

# Rural Libraries in the United States

Recent Strides, Future Possibilities, and Meeting Community Needs

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ural America faces significant challenges. It has the lowest home broadband Internet adoption rates, the lowest employment and economic growth rates, the fewest physicians per capita, and the lowest educational attainment rates. Rural libraries are part of the solution to addressing these concerns—often providing the only free public computer and Internet access and assisting patrons in gaining technology skills to pursue employment, entrepreneurship, and education opportunities online. In short, libraries are invaluable resources in some of our smallest and most far-flung communities.

Yet, the roughly one-third of all U.S. public library buildings that serve areas with populations of 2,500 or fewer people possess a median of 1.9 full-time equivalent employees, occupy just 2,592 square feet, and often offer fewer formal services than their peer institutions in more populated areas. Despite librarians' best efforts, building capacity, staff time, and discretionary budgets are often stretched thin.

Using data from the Public Libraries in the United States Survey (conducted by the Institute of Museum and Library Service) and the Digital Inclusion Survey,<sup>1</sup> (conducted jointly by ALA and the University of Maryland's Information Policy and Access Center), this report documents how rural public libraries deploy Internet-enabled computing technologies and other resources to meet the needs of their residents. It also explores the nuances of rurality, details challenges rural libraries face in maximizing their community impacts, and describes ways that existing collaborative regional and statewide efforts help support rural libraries and their communities.

## **Overview: America's Rural Libraries**

In total, 6,408 of America's 16,695 public libraries are in rural population service areas.<sup>2</sup> While rural communities are often juxtaposed with their more populous counterparts, there is significant nuance within the Census category of rural that is meaningful. The U.S. Department of Education's National Center for Educational Statistics (NCES) provides the following definitions.<sup>3</sup>

- RURAL, FRINGE: Census-defined rural territory that is less than or equal to 5 miles from an urbanized area (a city or densely populated suburb), as well as rural territory that is less than or equal to 2.5 miles from an urban cluster (a town).
- RURAL, 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.
- RURAL, 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.

Of all rural libraries, 940 are designated as rural fringe, 3,203 are rural distant, and 2,265 are rural remote.

As libraries move away from population centers, they are less likely to be part of systems with multiple branches (see Table 1). Just over 60 percent of all rural libraries are part of a system with only a single library, ranging from a low of 50.5 percent for rural fringe locations to 66.8 percent for rural remote outlets. Thus, as libraries move further away from population centers they are less able to leverage economies of scale. These libraries may benefit from regional or state collaborations, but those that lack sufficient support at these levels are more likely to have difficulty with expedient inter-library loans, face greater distances for staff to travel for continuing education training, and have less access to dedicated information technology, administrative, and technical services staff than their counterparts.

TABLE 1. Rural Library Systems, by Percent

	Rural Fringe	Rural Distant	Rural Remote	Rural Overall
No Branches	50.5	58.2	66.8	60.1
One Branch	5.7	4.6	5.2	5.0
Two Branches	4.8	4.9	5.7	5.2
More Than Two Branches	38.9	32.1	22.1	29.6

# Rural Technology Challenges

Rural communities lag more populous areas in terms of access to affordable, high-capacity broadband. In 2015, the Federal Communications Commission (FCC) updated home broadband standards to 25 Mbps download and 3 Mbps upload speeds from the 2010 standard of 4/1 Mbps download/upload speeds to account for streaming media and other data-intensive applications. Thirty-nine percent of rural residents (roughly 23 million people) lack access to 25/3 Mbps broadband, and one in five are unable to subscribe at speeds greater than 4/1 Mbps.<sup>5</sup> For the most remote rural regions, broadband providers often are unwilling to provide home broadband or demand additional line installation fees that put the cost of such services out of reach for these households.<sup>6</sup> Similarly, it is not uncommon for schools, libraries, and hospitals in the most remote rural areas to lack high-speed broadband access or to be required to pay many times the national average to secure broadband service.

Constrained by factors of cost and quality, rural Internet use historically has trailed other communities. As of 2015, the Pew Research Center reports 78 percent of rural residents regularly using the Web, up from 42 percent in 2000.7 This is compared to 85 percent for both urban and suburban areas. Older individuals, those with lower levels of formal educational attainment, and persons with lower incomes are not only less likely to be regular users of the Internet, but also are

disproportionately represented in rural communities. Home broadband subscriptions are lower than usage, as only 55 percent of rural residents have home broadband.<sup>8</sup>

Smartphones have become a primary point of access for many individuals without home broadband. Pew reports that while most smartphone users also have home broadband, 15 percent of rural and urban residents and 12 percent of suburbanites have data-enabled cell phones but do not subscribe to home broadband services. This represents an increase from 9 percent and 7 percent, respectively, in 2013. Internet-enabled phones and tablets may provide a solution for many tasks, but do not bridge the digital divide for more complex work like writing cover letters, or completing homework assignments. Access to computer terminals in libraries and librarian assistance and expertise are still invaluable services.

Although rural areas still trail more populated areas in terms of connection speeds and costs, this situation would be far worse without the direct intervention of the federal government. In 2009, the American Reinvestment and Recovery Act provided \$7.2 billion through the National Telecommunications and Information Administration (NTIA) and the Rural Utility Service to support broadband expansion throughout the United States. Through NTIA's Broadband Technology Opportunities Program (BTOP) alone, 109,137 miles of fiber infrastructure were deployed, upgraded or leased, and more than 21,000 community anchor institutions (e.g., schools, libraries and health centers) were connected to this infrastructure. Federal agencies continue to work to expand and improve rural broadband access through technical assistance, grants and loan programs. In

# Bridging the Digital Divide: Rural Libraries and Technological Capacity

Libraries in communities of all sizes have improved their technological capacity in recent years. In 2014, for instance, 14.9 percent of rural libraries had subscribed Internet download speeds of 1.5 Mbps or less, compared with 43 percent that reported this was the case in 2010. Libraries overall have a median subscribed download speed of approximately 16 Mbps, with a high of 40 Mbps for city libraries, 25 Mbps for suburban outlets, and 15 Mbps for town locations. Rural libraries have the weakest capacity at a median of just 10 Mbps, falling well below the FCC's broadband standard of 25 Mbps for *home* (not library or school) access, where bandwidth is divided by members of a single household rather than staff and patrons of an entire library. Furthermore, this is a fraction of the 100 Mbps goal set by the FCC for all libraries serving 50,000 people or less. Rural fringe libraries have the best broadband capacity at a median of 13 Mbps for downloads and 8.6 Mbps for uploads, showing that these libraries' proximity to population centers makes them more likely to be able to take advantage of local infrastructure. Rural distant libraries stand at a median of 7.7 Mbps for downloads and 2.2 Mbps for uploads, while rural remote outlets stand at 6.7 Mbps and 1.0 Mbps, respectively.

Rural libraries are nearly half as likely (32.6 percent) as their urban counterparts (62.3 percent) to report having a fiber optic broadband connection, which provides greater capacity and the ability to upgrade speeds more easily with new electronics.<sup>13</sup>

CHART 1.
Public Libraries with Internet Connections
Greater than 1.5 Mbps, by Percent

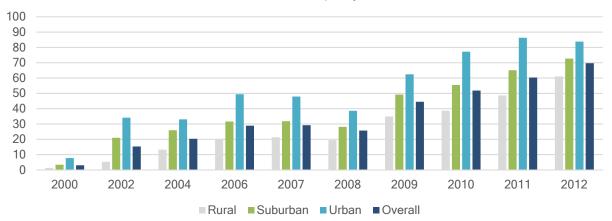
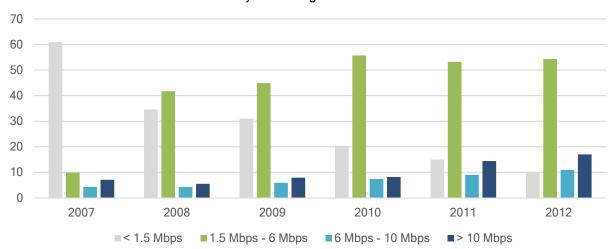


CHART 2.
Rural Public Libraries' Connection Speeds,
by Percentage of Outlets



Another measure of library broadband quality is adequacy of connections for patron use, as reported by librarians. In 2008, only 42 percent of libraries reported their Internet connection speed was adequate to meet patron demand most of the time. In 2014 this improved to 60.8 percent of libraries across all locale types, but rural libraries were the least likely to report speeds adequate to meet demand most of the time. One in ten rural libraries report Internet speeds *rarely* meet patron needs.<sup>14</sup>

In other areas, rural libraries have caught up with their counterparts. As of 2007, just 54.2 percent of libraries offered wireless Internet (WiFi) to the public, with less than half (45.8 percent) of rural libraries offering WiFi. Today virtually all libraries now offer public WiFi. As patrons

increasingly bring their own Internet-enabled devices to the library and use more data intensive applications, however, there will be greater pressure on library broadband networks.

Finally, rural libraries offer the fewest public access computers overall (8.8, compared to an average of 18.8 for all libraries). This is unsurprising, considering that rural public libraries have the smallest customer base. Likewise, these outlets are the least likely to report patron wait times (18 percent, compared to 30.7 percent for all libraries). Roughly one-third of these computers are more than four years old, compared to an average of 25 percent for all libraries. <sup>15</sup>

# Digital Content and Training: Rural Libraries and Barriers to Digital Readiness

Rural libraries are essential to bridging the digital divide, with a majority providing patrons with a wide range of technology training programs that promote digital readiness in their communities. Gaps between rural library service offerings and those in more populated areas are most pronounced for programs that require dedicated staff time or demand trainers that have more specialized technology skills.

# Basic Technology Skills

Rural libraries (84 percent) are quite comparable with their peers (87 percent) with regard to basic computer training. The gap in training offered for the use of basic office productivity software is similarly small (84.4 percent overall and 80.7 for rural libraries). Differences become greater in relation to more specialized training, such as social media and introducing patrons to new technologies, as illustrated in Table 2.

 $\label{eq:table_2} {\sf TABLE~2}\,.$  Percentage of Libraries Offering Basic Technology Assistance, by Locale

						Rural	Rural	Rural
	Overall	City	Suburb	Town	Rural	Fringe	Distant	Remote
General Internet use (e.g., set up e-mail)	89.9	89.2	93.3	92.3	86.6	89.2	87.9	82.4
Social media (e.g., blogging, Twitter)	55.9	62.2	58.6	59.6	49.7	57.1	50.3	47.9
General familiarity with new technologies	61.8	68.5	73.0	63.4	50.6	62.1	52.0	48.0

Training or technology assistance at the library may be offered through formal classes, individual help by appointment, informal point of use training, and through online training materials. Libraries commonly offer training through multiple means, but ad-hoc assistance through informal point of use training is the most common form of assistance. The availability of formal classes tends to decrease with population density.

Rural libraries' decision to primarily use ad-hoc training sessions and limit their reliance on formal classes is a practical decision that often has limited impact on the types of services offered. When it comes to a broad range of computer skills, rural patrons are almost as likely as those in more populated areas to be able to find such services at their local public library. But, as discussed later in this report, rural libraries are less likely to offer programs that are traditionally offered in a classroom or group setting, such as ESL or GED education.

### **Employment and Economic Development**

Rural population growth has been stagnant for years, declining 0.3 percent between 2010 and 2014 before becoming simply flat in 2015.<sup>17</sup> Job growth also was flat prior to the recession, with smaller losses during this time period, but also smaller gains in recovery years. With negative population growth and a relative lack of new industries, including technology-oriented businesses, many rural communities do not have a path towards economic growth. Libraries can be part of the solution in terms of building job skills and supporting the development of new businesses.

As shown in Table 3, 73.1 percent of all libraries help patrons develop skills needed to advance a career. This is achieved through training in developing resumes, assisting patrons with completing online applications, and mock interviews or other interviewing training. A majority of rural libraries provide employment-related programming, and close to one-quarter are engaged with small business development activities.

National trends show that public libraries can make contributions to the development of small businesses <sup>18</sup> and provide other services that allow workers to thrive, but limited resources have led to rural libraries to be less likely on average than their peers to provide services that directly address these matters. Considering that the USDA has found that economic growth and non-recessionary employment gains in communities is positively correlated to educational attainment, the fact that nonmetro areas fall behind metro regions in high school and college completion is a hurdle that must be overcome. Libraries cannot support local economic growth without also supporting local education.

#### **Education Assistance**

Educational attainment in rural and other nonmetro parts of the United States has improved significantly in recent years. About 15 percent of residents in nonmetro areas did not have a high school degree or equivalent as of 2015, down from 24 percent in 2000. Metro areas only fare slightly better. Here, about with 13 percent of residents have not completed high school degrees or equivalencies. However, the differences become more dramatic in relationship to postsecondary

education, with only 19 percent of rural residents having obtained a bachelor's degree or higher, compared to 33 percent of metro residents. Distance education can be part of the solution in bridging this divide. Fittingly, rural libraries are the most likely of public libraries to provide assistance in accessing online degree courses (e.g., virtual high school, university, college, community college, technical school, and online certification programs).<sup>20</sup>

 ${\tt TABLE~3.}$  Percentage of Libraries Offering Local Economic Development Programs, by Locale

						Rural	Rural	Rural
	Overall	City	Suburb	Town	Rural	Fringe	Distant	Remote
Applying for jobs (e.g., interviewing skills, resume development)	73.1	81.1	77.7	79.8	63.4	71.7	69.1	61.4
Accessing and using job opportunity resources	68.3	78.6	76.0	69.5	58.3	69.7	62.7	50.0
Providing work space(s) for mobile workers	36.1	34.8	37.6	38.3	34.5	33.8	32.1	34.8
Supporting small business development	32.2	43.0	41.0	30.3	22.8	29.2	22.3	20.1
Accessing and using online business information resources	47.9	67.0	63.7	43.3	31.9	48.4	31.6	26.3

Table 4, however, shows that rural libraries are less likely to offer formal after-school programs, such as learning labs or the Let's Movel program. Just over one-quarter of rural libraries report offering these services. Rural fringe libraries outpace their peers at 37.9 percent, dropping to 28.4 percent for rural distant outlets and 25.9 percent for rural remote locations. It is worth noting that these numbers do not include standard reference help with homework and school projects, nor do they take into account the role of the library as a safe after-school place, even if it does not have activities specifically planned for this age group.

More research is needed to understand why planned after-school programs decline with population density, but it likely relates to limited open hours, staff time and availability, adequacy of facilities, and the ability of students to reach their local library. On this last point, public transportation quality and the ability to walk to nearby libraries decreases as one moves away from

urban centers. In a recent study of after-school programs in rural communities, the Afterschool Alliance found that these distances and the transportation issues they entailed prevented many schools from viewing after-school programs as cost effective, while students and parents were often unable to easily access extant programs due to these barriers.<sup>21</sup>

Rural libraries also lag in terms of offering STEAM programs, preparation for GED examinations and providing English as a Second Language (ESL) training.

 ${\sf TABLE~4}\,.$  Percentage of Libraries Offering Educational Assistance, by Locale

						Rural	Rural	Rural
	Overall	City	Suburb	Town	Rural	Fringe	Distant	Remote
After-school programs (e.g., homework help)	36.3	51.4	44.1	33.2	26.5	37.9	28.4	25.9
Science, Technology, Engineering, Arts, Math (STEAM) events (e.g., maker spaces)	34.2	48.9	47.7	32.8	19.7	36.4	20.9	14.4
GED or equivalent education	34.9	48.4	35.2	40.0	26.6	28.0	26.6	26.3
ESL/ESOL/ELL	24.9	42.5	35.5	21.4	12.6	17.5	10.8	8.0

#### Health and Wellness

On average, America's rural residents have more difficulty accessing healthcare than persons in more populated areas. Following the U.S. Department of Health and Human Services' guidelines, 1,582 of the 2,050 primarily rural counties in the United States (77.2 percent) can be considered health professional shortage areas.<sup>22</sup> This means that persons in these areas have greater difficulty scheduling appointments with general practitioners for basic health services and diagnoses, and even greater difficulty accessing services from specialists. Additionally, as of 2013, about 15 percent of persons living in rural areas were uninsured and did not qualify for Medicare or Medicaid, versus 9 percent of individuals from metropolitan areas.<sup>23</sup> Considering these circumstances, rural libraries that empower patrons by helping them to find and evaluate online health information provide a particularly valuable supplement to regional healthcare systems.

As outlined in Table 5, 56.2 percent of all public libraries assist patrons with finding and evaluating free health information, from sources like MedlinePlus and the Mayo Clinic. Nearly 40 percent of rural libraries provide this service.

Thus, as ease of access to quality healthcare decreases with distance from population centers and declining population density, so does the readiness of local public libraries to help compensate for this issue. With this said, thousands of rural public libraries serve as health information access points in their communities and have plans, programs, and databases ready to help residents and can serve as critical partners with rural health entities.

TABLE 5. Percentage of Libraries Offering Health Information Assistance, by Locale

					P	Rural	Rural	Rural
	Overall	City	Suburb	Town	Rural	Fringe	Distant	Remote
Using subscription health and wellness database(s)	56.2	74.5	67.6	58.7	39.8	57.4	43.8	35.8
Identifying health insurance resources	59.4	76.8	70.3	57.8	46.0	58.3	53.8	42.8

# Community Engagement and Group Events

Rural libraries provide civic and social engagement services to patrons. As shown in Table 6, 61.1 percent of all public libraries offer book discussions and other social events for adults. This is true for roughly 50 percent of rural locations. Rural fringe outlets outpace other rural locations at 62.9 percent, however. About 43 percent of rural libraries offer events for young adults, with a low of 32.4 percent of rural remote locations and a high of 56.6 percent for rural fringe. Finally, about 30 percent of rural libraries offer civic engagement events like candidate forums and community conversations with remote libraries the least likely to do so.

A strong majority of rural libraries offer core services that bridge the digital divide and ensure that a lack of access to or prohibitive costs of broadband services do not need to result in the local population being excluded from changing elements of society. More specialized services targeting specific community needs are less commonly available through many of these rural outlets than their counterparts in more populated areas, but this is often due to practical considerations involving capacity and demand, which are discussed further below.

# Library Resources: Beyond Technology

It would be highly encouraging if the available evidence suggested that the reason for rural libraries lagging their peers in a spectrum of service offerings was simply a matter of weaker technological

infrastructure. As broadband access capacity improves and the price of computers declines, it would be reasonable to expect rural libraries to overcome many technology barriers. However, the challenges rural libraries face are not limited to technology. Many rural libraries' limited budgets negatively impact staffing, open hours, and the libraries' physical plants—which, in turn, impact library program and service offerings.

 ${\tt TABLE~6.}$  Percentage of Libraries Offering Community and Civic Engagement Programs, by Locale

						Rural	Rural	Rural
	Overall	City	Suburb	Town	Rural	Fringe	Distant	Remote
Hosting social connection events for adults (e.g., book discussion groups)	61.1	69.7	70.3	64.0	49.8	62.9	52.8	44.3
Hosting social connection events for young adults (e.g., gaming)	59.8	78.9	76.6	56.3	42.6	56.6	45.2	32.4
Hosting community engagement events (e.g., candidate forums)	40.2	49.1	47.8	42.6	30.2	33.8	32.1	26.3
Assisting patrons with access and use of online government programs and services	75.6	82.9	77.1	79.7	69.4	72.0	72.0	65.8

Almost 85 percent of library budgets nationwide come from local governments, followed by 6.8 percent from state governments and just 0.5 percent from federal investments.<sup>24</sup> This has a clear impact on rural libraries' salaries and staffing. Rural areas tend to have less local tax revenues as a result of lower average salaries, lower land values, and a higher proportion of retired individuals.<sup>25</sup> This situation has only become worse as rural population growth has declined in recent years. What follows is a discussion of how the high level of dependency on local funding limits what rural libraries and librarians can do.

## Staffing and Hours Open

Not surprisingly, libraries with smaller population bases have fewer full-time equivalent (FTE) employees per location than their larger counterparts. Rural fringe libraries have a median of 4.2 FTEs per location, versus 2.0 for rural distant locations and just 1.3 for rural remote outlets. This

has a logical impact on the number of hours libraries in different areas are open to the public. An average rural fringe library is open approximately 34 hours per week, versus 28 for rural distant libraries and 26 hours per week for rural remote outlets. As a result, smaller libraries are less likely to be able to accommodate a range of patron schedules, and staff may not have enough time to directly assist with their information needs.

Furthermore, the median librarian salary for rural libraries is \$28,508, with a high of \$32,856 for rural fringe locations, declining to \$27,370 for rural distant libraries and yet lower to \$25,950 for rural remote outlets. A 2007 survey of American rural librarians by Robert Flatley and Andrea Wyman, however, found that 66 percent of respondents planned to remain in their library careers until retirement, and 97 percent reported that they were satisfied or very satisfied with their careers, suggesting that lower pay does not result in job dissatisfaction. It can, though, have an impact on the ability to recruit and hire staff with more specialized skills. Flatley and Wyman found that the most common complaint that rural librarians had about their jobs was inadequate funding to purchase new materials and technologies.

### Aging and Inadequate Library Buildings

Broadly speaking, rural libraries are small, and their buildings are less up-to-date. The median physical size for rural libraries is 2,592 square feet, versus a median of 12,680 for city libraries, 12,578 for suburban outlets, and 9,300 for town locations. This ranges from a median of 4,276 square feet for rural fringe outlets, 2,500 for rural distant, and 2,380 for rural remote. In comparison, the average size of American houses built in 2013 was approximately 2,600 feet. These medians cover the entirety of these library outlets, including staff offices and other areas not accessible to the public, shelving, computers and any designated children's areas and meeting or study rooms, where available. It makes sense that rural public libraries are smaller, considering that they serve smaller population bases. However, this lack of space may limit the ability of these outlets to reconfigure their physical plant to follow broader public library trends of incorporating new technologies and offering more public programming.

Beyond the size of the physical space, the age of facilities is an issue—not just for rural locations, but for all libraries. The average year that an American public library building opened is 1970. How recently the facility has been brought up to date is no small matter. To point out just a few differences, 57.6 and 58.1 percent of libraries that have not been updated in the past five years offer social connection programs for adults and young adults, respectively, versus 75.6 and 68.4 percent for those that have been updated. About one-third (33.2 percent) of older library facilities provide after-school programs, while 51.7 percent of outlets that have been renovated or newly constructed in the past year do so. In 2014, rural libraries were the least likely to report renovations had taken place in the previous five years—about 15 percent compared with a national average of 21 percent or 33 percent of city libraries.<sup>29</sup>

More research needs to be conducted into what the limitations of smaller physical plants mean for rural libraries, but one likely concern is that it is difficult to accommodate increasingly popular public programs with a building that is not easily reconfigured. The greatest service area of recent

growth for public libraries overall is in public programs. Public program attendance for public libraries overall increased 28.6 percent between 2006 and 2013.

The ability to build a new library location or renovate an existing building is seen by many librarians as an opportunity to reconfigure their space to facilitate innovative programs and services. This is part of a trend of re-configuring libraries to be a "third space," beyond patrons' primary and secondary life spaces of home and work. However, for the smallest of outlets—including many of America's rural libraries—marginal space gains in recent years are not enough to facilitate new innovations in public programming.

The most obvious and effective solution to the limitations presented by staffing shortages and small or outdated physical spaces would be a general increase in public library funding, especially at the state and federal levels. Advocating for this is an important long-term goal, but in the short term, it is necessary to consider how to allocate limited resources in ways that allow rural libraries to have the greatest possible positive impacts on their communities. What follows is a discussion of solutions that have been enacted in some areas, using Maryland and Iowa as specific examples, as along with ideas for new courses of action that can increase rural libraries' effectiveness.

# Statewide and Regional Solutions

Rural libraries are often geographically isolated from peer libraries and other resources, but this does not mean that they need to be institutionally isolated from other libraries and support agencies. Connections at the local, regional, and state levels can help improve resource availability for rural libraries. Programs in Maryland and Iowa offer examples of how rural libraries can be supported at the state and regional levels, as well as how cultural factors and library structures can influence what's possible in terms of these broader sorts of collaboration.

### Multi-Tiered Cooperation at State, Regional, and Local Levels

The state of Maryland has specifically enacted organizational solutions intended to address resource gaps between rural communities and more populated areas. The public libraries throughout the state are primarily organized as county-level systems, with the Enoch Pratt Free Library (EPFL) system serving the independent city of Baltimore. Eighteen of the state's twenty-three counties have primarily rural land masses, and system sizes range from two to five outlets, thus limiting resource sharing and economies of scale compared to more populated counties.

Maryland has two primary solutions for this problem. First, the state has funded three regional library systems to facilitate cooperation among libraries in fourteen of the fifteen least populated counties. Two of these regional cooperatives, the Western Maryland Regional Library (WMRL) and Southern Maryland Regional Library Association (SMRLA), cover three counties each, while the Eastern Shore Regional Library (ESRL) provides services to eight county systems. Services provided by these multi-county associations include maintaining online catalog systems for staff and patron use, providing training programs for employees throughout constituent counties, and negotiating

with vendors to purchase databases—using the leverage of multiple libraries to receive better rates than each could receive alone.

The state of Maryland is the primary funder of the three regional library consortia, providing approximately \$6.4 million in 2015, which constituted about 75 percent of ESRL's budget (with virtually all of the remainder coming from federal sources) and almost 95 percent of WMRL and SMRLA's support.<sup>32</sup> Most funding for the individual county library systems still comes from the local level, but removing most of the responsibility for technical services, interlibrary loan, and other operations from each member library system's budget allows these local funds to be used to maintain and enhance patron-oriented services.

The second major support structure for rural libraries throughout the state of Maryland is the State Library Resource Center (SLRC), housed in the central location of Baltimore's EPFL. SLRC provides services to all libraries in the state that complement those offered by the regional libraries. This includes the coordination of state wide inter-library loans, training programs that include Maryland state librarian certification, and negotiating the purchase of databases. SLRC also oversees specialized reference and collections—assisting librarians when patrons' needs exceed the resources of the local library.

Andrea Berstler, director of the Wicomico Public Library (one of eight libraries served by ESRL) and past president of the Association of Rural and Small Libraries, sees these county, local, and state support mechanisms as invaluable to expanding the scope of what her libraries can do. In particular, Wicomico's smaller branches do not have the resources to hire subject specialists, with most librarians acting as generalists. Being able to rely on both the staff expertise and specialized reference materials available through SLRC and the affiliated EPFL ensures more equitable service offerings relative to libraries with a greater number of more specialized staff. Similarly, the ESRL cooperative gives smaller library outlets access to shared IT staff resources.

Perhaps most importantly, Berstler notes that the collegial support provided by the county, regional, and state structures is vital for her, her staff, and her colleagues. For Berstler specifically, these cooperative systems encourage her to discuss ideas with the directors of other county systems and think through key issues together. Removing a wide range of responsibilities inclusive ofbut not limited to—more advanced IT management, maintenance, payroll, grant writing, and database acquisition from library outlets allows librarians to spend more time focusing on their patrons' needs and enhancing services. Or, as Berstler states, each library can "pay attention to just being a library." However, this additional support does not come without fiscal costs. While the average public library in the United States receives 6.9 percent of its support from state funding, 15.7 percent of the overall budget for Maryland's public libraries comes from the state.<sup>33</sup>

### Flatter structure, less resource sharing support

In contrast, Iowa libraries receive 2 percent of their funding from the state.<sup>34</sup> Despite this barrier, the State Library of Iowa employs six District Library Consultants, each of whom oversees a section of the state and provides assistance to libraries in those areas. Unlike Maryland's county-based library organization, in Iowa towns commonly have their own independent libraries—resulting in

the state having the third highest number of libraries per capita in the United States. Of the 534 total outlets in the state, 63.5 percent have service populations of under 2,500, with more than half of those serving less than 1,000 people.<sup>35</sup> Just over 98 percent of the libraries are single direct service outlets, rather than being part of a larger system.<sup>36</sup> Regional inter-library loan, sharing IT staff, and achieving other economies of scale through cooperation is not the de facto situation for the state.

One of Iowa's six District Library Consultants, Becky Heil, notes that the lack of formal connections between libraries also limits librarians' ability to connect with and learn from each other. In some cases, staff from libraries within a county or other area have attempted to meet with each other on a periodic basis. But, funding is not commonly available for such activities and it is often impossible to maintain regular meetings without closing libraries—due to the small number of employees per outlet—or otherwise conflicting with librarians' commitments. The state library has developed a strong virtual continuing education program and virtual statewide conferences to help address these concerns.

The state library and its library consultants provide invaluable services such as helping to design websites for libraries that don't have the resources to do so themselves, working with local staff to develop operational policies for individual libraries, and coordinating statewide interlibrary loan—although there is no real-time federated catalog for libraries throughout the state to facilitate this activity. As there are few shared state digital resources, and none coordinated at the regional level, there is great variation in what's available from one community to the next.

Beyond funding, there are other cultural issues that can impede cooperation at the county or regional level. In Iowa, Heil notes that a culture of "home rule" (decentralized power to the local level) has led to municipalities being unwilling to share resources, in no small part because it means ceding part of their local control to others. Likewise, in her time working for a state with a similar emphasis on local autonomy, Berstler not only observed these local government challenges, but also saw that many libraries declined the opportunity to work together because staff and board members were unwilling to cede or share authority. "They're not willing to give up a little to gain a lot," she said. Considering that rural libraries spend more per capita to provide less robust service offerings and fewer hours open to the public, research into and advocacy for greater state and regional collaboration and support would be valuable.

# Conclusion

The amount and variety of services rural public libraries provide to their communities must be commended. The Internet has only been part of public libraries' service offerings for about two decades, and slower deployment of broadband infrastructure in rural America initially resulted in libraries in those areas lagging those in more populated locales. Rural broadband and technology is improving, and patron satisfaction for these services in rural libraries is comparable to larger libraries. Rural libraries also are comparable in the frequency with which they offer basic computer skill training, including assistance with accessing the Internet and using productivity software. There is room for improvement, but broadly speaking, rural librarians have reported increasing success in

bridging the digital divide in the communities that have the greatest barriers to affordable home broadband service and the lowest rates of adoption.

Beyond the need to continually update technological infrastructures to meet changing demands, rural libraries face continued challenges in terms of providing more specialized assistance in areas such as health, education, and economic development. Thought this issue is not uniform, and there are exceptions to the rule, the type of programming provided varies from library to library, region to region. While rural libraries are less likely to provide planned, targeted assistance to help patrons locate specialized information available freely on the Internet compared to libraries as a whole, they still do provide critical access to these materials. Greater deficiencies are noticeable, however, when it comes to public programming and technology-based services that demand more staff time, physical space, and discretionary funds.

Moving forward, it is clear that some challenges may only be overcome by increasing the fiscal resources available to rural public libraries, while others may be surmounted by reconsidering how available resources are allocated. State and federal funding and cooperative systems can act as equalizers. When superstructures above single libraries or library systems remove technical services, inter-library loan, and other obligations from the individual library outlet, better economies of scale can be achieved.

An analysis of rural libraries shows a need for updated facilities, greater technical capacity, and more staff hours. The need for these improvements becomes more sharply pronounced as library locations move further away from population centers. Although many of these libraries lag their peers in the depth and diversity of their public programming, the fact that each rural public library still provides a wide range of valuable and relevant services with limited staff, space, and funding is remarkable. Rural librarians stretch their resources to the limit in service to the public, and any additional resources they receive will result in even greater benefits to their communities.

#### NOTES

- 1. Unless otherwise noted, the statistical data presented in this report comes from the 2014 Digital Inclusion Survey and the FY2011 Public Libraries in the United States Survey (PLS). Although FY2012-14 PLS reports are now available, the 2014 Digital Inclusion Survey used the most recent data available at the time, which was from 2011. Primarily relying on the 2011 IMLS data and the 2014 Digital Inclusion Survey allows for more valid comparisons between these two datasets. Any deviation from these two surveys is noted in the text of this report. Reports from the IMLS PLS and the Digital Inclusion Survey are available, respectively, at <a href="https://www.imls.gov/research-evaluation/data-collection/public-libraries-united-states-survey">https://www.imls.gov/research-evaluation/data-collection/public-libraries-united-states-survey</a> and <a href="https://digitalinclusion.umd.edu/">https://digitalinclusion.umd.edu/</a>.
- 2. For the purpose of this study, a public library is a service location with a permanent physical location, thus excluding bookmobiles. "Library" or "public library" never refers to a library system or other grouping of library service points in this report, but instead mean an individual library building that provides services to patrons.
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- **15.** Ibid. Figures 12 and 13.
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