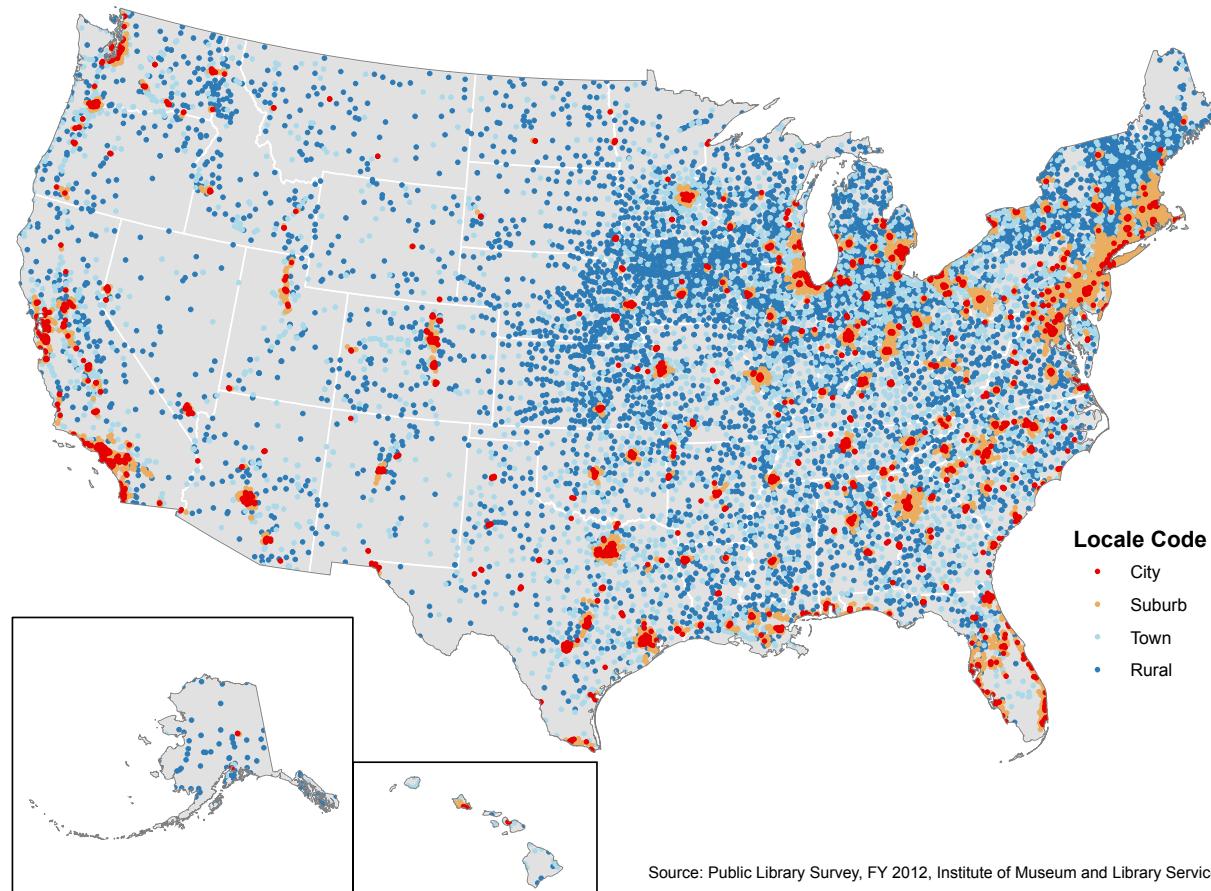
Program Attendance

Public libraries serve as valuable learning spaces in their local communities. People go to libraries for speaker series, homework help, computer training, story

1 This represents a 1-year increase of 1.4%. In the FY 2012 PLS, we implemented an edit check for the FSCS flag. If a library reported that they were not an FSCS library, but also reported data that indicated that they met the FSCS definition for a public library, the respondent was notified and the FSCS flag was modified to reflect the library status. For some libraries, this meant that their status was switched from non-FSCS to FSCS library, resulting in an increase in the number of FSCS libraries.

2 According to the U.S. Census Bureau, the total population of the United States in 2012 was 313,873,685. For more information see <http://www.census.gov/popest/>.

Figure N-1. Public Library Outlets in the United States, Fiscal Year 2012



hour, and other activities. There were 92.6 million attendees³ at public library programs in FY 2012. This is a 1-year increase of 4.1 percent and an 8-year increase of 37.6 percent. Total attendance per 1,000 people was 306.0—in other words, for every 1,000 people in a library service area, there were 306.0 attendees at a public library program. Average attendance at library programs was 23.1 people per program.

Children under 18 years comprised 24.0 percent of the total U.S. population in 2012⁴. To meet the needs of this segment of the population, public libraries provide programming targeted to children and young adults. There were 64.5 million attendees at programs for children, a 1-year increase of 3.5 percent and a 10-year

increase of 24.2 percent. Children's programs at public libraries are among the most popular. Out of all program attendees, 69.6 percent attended a program for children. Attendance at children's programs per 1,000 children in the legal service area was 711.7⁵. Finally, there were 5.7 million attendees at programs for young adults, a 1-year increase of 6.8 percent. Attendance at young adult programs per 1,000 young adults was 352.8.

Public Access Internet Computer Use Sessions

Access to the Internet and computer resources is one of the many valuable resources public libraries provide. The PLS provides a metric for the use of these

3 The number of attendees is not an accounting of individual people, but rather may include multiple incidences of people who participated in more than one program.
4 Howden, L.M. & Meyer, J.A. (2011). Age and sex composition: 2010. 2010 Census Briefs (C2010BR-03). U.S. Census Bureau: Washington, DC.

5 The calculation of attendance per capita for children is based on a 2012 population for children ages 0 to 13 years of 93,998,498, adjusted by 96.4 percent, the ratio of the population of the legal service area to the total U.S. population. Similarly, the calculation of attendance per capita for young adults is based on the 2012 population of children aged 14 to 17 years of 16,714,082, adjusted by 96.4 percent.

resources: the number of uses (sessions) of public access Internet computers. In FY 2012, there were 340.5 million user sessions on public access Internet computers at public libraries. This is a 2-year decrease of 7.4 percent from the recent peak in user sessions in FY 2010. There were 1.1 user sessions per capita and 227.4 user sessions per 1,000 visits. Many public libraries offer broadband, which can be accessed not only through the library-provided computers, but also through patrons' personal devices. Although the uses of public access Internet computers may be decreasing, we will be exploring how to capture the many different ways that people use public library wireless access in future surveys.

Investments in Public Libraries

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

Revenue

In FY 2012, the public invested over \$11.49 billion in revenue to public libraries (**Figure N-2**). After adjusting for inflation⁶, this is a 1-year decrease of 1.1 percent and a 10-year increase of 7.2 percent. In the aggregate, most (84.4 percent) of public library revenue comes from local government sources. Over the past 10 years, funding from local governments has been increasing proportionally, while funding levels from states have been decreasing. Funding from local governments has increased by 6.7 percent over the past 10 years, from 79.1 percent in FY 2002. Revenue from state government sources was \$788.0 million, comprising 6.9 percent of the total revenue. This is a 1-year decrease of 10.1 percent, and a 10-year decrease of 37.2 percent (after adjusting for inflation). Federal revenue to libraries was \$60.1 million, a 1-year increase of 3.6 percent. Public libraries received 948.1 million in revenue from

sources other than local, state, and federal government, including donations, comprising 8.2 percent of total revenue. This represents the largest change in funding to public libraries, a 13.3 percent increase from the prior year.

Total revenue per capita was \$37.98 in FY 2012. This was a 1-year decrease of 2.0 percent. This also reflects a 7.7 percent decrease from a high of \$41.14 in FY 2009, suggesting the decrease in recent years may be related to the recession.

Operating Expenditures

Total operating expenditures for public libraries was \$10.7 billion in FY 2012, a 1-year decrease of 1.8 percent and a 10-year increase of 7.1 percent, after adjusting for inflation. The majority of expenditures – 67.6 percent—went to staffing expenses, which includes salaries and benefits. The proportion of expenditures on staffing has remained stable over the past 2 years. However, the \$7.3 billion spent on staffing does reflect a 12.0 percent increase over 10 years, most of which is the result of the rising cost of benefits, which has increased by 51.0 percent over 10 years.

Public libraries spent \$1.2 billion on collections materials in FY 2012, a 10-year decrease of 15.6 percent. Expenditures for collections accounted for 11.4 percent of total operating expenditures, a 10-year decrease of 21.3 percent. Expenditures on electronic materials has been increasing steadily, almost doubling (92.2 percent increase) since data on this element was first collected in FY 2003. Expenditures on electronic materials comprise 16.7 percent of all collections expenditures.

Services and Resources

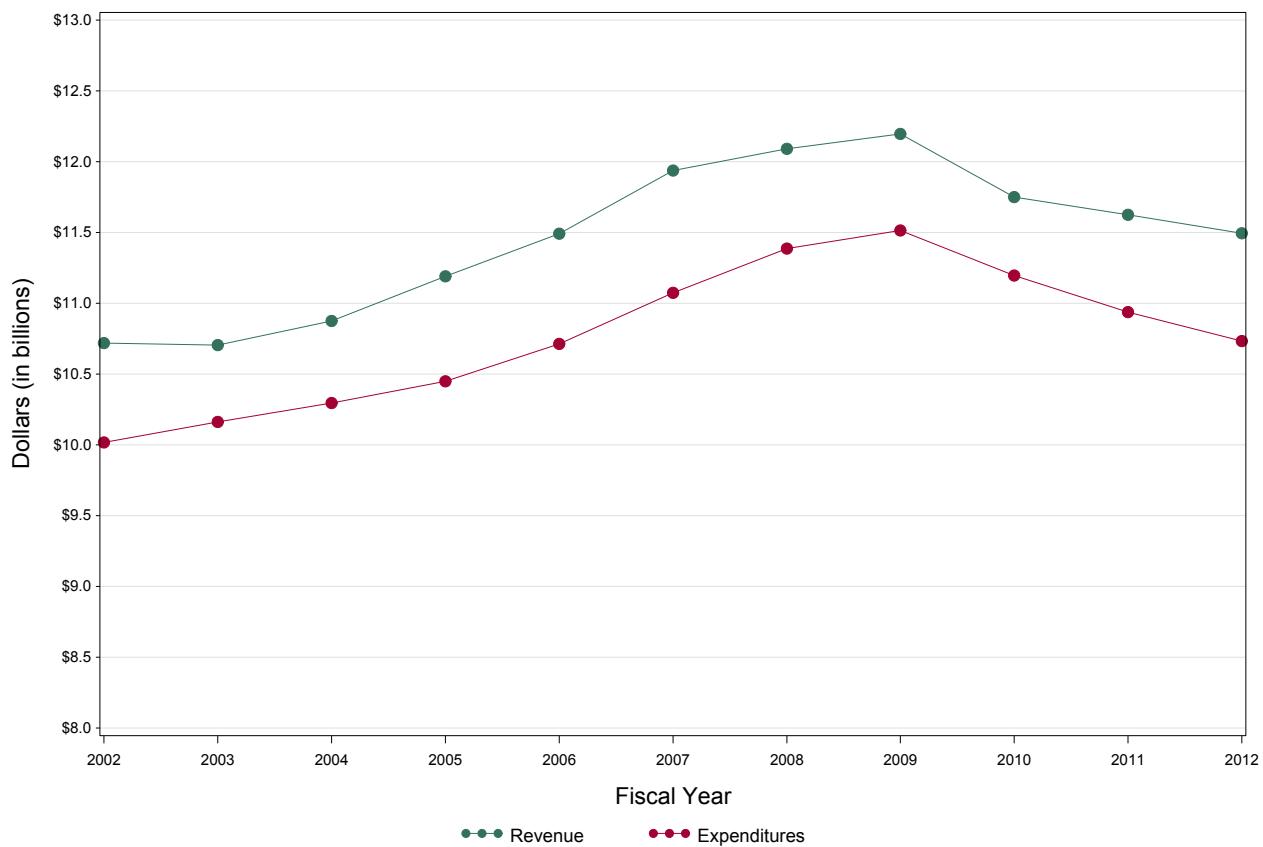
Collections

Public library collections are developed to meet the information needs of the communities they serve. Collections include both physical and digital materials, which include print books, e-books, DVDs and downloadable audio files. The average collection size across all public libraries was 110,708.0 items (median = 42833.5), including printed materials, e-books, audio and video in all formats. There was much variability across libraries, with collection sizes ranging from 314 to 23,246,282 items. Across all public libraries, there were 783.9 million volumes of print materials.

Digital holdings at public libraries have increased over the past 10 years. E-books provide flexibility and

⁶ All financial trends reported are adjusted for inflation using a GDP deflator. For more information, see Appendix B, Note 2.

Figure N-2. Public Library Revenue and Operating Expenditures, FY 2002-2012
Revenue and Expenditures, FY2002-2012 (in constant 2012 dollars)



Source: Public Library Survey, FY2002-2012, Institute of Museum and Library Services/National Center for Education Statistics

convenience for users and an opportunity for libraries to leverage cooperatives for access. In some cases, states purchase or license e-books to be circulated through any of the public libraries in the state. There were 5,733 public libraries that reported having e-books as part of their collections, ranging from 1 to 273,885 e-books. The average number of e-books was 15,206.6, and the median was 6,280.

Having e-books as part of a public library's collection was related to higher rates of both visitation and circulation. In FY 2012, 5,733 public libraries reported having e-books; 3,349 (36.9 percent) of public libraries did not report having e-books. Public libraries with e-books in their collection had significantly higher rates of visitation per capita (average = 7.2, median = 5.8), compared to libraries not reporting e-books (average = 5.6, median = 4.0). Having e-books in the collection was related to an average increase of 1.5 in visitation per capita. Libraries that reported having e-books as a part of their collections also had significantly higher rates of circulation per capita (average = 10.05, median =

8.27) than libraries that did not report having e-books (average = 6.82, median = 4.98).

In addition to books, public libraries also include audio and video materials in their collections, in both physical and digital/downloadable formats. Of the 8,929 libraries with audio holdings, the average number of items was 8,491.2 (median = 2,988). In the 8,933 libraries with video materials, the average number of video materials was 6,556.7 (median = 1,988).

Public Library Programs

Public libraries are committed to providing opportunities for learning experiences that educate and inspire people throughout their lifetime. Programs vary from digital learning and job training for adults, maker spaces for young adults, and summer reading programs and story time for children. Public libraries offered 4.0 million programs in FY 2012. This is 1-year increase of 5.2 percent, an 8-year increase of 54.4 percent. There were 13.2 programs offered per 1,000 people in library



service areas across the nation, a 1-year increase of 4.3 percent.

There were 2.4 million programs for children – comprising 59.5 percent of all programs. This was a 1-year increase of 3.6 percent and an increase of 26.1 percent since FY 2005 (the first year this information was collected). There were 26.3 programs offered per 1,000 children in library service areas. There were 358,342 programs for young adults across the nation, with 67.8 percent ($n = 6,164$) of libraries reporting programming for young adults. Young adult programming was 8.9 percent of all programs offered. There were 22.2 programs for young adults per 1,000 children aged 14 to 17 years.

Public Access Internet Computers

A core function of public libraries is to facilitate open access to information and ideas. In the 21st century, public libraries accomplish this by providing public access to computers and the Internet, serving as technology access points for communities. There were 271,146 public access Internet computers available at public libraries in FY 2012, a 10-year increase of 93.1 percent. This resulted in 4.5 computers per 5,000 people in library legal service areas, a 10-year increase of 76.4 percent. Almost all public libraries (99.5 percent) offer Internet computers; only 45 libraries that responded do not offer this service.

Number of Full-Time Equivalent Staff

One of the most important assets found in public libraries is the knowledgeable library workforce. Public library services were supported by 136,851 total full-time equivalent (FTE) staff⁷. This reflects a 4-year decrease of 5.7 percent from a recent peak in overall staffing in FY 2008. There were 11.3 staff FTEs per 25,000 people in the legal service area, a 10-year decrease of 8.0 percent.

Librarians comprised 34.2 percent of total staff, with 46,808 librarian FTEs. This was a 10-year increase of 4.7 percent. There were 3.9 librarian FTEs per 25,000 people, a 4.4 percent decrease since FY 2002. Two-thirds (67.5 percent) of librarians had a master's of library science from an American Library Association-accredited graduate program. Half of public libraries (51.6 percent) had at least one librarian on staff with an ALA-MLS degree. In contrast, 98 public libraries

that responded (1.1 percent) did not have anyone on staff who held a position with the title of librarian.

Summary of National-level Estimates of Public Library Use and Investments

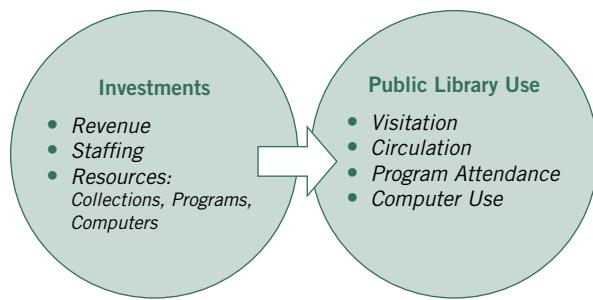
In FY 2012, public libraries experienced stabilization from the effects of the recession. In-person visitation had a slight decrease from the previous year, but at a rate lower than the prior two years. Circulation has flattened over the past few years, but still showed a 10-year increase. Number of use sessions on public access Internet computers remained unchanged from FY 2011, but has shown declines over the prior five years. In contrast to these other markers of use, which have stabilized after recent declines, attendance at programs of all types has continued to increase each year since FY 2002.

Revenue for public libraries has decreased since the recent peak in FY 2009, but, like use, has stabilized in recent years. The most striking change has been the increase in the proportion of revenue coming from local governments, as revenue from state sources declines. In FY 2012, there was also a 13.2 percent increase in revenues from other sources. The majority of operating expenditures goes toward staffing expenses, including salaries and benefits. There has also been a consistent increase over the prior 10 years in the proportion of expenditures for electronic materials, demonstrating that public libraries have been responding to patron demands for digital resources.

Staffing levels have decreased since the recession, leveling off at FY 2011 levels. Collections at public libraries have been changing. The amount of print materials at public libraries has been decreasing, while access to e-books has been increasing dramatically since FY 2002. Libraries have also been investing in their audio and video holdings, particularly in downloadable formats. Public libraries have continued to increase the number of programs offered to the public. Finally, although the number of public access Internet computers has increased dramatically since FY 2002, the rate of adding computers has slowed. This is most likely due to reaching a point of saturation of equipment in some libraries or space-based limitations, but also marks a transition in user patterns reflecting an increase in user preference for personal devices, such as smartphones and tablets.

⁷ Full time equivalent (FTE) refers to 40 hours of work per week. For example, two people who work a part-time schedule of 20 hours per week are equal to 1.0 FTE.

Figure N-3. The Effect of Investments on Public Library Use



The Effect of Investment on Public Library Use

It is valuable to look at the description of public library investments and use aggregated up to the national level, as we do in the descriptive information above and in the public library indicators in Part Two of this report. However, aggregated information has the potential to mask patterns of variation at the local level. To examine the relationship between investment and use, as well as to quantify the nature of these relationships, requires a different approach. We tested the effect of investments on use (**Figure N-3**). To test this, we estimated four multilevel models, one for each of the metrics of use described above: visitation, circulation, program attendance, and computer use. For each model, we examined measures of public library investments to assess which ones were significant predictors of use.

We live in a clustered world. Our homes are clustered in neighborhoods; students are clustered in schools. Whether by geography or psychology, people who are grouped together are like one another. Furthermore, they are more alike to each other than they are to people in other clusters. This also applies to public libraries, which are clustered in states. Because of decisions at the state level involving everything from policies and regulations to funding, libraries within the same state have many similarities. In the analysis that follows, we present the results of multilevel models that not only estimate the effects of investment on public library use, but also explicitly model the effect of state-level differences on local public library services. In these analyses, we no longer focused on the aggregated estimates of the national picture, but rather we examined the relationship of investments on use for individual libraries.

We focused on four key metrics of public library use as outcomes in the models: in-person visitation, circulation of materials, program attendance, and user

sessions of public access computers. We also focused on the effect of specific investments as predictors of use: revenue, the number of staff, the number of print materials and e-books, the total number of programs offered, and the number of publicly available Internet computers. In order to adjust for differences due to population size within library legal service areas, we used per capita estimates for each of these outcomes and predictors. Parameter estimates for final multilevel models can be found in **Appendix C**.

Visitation per Capita

Visitation per capita is a ratio of the number of physical visits to a public library to the number of people living in that library's legal service area. Before looking at any predictors of public library investments, 8.3 percent of the variability in visitation per capita can be explained by differences between states.

There were three measures of public library investment that were significant predictors of visitation per capita: the number of staff per 25,000 people, the number of e-books per 1,000 people, and the number of programs per 1,000 people. In addition, there was an effect of locale for libraries in rural areas.

Having additional staff had the strongest positive effect on visitation. For each FTE (full-time equivalent) on staff per 25,000 people in the legal service area, there was an increase of 0.16 in visitation per capita. The number of programs offered was also related to increases in visitation. For each program offered per 1,000 people, there was an increase of 0.02 in visitation per capita—or 2 additional visits per 100 people in the legal service area.

E-book volume was also a significant predictor of visitation per capita. E-books per 1,000 people had a small negative effect on visitation per capita. In the interpretation of this effect, it is critical to keep in mind that the metric for visitation is based upon in-person visitation. E-books at public libraries are checked out and returned virtually, making a physical visit unnecessary. This service is particularly important for libraries that serve a large geographic area, such as those in rural areas. Therefore, it is logical that an increase in e-book holdings for a library would lead to a decrease for in-person visitation.

In addition to the effect of investments on visitation, there was also an effect of locale. Compared to libraries in cities, the only significant difference was for libraries in rural areas. Libraries in rural areas had a decrease in



visitation per capita of 0.99—one fewer visit per person for rural libraries compared to city libraries.

Circulation per Capita

Circulation per capita is the ratio of circulation of materials to the number of people living in a library's legal service area. Before looking at the effect of library investments, 13.7 percent of the variation in circulation per capita was explained by differences between states.

There were five investments that were significant predictors of use. Increases in revenue per capita, expenditures on electronic materials per capita, the number of librarians per 25,000 people, book volume per 1,000 people, and the number of programs per 1,000 people were each related to increases in circulation per capita. There was also a locale effect for public libraries in towns and rural areas. In the final model, 37.2 percent of the variance in circulation per capita between libraries was explained by the investments in library resources.

The strongest predictor of circulation per capita was expenditures on electronic materials. For each \$1.00 spent on electronic materials per capita, there was a 0.54 increase in circulation per capita. That is equivalent to one more item circulated for every two people in a library service area. Revenue per capita was also related to circulation; each \$1.00 increase in revenue per capita was related to a 0.11 increase in circulation per capita. There was also a state-level effect for circulation per capita. When compared to other libraries in their state, each additional dollar spent per-capita resulted in a small, but significant, decrease of 0.07 in circulation per capita, after controlling for revenue per capita. If we do not control for revenue per capita at the level of individual libraries, the between-state effect of a one dollar increase in revenue per capita resulted in an increase in circulation per capita that is significant. This suggests that there is a strong state-level influence of revenue per capita on circulation per capita. Furthermore, this state-level effect has a stronger effect on circulation per capita than additional revenue at individual libraries within the same state.

Staffing increases, particularly librarians, were related to increases in circulation. An increase of one librarian (FTE) on staff per 25,000 people in the legal service area resulted in an increase of 0.10 in circulation per capita. Increases in book volume and programs were also related to increases in circulation per capita.

Finally, there were also locale effects for circulation per

capita. Compared to public libraries in cities, libraries in towns and in rural areas had lower levels of circulation per capita, even after controlling for the other variables listed above. Libraries in towns had a circulation per capita that was 1.42 lower than libraries in urban areas; for libraries in rural areas, it was a decrease of 2.74.

Program Attendance per Capita

Program attendance per 1,000 people is the ratio of the total number of people who attended all programs offered at a public library to the total number of people (by 1,000s) living in the library legal service area. Before adding any predictors to the model, 3.6 percent of the variability in program attendance per 1,000 people was explained by differences between states.

Two measures of library investment were significant predictors of program attendance per 1,000 people: the number of programs offered and the number of librarians per capita. Increases in programs were related to increases in attendance. For each program offered per 1,000 people, there was an increase of 10.5 in attendance per 1,000 people. An increase in one FTE librarian on staff per 25,000 people resulted in an increase of 9.7 in program attendance per 1,000.

After controlling for all of the predictors above, there were no additional effects due to locale for program attendance per 1,000 people.

Public Access Computer Use Sessions per Capita

Public access computer use sessions per capita is the ratio of the number of times a public access computer was used to the number of people in the legal service area. Before any predictors were examined, 14.1 percent of the variability in use sessions per capita was explained by variation between states.

The number of public access computer use sessions per capita was predicted by five measures of investment: revenue per capita, expenditures on electronic materials per capita, the number of librarians per capita, the number of public access Internet computers per capita, and the number of programs per capita. There were no additional effects due to locale.

The strongest predictors for computer use sessions per capita were expenditures on electronic materials and the number of public access computers per capita. For every \$1.00 spent on electronic materials per capita, there was a 0.05 increase in the number of computer

use sessions per capita. This is the equivalent of an additional computer use session for every 20 people. For each additional public access Internet computer per 5,000 people, there was a 0.03 increase in computer use sessions per capita.

Summary

In this section, we examined whether the level of investments affected the use of public library services and resources. Using multilevel models, we not only looked at whether there is an effect of investment on use, but also on state-level variation. For each of the four measures of library use—visitation, circulation, program attendance, and public access computer use—we found a positive relationship between investments and use.

Visitation per capita was predicted by revenue and by the services and resources that public libraries provide, such as programs and public access computers. This suggests that people come to the doors of public libraries for many reasons, from programs to Internet access. Circulation per capita was affected by revenue, as well as librarians per capita and expenditures on electronic materials. In particular, when there are investments in electronic materials and librarians, circulation goes up. Program attendance was influenced by the number of programs and librarians. Finally, the number of public access computer use sessions was predicted by the number of public access computers and expenditures on electronic materials.

Conclusions

In FY 2012, public libraries experienced stabilization for several measures of library use, including visitation, circulation, revenue, and staffing. After post-recession declines, in-person visitation, circulation of materials, revenue, and staffing have remained at levels similar to the prior year. Over long-term trends, these are all higher than they were 10 years ago. Program attendance has increased—both in the prior year and over the long term. This has been supported by the increase in program offerings at public libraries. Although public access computer use sessions were steady from the prior year, they have been declining since FY 2009.

This report also provides empirical evidence of the strong relationship between the investments made in public libraries and the use of library services and resources. We found that as investments—such as revenue and staffing—increased, so did use, such as

visitation and program attendance. People continue to use their local public libraries for a variety of reasons, including for access to books and information and for a gathering place within their communities.

As with any analysis, there are limitations. Although the PLS is a rich dataset of information about public libraries for the past 20 years, there are some services and resources that are not captured by the current survey. For example, the FY 2012 shows that public access computer use sessions have declined. It is important to keep in mind that this measure only assesses the number of use sessions at computers provided by the library. In recent years, public libraries have been providing wireless access. With the proliferation of personal devices, including smartphones and tablets, many people are able to benefit from library-supplied Internet access, but this is not captured in the current measure of computer use.

Another limitation is that this analysis is focused solely on the data from the PLS. More could be learned by incorporating other contextual data, such as information on poverty and community characteristics. Because the PLS dataset contains geocoding information for public libraries, it is particularly amenable to this type of augmented analysis.

This report provides 13 indicators of public library use and investment. The national analysis echoes the findings of the public library indicators. Although there have been declines for some metrics in recent years, the indicators tell a cohesive and consistent story—people are still using public libraries. The indicators dig a little deeper into each metric, with additional detail on variations based on state, population, and locale.

The public still has a high demand for the valuable resources and services that public libraries provide. The measures of public library use have shown an increase in the demand for library services over the past 10 years. As the public continues to invest in the resources provided by public libraries, it is important that these investments are used not only to provide physical resources, but are also directed toward meeting the strong need for digital resources and trained library staff.

Part Two: Public Library Indicators

Section 1. Use of Public Library Services

Indicator 1. Visitation per Capita

Indicator 2. Circulation of Materials per Capita

Indicator 2.1 Circulation of Children's Materials per Capita

Indicator 3. Program Attendance per Capita

Indicator 3.1 Children's Program Attendance per Capita (1,000)

Indicator 3.2 Young Adult Program Attendance per Capita (1,000)

Indicator 4. Public Access Computer Usage per Capita

Indicator 5. Reference Transactions per Capita

Public library indicators are a set of metrics that provide a snapshot of the status of public libraries. They provide an overall level of performance for key metrics and serve as a gauge of changes in public library use, service, and resources. Indicators are calculated as per-capita estimates, adjusting for population, and, as such, they provide a way to compare performance across libraries. They focus on public library use, financial health, resources, and staffing. Results for each indicator are also broken out by categories at the regional, state, and local levels, allowing for further examination.

About the Subgroupings

In this section, each of the indicators is examined not only at the national level, but also based on subgroups: state, locale, and size of population served. Most states have libraries in each of the locale types, the frequency of which is in the state profiles. There is also a relationship between locale and size of population served (Table I). Many libraries (44.7 percent) are rural libraries, and most city libraries (93.8 percent) serve populations of 25,000 or more.

Table I. Public libraries by locale and size of population served

Public Library Administrative Entities (FY 2012)					
Public Library Use	City	Suburb	Town	Rural	Total
Less than 2,500	2	66	101	2293	2462
2,500 to 9,999	8	520	966	1264	2758
10,000 to 25,000	20	782	684	264	1750
25,000 or greater	457	957	458	240	2112
Total	487	2325	2209	4061	9082

SOURCE: Institute of Museum and Library Services, Public Libraries Survey, Fiscal Year 2012.

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

Public Library Use	FY 2012	1-year change	10-year change*
Indicator 1. Visitation per Capita	5.0	-2.7%	+10.1%
Indicator 2. Circulation per Capita	8.0	-1.7%	+16.7%
Indicator 2.1 Circulation of Children's Materials per Capita	2.8	+0.4%	+14.1%
Indicator 3. Program Attendance per Capita (per 1,000)	306.1	+3.1%	+28.6%
Indicator 3.1 Children's Program Attendance per Capita (1,000)	213.1	+2.6%	+13.2%
Indicator 3.2 Young Adult Program Attendance per Capita (1,000)	18.8	+5.9%	+26.3%
Indicator 4. Use of Public-Access Internet Computer per Capita (5,000)	1.1	-1.2%	-3.0%
Indicator 5. Reference Transactions per Capita	0.9	-3.9%	-13.9%

*Note: Because not all data elements have been collected for 10 years, the “10-year change” in the figure provides the longest trend information available on the PLS. For Program Attendance per 1,000 people, it is a 8-year change (first collected in FY 2004); for use of public-access Internet computers, a 6-year change (first collected in FY 2006); for children's program attendance per capita (1,000) it is a 7-year change (first collected in FY 2005); for young adult program attendance per capita (1,000) it is a 3-year change (first collected in FY 2009)

Indicator 1. Visitation per Capita

Visitation per capita for public libraries was 5.0 in FY 2012, a one-year decrease of 2.7 percent.

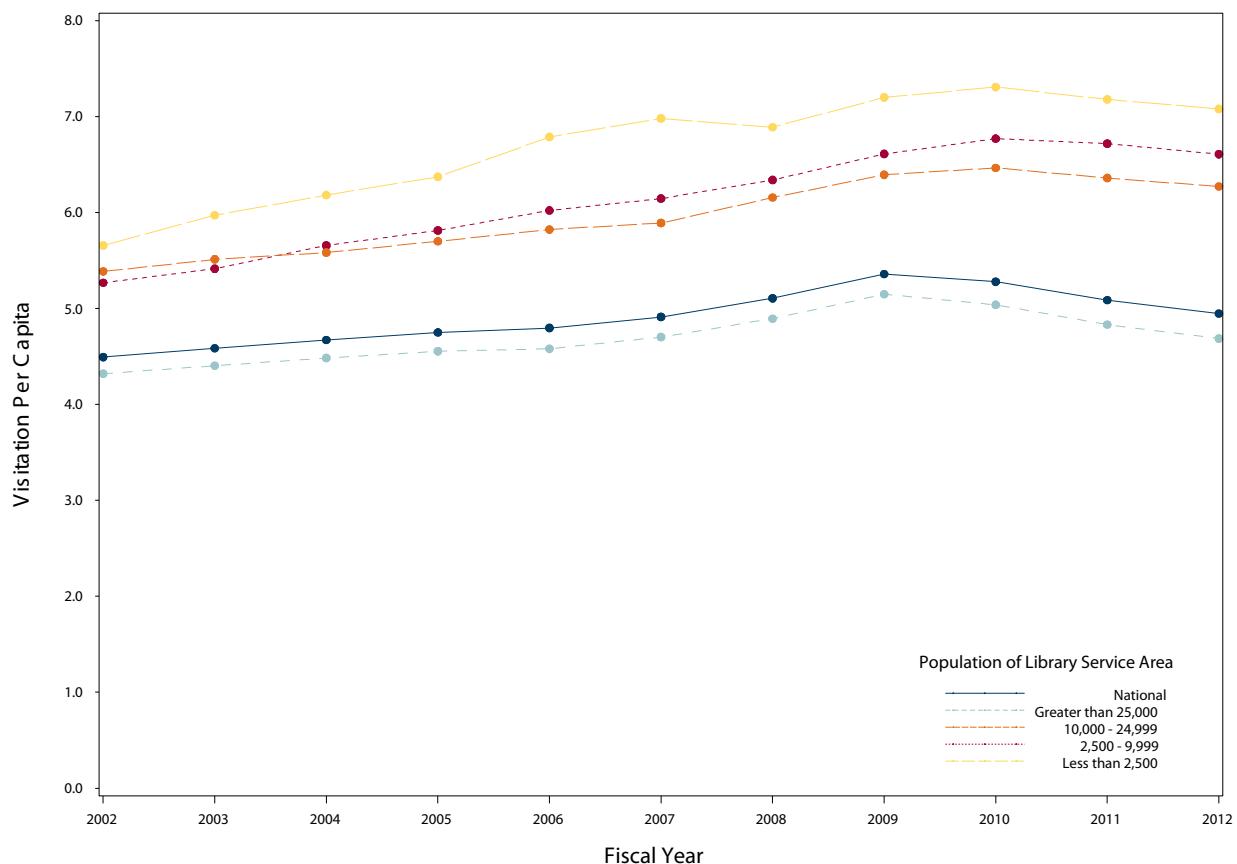
Public library visitation is the count of the total number of people who physically entered a public library¹. Visitation per capita is the ratio of the total number of visits to a public library to the total number of individuals within the legal service area of the public library. Visitation is a useful performance metric for understanding and evaluating the usage of public libraries and public library services.

There were 1.5 billion visits to public libraries in FY 2012. This is a decrease of 28.22 million visits (-1.9 percent) from FY 2011. Visitation per capita was 5.0 in FY 2012 which was a decrease of 2.7 percent from FY 2011. However, visitation per capita for all public libraries has increased 10.1 percent since FY 2002.

Visitation per capita varied among locales. In the aggregate, there were differences in levels of visitation per capita for city (4.8), suburbs (5.3), town (4.5) and rural libraries (4.5). One-year decreases in visitation per capita were experienced in city (-3.3 percent), suburbs (-4.5 percent), town libraries (-2.1 percent). Visitation per capita in rural libraries remained stable. The average visitation per capita for libraries in cities was 5.6; it was 7.1 for suburban libraries, 6.1 for town libraries, and 6.7 for rural libraries. In an examination of differences based on average visitation per capita, suburban and rural libraries had higher rates of visitation per capita than libraries in cities and towns².

Visitation per capita varied among library service population sizes (**Figure 1-1**). Libraries serving fewer than 2,500 people had 7.1 visits per capita; libraries serving between 2,500 and 10,000 people (6.6), libraries

Figure 1-1. Visitation Per Capita by Size of Population in Library Legal Service Area, FY2002-2012



Source: Public Library Survey, FY2002-2012, Institute of Museum and Library Services/National Center for Education Statistics

¹ Note this metric is based on a count of the number of people who entered a public library e.g. foot traffic into the building. It is not based on individual people, but rather includes counts of people who may have visited the library on multiple occasions.

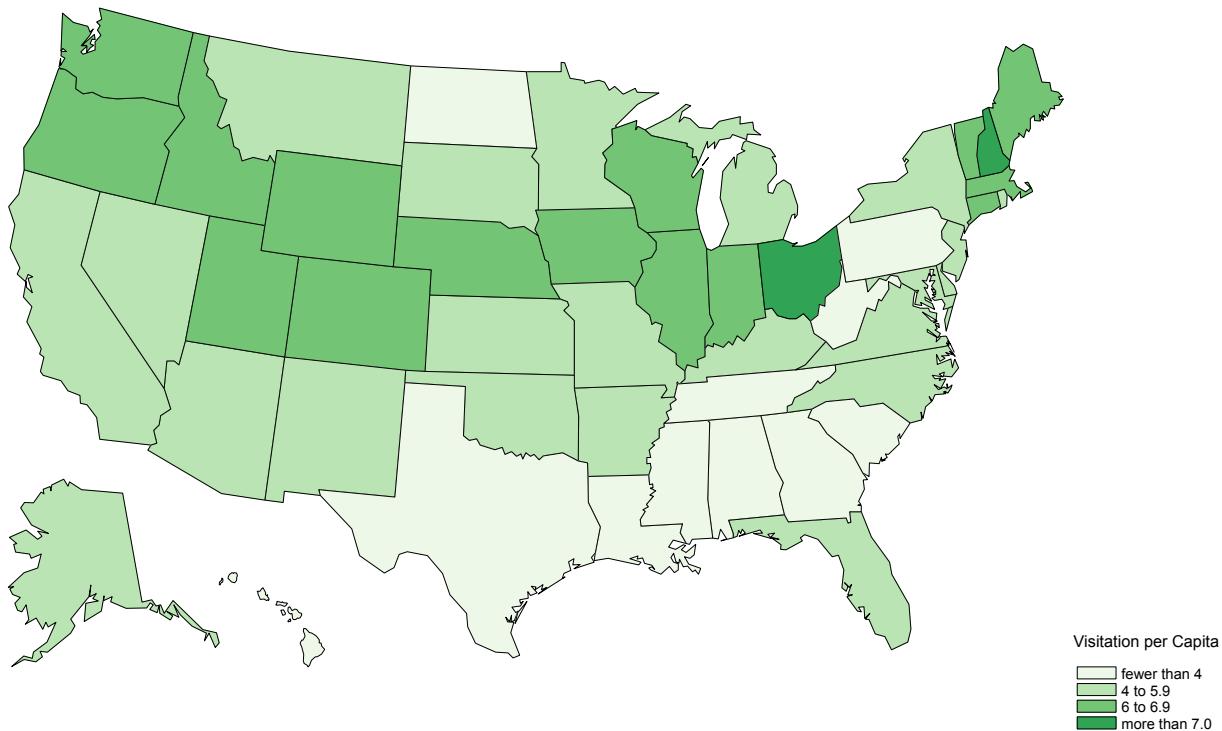
² Significant differences across groups were determined by Tukey post-hoc test for size groupings and locales ($\alpha = 0.01$).

Indicator 1. Visitation per Capita

serving between 10,000 and 25,000 people (6.3) and libraries serving more than 25,000 people (4.7). One-year decreases in visitation per capita were experienced across all service population size: libraries serving fewer than 2,500 people (-1.4 percent), libraries serving between 2,500 and 10,000 people (-1.6 percent), libraries serving between 10,000 and 25,000 people (-1.4 percent) and libraries serving more than 25,000 people (-3.0 percent).

Visitation per capita varied among states (**Figure 1-2**), ranging from as high as 7.7 (New Hampshire) to as low as 3.2 (Georgia). Thirteen states saw 1-year increases in visitation per capita (**Figure 1-3**). The largest increases were experienced in Alaska (+10.4 percent), Hawaii (+8.9 percent), and Oklahoma (+6.1 percent). Thirty-eight states saw 1-year decreases in visitation per capita. The largest decreases were in New Mexico (-9.0 percent), Vermont (-7.1 percent), and Illinois (-6.9 percent).

Figure 1-2. Visitation Per Capita By State, FY2012



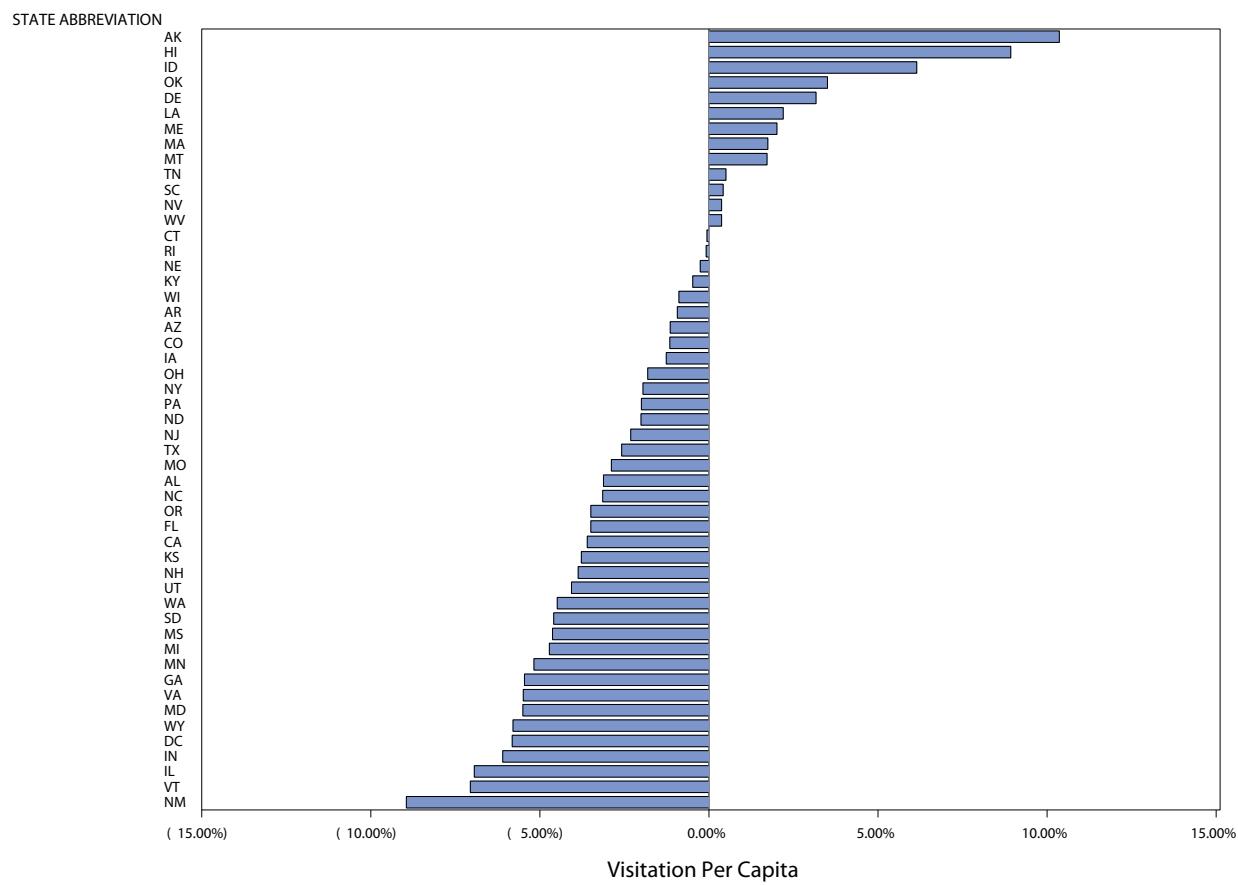
Source: Public Library Survey, FY2012, Institute of Museum and Library Services



Indicator 1. Visitation per Capita

This is the third consecutive year in which this metric has decreased. However, a longer view shows that visitation per capita has increased 10.1% in the last ten years. Indeed, until FY 2009 visitation per capita had increased every year since FY 1998, the first year these data were recorded.

Figure 1-3. Visitation Per Capita - Change from FY2011 to FY2012



Source: Public Library Survey, FY2011-2012; Institute of Museum and Library Services

Indicator 2. Circulation of Materials per Capita

Circulation per capita was 8.0 in FY 2012, a one-year decrease of 1.7 percent.

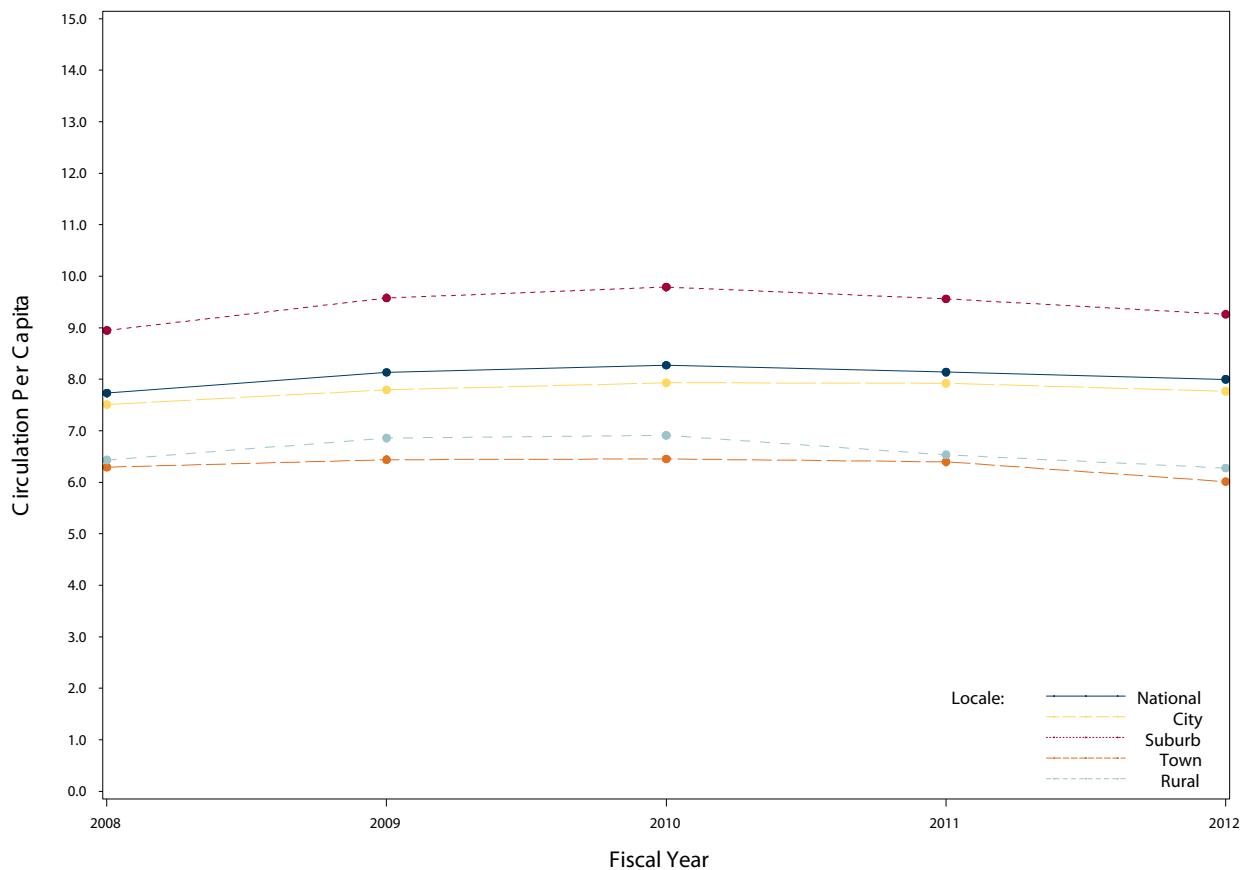
Circulation per capita is the ratio of the total number of circulation transactions of all materials to the number of people in the library service area. Circulation per capita indicates the average number of loans made to each person served annually. In the PLS, public libraries report both total circulation and children's circulation, which specifically measures the circulation of children's materials.

In FY 2012, total circulation per capita was 8.0. This was a decrease of 1.7 percent from FY 2011 and the second consecutive year that circulation per capita has decreased in the last ten years. A longer view shows that circulation per capita has increased 16.7 percent since FY 2002.

Circulation per capita varied among locality: city (7.8), suburb (9.3), town (6.0), and rural (6.3) libraries. All localities experienced a 1-year decrease in circulation per capita (**Figure 2-1**): city (-1.9 percent), suburb (-3.1 percent), town (-6.0 percent), and rural (-3.9 percent).

Total circulation per capita varied among library service population sizes: libraries serving fewer than 2,500 people (9.3), libraries serving between 2,500 and 10,000 people (8.6), libraries serving between 10,000 and 25,000 people (8.6) and libraries serving more than 25,000 people (7.9). Circulation per capita was significantly higher in libraries serving fewer than 2,500 people when compared to libraries in other size groupings³.

Figure 2-1. Circulation of Materials per Capita by Locality, FY2008-2012



Source: Public Library Survey, Institute of Museum and Library Services

³ Significant differences across groups were determined by Tukey post-hoc test for size groupings and locales ($\alpha = 0.01$)



Indicator 2. Circulation of Materials per Capita

One-year decreases in total circulation per capita were experienced across all service population size: libraries serving fewer than 2,500 people (1.9 percent), libraries serving between 2,500 and 10,000 people (2.1 percent), libraries serving between 10,000 and 25,000 people (1.9 percent) and libraries serving more than 25,000 people (1.7 percent).

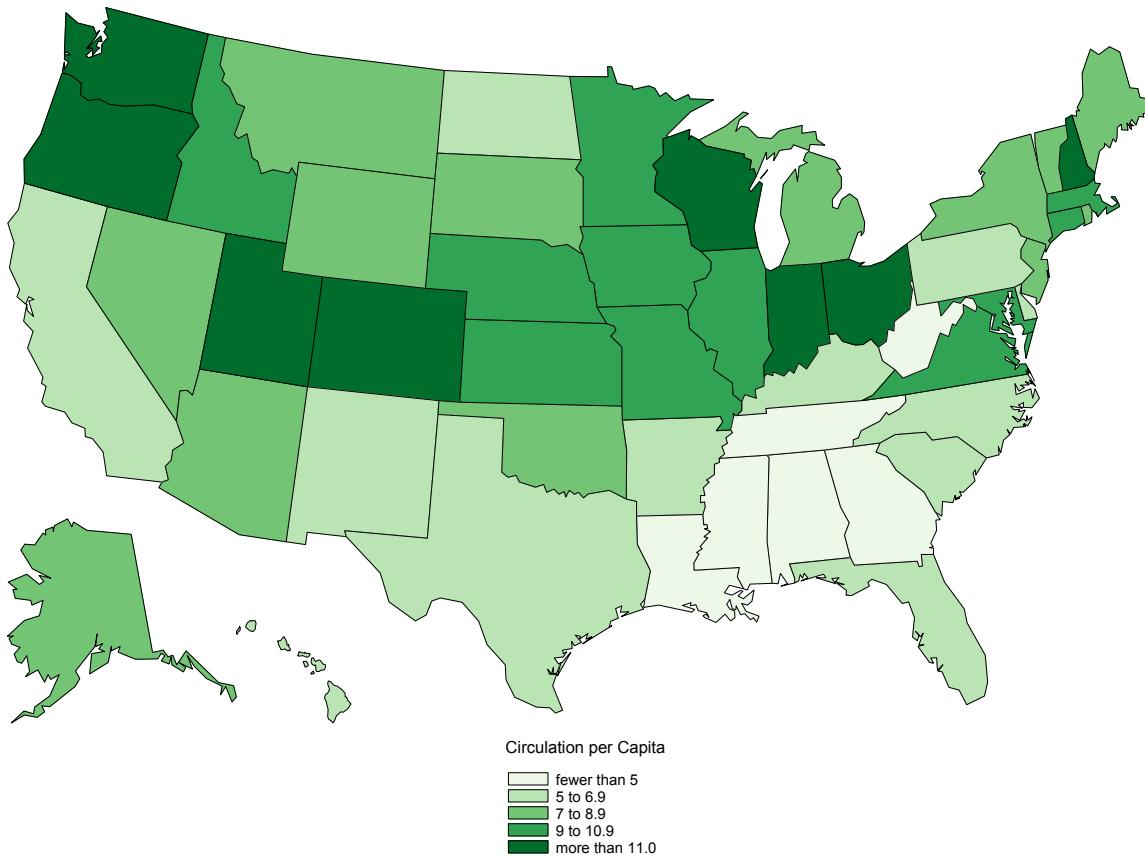
Total circulation per capita varied among states, ranging from as high as 17.2 (Oregon) to as low as 2.8 (Mississippi) (**Figure 2-2**). Eighteen states saw 1-year increases in total circulation per capita. The largest increases were experienced in Delaware (17.4 percent), Alaska

(10.5 percent), and Texas (8.3 percent). Thirty three states saw a 1-year decrease in total circulation per capita. The largest decreases were experienced in Vermont (12.9 percent), West Virginia (9.9 percent), and New Mexico (8.5 percent).

Indicator 2.1 Circulation of Children's Materials per Capita

In FY 2012, circulation of children's materials per capita was 2.8. Circulation of children's materials per capita has remained relatively stable over both 1-year and 10-year periods.

Figure 2-2. Circulation Per Capita By State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services

Indicator 2. Circulation of Materials per Capita

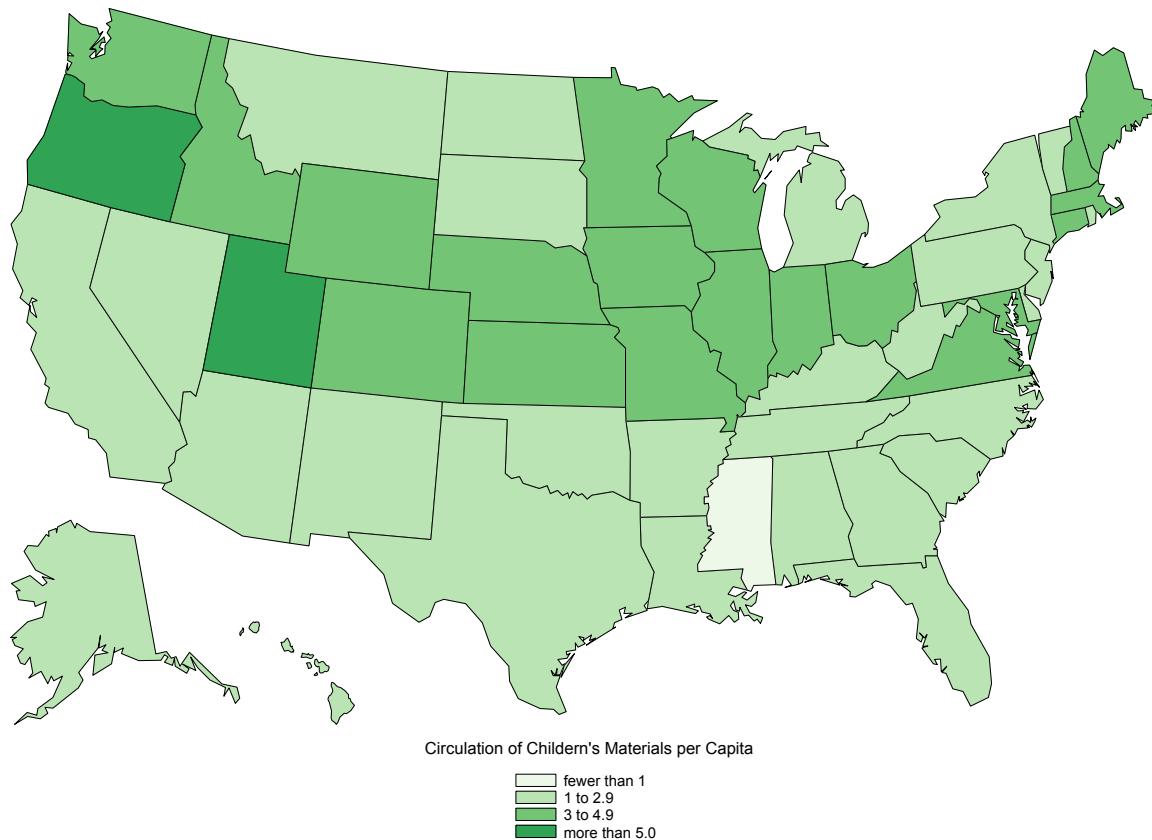
Circulation of children's materials per capita differed across locales: city (2.7), suburb (3.4), town (2.0), and rural (2.0). Only city libraries saw a 1-year increase in children's circulation per capita (1.5 percent); other locales experienced 1-year decreases: suburb (-1.7 percent), town (-6.9 percent), and rural (-4.7 percent).

Children's circulation per capita did not greatly vary among library service population sizes: libraries serving fewer than 2,500 people (3.1), libraries serving between 2,500 and 10,000 people (2.8), libraries serving between 10,000 and 25,000 people (3.0) and libraries serving more than 25,000 people (2.8). One-year decreases in children's circulation per capita were experienced across all service population size except libraries serving more than 25,000 people, which saw less than a one percent increase (0.7 percent). De-

creases were experienced in libraries serving between 2,500 and 10,000 people (1.4 percent) and libraries serving between 10,000 and 25,000 people (1.7 percent). Children's circulation per capita in libraries serving fewer than 2,500 people remained stable.

Children's circulation per capita varied among states (**Figure 2-3**), ranging from as high as 6.3 (Oregon) to as low as 0.8 (Mississippi). Twenty-three states saw increases in children's circulation per capita. The largest increases were in the District of Columbia (+19.5 percent), Delaware (+19.4 percent), Maine (+10.4 percent) and Alaska (+10.4 percent). Twenty-eight states experienced decreases in children's circulation per capita. The largest decreases were in North Dakota (-16.8 percent), New Mexico (-10.6 percent) and Vermont (-7.7 percent).

Figure 2-3. Circulation of Children's Materials Per Capita By State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services

Indicator 3. Program Attendance per Capita

Program attendance per 1,000 people was 306.1 in FY 2012, a 1-year increase of 3.1 percent.

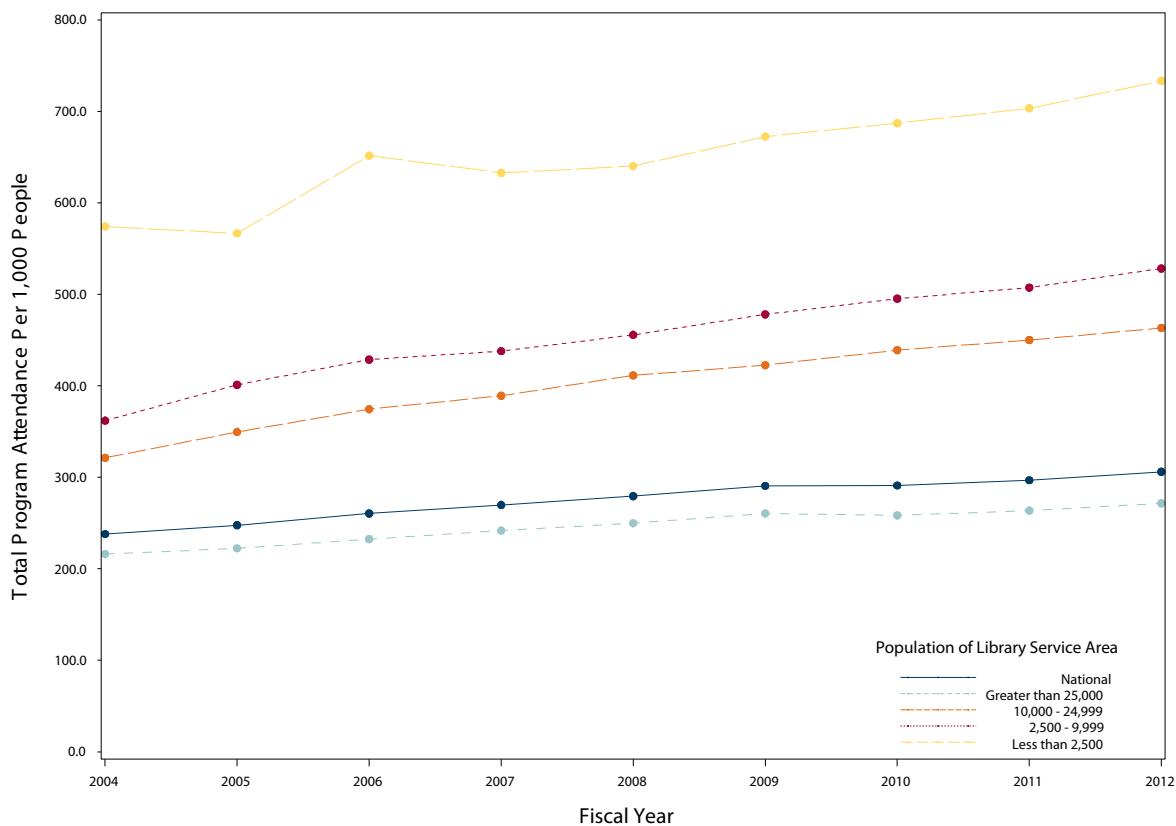
Public library program attendance per capita is a measure of the attendance of public library programs by the size of the population served. In the PLS, in addition to total program attendance for all programs, public libraries also report the attendance for children's programs (under the age of 11) and the attendance for young adult programs (ages between 12-18).

Total program attendance per capita was 306.1 in FY 2012, a 1-year increase of 3.1 percent.

Total program attendance per capita varied among locales: city (269.2), suburb (326.1), town (312.1), and rural (346.2). All locales saw a 1-year increase in total program attendance per capita: city (+2.1 percent), suburb (+4.1 percent), town (+1.3 percent) and rural (+6.3 percent). Total program attendance per 1,000 people was significantly higher in rural libraries when compared to libraries in other locales⁴.

Total program attendance per capita varied among library service population sizes: libraries serving fewer than 2,500 people (733.4), libraries serving between 2,500 and 10,000 people (528.3), libraries serving between 10,000 and 25,000 people (463.3) and libraries serving more than 25,000 people (271.6). One-year increases in total program attendance per capita were experienced across all service population sizes (**Figure 3-1**): libraries serving fewer than 2,500 people (4.3 percent), libraries serving between 2,500 and 10,000 people (4.1 percent), libraries serving between 10,000 and 25,000 people (3.0 percent), and libraries serving more than 25,000 people (3.1 percent). Total program attendance per 1,000 people was significantly higher in libraries serving fewer than 2,500 people when compared to libraries in other size groupings. Total program attendance per 1,000 people was also significantly higher in libraries serving between 2,500 and 10,000 people when compared to libraries serving 25,000 or more people. Total program attendance per 1,000 people was significantly higher in libraries serving between 10,000 and 25,000 people when compared to libraries serving 25,000 or more people.

Figure 3-1. Total Program Attendance Per 1,000 People by Size of Population Library Legal Service Area, FY2004-2012



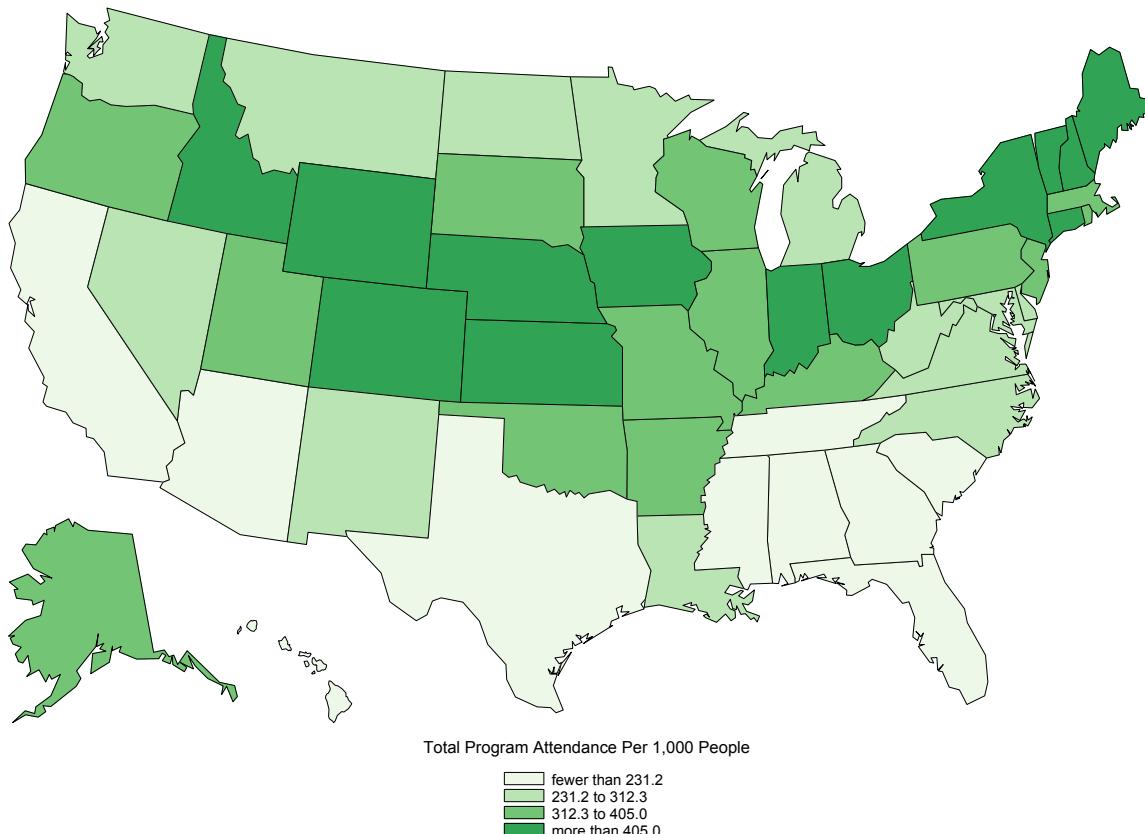
Source: Public Library Survey, Institute of Museum and Library Services/National Center for Education Statistics

⁴ Significant differences across groups were determined by Tukey post-hoc test for size groupings and locales ($\alpha = 0.01$).

Indicator 3. Program Attendance per Capita

Total program attendance per capita varied among states (**Figure 3-2**), ranging from as high as 692.5 (New Hampshire) to as low as 162.4 (Georgia). Forty states saw increases in total program attendance per capita. The largest increases were in Alaska (21.7 percent), Nevada (19.1 percent), and Louisiana (15.4 percent). Only eleven states saw decreases in total program attendance per capita. The largest decreases were in Indiana (8.4 percent), Georgia (8.1 percent), and Vermont (7.2 percent).

Figure 3-2. Total Program Attendance per 1,000 People by State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services



Indicator 3. Program Attendance per Capita

Indicator 3.1 Children's Program Attendance per Capita (1,000)

Children's program attendance per capita was 213.1 in FY 2012, a 1-year increase of 2.6 percent.

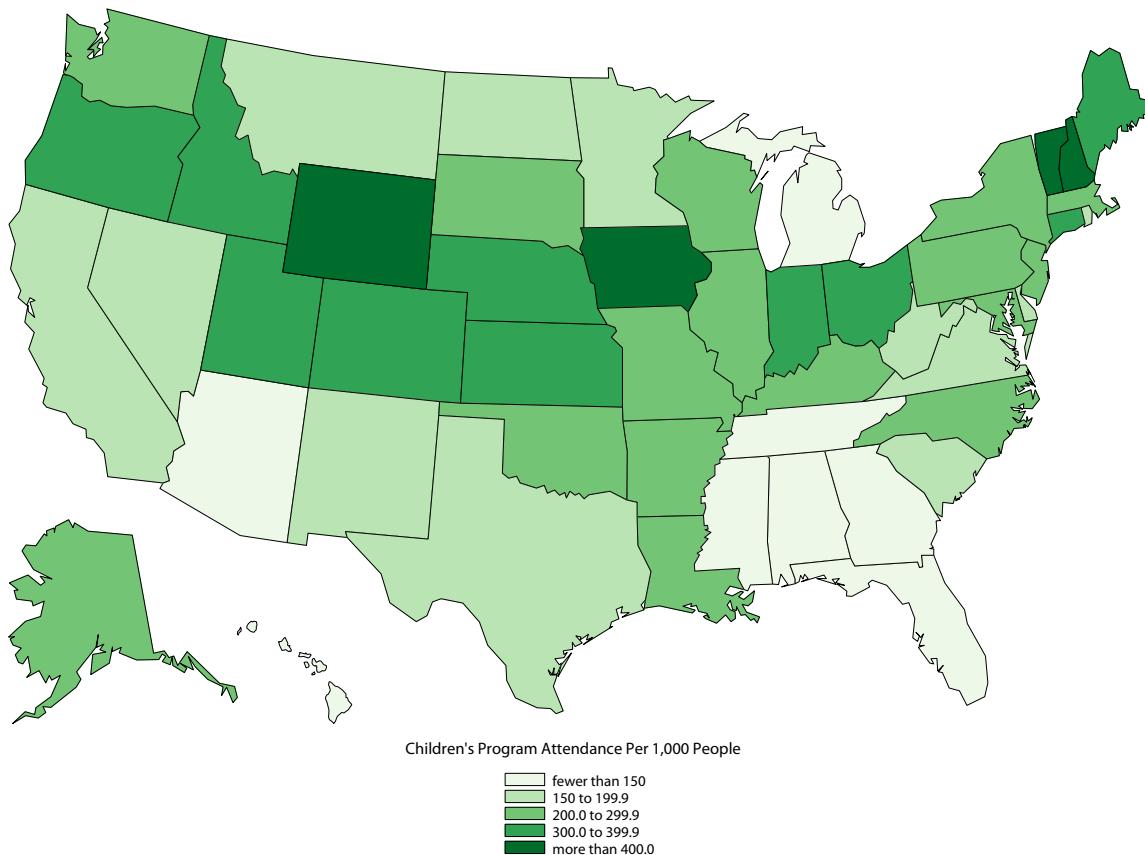
Programming for children has been a hallmark of public libraries, engaging the nation's youngest learners with story time and summer reading programs. Children's program attendance per capita was 213.1 in FY 2012, a 1-year increase of 2.6 percent. Children's program attendance per capita varied among locales: city (182.2), suburb (228.2), town (226.5), and rural (243.0); in terms of 1-year change, only suburban libraries saw a decrease in children's program attendance per capita (0.7 percent); other locales experienced 1-year increases: city (1.9 percent), suburb (4.2 percent), and rural (5.3 percent).

Children's program attendance per capita varied among library service population sizes: libraries serving fewer

than 2,500 people (489.6), libraries serving between 2,500 and 10,000 people (362.4), libraries serving between 10,000 and 25,000 people (323.5) and libraries serving more than 25,000 people (189.6). One year increases in children's program attendance per capita were experienced across all service population sizes: libraries serving fewer than 2,500 people (2.3 percent), libraries serving between 2,500 and 10,000 people (3.4 percent), libraries serving between 10,000 and 25,000 people (2.8 percent), and libraries serving more than 25,000 people (2.5 percent).

Children's program attendance per capita varied among states (**Figure 3-3**), ranging from as high as 514.5 (Wyoming) to as low as 127.3 (Georgia). Forty-two states saw increases in children's program attendance per capita. The largest increases were in Alabama (16.4 percent), Missouri (16.0 percent), and Alaska (15.0 percent). Only nine states saw decreases in children's program attendance per capita. The largest decreases

Figure 3-3. Attendance at Children's Program per 1,000 People by State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services

Indicator 3. Program Attendance per Capita

were in Michigan (15.5 percent), Georgia (10.3 percent), and South Dakota (8.3 percent).

Indicator 3.2 Young Adult Program Attendance per Capita (1,000)

Young adult program attendance per capita was 18.8 in FY 2012, a 1-year increase of 5.8 percent.

Young adult program attendance per capita did not vary greatly among locales: city (18.2), suburb (19.8), town (18.3), and rural (17.2); All locales saw a 1-year increase in young adult program attendance per capita: city (6.8 percent), suburb (5.2 percent), town (4.4 percent) and rural (3.2 percent).

Young adult program attendance per capita varied among library service population sizes: libraries serving fewer than 2,500 people (36.4), libraries serving between 2,500 and 10,000 people (26.2), libraries serving between 10,000 and 25,000 people (27.9) and libraries serving more than 25,000 people (17.2).

Public libraries saw 1-year increases in young adult program attendance per capita across all service population sizes, except libraries serving fewer than 2,500 people, which experience a 4.5 percent decrease. Libraries serving between 2,500 and 10,000 people saw an increase in young adult program attendance per capita of 9.2 percent, libraries serving between 10,000 and 25,000 people increased 6.0 percent, and libraries serving more than 25,000 people increased 5.9 percent.

Young adult program attendance per capita varied greatly among states, ranging from as high as 69.6 (Wyoming) to as low as 6.6 (Nevada). Possible explanation for such discrepancies between states may result from states not capturing the full data on the attendance at young adult programs, which is a relatively new data element for the PLS.

Thirty-one states saw increases in young adult program attendance per capita. The largest increases were in West Virginia (145.3 percent), Delaware (78.5 percent), and Louisiana (61.2 percent). Twenty states saw decreases in young adult program attendance per capita. The largest decreases were in Vermont (44.3 percent), Mississippi (32.6 percent), and Georgia (22.2 percent).



Indicator 4. Public Access Computer Usage per Capita

In FY 2012, there were 340.5 million user sessions on public access computers in public libraries, resulting in 1.1 user sessions per capita, a one-year decrease of 1.2 percent.

Public access computer usage per capita measures the ratio of the number of user sessions on public access Internet computers to the number of people in the library legal service area. In FY 2012, there were 1.1 user sessions per capita, a one-year decrease of 1.2 percent.

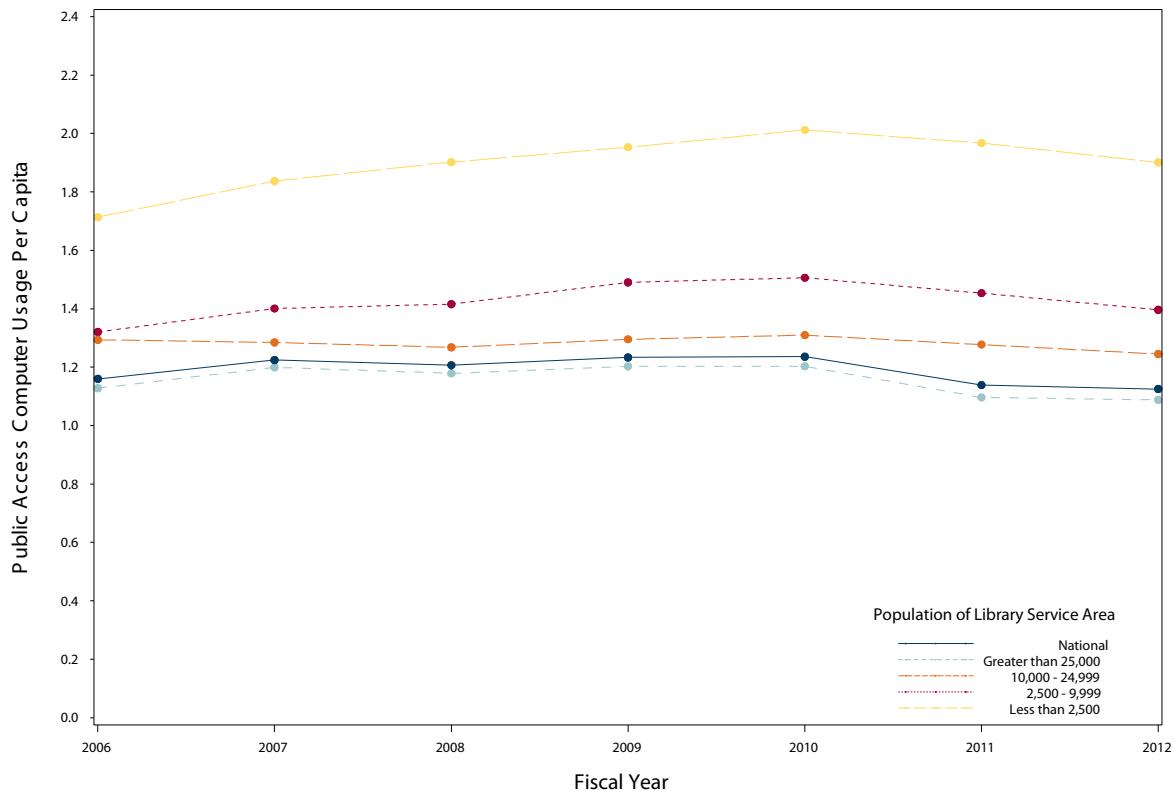
Public access computer usage per capita does not vary among locales: city (1.1), suburb (1.2), town (1.0), and rural (1.1). Libraries showed decreases in cities (-1.2 percent), suburbs (-1.6 percent), and town (-3.6 percent). Public access computer usage per capita remained stable in rural libraries over preceding year. Public access computer usage per capita was significantly higher in rural libraries when compared to libraries in other locales⁵.

Public access computer usage per capita varied among library service population sizes (**Figure 4-1**): libraries

serving fewer than 2,500 people (1.9), libraries serving between 2,500 and 10,000 people (1.4), libraries serving between 10,000 and 25,000 people (1.2) and libraries serving more than 25,000 people (1.1). Public access computer usage per capita was significantly higher in libraries serving fewer than 2,500 people when compared to libraries in other size groupings. Public access computer usage per capita was also significantly higher in libraries serving between 2,500 and 10,000 people when compared to libraries serving between 10,000 and 25,000 people and libraries serving more than 25,000 people.

One-year decreases in public access computer usage per capita were experienced across all service population sizes: libraries serving fewer than 2,500 people (3.4 percent), libraries serving between 2,500 and 10,000 people (4.0 percent), and libraries serving between 10,000 and 25,000 people (2.5 percent). Public access computer usage per capita in libraries serving more than 25,000 people remained stable.

Figure 4-1. User Sessions of Public Access Computers Per Capita by Size of Population Library Legal Service Area, FY2006-2012



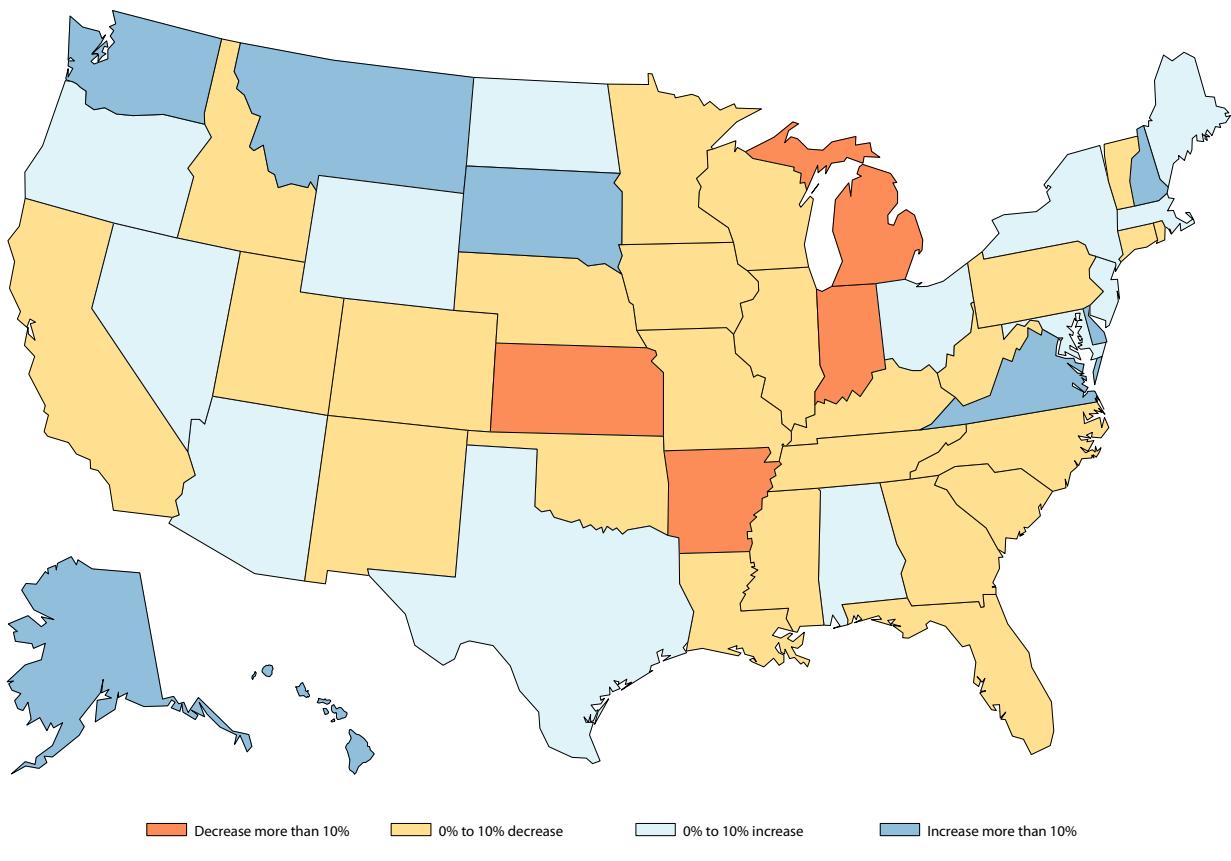
Source: Public Library Survey, FY 2006-2012, Institute of Museum and Library Services/National Center for Education Statistics

⁵ Significant differences across groups were determined by Tukey post-hoc test for size groupings and locales ($\alpha = 0.01$)

Indicator 4. Public Access Computer Usage per Capita

Public access computer usage per capita varied among states (**Figure 4-2**), ranging from as high as 1.9 (South Dakota) to as low as 0.4 (Hawaii). Twenty-one states saw 1-year increases in public access computer usage per capita. The largest increases were experienced in Alaska (23.5 percent), South Dakota (22.6 percent), and Virginia (19.9 percent). Thirty states saw a 1-year decrease in public access computer usage per capita. The largest decreases were experienced in Arkansas (36.5 percent), District of Columbia (16.2 percent), and Indiana (13.3 percent).

Figure 4-2. Change in Public Access Computer User Sessions Per Capita By State, FY2011-FY2012



Indicator 5. Reference Transactions per Capita

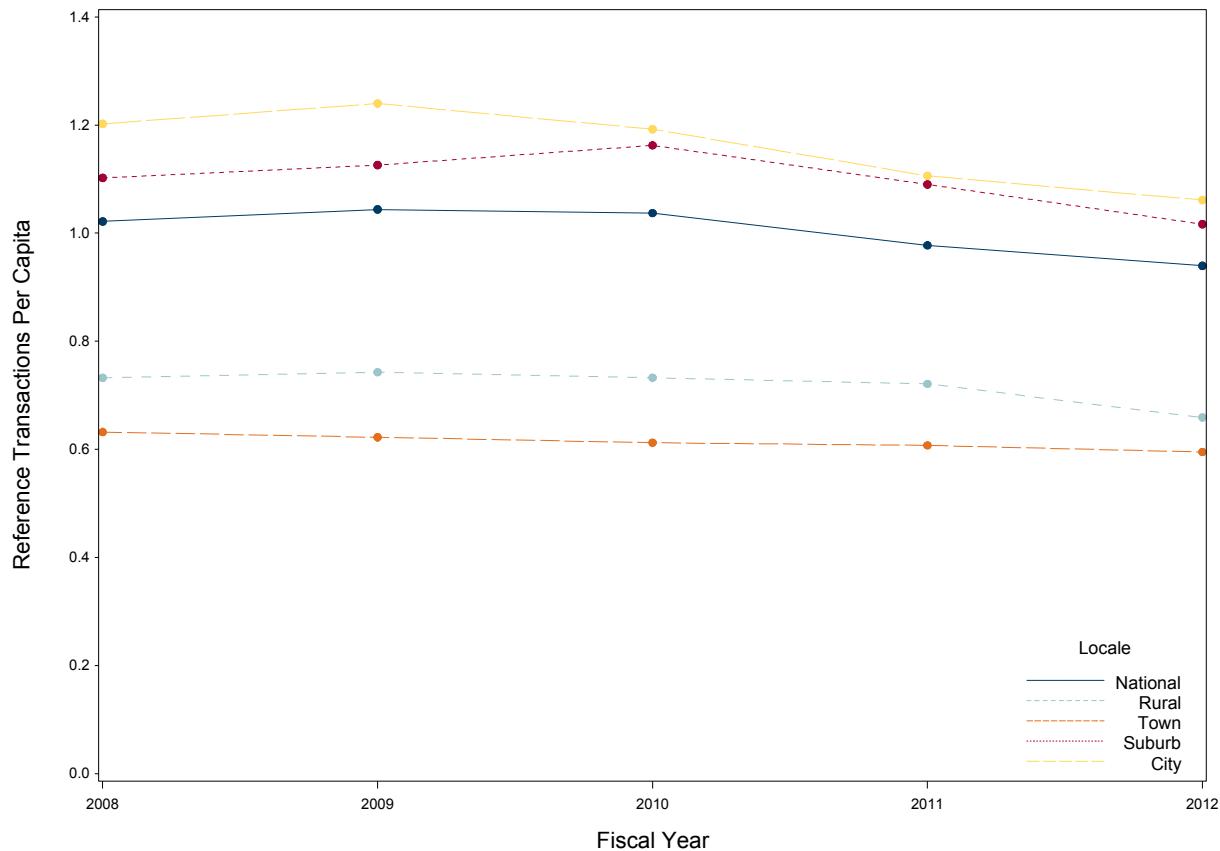
In FY 2012, there were 284.3 million reference transactions at public libraries or 0.9 reference transactions per capita, a 1-year decrease of 3.9 percent.

Reference transactions per capita is the ratio of reference transaction to the number of people in the library service area. A reference transaction is an information contact that involves the knowledge, use, recommendations, interpretation, or instruction in the use of one or more information sources by a member of the library staff. This metric measures the demand and use of professional human resources of the public library to address information needs in the community.

Reference transactions per capita were 0.9 in FY 2012, a 1-year decrease of 3.9 percent. Since FY 1992, reference transactions per capita have remained relatively stable at around 1.0 reference transactions per capita.

Reference transactions per capita differed among libraries in different locales (**Figure 5-1**). City (1.0) and suburb (1.0) libraries have slightly higher reference transactions per capita than town (0.6) and rural (0.7). However, all locales experienced a 1-year decrease from FY 2011: city (-4.1 percent), suburb (-6.7 percent), town (-2.0 percent), and rural (-8.6 percent).

Figure 5-1. Reference Transactions Per Capita by Locality, FY2008-2012



Source: Public Library Survey, FY 2008-2012, Institute of Museum and Library Service

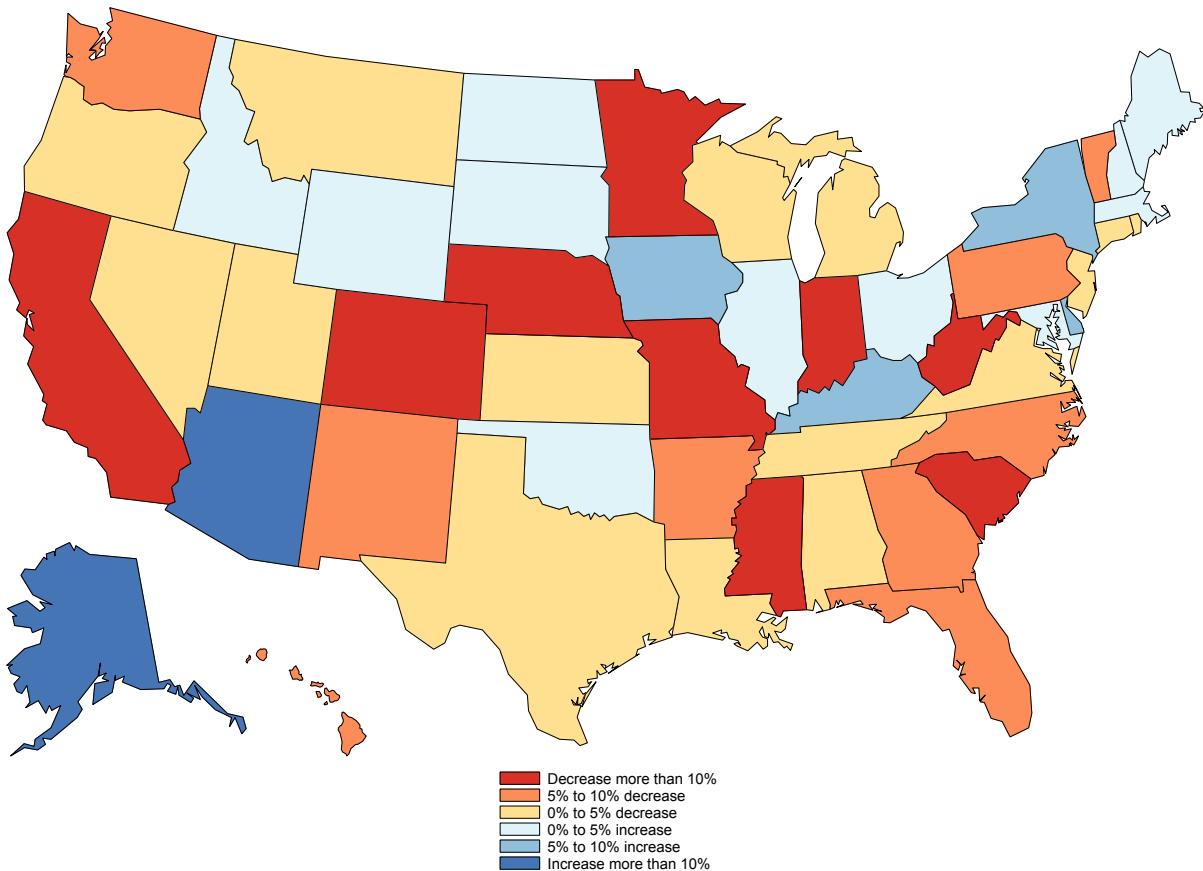
Indicator 5. Reference Transactions per Capita

Reference transactions per capita are similar across libraries serving different population sizes:

libraries serving fewer than 2,500 people (0.9), libraries serving between 2,500 and 10,000 people (0.8), libraries serving between 10,000 and 25,000 people (0.8), and libraries serving more than 25,000 people (1.0). Libraries serving more than 25,000 people experienced a 1-year decrease of 4.4 percent in reference transactions per capita. Reference transactions per capita in libraries serving other population sizes remained stable.

Reference transactions per capita vary among states (**Figure 5-2**), ranging from as high as 1.8 (Ohio) to as low as 0.4 (West Virginia). Eighteen states saw a 1-year increase in reference transactions per capita. The largest increases were in Alaska (+16.4 percent), Arizona (+13.0 percent) and Delaware (+8.3 percent). Thirty-three states saw a 1-year decrease in reference transactions per capita. The largest decreases were in South Carolina (-30.4 percent), Missouri (-28.0 percent) and Indiana (-17.8 percent).

Figure 5-2. Change in Reference Transactions Per Capita By State, FY2011-FY2012



Source: Public Library Survey, FY2011-2012, Institute of Museum and Library Services



Public Libraries Survey: Indicators

Section 2. Financial Health of Public Libraries

Indicator 6. Operating Revenue per Capita

Indicator 6.1 Operating Revenue per Capita from Local Government

Indicator 6.2 Operating Revenue per Capita from State Government

Indicator 6.3 Operating Revenue per Capita from Federal Government

Indicator 6.4 Operating Revenue per Capita from Other Sources

Indicator 7. Operating Expenditure per Capita

Indicator 7.1 Expenditure per Capita on Staffing

Indicator 7.2 Collections Expenditures per Capita

Indicator 7.3 Operating Expenditure per Capita on Other Costs

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

Public Library Financials	FY 2012	1-year Change	10-Year Change
Indicator 6. Revenue per Capita	\$37.98	-2.0%	-2.2%
Indicator 6.1 Revenue per Capita from Local Government	\$32.05	-2.5%	+4.4%
Indicator 6.2 Revenue per Capita from State Government	\$2.60	-10.9%	-42.7%
Indicator 6.3 Revenue per Capita from Federal Government	\$0.20	+2.6%	-8.9%
Indicator 6.4 Revenue per Capita from Other Sources	\$3.13	+12.2%	-6.9%
Indicator 7. Operating Expenditure per Capita	\$35.47	-2.8%	-2.3%
Indicator 7.1 Expenditure per Capita on Staffing	\$23.99	-1.8%	+2.2%
Indicator 7.2 Expenditure per Capita on Collections	\$4.03	-3.2%	-23.0%
Indicator 7.3 Expenditure per Capita on Other Costs	\$7.45	-5.5%	-1.8%



Indicator 6. Operating Revenue per Capita

Operating revenue per capita for public libraries in FY 2012 was \$37.98, a one-year decrease of 2.0 percent after adjusting for inflation.

Public library revenue primarily is generated from these four sources: local government, state government, federal government, and other sources (e.g. monetary gifts and donations).

Total operating revenue per capita was \$37.98 in FY 2012, a 1-year decrease of 2.0 percent. The majority of library revenue (84.4 percent) is generated from local governments (**Figure 6-1**). The remaining amount is derived from other (8.3 percent), state (6.9 percent), and federal (0.5 percent). State revenue has decreased by 42.7 percent over the past 10 years. Over that same period of time, local governments have increased their investments in order to absorb the loss of revenue from states, allowing libraries to maintain their level of

service. Revenue from federal and other sources has remained largely stable.

Total operating revenue per capita varied among locales: city (\$40.04), suburb (\$41.74), town (\$27.17), and rural (\$29.87). Total operating revenue per capita was significantly higher in suburban libraries when compared to libraries in other locales. Total operating revenue per capita was also significantly higher in rural libraries when compared to town libraries⁶. Libraries in cities (4.3 percent), suburbs (4.4 percent), and towns (5.0 percent) experienced a 1-year decrease in total revenue per capita. Total revenue per capita in rural libraries remained stable.

Figure 6-1. Revenue Per Capita by Source (in Constant 2012 Dollars)

Revenue per capita	FY 2002	FY 2011	FY 2012	1-year Change FY 11-12	10-year Change FY 02-12
Local	\$30.71	\$32.86	\$32.05	-2.5%	4.4%
State	\$4.54	\$2.92	\$2.60	-10.9%	-42.7%
Federal	\$0.22	\$0.19	\$0.20	2.6%	-8.9%
Other	\$3.36	\$2.79	\$3.13	12.2%	-6.9%
Total	\$38.83	\$38.77	\$37.98	-2.0%	-2.2%

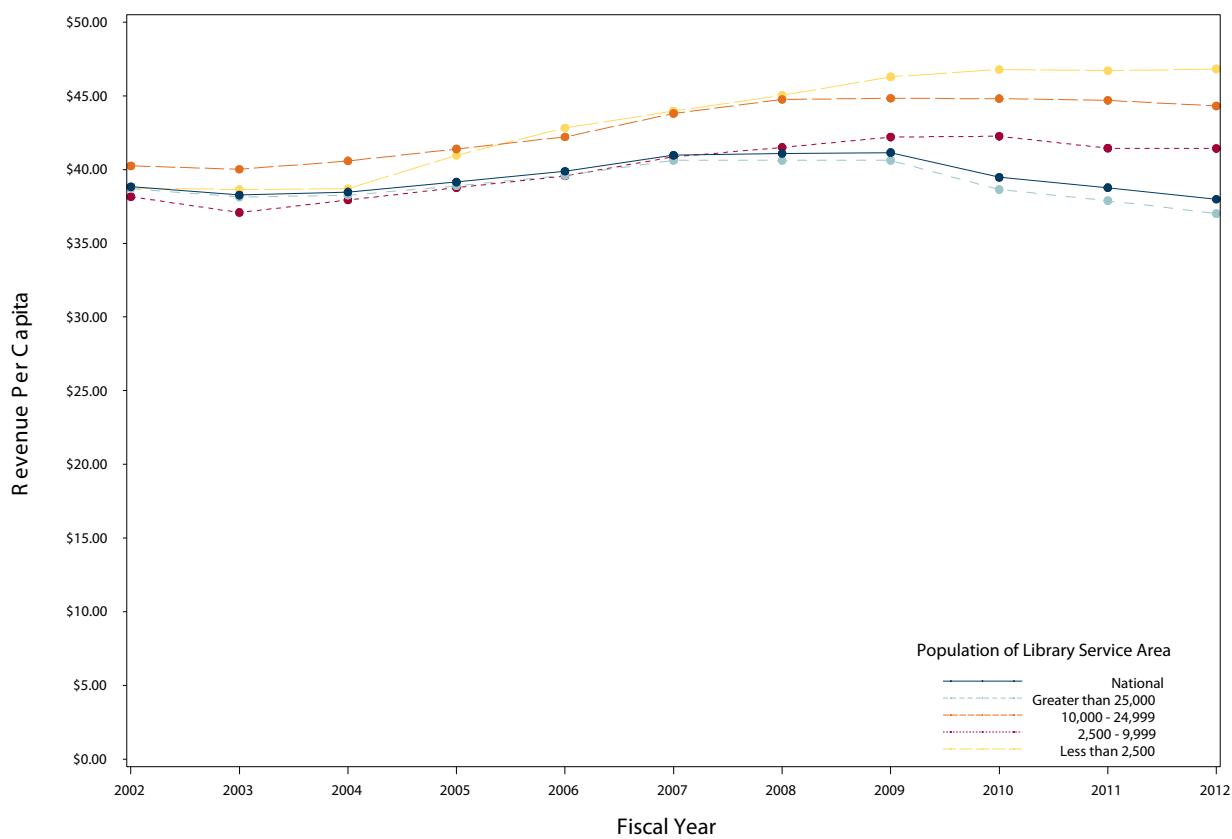
⁶ Significant differences across groups were determined by Tukey post-hoc test for size groupings and locales ($\alpha = 0.01$).

Indicator 6. Operating Revenue per Capita

Total operating revenue per capita varied among population sizes (**Figure 6-2**): Libraries serving fewer than 2,500 people (\$46.82), libraries serving between 2,500 and 10,000 people (\$41.43), libraries serving between 10,000 and 25,000 people (\$44.31) and libraries serving more than 25,000 people (\$37.01). Total operating revenue per capita was significantly higher in libraries serving fewer than 2,500 people when compared to libraries in other size groupings.

Libraries serving more than 25,000 people saw a 1-year decrease of 2.3 percent in total revenue per capita. Libraries serving other population sizes remained stable.

Figure 6-2. Operating Revenue Per Capita by Size of Population in Library Legal Service Area
FY2002-2012 (in constant 2012 dollars)



Source: Public Library Survey, FY 2003-2012, Institute of Museum and Library Services/National Center for Education Statistics



Indicator 6. Operating Revenue per Capita

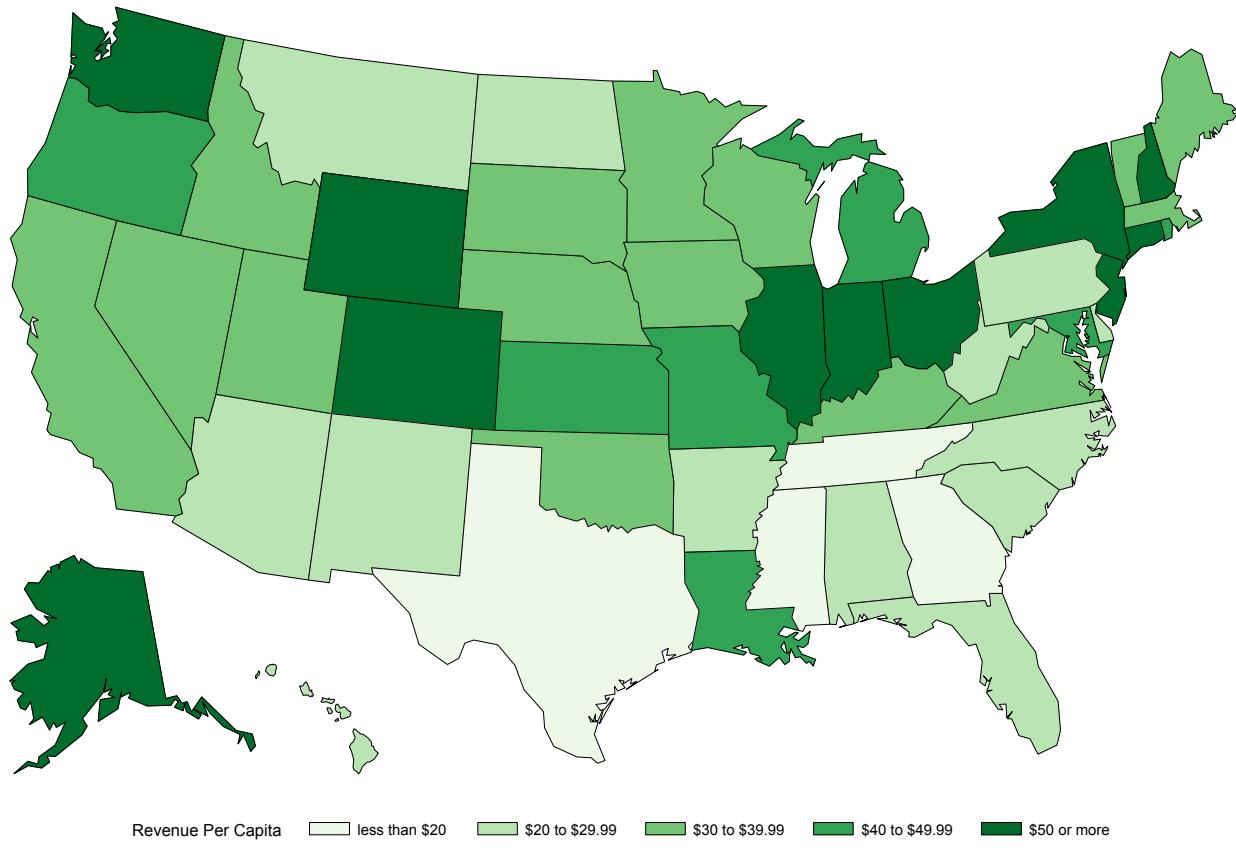
Total operating revenue per capita varied among states (**Figure 6-3**), as high as \$73.48 (Ohio) to as low as \$16.86 (Mississippi). The majority of states (40) experienced a decrease in total revenue per capita. Only 11 states saw an increase in total operating revenue over the 1-year period. The largest increases were in Alaska (10.9 percent), Louisiana (9.6 percent), and Ohio (6.7 percent). The largest decreases were in Delaware (8.3 percent), Indiana (7.6 percent), and Michigan (7.6 percent).

Indicator 6.1 Operating Revenue per Capita from Local Government

Local government revenue per capita was \$32.05 in FY 2012, a 1-year decrease of 2.5 percent.

Local government revenue per capita varied among locales: city (\$33.27), suburb (\$36.58), town (\$21.16), and rural (\$23.76). In terms of 1-year change, all locales saw a decrease in local government revenue per capita: city (4.1 percent), suburb (4.2 percent), town

Figure 6-3: Operating Revenue per Capita by State, FY2012



Indicator 6. Operating Revenue per Capita

(5.7 percent), and rural (1.2 percent).

Local government revenue per capita varied among population sizes: libraries serving fewer than 2,500 people (\$36.21), libraries serving between 2,500 and 10,000 people (\$33.74), libraries serving between 10,000 and 25,000 people (\$38.33) and libraries serving more than 25,000 people (\$31.24). Rural libraries saw a 1-year decrease of 3.0 percent in local government revenue per capita. All other locales remained stable during this period.

Local government revenue per capita varied among states, as high as \$59.85 (Illinois) to as low as \$11.71 (Mississippi)⁷. Fourteen states saw an increase in local government revenue per capita over the 1-year period. The largest increases in local government revenue per capita were in Louisiana (+11.1 percent), Alaska (+11.1 percent), and Iowa (+2.5 percent). The largest decreases in local government revenue per capita were in Nevada (-8.4 percent), Michigan (-7.7 percent), and Florida (-7.6 percent).

Indicator 6.2 Operating Revenue per Capita from State Government

State government revenue per capita was \$2.60 in FY 2012, a 1-year decrease of 10.9 percent.

State government revenue per capita varied among locales: city (\$2.19), suburb (\$2.58), town (\$3.40), and rural (\$3.10). Libraries in cities (18.5 percent), suburbs (8.4 percent) and towns (5.6 percent) saw a 1-year decrease in state government revenue per capita. Rural libraries remained stable.

State government revenue per capita varied among population sizes: Libraries serving fewer than 2,500 people (\$2.60), libraries serving between 2,500 and 10,000 people (\$2.66), libraries serving between 10,000 and 25,000 people (\$2.56) and libraries serving more than 25,000 people (\$2.60). In terms of 1-year change, all sizes saw decreases in state government revenue per capita: Libraries serving fewer than 2,500 people (4.9 percent), libraries serving between 2,500 and 10,000 people (6.5 percent), libraries serving between 10,000 and 25,000 people (7.9 percent), and libraries serving more than 25,000 people (11.5 percent).

State government revenue per capita varied among states, as high as \$29.76 (Ohio) to as low as \$0.02 (Colorado). Texas, Vermont, South Dakota, and District

of Columbia reported \$0.00 for state revenue; Fifteen states experienced an increase over the 1-year period. Largest increases were Oregon (149.1 percent), Arizona (64.2 percent), and New Mexico (35.3 percent); largest decreases were in Texas (98.4 percent), Tennessee (68.7 percent), and California (65.3 percent)

Indicator 6.3 Operating Revenue per Capita from Federal Government

Federal government revenue per capita was \$0.20 in FY 2012, a 1-year increase of 2.6 percent.

Federal government revenue per capita varied among locales: city (\$0.28), suburb (\$0.11), town (\$0.20), and rural (\$0.28). In terms of 1-year change in federal government revenue per capita: city (19.0 percent) and rural (16.2 percent) saw a 1-year increase, whereas suburb (17.6 percent) and town (3.3 percent) saw a 1-year decrease.

Federal government revenue per capita varied among population sizes: Libraries serving fewer than 2,500 people (\$0.63), libraries serving between 2,500 and 10,000 people (\$0.26, libraries serving between 10,000 and 25,000 people (\$0.18) and libraries serving more than 25,000 people (\$0.19). In terms of 1-year change in federal government revenue per capita, only libraries serving between 2,500 and 10,000 people (4.0 percent) saw a decrease. Libraries serving fewer than 2,500 people (9.4 percent), libraries serving between 10,000 and 25,000 people (2.5 percent) and libraries serving more than 25,000 people (2.9 percent) saw increases.

Federal revenue per capita varied among states, as high as \$2.05 (District of Columbia) to as low as less than a cent. New Hampshire, North Dakota, and Delaware reported \$0.00 federal revenue. Arkansas reported \$0.01 per capita for federal government revenue. Twenty states saw a 1-year increase in federal government revenue per capita. Largest increases were in Kentucky (101.5 percent), Oklahoma (97.1 percent), and Hawaii (84.4 percent). Largest decreases were Delaware (100 percent), North Dakota (88.9 percent), and South Carolina (79.0 percent)

Indicator 6.4 Operating Revenue per Capita from Other Sources

Other revenue per capita was \$3.13 in FY 2012, a 1-year increase of 12.2 percent.

Other revenue per capita varied among locales: city

⁷ Hawaii does not report revenue funds from local government because all funds are state funds.

Indicator 6. Operating Revenue per Capita

(\$4.30), suburb (\$2.47), town (\$2.40), and rural (\$2.74). In terms of 1-year change in federal government revenue per capita: city (36.2 percent) and rural (6.1 percent) saw a 1-year increase whereas suburb (6.4 percent) and town (3.4 percent) saw a 1-year decrease.

Other revenue per capita varied among population sizes: Libraries serving fewer than 2,500 people (\$7.38), libraries serving between 2,500 and 10,000 people (\$4.77), libraries serving between 10,000 and 25,000 people (\$3.24) and libraries serving more than 25,000 people (\$2.98). In terms of 1-year change, there were increases in other revenue per capita for libraries serving fewer than 2,500 people (0.6 percent), libraries serving between 2,500 and 10,000 people (3.2 percent), and libraries serving more than 25,000 people (15.9 percent). Only libraries serving between 10,000 and 25,000 people saw a 1-year decrease (4.7 percent).

Other revenue per capita varied among states, as high as \$15.75 (Ohio) to as low as \$0.70 (District of Columbia). Nineteen states saw an increase in other revenue per capita. Largest increases were in Ohio (99.7 percent), New York (22.2 percent), and Kansas (18.3 percent). Largest decreases were in North Dakota (27.5 percent), Delaware (26.4 percent), and Oklahoma (21.4 percent).

Indicator 7. Operating Expenditure per Capita

In FY 2012, total operating expenditure per capita was \$35.47, a 1-year decrease of 2.8 percent.

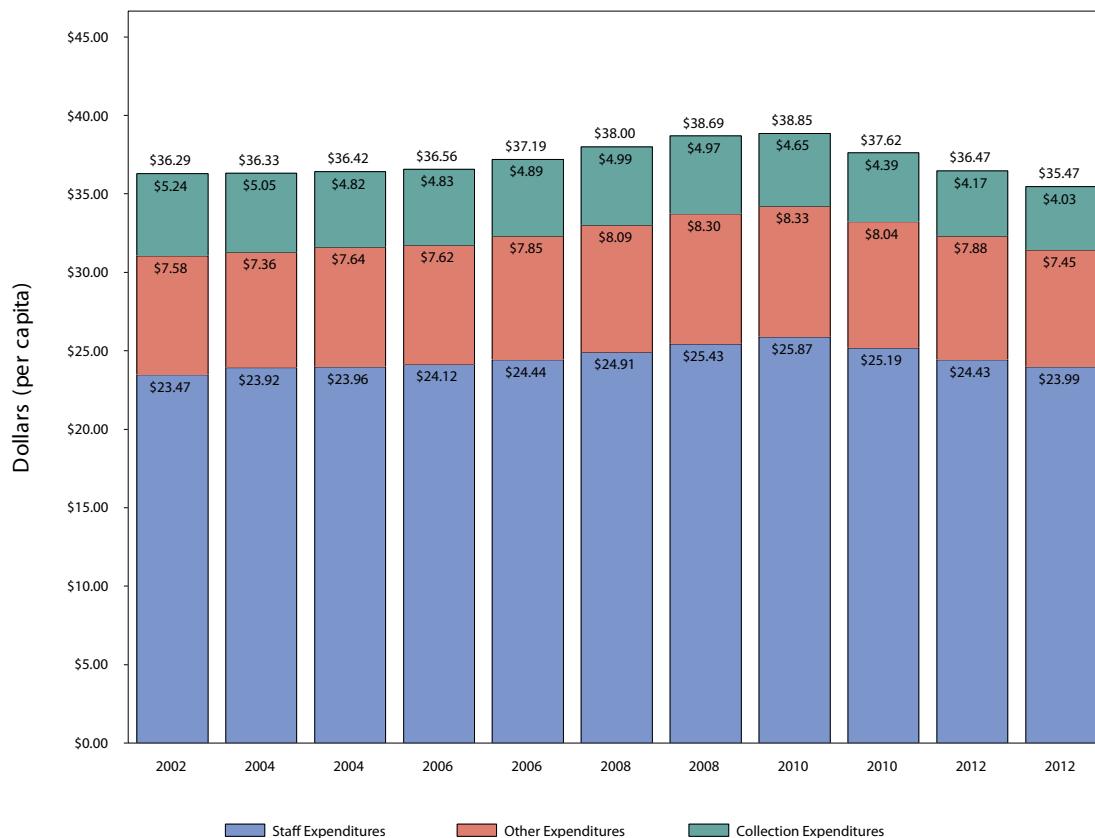
In the PLS, public library operating expenditures are separated into three major expense categories: collection (including print materials, electronic materials, and other materials), staffing (salaries and benefits), and other expenditures, which include all other expenditures not reported under staff or collection expenditures such as 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, including the Internet.

Total operating expenditure per capita was \$35.47 in FY 2012, a 1-year decrease of 2.8 percent. The majority of library expenses are associated with staffing, which accounts for 67.6 percent of the all library expenditures (Figure 7-1). Collections (11.4 percent)

and other costs (21.0 percent) take up the remaining amount. Over the last ten years, staff expenditures have grown, whereas collection expenditures have decreased, which itself is due to increases in benefits which have grown 37.7 percent (per capita) since FY 2002.

Total operating expenditure per capita vary across locality: city (\$37.03), suburb (\$39.39), town (\$25.32), and rural (\$27.46). All localities experienced a 1-year decrease in total operating expenditure per capita: city (4.3 percent), suburb (4.4 percent), town (5.0 percent), and rural (0.3 percent). Total operating expenditures per capita was significantly higher in suburban libraries when compared to libraries in other locales. Total operating expenditures per capita was also significantly higher in rural libraries when compared to town libraries⁸.

Figure 7-1. Operating Expenditures Per Capita by Expenditure Category, FY 2002-2012 (in constant 2012 dollars)



Source: Public Library Survey, FY2002-2012, Institute of Museum and Library Services/National Center for Education Statistics

⁸ Significant differences across groups were determined by Tukey post-hoc test for size groupings and locales ($\alpha = 0.01$).

Indicator 7. Operating Expenditure per Capita

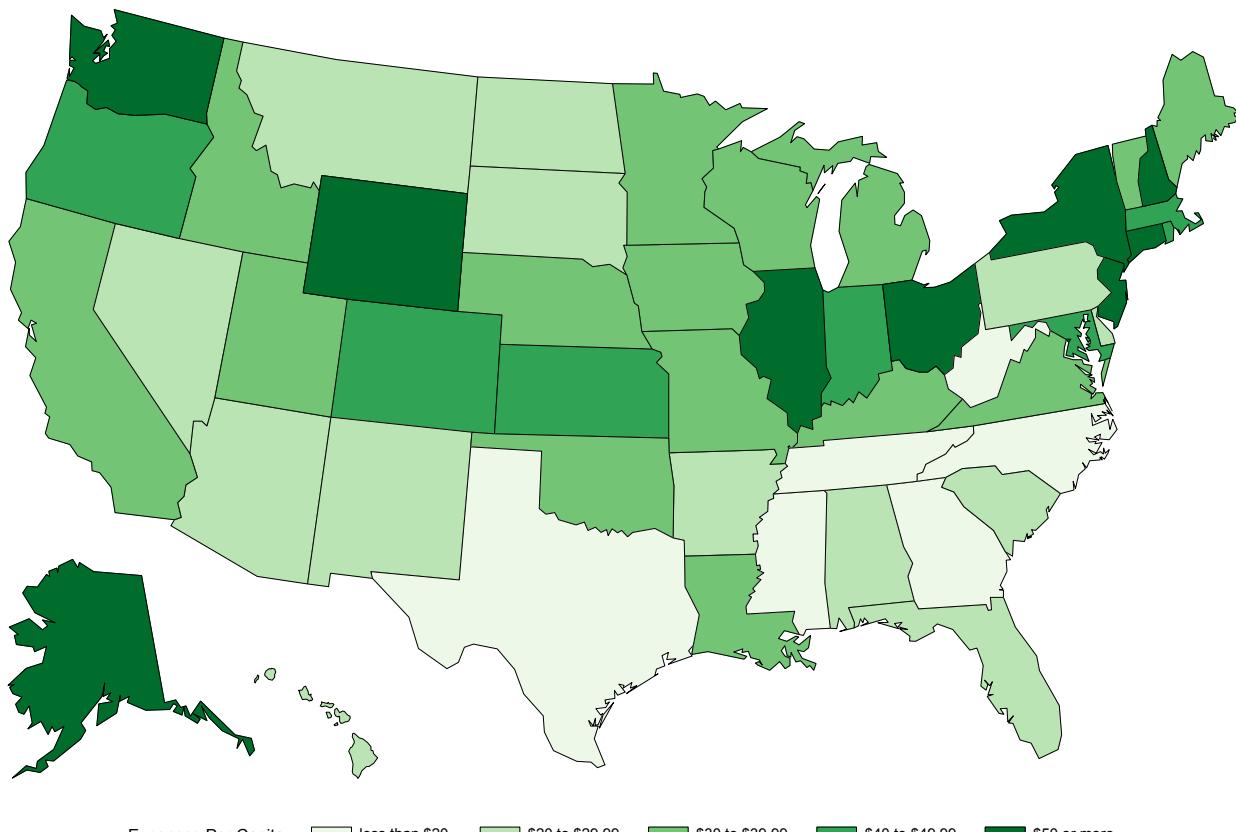
Total operating expenditure per capita vary across population size: libraries serving fewer than 2,500 people (\$36.21), libraries serving between 2,500 and 10,000 people (\$33.74), libraries serving between 10,000 and 25,000 people (\$38.33) and libraries serving more than 25,000 people (\$31.24). Total operating expenditures per capita was significantly higher in libraries serving fewer than 2,500 people when compared to libraries in other size groupings. Libraries serving between 10,000 and 25,000 people (1.0 percent) and libraries serving more than 25,000 people (3.2 percent) saw a 1-year decrease in total operating expenditures per capita. All libraries serving other population sizes remained stable.

Expenditures per capita varied across states (**Figure 7-2**), from as high as \$59.98 (Illinois) to as low as \$15.82 (Mississippi). Only twelve states saw a 1-year increase. The greatest increases were in Alaska (12.8 percent), Oklahoma (7.2 percent), and Kentucky (4.2 percent). The greatest decreases were in Georgia (9.5 percent), Florida (8.2 percent) and Hawaii (7.4 percent).

Indicator 7.1 Expenditure per Capita on Staffing

Staff expenditure per capita was \$23.99 in FY 2012, a 1-year decrease of 1.8 percent. Staff expenditures include staff salary and staff benefits. The majority of

Figure 7-2: Expenditure per Capita by State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services

Indicator 7. Operating Expenditure per Capita

expenditures on staffing go to salaries, which make up 74.0 percent of all staff expenditures. However, the cost of benefits, particularly health insurance, has been increasing over the prior 10-year period. In FY 2002, benefits made up 19.3 percent of all staff expenditures; by FY 2012, benefits made up 26.0 percent of all staff expenditures.

Staff expenditure per capita vary across locality: city (\$25.49), suburb (\$26.61), town (\$16.76), and rural (\$17.60). All localities experienced a 1-year decrease: city (3.3 percent), suburb (3.5 percent), town (4.2 percent), and rural (1.3 percent).

Staff expenditure per capita varied across population size: libraries serving fewer than 2,500 people (\$26.28), libraries serving between 2,500 and 10,000 people (\$25.21), libraries serving between 10,000 and 25,000 people (\$27.97) and libraries serving more than 25,000 people (\$23.47). Libraries serving more than 25,000 people experienced a 1-year decrease of 2.1 percent. Libraries serving other population sizes remained stable.

Staff expenditure per capita varied across states from as high as the \$45.20 (District of Columbia) to as low \$10.82 (Mississippi). The majority of states (34) saw a 1-year decrease in staff expenditure. The greatest decreases were in Florida (9.1 percent), Vermont (7.1 percent), and Georgia (6.5 percent). The greatest increases were in the District of Columbia (16.2 percent), Alaska (10.4 percent), and Delaware (7.5 percent).

Staff expenditure includes expenditures for staff salary and staff benefits. In FY 2012, salary expenditures per capita were \$17.74 and benefits per capita were \$6.25. Salary per capita saw a 1-year decrease of 2.4 percent. Benefits per capita remained stable during this time.

Salary expenditures per capita vary across locality: city (\$18.47), suburb (\$19.70), town (\$12.80), and rural (\$17.60). All libraries experienced a 1-year decrease in salary per capita: city (3.3 percent), suburb (3.5 percent), town (4.2 percent), and rural (1.3 percent).

Expenditure on benefits per capita vary across locality: city (\$7.01), suburb (\$6.91), town (\$3.96), and rural (\$3.87). Libraries in cities (1.9 percent), libraries in towns (5.2 percent) and rural libraries (3.6 percent) experienced a 1-year decrease in benefits per capita. Libraries in suburbs remained stable.

Salary expenditures per capita vary across population size: libraries serving fewer than 2,500 people (\$21.99), libraries serving between 2,500 and 10,000 people (\$20.04), libraries serving between 10,000 and 25,000 people (\$21.46) and libraries serving more than 25,000 people (\$17.16). Libraries serving more than 25,000 people experienced a 1-year decrease of 2.8 percent in salary per capita. Libraries serving other population sizes remained stable.

Expenditure on benefits per capita vary across population size: libraries serving fewer than 2,500 people (\$4.29), libraries serving between 2,500 and 10,000 people (\$5.17), libraries serving between 10,000 and 25,000 people (\$6.51) and libraries serving more than 25,000 people (\$6.30). Only libraries serving between 2,500 and 10,000 people (1.1 percent) and libraries serving 10,000 and 25,000 people (1.1 percent) saw a 1-year increase.

Expenditures on salary per capita vary across states as high as \$37.16 (District of Columbia) to as low as \$8.31 (Mississippi). The majority of states (34) saw a 1-year decrease in salary per capita. The largest decreases were in Georgia (8.2 percent), Vermont (7.7 percent) and Florida (7.5 percent). The greatest increases were exhibited in the District of Columbia (15.9 percent), Alaska (9.3 percent), and Delaware (7.7 percent).

Expenditures on benefits per capita vary across states as high as \$13.01 (Alaska) to as low as \$0.20 (Hawaii). In terms of 1-year change, roughly half the states (27) saw an increase and half states saw a decrease (24). The greatest decreases were in Florida (13.5 percent), Wisconsin (12.1 percent) and Tennessee (6.7 percent). The largest increases were in Hawaii (85.3 percent), District of Columbia (17.1 percent), and Alaska (12.2 percent)

Indicator 7.2 Collections Expenditures per Capita

Collection expenditures per capita was \$4.03 in FY 2012, a 1-year decrease of 3.2 percent.

Collection expenditures per capita varied across locality: city (\$4.02), suburb (\$4.60), town (\$2.88), and rural (\$3.29). In terms of 1-year change in collection expenditures per capita, city (3.8 percent), suburb (4.4 percent), and town (3.8 percent) saw decreases. Rural libraries remained stable.

Collection expenditure per capita vary across population size: libraries serving fewer than 2,500 people

Indicator 7. Operating Expenditure per Capita

(\$6.06), libraries serving between 2,500 and 10,000 people (\$4.71), libraries serving between 10,000 and 25,000 people (\$4.55) and libraries serving more than 25,000 people (\$3.92).

Libraries serving between 2,500 and 10,000 people (1.5 percent), libraries serving between 10,000 and 25,000 people (2.0 percent) and libraries serving more than 25,000 people (3.5 percent) experienced a 1-year decrease in collection expenditures per capita. Libraries serving fewer than 2,500 people remained stable.

Collection expenditure per capita vary across states as high as \$8.21 (Ohio) to as low as \$1.39 (Mississippi). The majority of states (30) saw a decrease in collection expenditures per capita. The greatest decreases were in the District of Columbia (44.2 percent), Rhode Island (20.8 percent), and Georgia (16.3 percent). The greatest increases were in New Mexico (21.1 percent), South Carolina (17.3 percent), and Kentucky (14.5 percent).

Collection expenditures include expenditures on print materials (such as books, serial subscriptions, government documents), electronic materials (such as e-books, downloadable audio and video materials, databases), and other materials (such as microform, physical audio and video materials). The majority of collection expenditures are devoted to print materials (63.0 percent). The remaining amount is divided up among electronic materials (16.7 percent) and other materials (20.4 percent). These portions have shifted since 2003 with more expenditures being devoted to electronic and other materials.

Print material expenditures per capita were \$2.54 in FY 2012, a 1-year decrease of 6.8 percent. Print material expenditures per capita vary across locality: city (\$2.52), suburb (\$2.79), town (\$2.01), and rural (\$2.32). In terms of 1-year change, city (9.7 percent), suburb (7.4 percent), town (8.7 percent) saw decreases in print material expenditures per capita. Rural libraries' expenditures remained stable.

Print materials expenditure per capita varied across population size: libraries serving fewer than 2,500 people (\$4.66), libraries serving between 2,500 and 10,000 people (\$3.38), libraries serving between 10,000 and 25,000 people (\$3.03) and libraries serving more than 25,000 people (\$2.41). All population sizes saw a 1-year decrease in print materials expenditures: libraries serving fewer than 2,500 people (1.5 percent), libraries serving between 2,500 and 10,000

people (3.3 percent), libraries serving between 10,000 and 25,000 people (4.4 percent) and libraries serving more than 25,000 people (7.5 percent).

Print materials expenditure per capita vary across states as high as \$4.33 (New Hampshire) to as low as \$1.02 (Mississippi). Only six states saw a 1-year increase in print collection expenditures per capita: New Mexico (14.2 percent), Kansas (3.4 percent), Montana (2.4 percent), Tennessee (2.1 percent), Oklahoma (1.8 percent) and Maine (0.4 percent). In terms of decreases, the largest change was exhibited in the District of Columbia (42.9 percent), Georgia (20.1 percent), and Illinois (20.1 percent).

Collection expenditures on electronic materials per capita was \$0.67 in FY 2012, a 1-year increase of 13.4 percent. Electronic material expenditure per capita vary across locality: city (\$0.72), suburb (\$0.83), town (\$0.32), and rural (\$0.32). In terms of 1-year change, all localities saw an increase: city (12.5 percent), suburb (7.9 percent), town (9.7 percent), and rural (13.7 percent).

Electronic materials expenditures per capita vary across population size: libraries serving fewer than 2,500 people (\$0.34), libraries serving between 2,500 and 10,000 people (\$0.42), libraries serving between 10,000 and 25,000 people (\$0.59) and libraries serving more than 25,000 people (\$0.70). All population sizes saw a 1-year increase in electronic material expenditures: libraries serving fewer than 2,500 people (20.2 percent), libraries serving between 2,500 and 10,000 people (23.1 percent), libraries serving between 10,000 and 25,000 people (14.3 percent) and libraries serving more than 25,000 people (13.0 percent).

Electronic material expenditure per capita vary across states as high as Washington (\$1.91) to as low as Mississippi (\$0.15). The majority of states (42) saw a 1-year increase in electronic material expenditures per capita; only 9 states saw a 1-year decrease. The largest decreases were in Rhode Island (59.5 percent), District of Columbia (40.3 percent), and Delaware (14.2 percent). The largest increases were in Alaska (81.2 percent), Wyoming (69.5 percent), and Utah (51.4 percent).

Collection expenditures on other materials (e.g. physical non-print) per capita was \$0.82 in FY 2012, a 1-year decrease of 3.4 percent. Other material expenditures per capita vary across locality: city (\$0.78), suburb (\$0.98), town (\$0.55), and rural (\$0.65). In

Indicator 7. Operating Expenditure per Capita

terms of 1-year change, city (4.1 percent), suburb (5.9 percent), town (7.8 percent) saw decreases. Rural libraries remained stable.

Other material expenditure per capita vary across population size: libraries serving fewer than 2,500 people (\$1.07), libraries serving between 2,500 and 10,000 people (\$0.90), libraries serving between 10,000 and 25,000 people (\$0.92) and libraries serving more than 25,000 people (\$0.80). All population sizes saw a 1-year decrease in other material expenditures: libraries serving fewer than 2,500 people (1.5 percent), libraries serving between 2,500 and 10,000 people (3.3 percent), libraries serving between 10,000 and 25,000 people (2.9 percent) and libraries serving more than 25,000 people (3.4 percent).

Other material expenditures per capita vary across states as high as \$2.85 (Ohio) to as low as \$0.16 (Hawaii). Thirty-one states saw 1-year decreases in other material expenditures per capita. The largest decreases were in Delaware (60.4 percent), District of Columbia (50.7 percent), and Pennsylvania (40.0 percent). The largest increases were in South Carolina (1549 percent), Hawaii (338.5 percent), and Kentucky (50.3 percent).

Indicator 7.3 Operating Expenditure per Capita on Other Costs

Other operating expenditures include all other expenditures not reported under staff or collection expenditures. This includes but is not limited to expenses such as 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, including the Internet.

Other operating expenditures per capita were \$7.45 in FY 2012, a 1-year decrease of 5.5 percent.

Other operating expenditures per capita vary across locality: city (\$7.52), suburb (\$8.18), town (\$5.68), and rural (\$6.56). City (7.2 percent), suburb (7.3 percent), and towns (6.6 percent) experienced a 1-year decrease in other expenditures per capita. Rural libraries remained stable.

Other operating expenditures per capita vary across population size: libraries serving fewer than 2,500 people (\$11.82), libraries serving between 2,500 and 10,000 people (\$8.72), libraries serving between 10,000 and 25,000 people (\$8.73) and libraries serv-

ing more than 25,000 people (\$7.19). Only libraries serving fewer than 2,500 people (2.7 percent) saw a 1-year increase in other operating expenditures per capita. All other population sizes saw a decrease: libraries serving between 2,500 and 10,000 people (2.9 percent), libraries serving between 10,000 and 25,000 people (2.2 percent) and libraries serving more than 25,000 people (6.2 percent).

Other operating expenditures per capita varied greatly across states from as high as \$14.12 (Illinois) to as low as \$3.17 (Georgia). The majority of states (36) exhibited a 1-year decrease in other expenditures per capita. The greatest decreases were in District of Columbia (40.1 percent), Hawaii (16.9 percent), Georgia (16.7 percent). The greatest increases were in Alaska (24.9 percent), Oklahoma (16.7 percent), and Arkansas (8.9 percent)

Public Libraries Survey: Indicators

Section 3. Public Library Resources

Indicator 8. Collection Materials per Capita

Indicator 8.1 Print Materials per 1,000 People

Indicator 8.2 Electronic Books per 1,000 People

Indicator 8.3 Audio Materials per 1,000 People

Indicator 8.4 Video Materials per 1,000 People

Indicator 9. Program per Capita

Indicator 9.1 Total Programs per Capita

Indicator 9.2 Children's Programs per Capita

Indicator 10. Public Access Computers per Capita

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

Public Library Resources	FY 2012	1-Year Change	10-Year Change*
Indicator 8. Collection Materials per Capita (1,000)	3322.5	+5.0%	+8.5%
Books per Capita (1,000)	2590.3	-1.8%	-8.5%
E-books per Capita (1,000)	288.1	+145.6%	+1744%
Audio Materials per Capita (1,000)	250.5	+13.1%	+94.0%
Video Materials per Capita (1,000)	193.6	+3.2%	+86.9%
Indicator 9. Programs per Capita (1,000)	13.2	+4.3%	+44.2%
Programs for Children per Capita (1,000)	7.9	+2.7%	+19.1%
Programs for Young Adults per Capita (1,000)	1.2	+6.2%	+33.5%
Indicator 10. Public Access Computers per Capita (5,000)	4.5	+2.8%	+76.1%

*Note: Because not all data elements have been collected for 10 years, the "10-year change" in the figure provides the longest trend information available on the PLS. For e-books per capita, it is a 9-year change (first collected in FY 2003); for programs per capita (1,000 people), it is an 8-year change (first collected in FY 2004);; for children's programs per capita, it is a 7-year change (first collected in FY 2005); for young adult programs per capita, it is a 3-year change (first collected in FY 2009)



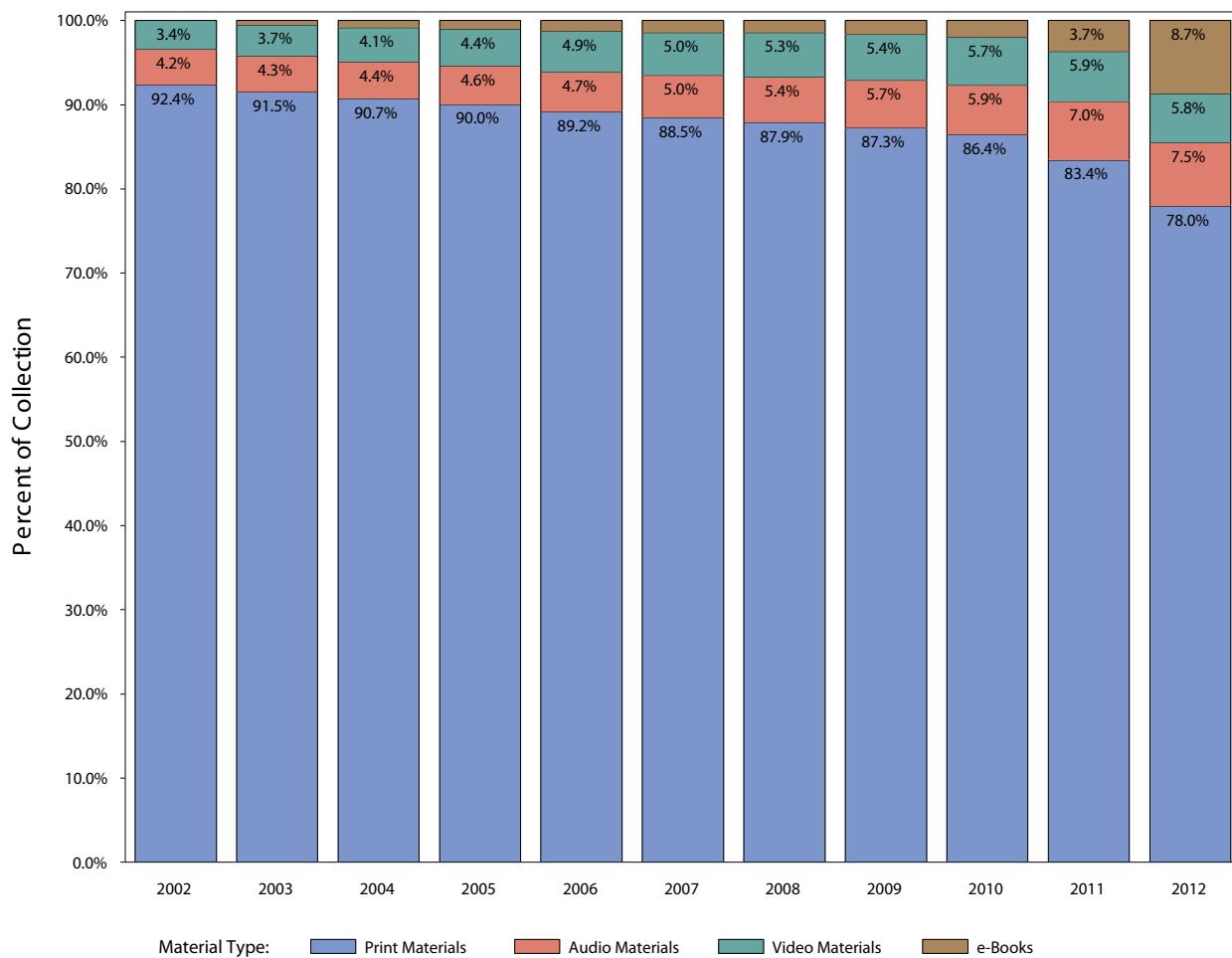
Indicator 8. Collection Materials per Capita

In FY 2012, there were over 1.0 billion materials available to the public through public library collections; or 3,322.5 materials per 1,000 people.

Public library collections include a diverse array of holdings, including print materials (such as books), physical non-print materials (such as audio CDs and video DVDs), and digital materials (such as e-books and downloadable audio and video materials). In FY 2012, there were over 1.0 billion materials available to the public through public library collections. These materi-

als included 784.8 million print materials, 87.1 million e-books, 75.8 million audio materials, and 58.5 million video materials. The majority of a library's collection is print materials (Figure 8-1), which make up 78.0 percent of public library collections overall. E-books make up 8.7 percent of the collection. Audio materials (both physical and downloadable) make up 7.5 percent, and video materials (both physical and downloadable) make up 5.8 percent.

Figure 8-1. Total Collection Materials Per 1,000 People by Material Type, FY 2003-2012



Source: Public Library Survey, FY2002-2012, Institute of Museum and Library Services/National Center for Education Statistics

Indicator 8. Collection Materials per Capita

In FY 2012, total collection materials per 1,000 people was 3322.5, a 1-year increase of 5.0 percent from FY 2011.

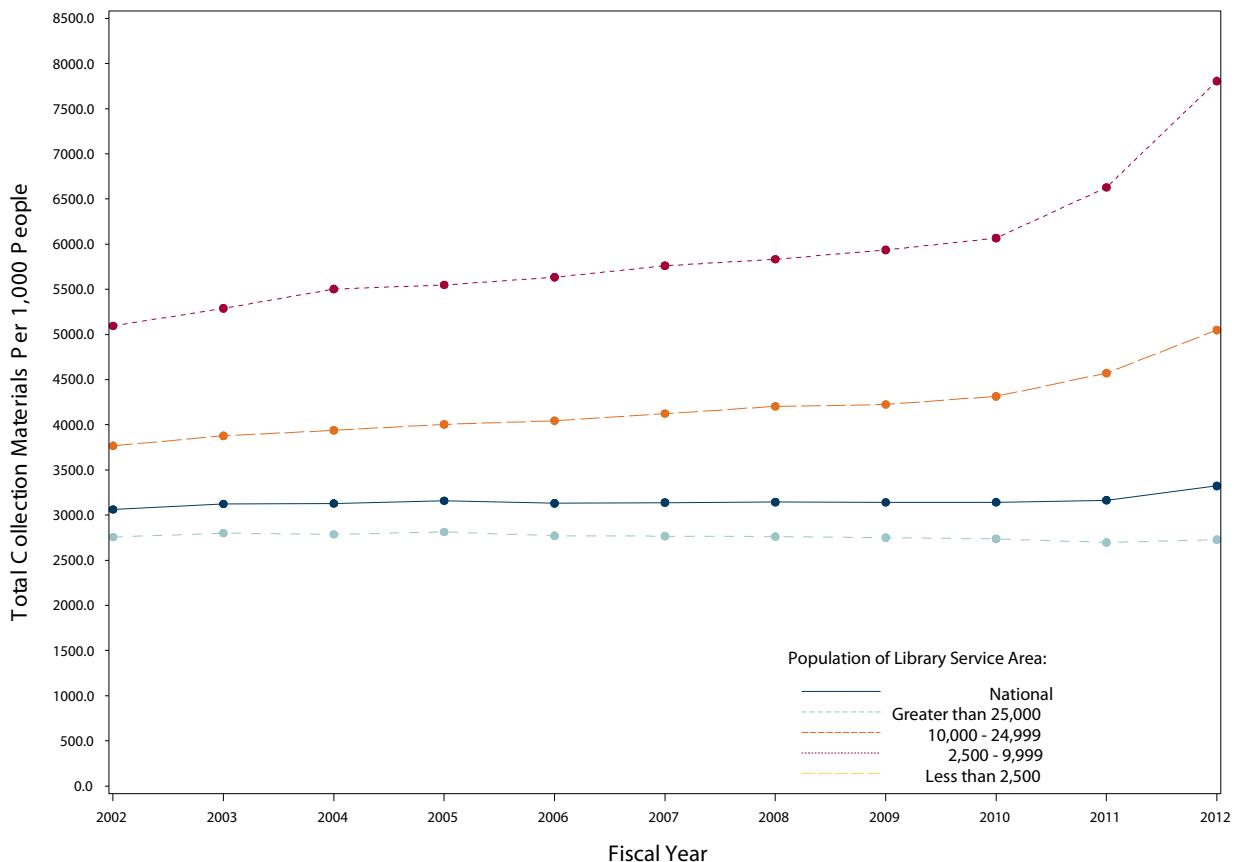
Total collection materials per 1,000 people varied by locality: city (2822.3), suburb (3109.8), town (3856.2), rural (5307.9). Total collections per 1,000 people was significantly higher in rural libraries when compared to libraries in other locales. Total collections per 1,000 people was also significantly higher in town libraries when compared to city libraries⁹. Suburbs (+3.0 percent), town (+13.9 percent), and rural (+28.4 percent) libraries saw a 1-year increase in total collection per 1,000 people. Only city libraries (-2.0) saw a 1-year decrease in total collection per 1,000 people.

Total collection materials per 1,000 people varied by population size (**Figure 8-2**): libraries serving fewer than 2,500 people (16,522.6), libraries serving between 2,500 and 10,000 people (7,804.6), libraries serving

between 10,000 and 25,000 people (5,049.2) and libraries serving more than 25,000 people (2,727.9). All population sizes saw an increase in total collection per 1,000 people: libraries serving fewer than 2,500 people (+23.3 percent), libraries serving between 2,500 and 10,000 people (+17.8 percent), libraries serving between 10,000 and 25,000 people (+10.5 percent) and libraries serving more than 25,000 people (+1.2 percent).

Total collection per 1,000 people varied by state. Total collection per 1,000 people ranges from as high as 9,890.7 (New Hampshire) to as low as 1,798.9 (Georgia). The majority of states (36) saw a 1-year increase in total collection per 1,000 people. The largest increases in collections per 1,000 people were in Wisconsin (+42.4 percent), Kentucky (+29.0 percent), and Alaska (+27.2 percent). The largest decreases were in the District of Columbia (-9.4 percent), New Mexico (-6.2 percent), and West Virginia (-5.6 percent).

Figure 8-2. Total Collection Materials Per 1,000 People by Size of Population of Library Legal Service Area, FY2002-2012



Source: Public Library Survey, FY 2002-2012, Institute of Museum and Library Services/National Center for Education Statistics

⁹ Significant differences across groups were determined by Tukey post-hoc test for size groupings and locales ($\alpha = 0.01$).

Indicator 8. Collection Materials per Capita

Indicator 8.1 Print Materials per 1,000 People

Print materials consists of print books which are non-serial publications, including maps, that are bound in hard and soft covers, as well as government documents. In FY 2012, print materials per 1,000 people was 2,590.3, a 1-year decrease of 1.8 percent.

Print materials per 1,000 people varied by locality: city (2,408.3), suburb (2,428.5), town (2,828.6), rural (3,613.4). City (-3.5 percent) and suburb (-2.1 percent) experienced a 1-year decrease in print materials per 1,000 people, whereas town (+1.1 percent) and rural (+8.7 percent) experienced a 1-year increase in print materials per 1,000 people.

Print materials per 1,000 people varied by population size: libraries serving fewer than 2,500 people (10,538.1), libraries serving between 2,500 and 10,000 people (5,053.4), libraries serving between 10,000 and 25,000 people (3,629.4) and libraries serving more than 25,000 people (2,246.1). Libraries serving more than 25,000 people had a decrease of 2.2 percent; libraries serving fewer than 25,000 people experienced negligible change.

Print materials per 1,000 people varied by state as high as 5,970.8 (New Hampshire) to as low as 1,296.5 (Arizona). Only thirteen states saw a 1-year increase in print materials per 1,000 people. The largest increases were in Alaska (15.3 percent), Washington (5.4 percent), and Delaware (2.5 percent). The largest decreases were in Arizona (13.4 percent), District of Columbia (11.0 percent) and New Mexico (8.2 percent).

Indicator 8.2 Electronic Books per 1,000 People

Electronic books (e-books) are digital documents that can be loaned to users on portable devices. In FY 2012, e-books per 1,000 people was 288.1, a 1-year increase of 146.6 percent from FY 2011.

E-books per 1,000 people vary greatly by locality: city (74.6), suburb (223.2), town (546.3), and rural (979.31). All localities experienced a 1-year increase in e-books per 1,000 people: city (87.6 percent), suburb (108.3 percent), town (192.2 percent), and rural (251.4 percent).

E-books per 1,000 people varied by population size: libraries serving fewer than 2,500 people (3,709.4), libraries serving between 2,500 and 10,000 people (1,632.0), libraries serving between 10,000 and 25,000 people (723.4) and libraries serving more than 25,000 people (124.7). All population sizes saw an

increase in e-books per 1,000 people: libraries serving fewer than 2,500 people (206.4 percent), libraries serving between 2,500 and 10,000 people (162.1 percent), libraries serving between 10,000 and 25,000 people (140.3 percent) and libraries serving more than 25,000 people (125.4 percent).

E-books per 1,000 people varied by state as high as 3,547.0 (Wisconsin) to as low as 1.9 (West Virginia). Most states saw a 1-year increase in e-books per 1,000 people. Twenty-seven states experienced a 1-year increase higher than 100 percent.

Indicator 8.3 Audio Materials per 1,000 People

Audio materials are circulated sound recordings such as music and audio books. In the PLS, audio materials are reported separately as physical audio materials (such as CDs) and downloadable audio materials. Downloadable audio materials were first reported beginning in FY 2010. In FY 2012, audio materials per 1,000 people were 250.5, a 1-year increase 13.1 percent from FY 2011. Although the majority of audio materials (81%) are physical audio materials, increases in audio materials have largely been driven by increases in the availability of downloadable audio materials. Physical audio materials per 1,000 people were (156.9) in FY 2012, a 1-year decrease of 2.1 percent. Downloadable audio materials per 1,000 people were (93.6) in FY 2012, a 1-year increase of 53.1 percent.

Audio materials per 1,000 people varied by locality: city (174.6), suburb (251.3), town (302.0), and rural (452.1). Suburbs (9.8 percent), town (31.3 percent), and rural (51.4 percent) libraries saw a 1-year increase in audio materials per 1,000 people. Only city libraries (4.4 percent) saw a 1-year decrease in audio materials per 1,000 people.

Audio materials per 1,000 people varied by population size: libraries serving fewer than 2,500 people (1,532.7), libraries serving between 2,500 and 10,000 people (752.5), libraries serving between 10,000 and 25,000 people (438.1) and libraries serving more than 25,000 people (186.8). All population sizes saw an increase in audio materials per 1,000 people: libraries serving fewer than 2,500 people (66.1 percent), libraries serving between 2,500 and 10,000 people (35.2 percent), libraries serving between 10,000 and 25,000 people (20.6 percent) and libraries serving more than 25,000 people (4.4 percent).

Audio materials per 1,000 people varied by state as high as New Hampshire (1,471.2) to as low as Missis-

Indicator 8. Collection Materials per Capita

sippi (74.8). Forty-one states saw a 1-year increase in audio materials per 1,000 people. The largest 1-year increases were in Nebraska (137.7 percent), Delaware (96.2 percent), and Utah (90.6 percent). The largest 1-year decreases were in Arizona (31.9 percent), West Virginia (20.8 percent) and Wyoming (15.1 percent).

Indicator 8.4 Video Materials per 1,000 People

In the PLS, video materials are reported separately as physical video materials (such as DVDs, VHS tapes) and downloadable video materials. Downloadable video materials were first reported beginning in FY 2010. The majority of video materials (97%) are physical video materials.

In FY 2012, video materials per 1,000 people were 193.6, a 1-year increase of 3.2 percent from FY 2011. Physical video materials per 1,000 people were (188.7) in FY 2012, a 1-year increase of 2.7 percent. Downloadable video materials per 1,000 people were (4.8) in FY 2012, a 1-year increase of 31.3 percent.

Video materials per 1,000 people varied by locality: city (164.8), suburb (206.7), town (136.7), and rural (149.1). All localities saw a 1-year increase in video materials per 1,000 people: city (2.0 percent), suburb (1.8 percent), town (5.3 percent), and rural (12.4 percent).

Video materials per 1,000 people varied by population size: libraries serving fewer than 2,500 people (742.4), libraries serving between 2,500 and 10,000 people (366.7), libraries serving between 10,000 and 25,000 people (258.4) and libraries serving more than 25,000 people (170.3). All population sizes saw an increase in video materials per 1,000 people: libraries serving fewer than 2,500 people (2.5 percent), libraries serving between 2,500 and 10,000 people (4.7 percent), libraries serving between 10,000 and 25,000 people (4.1 percent), and libraries serving more than 25,000 people (2.9 percent).

Video materials per 1,000 people varied by state as high as Ohio (790.4) to as low as North Carolina (76.4). Forty states saw a 1-year increase of video materials per 1,000 people. The largest increases were in Arkansas (41.1 percent), Alaska (21.0 percent), and Montana (19.5 percent). The largest decreases were in Maryland (11.9 percent), South Dakota (9.3 percent), and Indiana (7.0 percent).

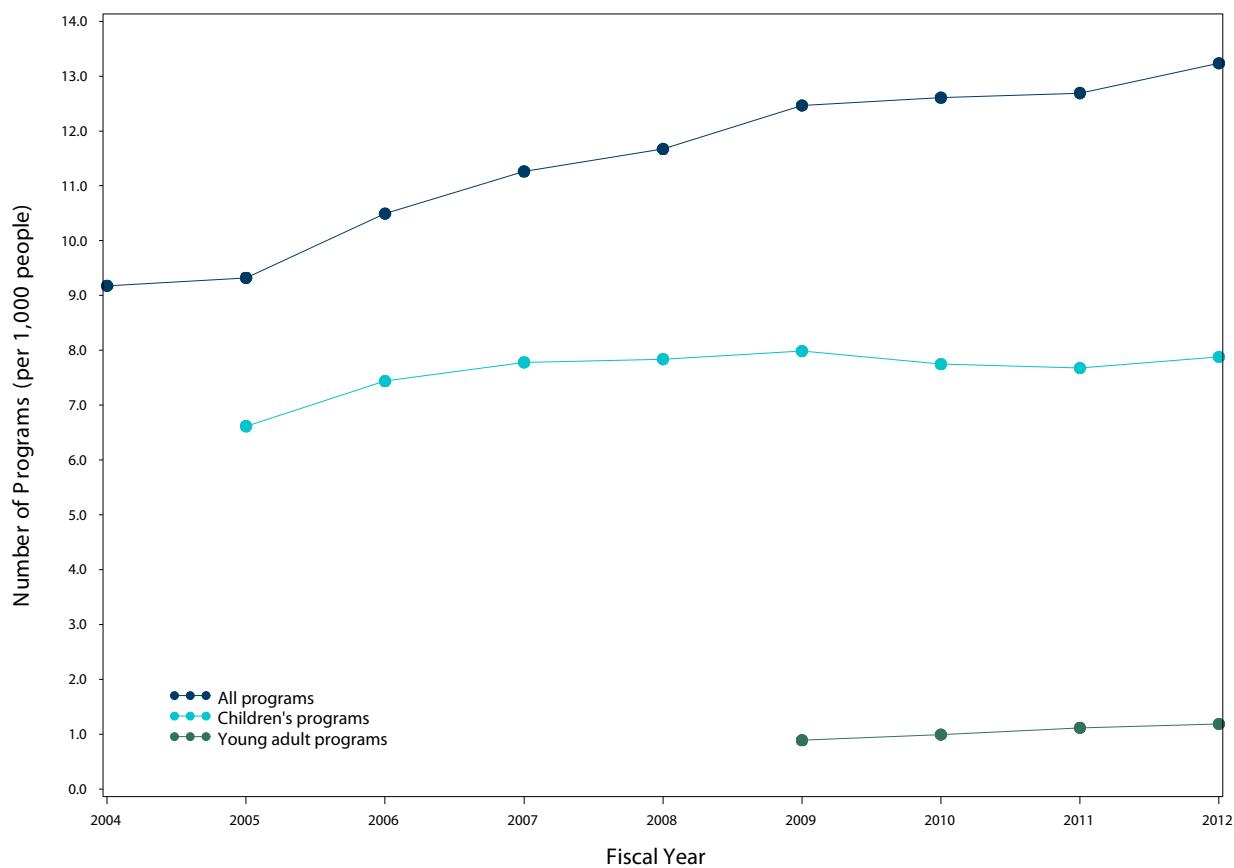
Indicator 9. Programs per Capita

In FY 2012, there were 13.2 program offerings per capita, representing a 1-year increase of 4.3 percent from FY 2011.

A public library program is an event that provides cultural, recreational, or educational information through an activity or service, which is provided by the public library and often designed to meet a specific social need. The program per capita metric relates to the number and availability of program offerings per population of the library legal service area. In addition to total programs, the PLS captures information about the

number of programs offered to children (under the age of 11) and the number of programs offered to young adults (ages 12-18). In FY 2012, there were 4 million programs in the United States; of those, 2.38 million were children's programs and 358,342 were for young adults (**Figure 9-1**).

Figure 9-1. Number of Programs Offered Per 1,000 People, FY2004-2012



Source: Public Library Survey, FY2004-2012, Institute of Museum and Library Services/National Center for Education Statistics

Indicator 9. Programs per Capita

Indicator 9.1 Total Programs Per Capita

In FY 2012, there were 13.2 program offerings per 1,000 people. This is a one year increase of 4.3 percent from FY 2011.

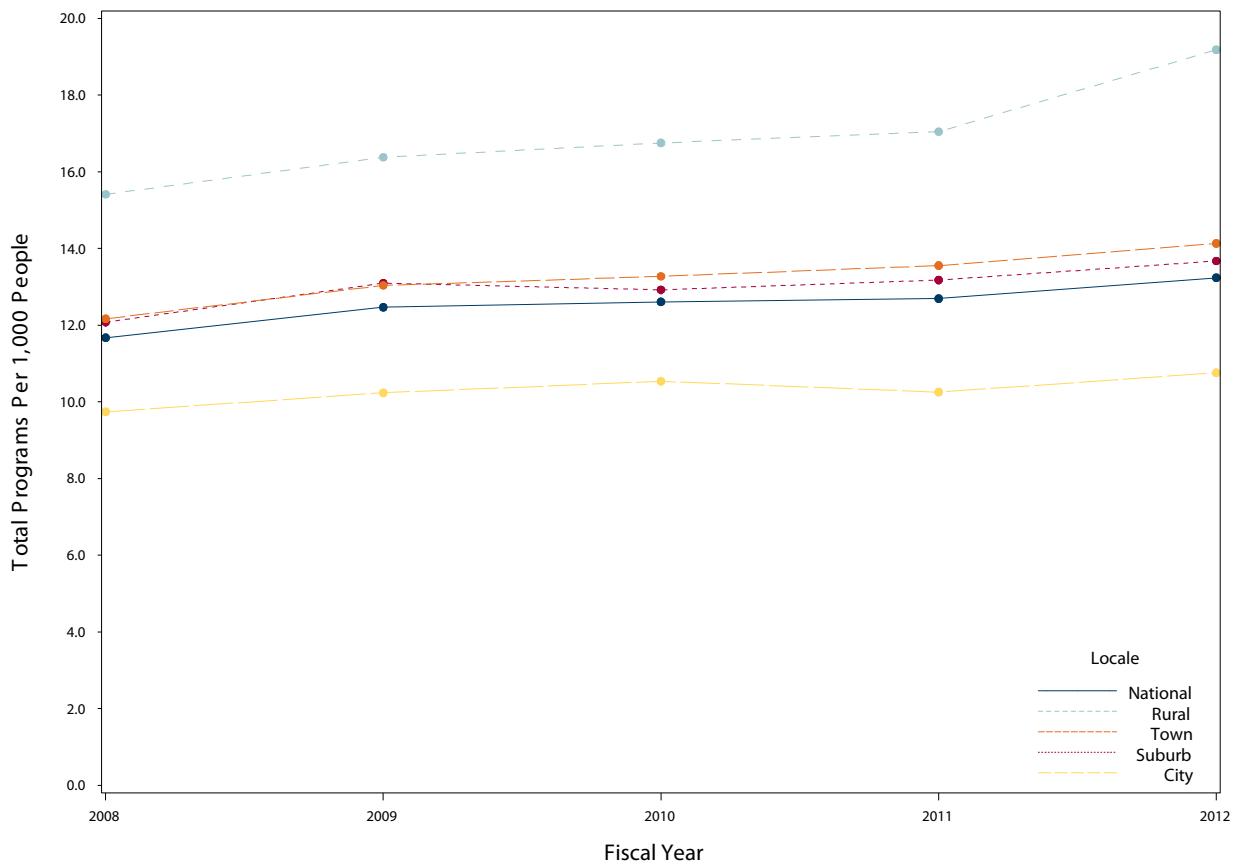
The number of program offerings per 1,000 people varied across locality (**Figure 9-2**): city (10.8), suburb (13.7), town (14.1), and rural (19.2). City (4.9 percent), suburb (3.8 percent), towns (4.3 percent), and rural (12.5 percent) experienced a 1-year increase in program offerings per 1,000 people.

The number of program offerings per 1,000 people varied greatly across population size: libraries serving fewer than 2,500 people (49.1), libraries serving between 2,500 and 10,000 people (30.0), libraries serving between 10,000 and 25,000 people (22.4) and

libraries serving more than 25,000 people (10.9). All population sizes saw a 1-year increase in the number of program offerings per 1,000 people: libraries serving fewer than 2,500 people (8.3 percent), libraries serving between 2,500 and 10,000 people (4.2 percent), libraries serving between 10,000 and 25,000 people (5.5 percent) and libraries serving more than 25,000 people (3.9 percent).

The number of program offerings per 1,000 people varied across states from as high as New Hampshire (40.6) to as low as Georgia (6.2). The majority of states (42) exhibited a 1-year increase in the number of program offerings per 1,000 people. The largest increases were in Delaware (22.1 percent), West Virginia (21.7 percent), and Alaska (16.2 percent). The largest decreases were in New Mexico (7.8 percent), Arkansas (5.2 percent), and Indiana (3.7 percent).

Figure 9-2. Number of Programs Offered Per 1,000 People by Locality, FY2008-2012



Source: Public Library Survey, FY 2008-2012, Institute of Museum and Library Services



Indicator 9. Programs per Capita

Indicator 9.2 Children's Programs Per Capita

In FY 2012, there were 7.9 program offerings for children per 1,000 people. This is a 1-year increase of 2.7 percent from FY 2011.

The number of children's program offerings per 1,000 people varied across locality: city (6.2), suburb (8.0), town (9.1), and rural (12.0). City (3.2 percent), suburb (2.9 percent), towns (2.7 percent) and rural (11.0 percent) experienced a 1-year increase in children's program offerings per 1,000 people.

The number of children's program offerings per 1,000 people varied greatly across population size: libraries serving fewer than 2,500 people (30.0), libraries serving between 2,500 and 10,000 people (18.3), libraries serving between 10,000 and 25,000 people (13.6) and libraries serving more than 25,000 people (6.4). All population sizes saw a 1-year increase in the number of program offerings per 1,000 people: libraries serving fewer than 2,500 people (5.2 percent), libraries serving between 2,500 and 10,000 people (2.7 percent), libraries serving between 10,000 and 25,000 people (3.1 percent) and libraries serving more than 25,000 people (2.5 percent).

The number of children's program offerings per 1,000 people varied across states from as high as Vermont (25.4) to as low as Alabama (4.0).

The majority of states (39) exhibited a 1-year increase in the number of children's program offerings per 1,000 people. The largest increases were in the District of Columbia (41.5 percent), West Virginia (20.2 percent), and Delaware (14.1 percent). The largest decreases were in Arkansas (12.2 percent), Michigan (9.8 percent), and New Mexico (8.3 percent).

Indicator 9.3 Young Adult Programs Per Capita

In FY 2012, there were 1.2 program offerings for young adults per capita. This is a 1-year increase of 6.2 percent from FY 2011.

The number of young adult program offerings per 1,000 people does not vary across locality: city (1.1), suburb (1.2), town (1.2), and rural (1.3). City (4.7 percent), suburb (8.8 percent) and rural (12.1 percent) experienced a 1-year increase in young adult program offerings per 1,000 people. Only town experienced a 1-year decrease (0.2 percent).

The number of young adult program offerings per 1,000 people varied greatly across population size: libraries

serving fewer than 2,500 people (3.62), libraries serving between 2,500 and 10,000 people (2.2), libraries serving between 10,000 and 25,000 people (1.9) and libraries serving more than 25,000 people (1.0). All population sizes saw a 1-year increase in the number of program offerings per 1,000 people: libraries serving fewer than 2,500 people (5.6 percent), libraries serving between 2,500 and 10,000 people (4.8 percent), libraries serving between 10,000 and 25,000 people (5.9 percent) and libraries serving more than 25,000 people (6.5 percent).

The number of young adult program offerings per 1,000 people varied across states from as high as Wyoming (3.3) to as low as Georgia (0.4). The majority of states (37) exhibited a 1-year increase in the number of young adult program offerings per 1,000 people. The largest increases were in West Virginia (94.2 percent), Nevada (73.0 percent), New Jersey (37.2 percent). The largest decreases were in Vermont (38.8 percent), Oregon (26.9 percent), and New Mexico (17.6 percent).

Indicator 10. Public Access Computers per Capita

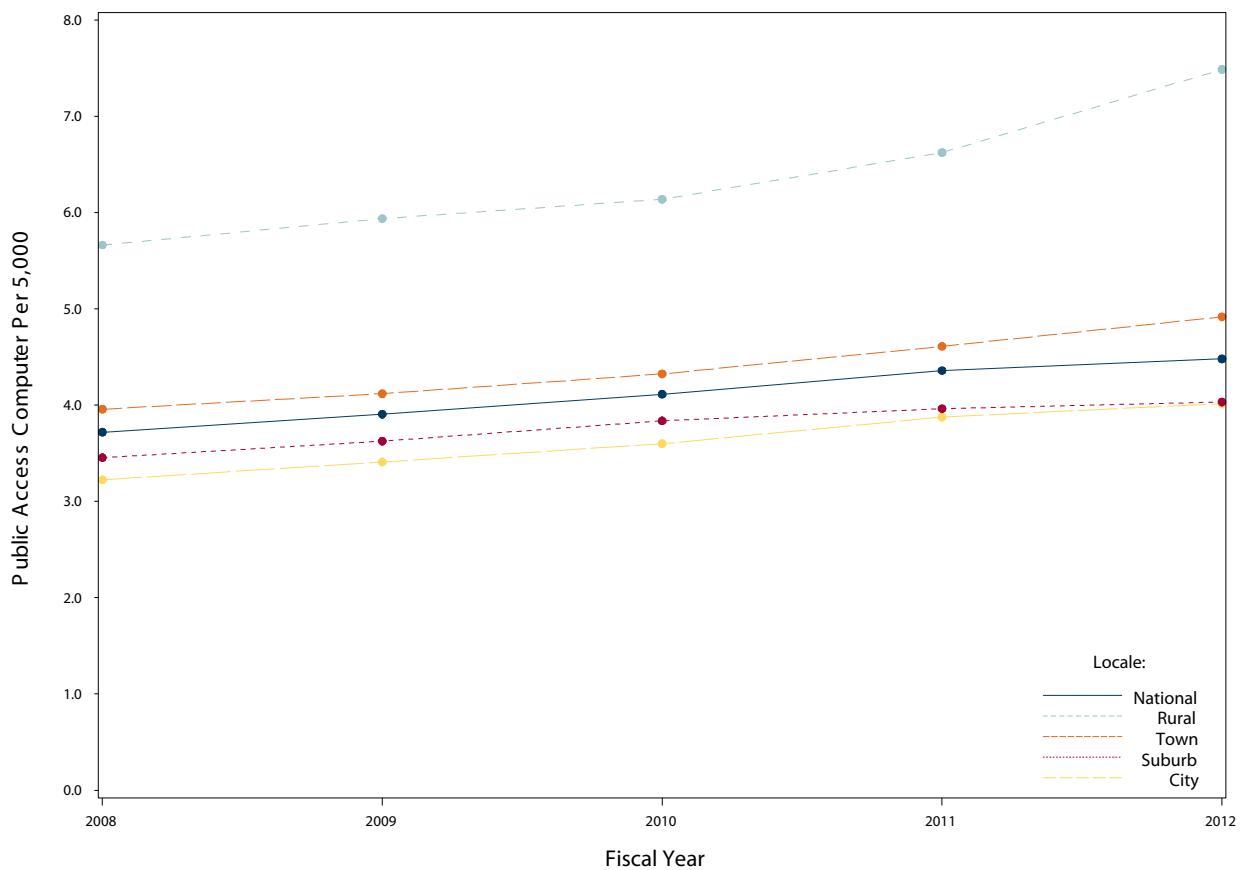
In FY 2012, there were 4.5 public access computers per 5,000 people, a 2.8 percent increase from FY 2011.

There were 271,146 public access computers in the United States in FY 2012, a net increase of 9,733 from FY 2011. There were 4.5 public access computers per 5,000 people in FY 2012, a 2.8 percent increase from FY 2011.

The number of public access computers per 5,000 people varied across locality (**Figure 10-1**): city (4.0), suburb (4.0), town (4.9), and rural (7.5). City (3.6 percent), suburb (1.8 percent), towns (6.7 percent) and rural (13.0 percent) experienced a 1-year increase in public access computers per 5,000 people.

The number of public access computers per 5,000 people varied greatly across population size: libraries serving fewer than 2,500 people (22.8), libraries serving between 2,500 and 10,000 people (9.2), libraries serving between 10,000 and 25,000 people (6.0) and libraries serving more than 25,000 people (3.8). All population sizes saw a 1-year increase in the number of public access computers per 5,000 people: libraries serving fewer than 2,500 people (+6.3 percent), libraries serving between 2,500 and 10,000 people (+3.9 percent), libraries serving between 10,000 and 25,000 people (+3.0 percent) and libraries serving more than 25,000 people (+2.3 percent).

Figure 10-1. Number of Public Access Computer Per Locality, FY2008-2012



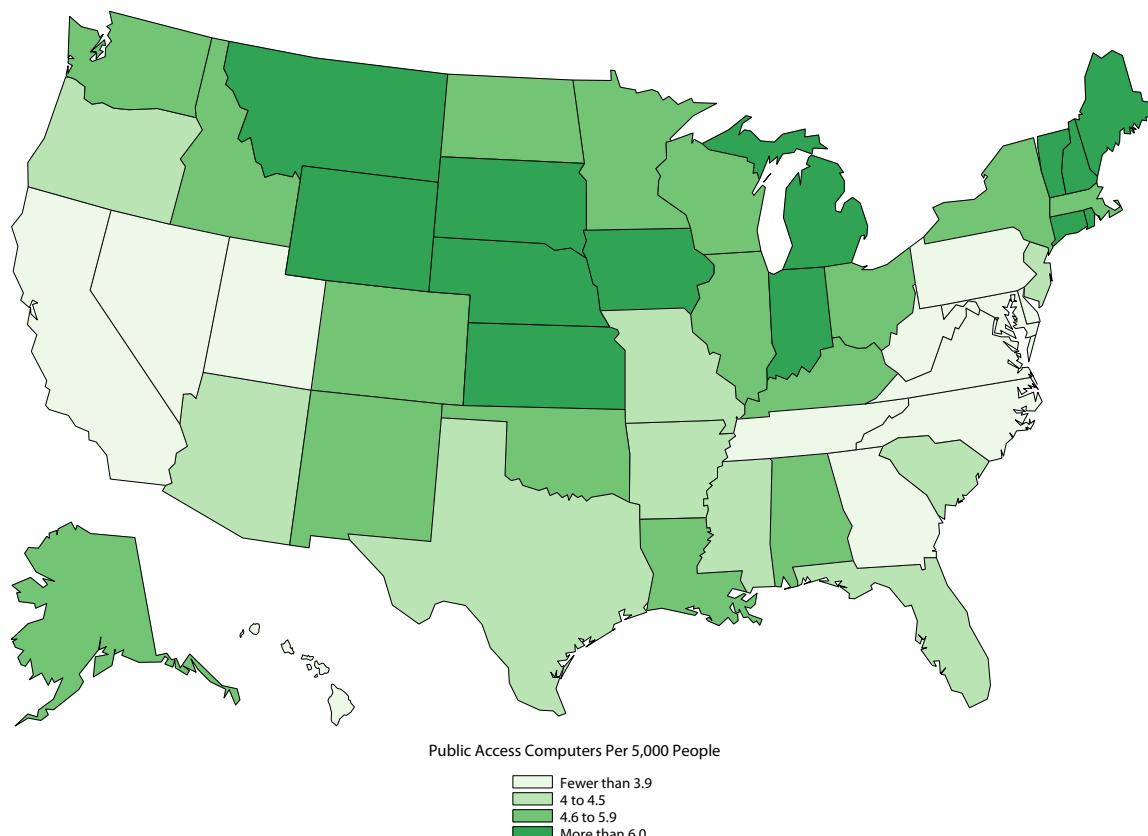
Source: Public Library Survey, FY 2008-2012, Institute of Museum and Library Services



Indicator 10. Public Access Computers per Capita

The number of public access computers per 5,000 people varied across states (**Figure 10-2**), from as high as 9.6 (Nebraska) to as low as 1.7 (Hawaii). The majority of states (42) exhibited a 1-year increase in the number of public access computers per 5,000 people. The largest increases were in Alaska (+40.5 percent), New Mexico (+32.2 percent), and Hawaii (+29.1 percent). The largest decreases were in Indiana (-17.2 percent), Virginia (-10.8 percent), and Arkansas (-7.6 percent).

Figure 10-2. Number of Public Access Computers Per 5,000 People By State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services

Public Libraries Survey: Indicators

Section 4. Public Library Staffing

Indicator 11. Staffing per Capita

Indicator 12. Librarians per Capita

Indicator 13. Percentage of Librarians with ALA-Accredited MLS

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

Public Library Resources	FY 2012	1-Year Change	10-Year Change
Indicator 11. Staffing per Capita (25,000)	11.3	-1.1%	-8.1%
Indicator 12. Librarians per Capita (25,000)	3.9	-0.5%	-4.5%
Indicator 13. Percent of Librarians with ALA-accredited MLS	67.5%	-0.1%	-0.5%

Indicator 11. Staffing per Capita

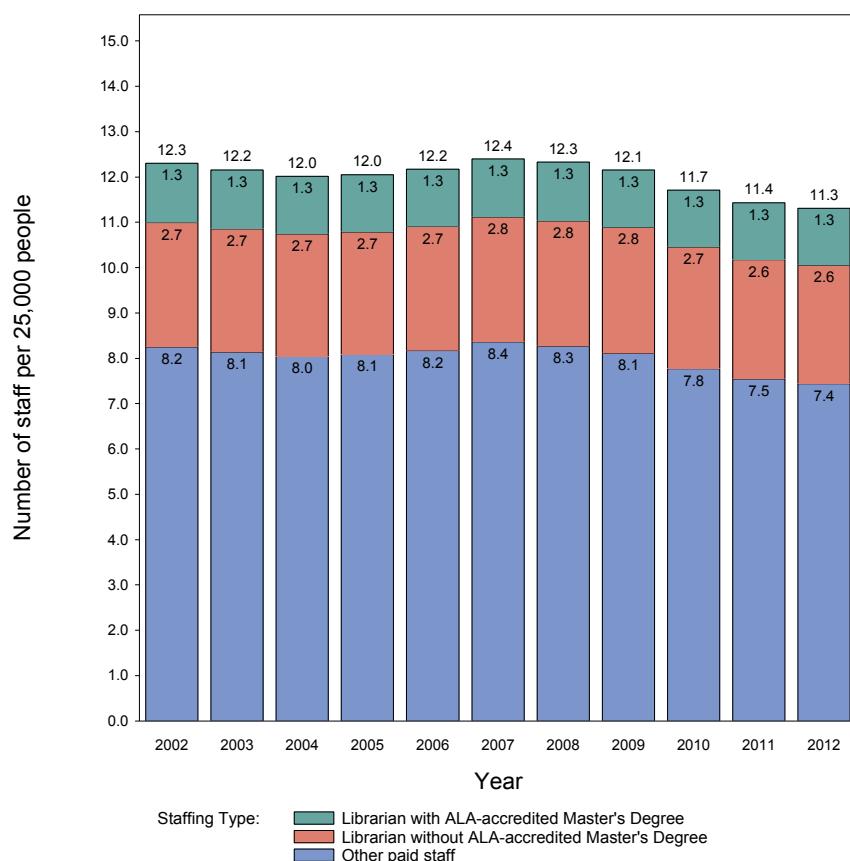
Staffing per 25,000 people served was 11.3 in FY 2012, a 1-year decrease of 1.1 percent.

Staff is an important component to a public library. Public library staff consists of librarians (both those librarians with an ALA-accredited degree and those librarians that do not have an ALA-accredited degree) and other paid support staff (including paraprofessionals, IT, operations, and maintenance staff). In the PLS, staffing is reported as paid full-time employment (FTE) positions. The total staff per capita indicator is defined as the total number of all paid staff divided by the people in the legal service area. For this, it is divided by each 25,000 people in the legal service area.

In FY 2012, total staff per 25,000 people was 11.3 (**Figure 11-1**), a 1.1 percent decrease from FY 2011. Librarians per 25,000 people were 3.9 in FY 2012, a 1-year decrease of 0.5 percent. Other paid staff per 25,000 people was 7.4 in FY 2012, a decrease of 1.4 percent.

Staffing per 25,000 people does not vary greatly across locality. Between FY 2011 and FY 2012, city (2.1 percent), suburb (1.6 percent), and town (2.0 percent) libraries experience a 1-year decrease, whereas rural libraries experienced a 1-year increase (3.0 percent).

Figure 11-1. Number of FTE staff per 25,000 people, FY2002-2012



Source: Public Library Survey, FY 2003-2012, Institute of Museum and Library Service/National Center for Education Statistics



Indicator 11. Staffing per Capita

Staffing per 25,000 people does vary across libraries of different population sizes (**Figure 11-2**). Smaller libraries have more total staff per 25,000 than do larger libraries. All population sizes experienced a decrease between FY 2011 and F Y2012.

Total staff per 25,000 people varied across states as high as Wyoming (20.6) to as low as Nevada (6.1). Twenty-one states saw a 1-year increase in staffing per 25,000 people. The largest increases were in Alaska (11.5 percent), Montana (7.4 percent) and Louisiana (6.0 percent). Thirty states saw a 1-year decrease in staffing per 25,000 people. The largest decreases were in Nevada (27.4 percent), Georgia (11.1 percent), and Pennsylvania (9.6 percent).

The number of library staff per capita varied across

states as high as New Hampshire (11.5) to as low as Georgia (1.5). Twenty-four states saw a 1-year increase in librarians per 25,000 people. The largest increases were in Mississippi (20.3 percent), Missouri (10.7 percent), and the District of Columbia (7.0 percent). The largest decreases were in Arkansas (24.2 percent), New Mexico (8.6 percent) and Georgia (8.3 percent).

Other paid staff per capita varied across states as high as 13.7 (Ohio) to as low as 4.0 (West Virginia). Twenty-one states saw a 1-year increase in other paid staff per 25,000 people. The largest increases were in Montana (15.6 percent), Alaska (15.2 percent), and Wyoming (6.3 percent). Thirty states saw a 1-year decrease in other paid staff per 25,000 people. The largest decreases were in Nevada (33.8 percent), Mississippi (12.0 percent), and Georgia (11.9 percent).

Figure 11-2. Staffing (Full Time Equivalent, FTE) per 25,000 People by Size of Population in Library Legal Service Area, 1-Year and 10-Year Change

		2002	2011	2012	1-year change FY 11-12	10-year change FY 02-12
Fewer than 2,500 people	Total staff	19.7	23.1	23.0	-0.7%	+16.8%
	Librarians	14.3	16.1	16.2	+0.6%	+13.6%
	Other Paid Staff	5.4	7.0	6.7	-3.7%	+25.5%
Between 2,500 and 10,000	Total staff	1.53	16.5	16.4	-1.0%	+7.1%
	Librarians	7.5	8.2	8.2	-0.5%	+8.3%
	Other Paid Staff	7.7	8.3	8.2	-1.4%	+5.9%
Between 10,000 and 25,000	Total staff	14.2	14.8	14.7	-0.5%	+4.1%
	Librarians	5.5	6.1	6.1	+0.9%	+12.3%
	Other Paid Staff	8.7	8.8	8.6	-1.5%	-1.0%
More than 25,000 people	Total staff	11.8	10.6	10.5	-1.2%	-10.8%
	Librarians	3.5	3.3	3.2	-0.9%	-8.0%
	Other Paid Staff	8.3	7.4	7.3	-1.3%	-12.0%
National	Total staff	12.3	11.4	11.3	-1.1%	-8.1%
	Librarians	4.1	3.9	3.9	-0.5%	-4.5%
	Other Paid Staff	8.3	7.5	7.4	-1.4%	-9.8%

Indicator 12. Librarians per Capita

Librarians per 25,000 people were 3.9 in FY 2012, a 1-year decrease of 0.5 percent.

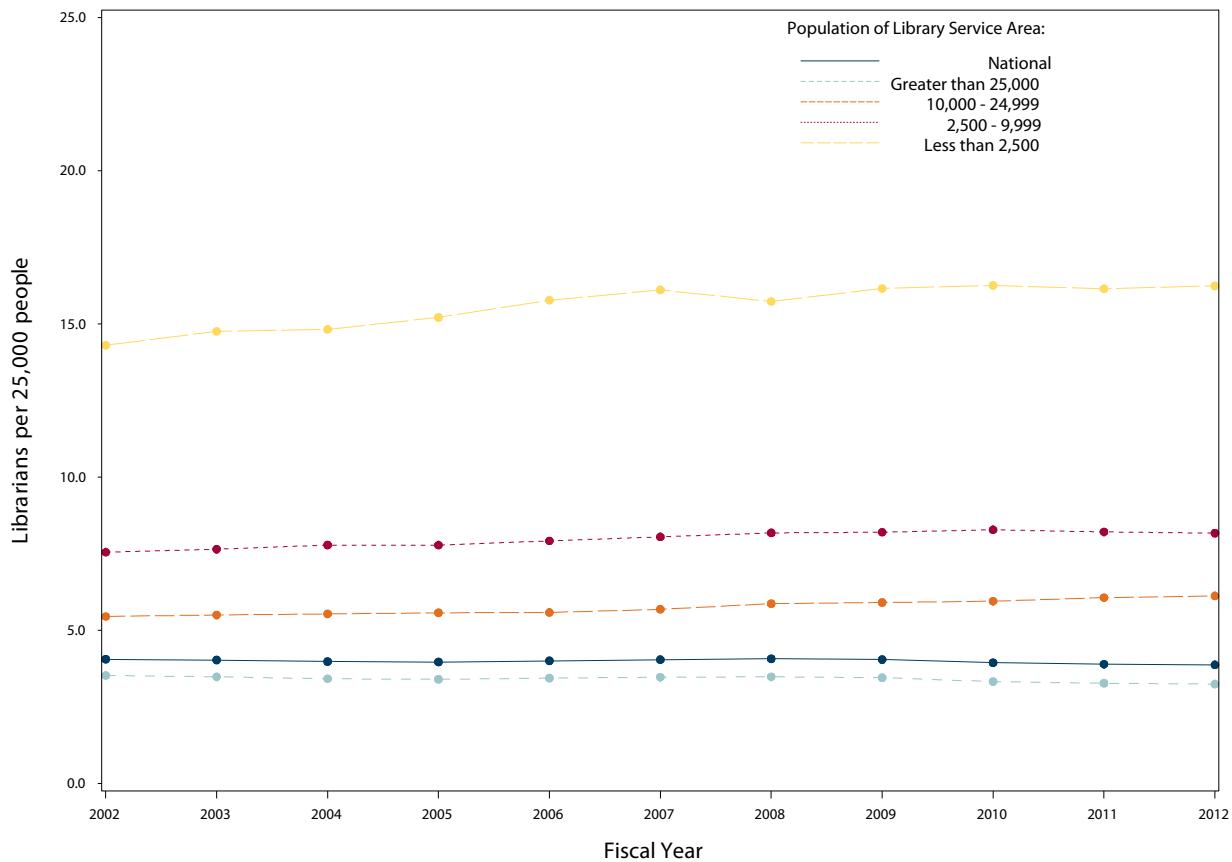
In a public library, a librarian is a staff member who has special training and skill in the theoretical or scientific aspects of library work. Librarians per 25,000 people is a metric that measures the number of librarians who are available per 25,000 people in a library service area. This metric helps to address whether or not there is enough specialized staff to address the needs of the population. Librarians per 25,000 people were 3.9 in FY 2012, a 1-year decrease of 0.5 percent. This is a 10-year decrease of 4.5 percent.

Librarians per 25,000 people vary across locality: city (3.5), suburb (4.2), town (4.1), and rural libraries (5.2). All libraries except rural libraries saw a 1-year

decrease. City (1.6 percent), suburb (1.2 percent), and town (1.4 percent) saw decreases. Rural libraries saw a 12 percent increase in librarians per 25,000 people.

Librarians per 25,000 people vary across population sizes (**Figure 12-1**): libraries serving fewer than 2,500 people (16.1), libraries serving between 2,500 and 10,000 (8.2), libraries serving between 10,000 and 25,000 (6.1), libraries serving more than 25,000 people (3.3). Libraries serving fewer than 2,500 people (0.6 percent) and libraries serving between 10,000 and 25,000 (0.9%) saw a 1-year increase, whereas libraries serving between 2,500 and 10,000 (0.5 percent) and libraries serving more than 25,000 people (0.9 percent) saw a 1-year decrease.

Figure 12-1. Number of Librarians per 25,000 People by Size of Population in Library Legal Service Area, FY2002-2012



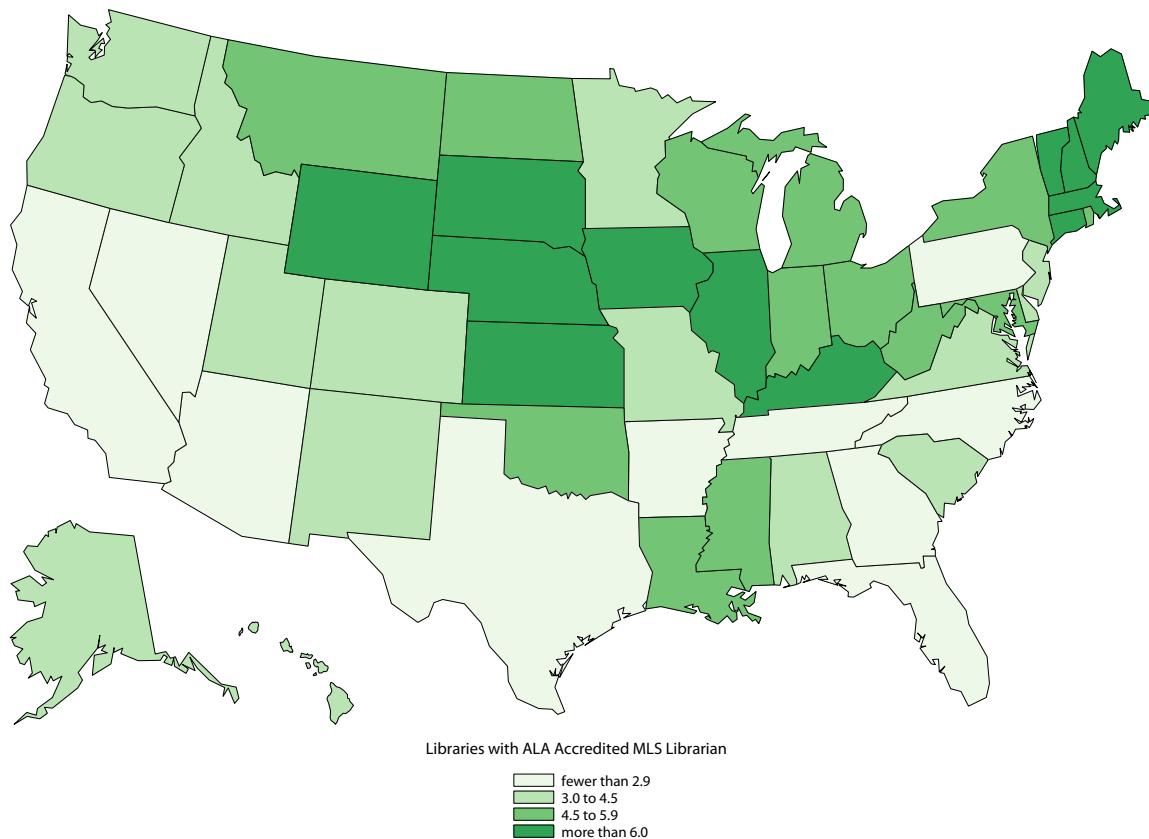
Source: Public Library Survey, FY 2003-2012, Institute of Museum and Library Services/National Center for Education Statistics



Indicator 12. Librarians per Capita

Library staff varied across states (**Figure 12-2**). Librarians per 10,000 people were as high as 11.5 (New Hampshire) to as low as 1.5 (Georgia). Twenty-four states saw a 1-year increase in librarians per 25,000 people. The largest increases were in Mississippi (20.3 percent), Missouri (10.7 percent), and the District of Columbia (7.0 percent). The largest decreases were in Arkansas (24.2 percent), New Mexico (8.6 percent) and Georgia (8.3 percent).

Figure 12-2. Number of Librarians per 25,000 People By State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services

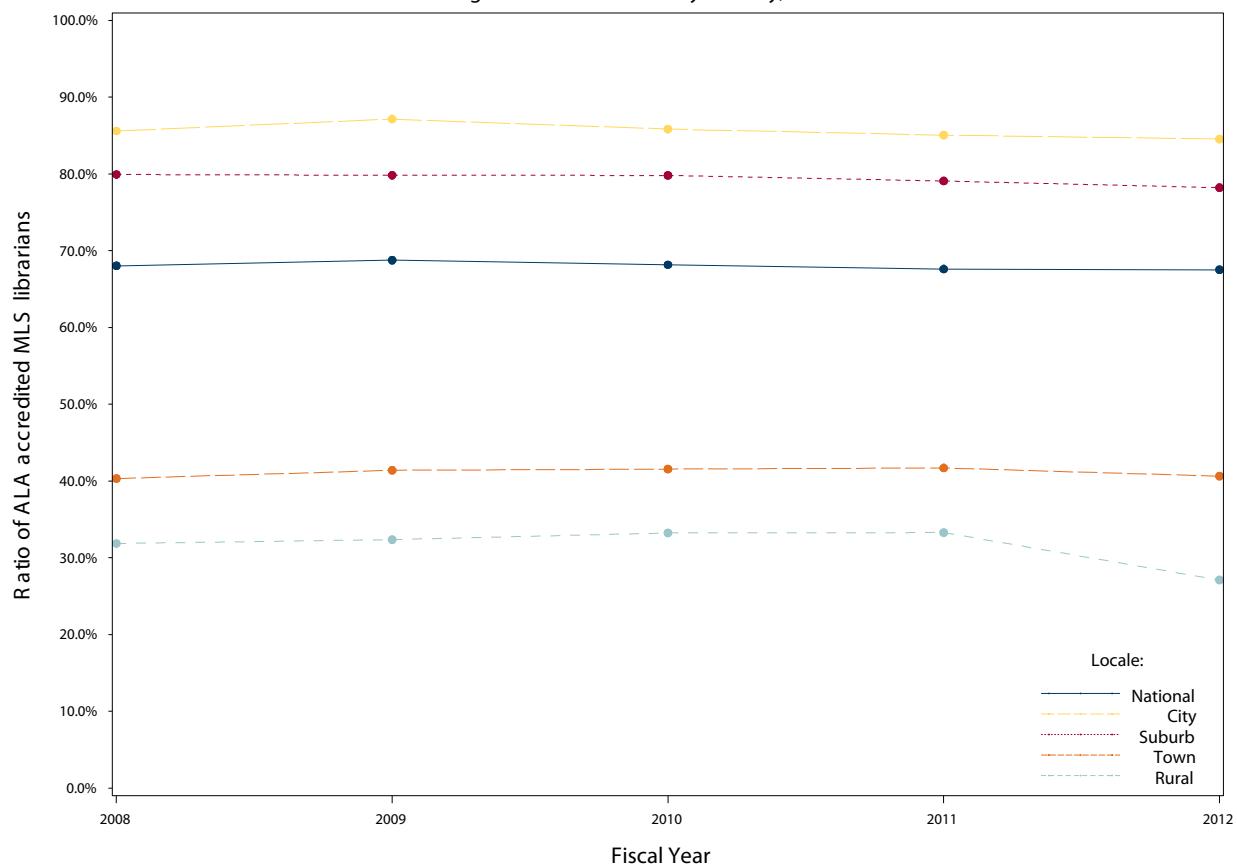
Indicator 13. Percentage of Librarians with ALA-Accredited MLS

Over two-thirds of all public libraries have an accredited public librarian on staff.

In the PLS, librarian positions which require an ALA-accredited degree are reported separately. When reported as a ratio this metric helps to measure professionalism in the library workforce. Two-thirds (67.5 percent) of all public libraries that have a public librarian with a master's of library and information science (MLS) degree from an institutional program accredited by the American Library Association. Over a 10-year period, this ratio has remained relatively stable.

The ratios of ALA accredited MLS librarians vary across locality and across population sizes. Public libraries in more populated and urbanized areas are more likely to have an ALA-MLS accredited librarian on staff. Compared to the percentage of ALA-accredited MLS librarians in cities, suburbs, and towns, only 23.4 percent of librarians in rural areas have a MLS degree from an ALA-accredited program. This suggests that there is a role for policies that encourage librarians who are new to the profession and have a degree from an accredited program to move to rural areas.

Figure 13-1. Percentage of Librarians with a Master's degree from an American Library Association (ALA) Accredited Program to All Librarians by Locality, FY2008-2012



Source: Public Library Survey, FY 2008-2012, Institute of Museum and Library Services

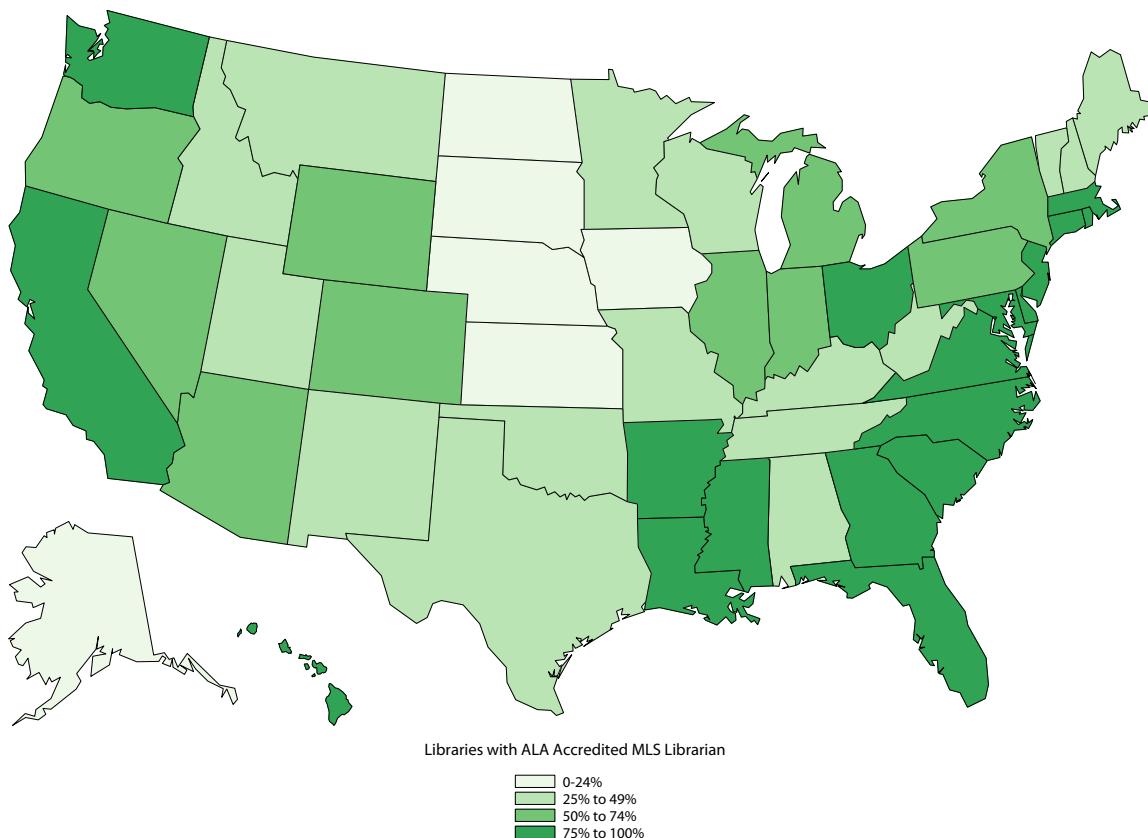


Indicator 13. Percentage of Librarians with ALA-Accredited MLS

The ratios of ALA-accredited MLS librarians vary across states (**Figure 13-2**). Four states (Maryland, Rhode Island, Hawaii, and Georgia) and the District of Columbia had 100 percent of librarians with ALA-MLS degrees.

The lowest rate of ALA-MLS librarians was 10.7 percent (North Dakota). States appear to differ regionally with a higher ratio of libraries with ALA-accredited MLS degrees in the Far West (70.1 percent), Mideast (65.5 percent), and the Southeast (60.1 percent) and a lower ratio in Plains (22.3 percent).

Figure 13-2. Percentage of Libraries with Librarian with a Master's degree from an ALA Accredited Program by State, FY2012



Source: Public Library Survey, FY2012, Institute of Museum and Library Services



Public Libraries Survey: **Appendix**

Appendix A. About the Public Libraries Survey

Appendix B. Technical Notes

Appendix C. Estimates for Multilevel Models of Public Library Use

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 2010 as stated in Section 210. The U.S. Census Bureau is the data collection agent for IMLS. The fiscal year (FY) 2012 survey is the 25th in the series.

Survey Purpose and Data Items Included in This Report

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

This report provides summary information about public libraries in the 50 states and the District of Columbia for state FY 2012¹. It covers service measures such as number of uses (sessions) of public Internet computers, number of Internet computers used by the general public, reference transactions, interlibrary loans, circulation, library visits, children's program attendance, and circulation of children's materials. It also includes information about size of collection, staffing, operating revenue and expenditures, type of legal basis, and number and type of public library service outlets. This report is based on the final data file.

The PLS is designed as a universe survey. The survey frame consists of 9,294 public libraries (9,233 public libraries in the 50 states and the District of Columbia and 61 public libraries in the outlying areas of Guam, the Northern Mariana Islands, Puerto Rico and the Virgin Islands), as identified by state library agencies. Public libraries in one outlying area, American Samoa, are not included in the survey frame because their state library administrative agency has never responded to the request for participation in the survey.

The survey frame includes 157 public libraries that do not meet all the criteria in the FSCS Public Library Definition (see item 203 of the Administrative Entity definitions for the criteria). These libraries are included in the data files because they qualify as public libraries under state law. However, in this FY 2012 report, the 157 non-FSCS libraries are excluded from the tables and analysis. There were 11 public libraries that were

closed during FY 2012 (STATSTRU on the data file), which were also excluded. This resulted in a total of 9,082 public libraries in the 50 states and the District of Columbia.

A total of 9,056 of the 9,294 public libraries in the survey frame responded to the FY 2012 PLS (including Guam, Puerto Rico, and the non-FSCS libraries), for a unit response rate of 97.4 percent². Item response rates are included in the tables in this report³. The data were submitted over the Internet via a web-based reporting system (See Data Collection in Appendix B, Note 3, for more information.).

Congressional Authorization

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

IMLS collects this data as authorized by its congressional mandate, the Museum and Library Services Act of 2010, as stated in 20 U.S.C. Section 9108 (Policy research, analysis, data collection, and dissemination):

20 U.S.C. Section 9108. Policy research, analysis, data collection, and dissemination

(a) In general

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

(b) Requirements

The policy research, analysis, and data collection shall be conducted in ongoing collaboration (as determined appropriate by the Director), and in consultation, with—
(1) State library administrative agencies;
(2) National, State, and regional library and museum organizations;
(3) Other relevant agencies and organizations.

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

² There were 196 public libraries that did not report data in FY 2012, but for which data were imputed (indicated by variable RSTATUS). These data are on the file and are used in this report.

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

Appendix A. About the Public Libraries Survey

(c) Objectives

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

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

(d) Dissemination

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

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

Key Library Terminology⁴

- **Public library.** A public library is an entity that is established under state enabling laws or regulations to serve a community, district, or region, and that provides at least the following: (1) an organized collection of printed or other library materials, or a combination thereof; (2) paid staff; (3) an established schedule in which services of the staff are available to the public; (4) the facilities necessary to support such a collection, staff, and schedule; and (5) is supported in whole or in part with public funds.
- **Administrative entity.** An administrative entity is the agency that is legally established under local or state law to provide public library service to the population of a local jurisdiction. The administra-

tive entity may have a single public library service outlet, or it may have more than one public library service outlet (Note: In this report, the term public library means an administrative entity).

- **Public library service outlet.** Public libraries can have one or more outlets that provide direct service to the public. The three types of public library service outlets included in this report are central library outlets, branch library outlets, and bookmobile outlets. Information on a fourth type of outlet, books-by-mail-only outlets, was collected but omitted from this report because these outlets are not open to the public. The four outlet types are defined in Appendix C in item 709 of the definitions. Table 3 reports data concerning public library service outlets.

Supplemental Tables

As a supplement to this report, IMLS has provided 80 tables to make available additional data about the findings in this report. These tables offer statistics at both the national and state level for variables presented in this report, as well as additional variables found in the PLS data files. Tables 1 through 1B provide overview data by state about the number of public libraries and population of legal service area. Tables 2 through 31 are in sets of two each. The base table in each set (Tables 2 through 31) displays data for the nation as a whole and for each of the 50 states and the District of Columbia. The “A” table in each set displays the same data by 11 ranges of population of legal service area. Tables 30 through 33 include data about square footage. Tables A1 through A13 are state rankings on key variables. The supplemental tables are available only online: www.imls.gov/PLS.

Survey Questionnaire and Data Elements

The questionnaire for the PLS is developed in partnership between IMLS and its stakeholders in the library community, specifically the Library Statistics Working Group and the State Data Coordinators. The questionnaire used in the FY 2011 survey is published in the data documentation, *Data File Documentation: Public Libraries Survey: Fiscal year 2011* (IMLS-2013-PLS-02), available online at www.imls.gov/PLS. In addition to the survey, the data documentation provides definitions of items, including those used in this report.

⁴ More detailed definitions of the terms used in this report can be found in the data documentation, IMLS publication IMLS-2014-PLS-02, *Data File Documentation: Public Libraries Survey: Fiscal Year 2012*. The data documentation is available for download from the IMLS website: www.imls.gov/PLS.

Appendix A. About the Public Libraries Survey

History of the Public Libraries Survey

In 1985, the National Center for Education Statistics (NCES) and the American Library Association (ALA) conducted a pilot project in 15 states to assess the feasibility of a federal-state cooperative program for the collection of public library data. The project was jointly funded by NCES and the U.S. Department of Education's former Library Programs (LP) office. In 1987, the project's final report recommended the development of a nationwide data collection system. The Hawkins-Stafford Elementary and Secondary School Improvement Amendments of 1988 (P.L. 100-297) charged NCES with developing a voluntary Federal-State Cooperative System (FSCS) for the annual collection of public library data⁵. To carry out this mandate, a task force was formed by NCES and the National Commission on Libraries and Information Science (NCLIS), and the FSCS was established in 1988.

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

The Museum and Library Services Act transferred the Library Programs Office, including the library statistics program, from the Department of Education to IMLS. On October 1, 2007 the survey was transferred from NCES to IMLS. The FY 2006 survey was collected by NCES and released by IMLS. The FY 2012 survey is the sixth PLS data collection and release by IMLS.

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

Appendix B. Technical Notes

Note 1. Commonly Used Measures

In this report, we present statistics for metrics related to aspects of financial, operational, and service activities in public libraries in the United States. National level summaries of these metrics are presented for FY 2012, and 10-year trends are presented for many metrics from FY 2002 through FY 2012. Some data elements, such as the number of young adult programs offered, were added to the survey more recently. For analyses of these metrics, changes were reported based on the fiscal year in which the data element was introduced. In the indicators, metrics are also broken out and presented by state, region or locality.

Per Capita

For long-term trends, statistics are often presented in per capita metrics, which controls for population growth and allows for standardized comparison of metrics over time. For this, we used the unduplicated population of the legal service area served by each public library⁶. In addition to analyses based on per-person in a public library's service area, trends in services are sometimes examined in terms of the number of visitors. By examining both per-capita and per-visit trends, we can see not only the role that public libraries play in their communities at-large, but also how people who come to public libraries use the resources available.

Locale

Federal agencies use a variety of ways to classify various community types. In this report, libraries were classified using a system of locale codes developed by the National Center for Education Statistics (NCES). Working with the U.S. Census Bureau, NCES revised these codes by using improved geocoding technology and the 2000 Office of Management and Budget (OMB) definitions of metropolitan statistical areas (MSA). Thus, the locale codes rely on proximity to an urbanized area, rather than population size and county boundaries. OMB updated the MSAs in 2010⁷, and the locale codes were updated accordingly.

Beginning with the FY 2008 data file, locale codes have been added to the outlet and administrative entity datasets for the PLS. Locale codes identify general

characteristics about where a public library is situated. The codes allow users to quickly identify which library outlets and administrative entities are located in cities, suburbs, towns, or rural areas. The locale codes are based on an address's proximity to an urbanized area, defined as a densely settled core with densely settled surrounding areas.

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

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

As of FY 2008, each library outlet and administrative entity in the survey has been assigned one of the 12 locale codes. Starting with the FY 2009 survey data files, bookmobiles and books-by-mail only outlets were assigned locale codes. For the FY 2012 data file, all records were re-coded for geography.

⁶ Details about the unduplicated population can be found in the data documentation, Data File Documentation: Public Libraries Survey: Fiscal year 2011 (IMLS-2013-PLS-02), available online at <http://www.imls.gov/PLS>.

⁷ The Office of Management and Budget (OMB) delineates geographic entities for metropolitan and micropolitan statistical areas for use by Federal agencies in collecting, tabulating, and publishing Federal statistics. To learn about the designation, see the notice in the Federal Register, Vol. 75, No. 123, pp. 37246-39052, published 06/28/2010. For more information, see <http://www.census.gov/population/metro/>.

Appendix B. Technical Notes

Table B-1-1: Urban-Centric Locale Categories

City
Large: Territory inside an urbanized area and inside a principal city with population of 250,000 or more
Midsize: Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000
Small: Territory inside an urbanized area and inside a principal city with population less than 100,000
Suburb
Large: Territory outside a principal city and inside an urbanized area with population of 250,000 or more
Midsize: Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000
Small: Territory outside a principal city and inside an urbanized area with population less than 100,000
Town
Fringe: Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area
Distant: Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area
Remote: Territory inside an urban cluster that is more than 35 miles from an urbanized area
Rural
Fringe: Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster
Distant: Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster
Remote: Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster

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

Appendix B. Technical Notes

Geographic Region

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

Table B-1-2: Regional Designations Used in the PLS, from Bureau of Economic Analysis

Region	States
New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Mid-East	Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania
Great Lakes	Illinois, Indiana, Michigan, Ohio, Wisconsin
Plains	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
Southeast	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia
Southwest	Arizona, New Mexico, Oklahoma, Texas
Rocky Mountains	Colorado, Idaho, Montana, Utah, Wyoming
Far West	Alaska, California, Hawaii, Nevada, Oregon, Washington
Outlying Areas	American Samoa, Guam, Northern Mariana Islands, Puerto Rico, Virgin Islands

Full Time Equivalent (FTE)

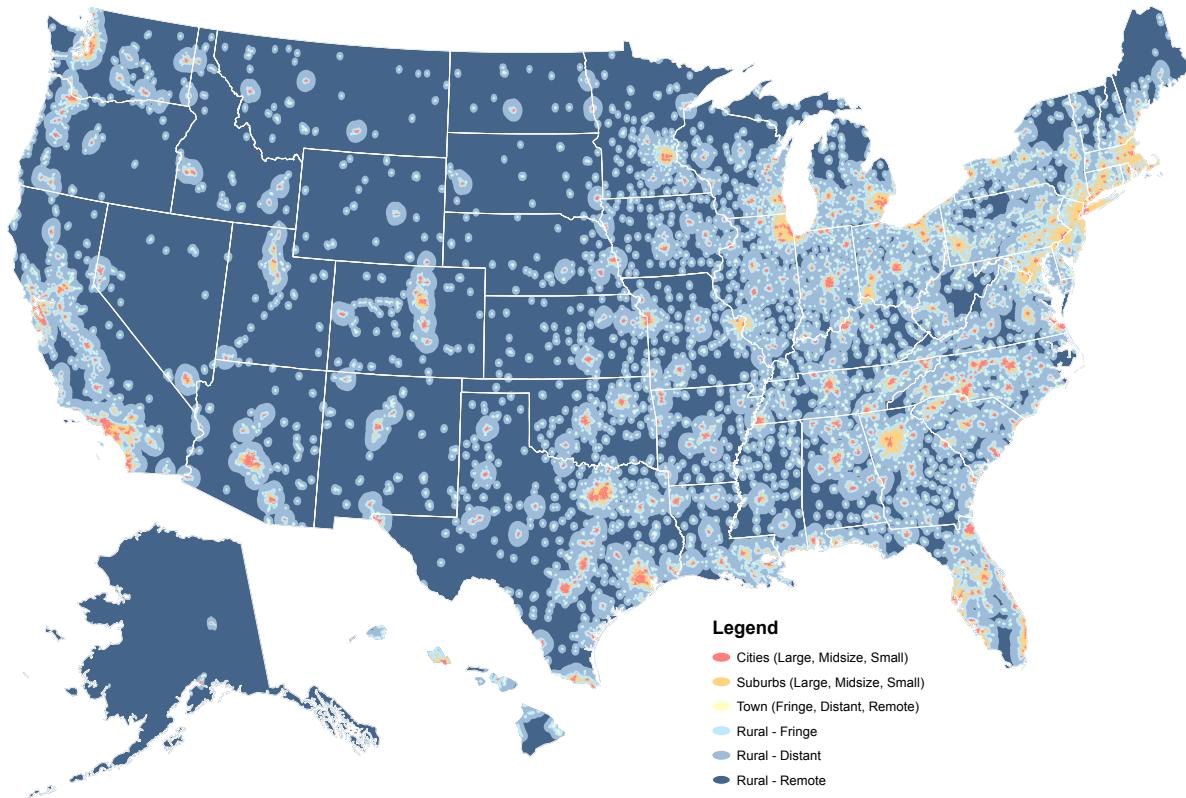
In analyses of the workforce, information on employment is classified according to full-time equivalent (FTE). FTE is a unit that measures the workload of an employed person. It is used to aid in comparisons of workload across contexts. An FTE of 1.0 indicates that the person is the equivalent to a full-time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



Appendix B. Technical Notes

Figure B-1-1: Locale Map: Rural, Town, Suburban and City Locales in the United States, FY 2012

Rural, town, suburban, and city locales in the United States, FY 2012



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

Appendix B. Technical Notes

Note 2. Adjusting for Inflation: Financial Indicators and Calculations

For financial trends that report dollar amounts over time, such as 10-year revenue trends, metrics are presented in constant dollars. Constant dollars are an adjusted value of currency that accounts for inflation. We use this adjustment in order to compare monetary values from one period to another. For the present analyses, inflation was accounted for using a GDP (gross domestic product) deflator⁸, as shown in **Equation B-2-1**:

$$\text{GDP Deflator} = \frac{\text{Nominal GDP}}{\text{Real GDP}} \times 100 \quad (\text{B-2-1})$$

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

To calculate the value in constant dollars for a target year, multiply a value from a base year by a ratio of the GDP Deflators from the base year and the target year. For example, to calculate the amount of revenue from the year 2002 in 2012 constant dollars, multiply the original value of revenue in 2002 by the ratio of the deflators from year 2012 to 2002 (see **Equation B-2-2**).

$$\text{Value}_{\text{constant2012dollars}} = \text{Value}_{2002} \times \frac{\text{GDP Deflator 2012}}{\text{GDP Deflator 2002}} \quad (\text{B-2-2})$$

⁸ Information on the US GDP was obtained from the Bureau of Economic Analysis (<http://www.bea.gov>).

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Note 3. Public Libraries in the United States Survey, FY 2012

Survey Universe

The PLS is designed as a universe survey. The survey frame consists of 9,294 public libraries (9,233 public libraries in the 50 states and the District of Columbia and 61 public libraries in the outlying areas of Guam, the Northern Mariana Islands, Puerto Rico and the Virgin Islands), as identified by state library agencies⁹. Military libraries that provide public library service and libraries that serve residents of institutions are not included in the sampling frame. The survey frame includes 157 public libraries that do not meet all the criteria in the FSCS Public Library Definition (see item 203 of the Administrative Entity definitions for the criteria). The non-FSCS libraries were included in the imputation process for non-response. These libraries are included in the data files because they qualify as public libraries under state law. However, in the FY 2012 report the non-FSCS libraries are excluded from the tables. An additional 8 public libraries that were closed during FY 2012 (STATSTRU on the data file) were also excluded. This resulted in a total of 9,082 public libraries in the 50 states and the District of Columbia.

Survey Response

Unit response. A total of 9,056 of the 9,294 public libraries in the survey frame responded to the FY 2012 PLS (including Guam, Puerto Rico and the 157 non-FSCS libraries), for a unit response rate of 97.4 percent. Public libraries are defined as respondents if they reported: population of the legal service area and at least three of the five following items: total paid employees, total operating revenue, total operating expenditures, print materials, and total circulation (Note: Some individual survey items, such as population of legal service area, service outlets, and type of legal basis have a 100.0 percent response rate for their state because the state library agency provided these data for all public libraries in their state.).

Total response. The base for calculating response rates to individual survey items is the total number of libraries in the survey frame, including unit nonrespondents.

Data file and publication response rates. The total response rates on the data file differ from the total response rates in the published report because the

⁹ Public libraries in one outlying area, American Samoa, are not included in the survey frame because their state library agency has never responded to the request for participation in the survey. Because their public libraries have not been identified, they are not included in the response rate calculations.

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

Reporting period. The FY 2012 PLS requested data for state fiscal year 2012. Most state fiscal years are either a calendar year or July-June. In some states, the FY reporting period varied among local jurisdictions. These states are listed in the Other column in **Table B-3-1**. Regardless, each public library provided data for a 12-month period. The FY starting date and ending date of each public library are included on the data file.

Calculations Included in the Tables

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

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

Questionnaire

The questionnaire used in the FY 2012 survey is published in the data documentation, Data File Documentation: Public Libraries Survey: Fiscal Year 2012 (IMLS-

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2014–PLS-02), available online at <http://www.imls.gov/pls>. In addition to the survey, the data documentation provides definitions of items, including those used in this report. A few key survey items are discussed below.

Library visits and reference transactions. Public libraries reported annual library visits and annual reference transactions based on actual counts, if available. Otherwise, annual estimates were provided based on a typical week in October, multiplied by 52.

Population items. The PLS has three population items: (1) Population of Legal Service Area for each public library, (2) Total Unduplicated Population of Legal Service Areas for each state, and (3) State Total Population Estimate. The population data are provided by the state library agency. The methods of calculation of the first two items vary significantly among states, and the state reporting periods also vary. The Total Unduplicated Population of Legal Service Areas does not include unserved areas and may vary from data provided by sources using standard methodology (e.g., the Census Bureau).

The total Population of Legal Service Area for all public libraries in a state may exceed the state's Total Unduplicated Population of Legal Service Areas or the State Total Population Estimate. This happens in states where there are overlaps in population of legal service areas served by individual libraries, resulting in the same population being counted twice. Twenty-nine states had such overlapping service areas in FY 2012 (**Table B-3-2**).

To enable meaningful state comparisons using total Population of Legal Service Area data (for example, the number of print materials per capita), the Population of Legal Service Area data were adjusted to eliminate duplicative reporting due to overlapping service areas. The Public Library Data File includes a derived unduplicated population of legal service area figure for each library for this purpose (the variable is called POPU_UND). This value was prorated for each library by calculating the ratio of a library's Population of Legal Service Area to the state's total Population of Legal Service Area and applying the ratio to the state's Total Unduplicated Population of Legal Service Areas. (The latter item is a single, state-reported figure found on the Public Library State Summary/State Characteristics Data File; the variable is called POPU_UND on this file also.)

Paid Full-Time-Equivalent (FTE) Staff. Paid staff were reported in FTEs (Table 17). To ensure comparable data, 40 hours was set as the measure of full-time

employment (for example, 60 hours per week of 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 (rounded to one decimal place in the tables).

Data Collection

The FY 2012 PLS was released to the states over the Internet on December 19, 2012. States were placed into one of three reporting groups (with survey due dates of April 10, July 31, or August 21, 2013), based on their fiscal cycles or claim of extraordinary reporting hardship. States reported their data over the Internet via a web-based reporting system called WebPLUS (Web Public Library Universe System). WebPLUS was developed by the Census Bureau (the data collection agent). Edit follow-up was completed in late October of 2013. The editing process is described below.

Caveats for Using the Data

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

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

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

Editing

State level. The respondent generates an edit report following direct data entry or import of their data into WebPLUS. The edit report, which can be viewed on-screen or printed, is used to identify and correct any errors, and to confirm the accuracy of data that generated edit warnings but required no change, before submitting the final file to the Census Bureau. In the FY 2012

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PLS, four types of edit checks were performed:

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

For more information on edit checks, see the *PLS FY 2012 Data Documentation*.

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

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

Imputation

Imputation is a procedure for estimating a value for a specific data item where the response is missing. This section describes the imputation methods that were used to fill in the missing data items for the FY 2012 survey year. A total of 53 items were imputed.

The responding and nonresponding libraries were sorted into imputation cells based on OBE region code (Bureau of Economic Analysis region code, formerly Office of Business Economics) and the size of the population. Each state is assigned an OBE region code (e.g., 01-New England (CT, ME, MA, NH, RI, VT)). The cumulative root frequency method¹⁰ was used to determine the imputation cells.

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

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

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

Nonsampling Errors

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

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

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

¹⁰ For more information on cumulative root frequency method, see Cochran, W. (1977) Sampling Techniques, 3rd edition. John Wiley & Sons, Inc.

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Table B-3-1: Reporting Periods of Public Libraries, FY 2012

July 2011 through June 2012	January 2012 through December 2012	Other ¹
Arizona	Arkansas	Alabama ²
California	Colorado	Alaska ³
Connecticut	Indiana	District of Columbia ²
Delaware	Kansas	Florida ²
Georgia	Louisiana	Idaho ²
Hawaii	Minnesota	Illinois ¹¹
Iowa	North Dakota	Maine ⁵
Kentucky	New Jersey	Michigan ⁶
Maryland	Ohio	Mississippi ²
Massachusetts	South Dakota	Missouri ⁷
Montana	Washington	Nebraska ⁴
Nevada	Wisconsin	New Hampshire ⁸
New Mexico	Puerto Rico	New York ⁹
North Carolina		Pennsylvania ⁸
Oklahoma		Texas ¹⁰
Oregon		Utah ⁸
Rhode Island		Vermont ⁴
South Carolina		Guam ²
Tennessee		
Virginia		
West Virginia		
Wyoming		

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

² October 2011 to September 2012.

³ January 2011 to June 2012.

⁴ January 2011 to December 2012.

⁵ April 2011 to December 2012.

⁶ December 2010 to September 2012.

⁷ October 2010 to December 2012.

⁸ July 2011 to December 2012.

⁹ March 2011 to December 2012.

¹⁰ February 2011 to December 2012.

¹¹ October 2010 to June 2011.

Source: Institute of Museum and Library Services, Survey of Public Libraries in the United States, Fiscal Year 2012.

Table B-3-2. States with Public Libraries with Overlapping Service Areas, FY 2012

Arkansas	Massachusetts	Pennsylvania
Arizona	Michigan	Rhode Island
California	Minnesota	South Dakota
Colorado	Mississippi	Tennessee
Connecticut	Montana	Texas
Florida	Nebraska	Utah
Iowa	New Hampshire	Vermont
Indiana	New Jersey	Virginia
Louisiana	New York	Puerto Rico
Maine	Ohio	

Source: Public Library Survey, FY 2012, Institute of Museum and Library Services.



Appendix C. Estimates for Multilevel Models of Public Library Use

We live in a clustered world. People are clustered in neighborhoods; students are clustered in schools. People living in neighborhoods are often similar to their neighbors. Importantly, they are more similar to their neighbors than they are to people living in other neighborhoods. Similarly, students in a particular school will be more similar to their classmates than they are to students at other schools. Within a particular school, students come from the same neighborhoods, experience the same teachers, and use the same school resources. Whether from geographical or sociological grouping, analysis of data must account for the effects of clustering.

For the analyses presented in this report, we used multilevel models to examine the relationship between public library use and the resource investments made into libraries. **Multilevel models**, also called nested or hierarchical models, are appropriate when data are organized at more than one level. The unit of analysis, libraries (at the lower level), is nested (clustered) within a contextual or aggregate unit, such as a state (at a higher level). For example, because of state-level factors that affect funding and policies, libraries in one state are more alike each other than they are to libraries in another state.

Because units at the lower-level are clustered into groups at the higher-level, it is important to account for this clustering of data. Traditional approaches to regression modeling are predicated on the assumption of independence of observations. Thus, models that do not account for this dependency in the data may lead to incorrect estimates. Multilevel models adjust the model estimates to account for the similarities within groups. Furthermore, multilevel models allow for predictors to be entered at any level. This means that the effect of investments on outcomes can be examined at the state and local level.

One way to look at the difference between groups is the intra-class correlation coefficient (ICC). ICC is the proportion of the variance that is between groups. In the present analysis, it refers to the amount of variability in the outcome (e.g., visitation per capita) that is different for libraries based on the state in which that library is situated. The ICC is calculated using the formula in **Equation C-1**:

$$ICC = \frac{\tau_{00}}{\tau_{00} + \sigma^2} = \frac{\text{Between Group Variance}}{\text{Total Variance}} \quad (\text{C-1})$$

For these analyses, the between-group variance refers to the variability between states. The total variance is the sum of the between-group variance and the residual variance, the latter of which includes the variability between libraries. Thus, for these models, the ICC provides the amount of variability that is due to differences between states, when compared to all variability present in the data.

For each model, we estimated an unconditional model—a model of the outcome of library use with only random effects. In multilevel models, the random effects portion of the model, also called the stochastic portion of the model, is the model of the variances. The unconditional model was used to calculate the ICC in order to determine the proportion of variance between groups. In order to determine the effect of investments on use, we entered fixed effects into the model. Fixed effects are the structural part of the model, also called the model for the means. The estimates for fixed effects describe how the outcome (use) varies as a function of values of the predictor (investment).

We focused on four key metrics of public library use as outcomes in the models: in-person visitation, circulation of materials, program attendance, and user sessions of public access computers. We also focused on the effect of specific investments as predictors of use: revenue, the number of staff, the number of print materials and e-books, the total number of programs offered, and the number of publicly available Internet computers. In order to adjust for differences due to population size within library legal service areas, we used per capita estimates for each of these outcomes and predictors.

Visitation per Capita: Physical Visitation to Public Libraries per Capita

Visitation per capita is a ratio of the number of physical visits to a public library to the number of people living in that library's legal service area. In the unconditional model, before looking at any predictors of public library investments, 8.3 percent of the variability in visitation per capita can be explained by differences between states.

There were three measures of public library investment that were significant predictors of visitation per capita: the number of staff per 25,000 people, the number of e-books per 1,000 people, and the number of programs per 1,000 people. In addition, there was an effect of locale for libraries in rural areas.

Acknowledgments

Many individuals made important contributions to this report. The Institute of Museum and Library Services (IMLS) is grateful for their dedication.

IMLS would like to extend a special thank you to members of the survey advisory group for their help in managing the survey process. The Library Statistics Working Group (LSWG) is a vital part of the survey team. Their time and effort has helped make this report a more valuable resource to the library community and the public.

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IMLS also extends sincere gratitude to the Chief Officers, State Data Coordinators, other State Library Agency staff, and public library directors and their staff who provided the data for this report. Their diligent efforts result in a national data resource with an exceptionally high response rate, year after year.



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Appendix C. Estimates for Multilevel Models of Public Library Use

Having additional staff had the strongest positive effect on visitation. For each FTE (full-time equivalent) on staff per 25,000 people in the legal service area, there was an increase of 0.16 in visitation per capita. The number of programs offered was also related to increases in visitation. For each program offered per 1,000 people, there was an increase of 0.02 in visitation per capita—or 2 additional visits per 100 people in the legal service area.

E-book volume was also a significant predictor of visitation per capita. E-books per 1,000 people had a small negative effect on visitation per capita. In the interpretation of this effect, it is critical to keep in mind that the metric for visitation is based upon in-person

visitation. E-books at public libraries are checked out and returned virtually, making a physical visit unnecessary. This service is particularly important for libraries that serve a large geographic area, such as those in rural areas. Therefore, it is logical that an increase in e-book holdings for a library would lead to a decrease for in-person visitation.

In addition to the effect of investments on visitation, there was also an effect of locale. Compared to libraries in cities, the only significant difference was for libraries in rural areas. Libraries in rural areas had a decrease in visitation per capita of 0.99—one fewer visit per person for rural libraries compared to city libraries.

Table C-1: Estimates for physical visitation per capita to public libraries, FY 2012

	Estimate	Standard Error	p-value
Conditional Model			
Fixed Effects			
Intercept	3.162	0.280	< .0001
Revenue, per capita	0.003	0.001	0.0151
Total Staff, per 25,000 people	0.157	0.004	< .0001
E-books, per 1,000 people	-0.0002	0.000007	0.0007
Programs, per 1,000 people	0.0224	0.0009	< .0001
Public access PCs, per 5,000 people	-0.007	0.0029	0.0184
Locale (ref = city)			
Suburb	0.356	0.259	0.1687
Town	-0.010	0.258	0.9691
Rural	-0.995	0.254	< .0001
Random Effects			
Intercept (between-state variance)	1.054	0.269	< .0001
Residual (within-state variance)	25.449	0.379	< .0001
Unconditional Model			
Fixed Effect			
Intercept	6.336	0.294	< .0001
Random Effects			
Intercept (between-state variance)	3.81	0.8647	< .0001
Residual (within-state variance)	42.12	0.6267	< .0001



Appendix C. Estimates for Multilevel Models of Public Library Use

Circulation: Total Circulation per Capita

Circulation per capita is the ratio of circulation of materials to the number of people living in a library's legal service area. Before looking at the effect of library investments, 13.7 percent of the variation in circulation per capita was explained by differences between states.

There were five investments that were significant predictors of use. Increases in revenue per capita, expenditures on electronic materials per capita, the number of librarians per 25,000 people, book volume per 1,000 people, and the number of programs per 1,000 people were each related to increases in circulation per capita. There was also a locale effect for public libraries in towns and rural areas. In the final model, 37.2 percent of the variance in circulation per capita between libraries was explained by the investments in library resources.

The strongest predictor of circulation per capita was expenditures on electronic materials. For each \$1.00 spent on electronic materials per capita, there was a 0.54 increase in circulation per capita. That is equivalent to one more item circulated for every two people in a library service area. Revenue per capita was also related to circulation; each \$1.00 increase in revenue per

capita was related to a 0.11 increase in circulation per capita. There was also a state-level effect for circulation per capita. After controlling for revenue per capita, for each additional dollar a library spent per-capita, when compared to other libraries in their state, resulted in a decrease of 0.07 in circulation per capita. Even if we do not control for library revenue per capita, the between-state effect of a \$1.00 increase in revenue per capita results in an increase in circulation per capita that is significant.

Staffing, particularly librarians, were related to increases in circulation. An increase of one librarian (FTE) on staff per 25,000 people in the legal service area resulted in an increase of 0.10 in circulation per capita. Increases in book volume and programs were also related to increases in circulation per capita.

Finally, there were also locale effects for circulation per capita. Compared to public libraries in cities, libraries in towns and rural areas had lower levels of circulation per capita, even after controlling for the other variables listed above. Libraries in towns had a circulation per capita that was 1.42 lower; for libraries in rural areas, it was a decrease of 2.74.

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Table C-2. Estimates for total circulation of materials, FY 2012

	Estimate	Standard Error	p-value
Conditional Model			
Fixed Effects			
Intercept	3.391	0.848	0.0002
Revenue, per capita	0.113	0.020	< .0001
Revenue per capita (state-mean centered)	-0.077	0.020	0.0003
Librarians, per 25,000 people	0.104	0.007	< .0001
Book Volume, per 1,000 people	0.00009	0.00001	< .0001
Electronic Material Expenditures, per capita	0.539	0.059	< .0001
Programs, per 1,000 people	0.007	0.0009	< .0001
Locale (ref = city)			
Suburb	-0.105	0.305	0.7301
Town	-1.420	0.304	< .0001
Rural	-2.742	0.302	< .0001
Random Effects			
Intercept (between-state variance)	3.303	0.727	< .0001
Residual (within-state variance)	35.039	0.521	< .0001
Unconditional Model			
Fixed Effect			
Intercept	8.396	0.438	< .0001
Random Effects			
Intercept (between-state variance)	8.843	1.896	< .0001
Residual (within-state variance)	55.802	0.830	< .0001



Appendix C. Estimates for Multilevel Models of Public Library Use

PC Usage: User Sessions of Public-Access Internet Computers per Capita

Internet computer access is one of the many valuable resources public libraries provide. The PLS provides a metric for the use of this specific resource: the number of **uses of public-access Internet computers**.

Public access computer use sessions per capita is the ratio of the number of times a public access computer was used to the number of people in the legal service area. Before any predictors were examined, 14.1 percent of the variability in use sessions per capita was explained by variation between states.

The number of public access computer use sessions per capita was predicted by five measures of investment:

revenue per capita, expenditures on electronic materials per capita, the number of librarians per capita, the number of public access Internet computers per capita, and the number of programs per capita. There were no additional effects due to locale.

The strongest predictors for computer use sessions per capita were expenditures on electronic materials and the number of public access computers per capita. For every \$1.00 spent on electronic materials per capita, there was a .05 increase in the number of computer use sessions per capita. This is the equivalent of an additional computer use session for every 20 people. For each additional public access Internet computer per 5,000 people, there was a 0.03 increase in computer use sessions per capita.

Table C-3. Estimates for the uses of public-access computers, FY 2012

	Estimate	Standard Error	p-value
Conditional Model			
Fixed Effects			
Intercept	0.805	0.0471	< .0001
Revenue, per capita	0.004	0.0003	< .0001
Librarians, per 25,000 people	0.016	0.0017	< .0001
Public access PCs, per 5,000 people	0.028	0.0009	< .0001
Electronic Material Expenditures, per capita	0.050	0.0156	0.0018
Programs, per 1,000 people	0.001	0.0003	< .0001
Random Effects			
Intercept (between-state variance)	0.074	0.0197	< .0001
Residual (within-state variance)	2.469	0.0367	< .0001
Unconditional Model			
Fixed Effect			
Intercept	1.6061	0.1156	< .0001
Random Effects			
Intercept (between-state variance)	0.6175	0.1335	< .0001
Residual (within-state variance)	3.7591	0.0559	< .0001

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Program Attendance: Total Attendance at Library Programs per 1,000 People

Program attendance per 1,000 people is the ratio of the total number of people who attended all programs offered at a public library to the total number of people (by 1,000s) living in the library legal service area. Before adding any predictors to the model, 3.6 percent of the variability in program attendance per 1,000 people was explained by differences between states.

Two measures of library investment were significant predictors of program attendance per 1,000 people: the number of programs offered and the number of librarians per capita. Increases in programs were related to increases in attendance. For each program offered per 1,000 people, there was an increase of 10.5 in attendance per 1,000 people. An increase in one librarian FTE on staff per 25,000 people resulted in an increase

of 9.7 in program attendance per 1,000.

After controlling for all of the predictors above, there were no additional effects due to locale for program attendance per 1,000 people.

Several other variables were significantly related to program attendance per 1,000 people: revenue per capita, book volume per 1,000 people, and public access computers per 5,000 people. Because of inter-correlation between the predictor variables, there was a suppression effect. Specifically, even though these variables had a positive relationship with program attendance per capita, when the number of programs per 1,000 people was entered into the model equation, the relationship of these predictors to the outcome changed to negative. We made the decision to retain the predictors with the strongest and most logical relationship—number of programs and librarians—in the model.

Table C-4. Estimates for attendance at library programs, FY 2012

	Estimate	Standard Error	p-value
Conditional Model			
Fixed Effects			
Intercept	85.97	31.01	0.0080
Librarians, per 25,000 people	9.70	0.94	< .0001
Programs, per 1,000 people	10.52	0.12	< .0001
Random Effects			
Intercept (between-state variance)	35301	9521	0.0001
Residual (within-state variance)	842128	12537	< .0001
Unconditional Model			
Fixed Effect			
Intercept	550.81	41.46	< .0001
Random Effects			
Intercept (between-state variance)	97111	17599	< .0001
Residual (within-state variance)	1776836	26444	< .0001

