



Digital Literacy and Broadband in Grants to States

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Office of Digital Information Strategy

Presentation's Overview

- Methodology snippets
- Findings
 - Digital Literacy Projects
 - Broadband Projects
- *Emerging Impressions*

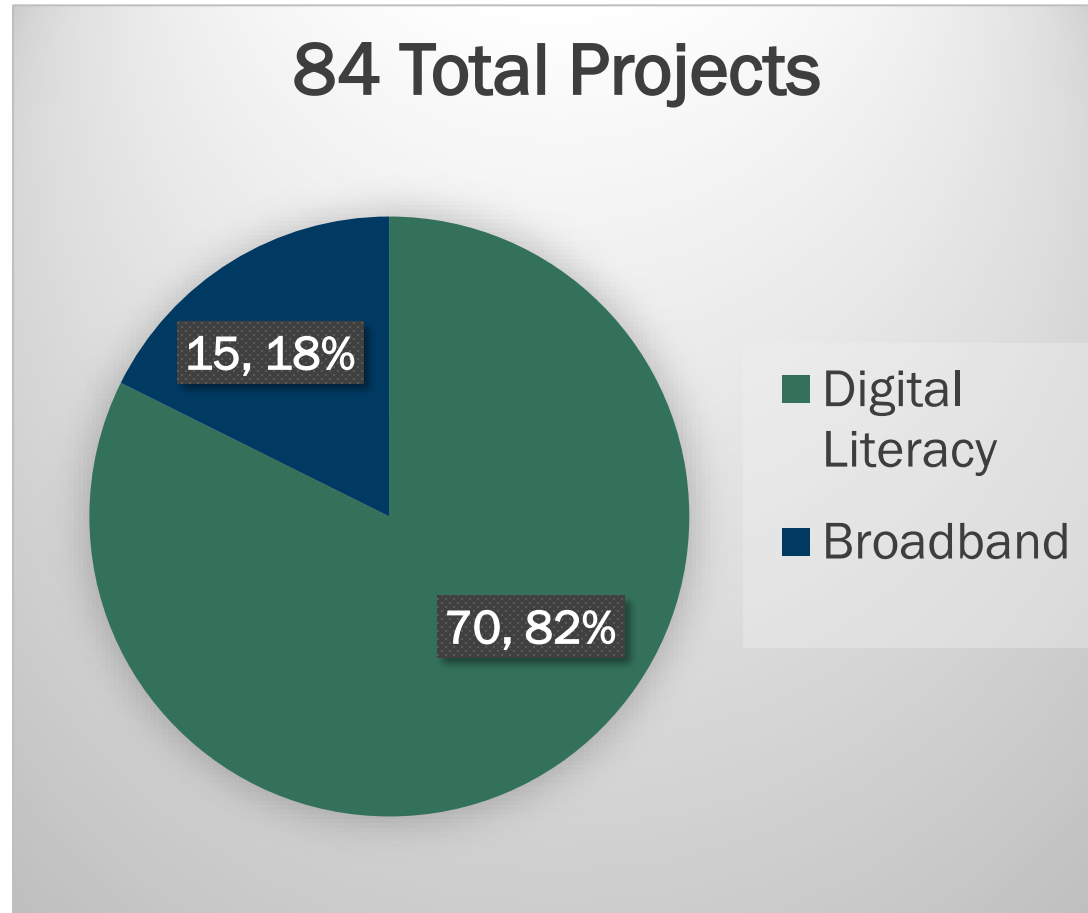
FY 2018 Digital Literacy and Broadband Projects

Methodology Snippets

Analytical Protocols

1. Identify projects with keyword searches and individual assessments
2. Statistically describe the portfolio
3. Bin similar projects together
4. Assess each project with narrative data based on the three criteria
 - a. Innovativeness
 - b. Adaptability
 - c. Promising Practices
5. Illustrate exemplary” projects

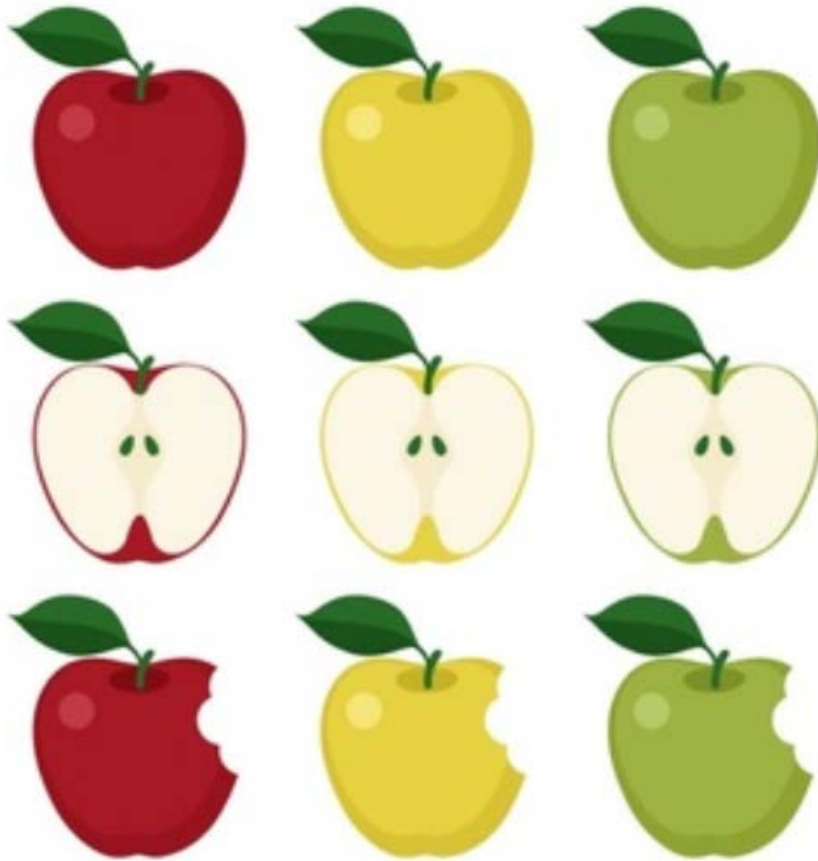
Topical Focus: Broadband and Digital Literacy



Identifying the projects:

- Subject fields
- Project tags
- IMLS program officer interpretations of project reports

Binning the Portfolio's Projects



- Filter 1: Digital Literacy, Broadband
- Filter 2: Focal Area (and Intent)
- Filter 3: Emphasis
 - Audience/Beneficiary
 - Product/Activity

Narrative Data: SPR Project Report Text Fields

General Information

Title: *

State Project Code: ⓘ



Start Date: *





















10/01/2017

End Date: *

09/30/2019

Abstract: ⓘ





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




















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Project Outcomes

List any important outcomes or findings not previously reported.

Please briefly describe the importance of these outcomes and findings for future program planning.

Explain one or two of the most significant lessons learned for others wanting to adopt any facets of this project.

Criteria for Assessing Projects

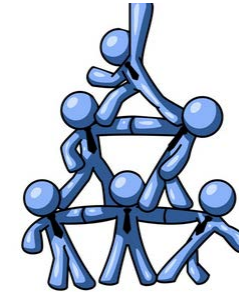
- **Innovativeness**

- Is there something noteworthy about the audience reached?
- Is there something notable in the project “activities?”



- **Adaptability**

- Is there any evidence indicating replicability?
- Is there any indication that the project can be scaled up?
- How has project influenced future direction of program/organization?



Promising Practices

- What lessons learned ought others to know about?
- How strategic were the project's partnerships?



FY 2018 Digital Literacy Projects

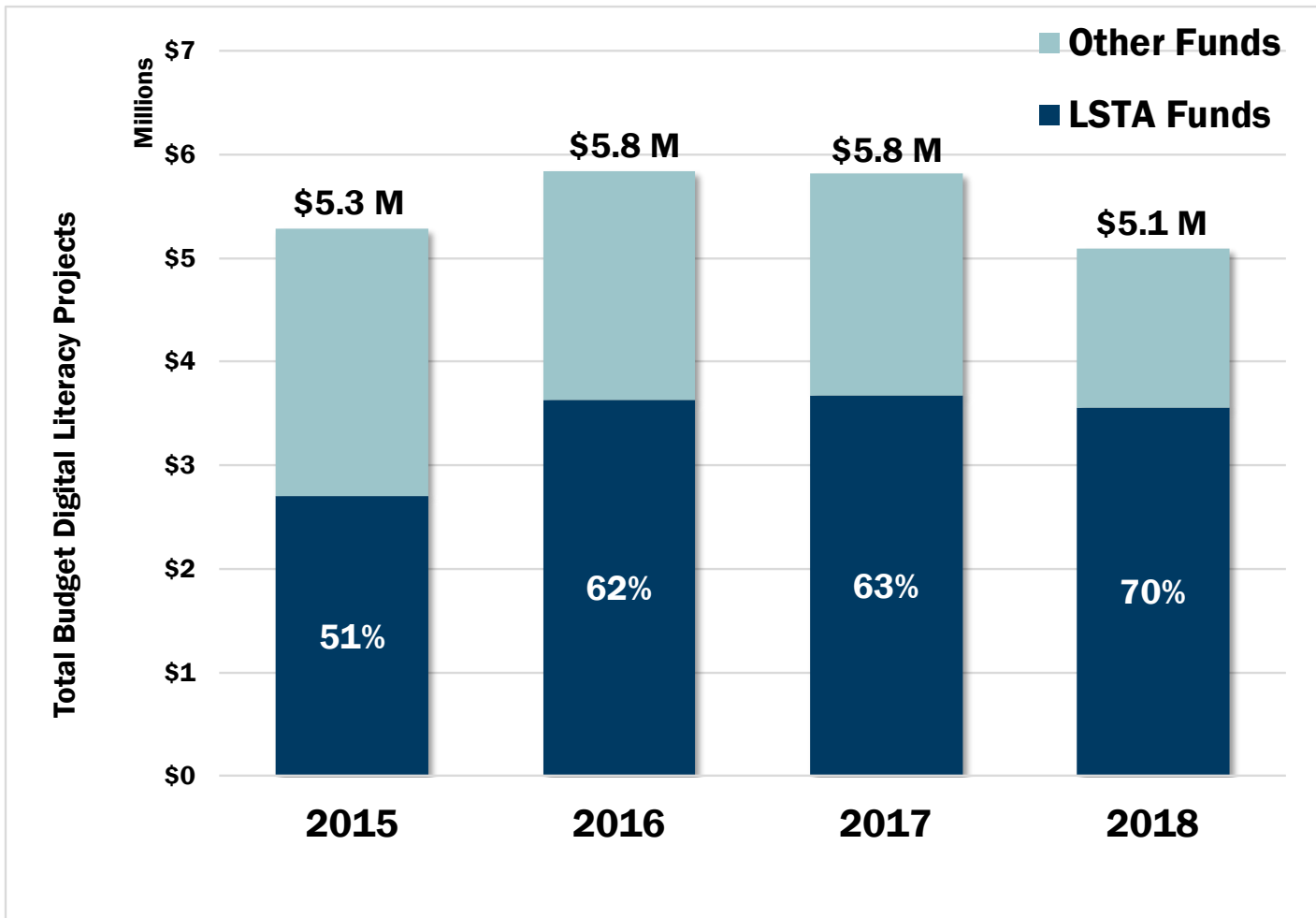
Defining Characteristics

WA
OR
ID
NV
CA
UT
AZ
NM
TX
MT
WY
ND
SD
NE
KS
OK
AR
LA
MN
IA
MO
IL
IN
OH
KY
TN
MS
AL
GA
SC
VA
WV
PA
NY
VT
NH
ME
MA
AK

- Northern Marianas was the only outlying territory with a digital literacy project.*

Digital Literacy Projects

How Much? Total Budget Trends



\$XX,XXX = total budget
XX% shows percent of total
budget from LSTA funds

- More than \$5 million per year
- Increasing proportion from LSTA funds

FY 2018 Digital Literacy Projects

How? Projects' Activities

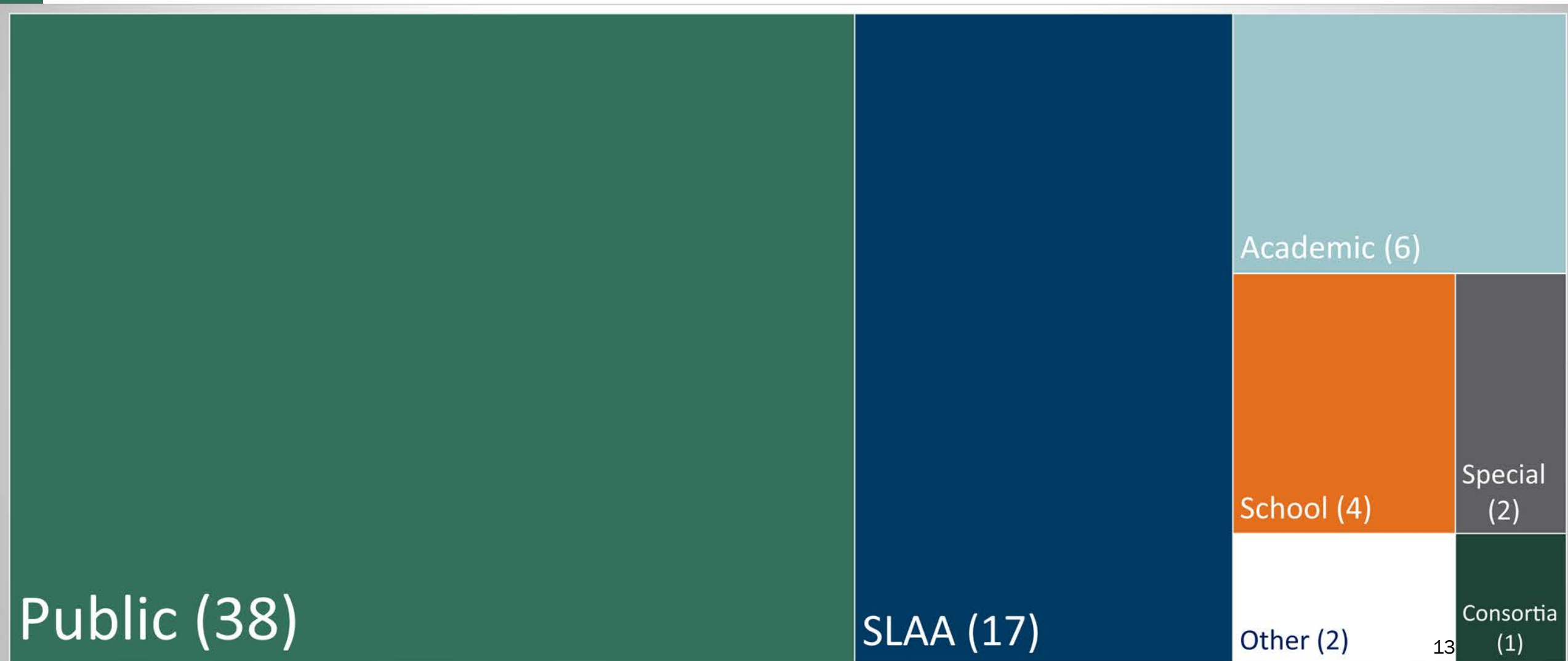
# Activities	Frequency	Percent
One	20	29%
Two	26	37%
Three	10	14%
Four	7	10%
Five-Ten	7	10%

Activity Type	Frequency*	Percent
Instruction	58	83%
Content	38	54%
Planning & Evaluation	4	6%
Procurement	1	1%

** # projects with at least one such activity type*

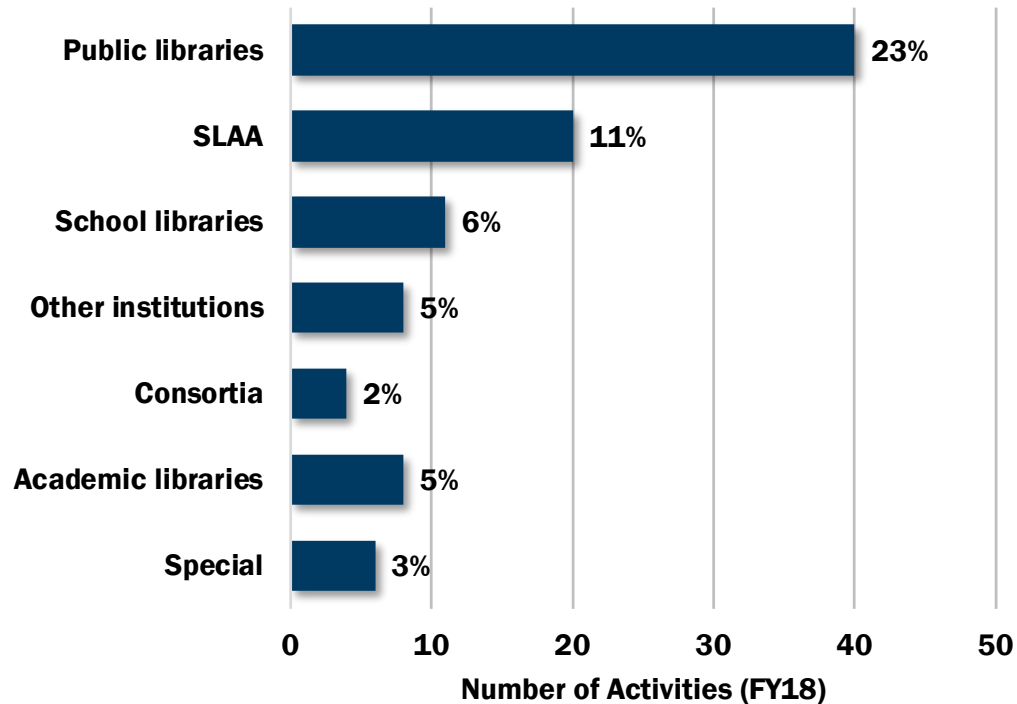
- *Most instructional activities involved programs with consultations popular too*
- *Most content activities involved acquisition with many also involving creation*

FY 2018 Digital Literacy Projects: By Whom? Grantees

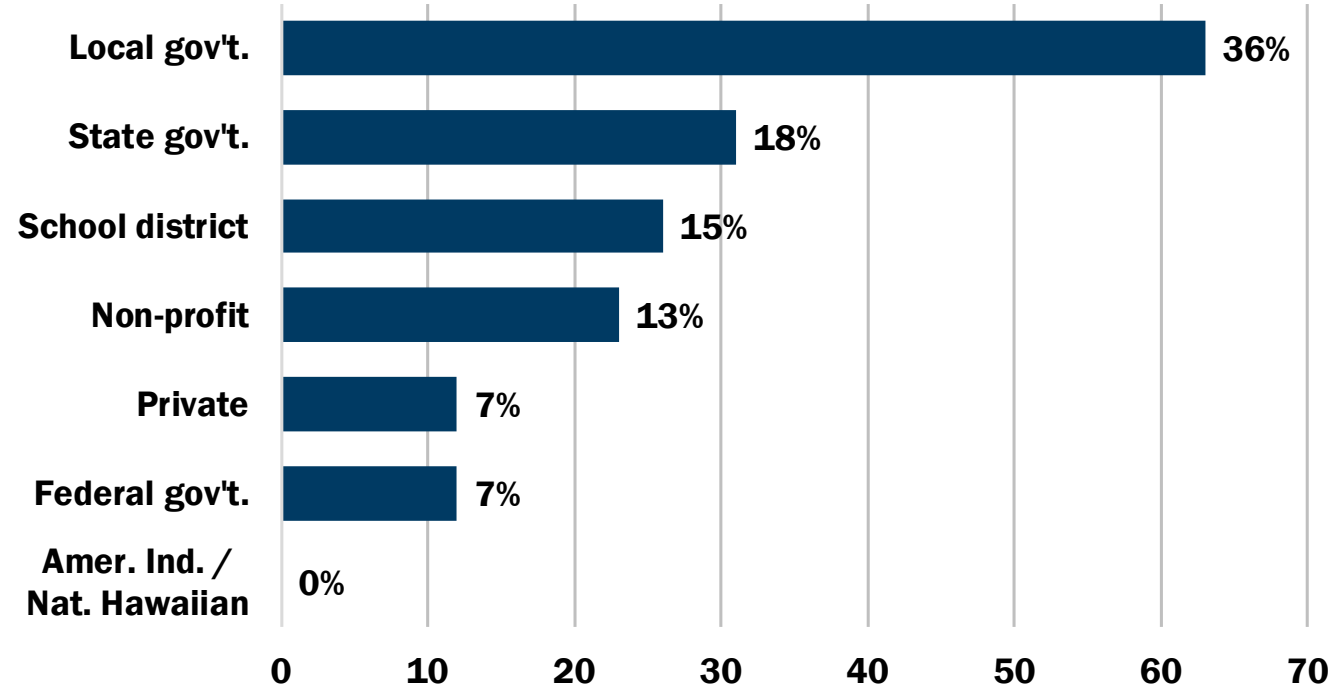


FY 2018 Digital Literacy Projects: With Whom? Implementers* and Partners

Implementing Sites (Locales)



Partners

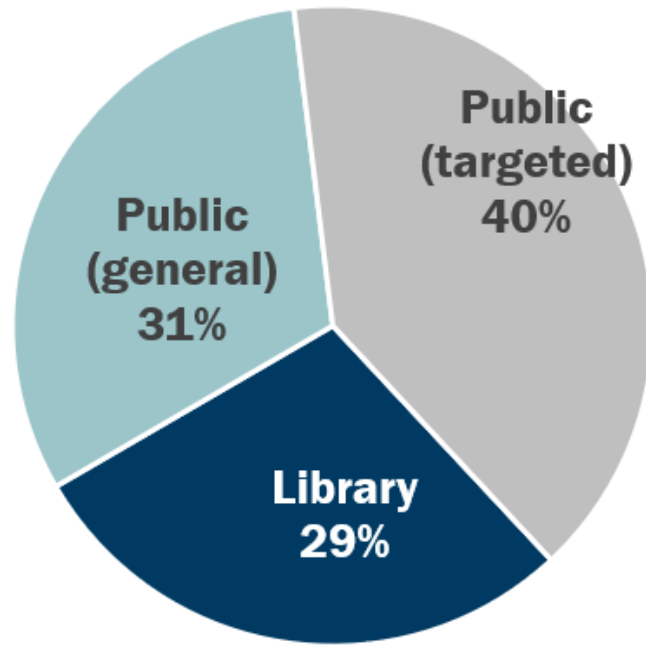


All Projects: public libraries (42%) and SLAAs (25%)

All projects: Local government (60%), School districts (25%) and State government (47%)

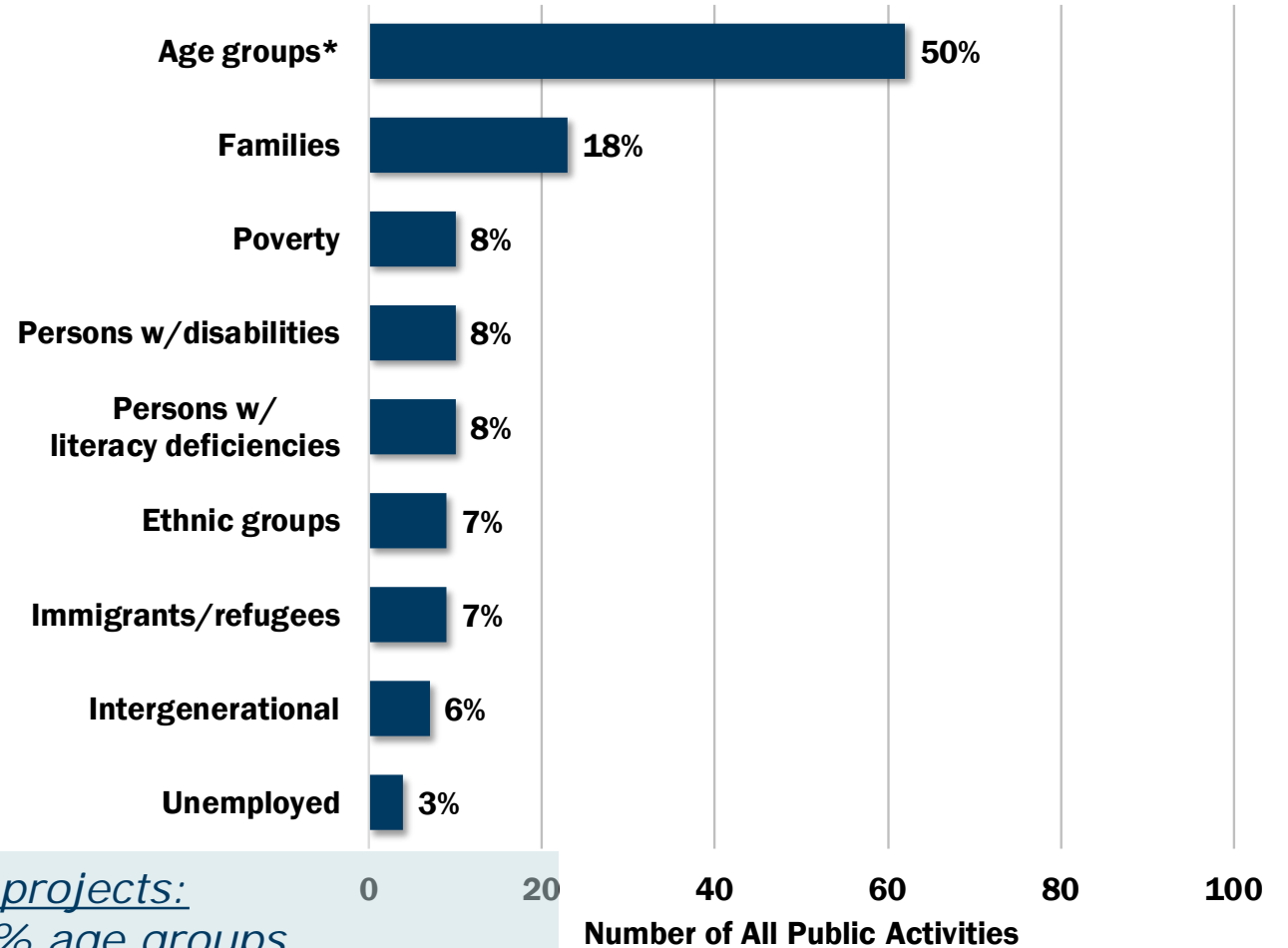
**Optional information in the SPR*

FY 2018 Digital Literacy Projects For Whom? Beneficiaries



All projects:

32% public (general)
28% public (targeted)
40% library



All projects:

37% age groups,
12% families, 9% poverty

FY 2018 Digital Literacy Activities

Why? Focal Areas

Focal Area	Digital Literacy	Entire Portfolio
Lifelong Learning	54%	32%
Information Access	24%	30%
Institutional Capacity	11%	32%
Economic development	10%	2%
Civic engagement	0%	3%
Human services	0%	2%

Examining the Portfolio by Focal Area

FY 2018 Digital Literacy Projects

Lifelong Learning – General Knowledge & Skills

FY 2018 Digital Learning Portfolio

AZ	2018-AZ-81309	Touch and Learn Digital Literacy	MN	2018-MN-82122	Getting Past Play: Engaging learners in purposeful use of library
AZ	2018-AZ-81316	Senior Tech Academy	MP	2018-MP-81876	Literate CNMI
AZ	2018-AZ-81319	Digital Literacy Center	NC	2018-NC-80998	THE COLLABORATORY
CA	2018-CA-81073	3D Design Coaching	NC	2018-NC-81550	DIGITAL LITERACY
CA	2018-CA-81092	Laptops on the Fly	NV	2018-NV-81840	AWE Literacy Tablets
CA	2018-CA-81102	Cybersecurity Training for Teens Using Minecraft	NV	2018-NV-82149	Creating Coding Competency
FL	2018-FL-81662	Lemon City Branch Library YOUmedia Miami and Digital Music Studio of MDPLS	OH	2018-OH-80934	Guiding Ohio Online grants to Ohio libraries
FL	2018-FL-81666	Bringing the 21st Century to Rural Libraries: Inspiring the Next Generation of Makers and Inventors	OH	2018-OH-80944	Guiding Ohio Online administration
IL	2018-IL-81211	Project Next Generation at Elmwood Park Public Library	OH	2018-OH-81754	iStream to the exStream
IL	2018-IL-81565	Project Next Generation at LaSalle Public Library	OH	2018-OH-81756	Expand STEM Educational Opportunities
IL	2018-IL-81786	Project Next Generation: Studio in the Library	OH	2018-OH-82055	Cataloging the World War 1 Servicemen Portrait Collection
IN	2018-IN-81812	Expanding ISBVI's Makerspace	OR	2018-OR-80970	Oregon School Library Information System
IN	2018-IN-81816	Digital Divers: Diving into STEM Learning	OR	2018-OR-81487	It's Never Too Late to Learn: Computer Basics
IN	2018-IN-81836	Project STEAM Mobile Tween/Teen Lab: Using Technology to Create Confident Dreamers for a Better Tomorrow	RI	2018-RI-81689	V-Lab
IN	2018-IN-81841	Digital Climbers 2.0	RI	2018-RI-81698	Everyplace Makerspace
IN	2018-IN-81847	PLAY Interactive Game Table	TX	2018-TX-81379	Become A Digital Citizen Superhero!
MN	2018-MN-82018	Breaking Down Barriers to Family Literacy	TX	2018-TX-81383	VR/AR and Game Development Station
MN	2018-MN-82019	Digital Storytelling	TX	2018-TX-81394	My Digital Life: Innovate, Inspire, and Impact Your Community
MN	2018-MN-82065	Coding & Literacy Fusion in SPPS Elementary Libraries	TX	2018-TX-81398	APL Mobile Lab

38 Projects, ~\$2.4 million (68% LSTA supported)

Lifelong Learning Defining Characteristics

FY2018 Digital Literacy Projects

Of the 38 Projects:

- 6 Planning Projects
 - Digital Inclusion
 - Mobile hotspots
- 18 Youth Projects
 - STEM, STEAM, STREAM
 - Tablets & other devices
- 7 Adult Projects
 - Employment-related
 - Senior-directed
- 1 Higher Education project



Examples of Innovation

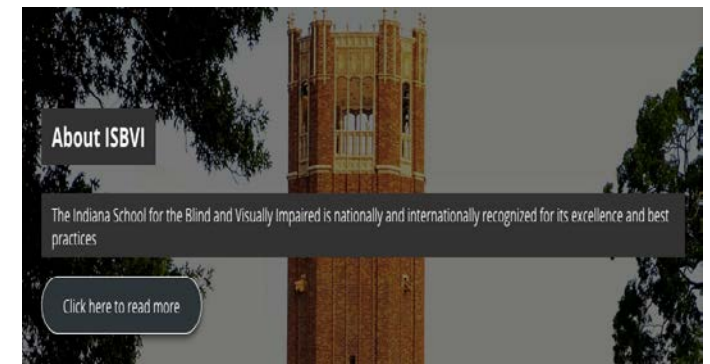
- **California (Pacific Partnership Cooperative), “Cybersecurity Training for Teens Using Minecraft”**
 - Use Minecraft project in curriculum for training youth in cybersecurity practices using Minecraft video game
 - Toolkit and blogposts; surveying guiding practices
- **Texas (El Paso PL) “Become A Digital Citizen Superhero!”**
 - Project targeted youth and had them create their own video games in telling their stories and collaborate with each other



Digital Citizenship / Our Campus Vision

Examples of Adaptability

- Florida (Putnam PL, Levy PL/PAL Cooperative), “Bringing the 21st Century to Rural Libraries: Inspiring the Next Generation of Makers and Inventors”
 - Overhaul STEAM initiative with 228 new pieces of equipment over 200 classes to over 3,920 children
 - Plan to broaden users’ home online access with 20 mobile Wi-Fi hotspots.
- Indiana School for the Blind and Visually Impaired, “Expanding ISBVI’s Makerspace”
 - Makerspace supplements Expanded Cores, teaching skills that most people pick up visually.



Examples of Promising Practices

- **Arizona (Glendale PL), “Senior Tech Academy”**
 - Partnership between local public library and community college
 - technology and social skills for retirees to go online, connect socially, and gain access to unlimited lifelong learning opportunities
- **Minnesota (St Cloud PL), “Breaking Down Barriers to Family Literacy”**
 - Technological assistance using Northstar Digital Literacy Assessment for dislocated workers, multilingual adult new learners, new Americans and families in poverty
 - Partnerships with public, nonprofit and private organizations
 - Programming at Library’s lab as well as offsite



Information Access: FY 2018 Digital Literacy Portfolio

18 projects (21% of portfolio) across 10 SLAAs

CA	2018-CA-81109	SBPL Works! for Post Disaster Economic Outreach
CA	2018-CA-81116	Libraries Helping Immigrants
DC	2018-DC-81364	Digital Literacy Initiatives
ID	2018-ID-81266	Talking Book Service
IN	2018-IN-81949	Online Everywhere: Hotspot Lending
IN	2018-IN-81953	Connect to a Virtual World
IN	2018-IN-81985	Clinton County: Fun in the '50s
MD	2018-MD-80875	Digital Learning, Literacy, and Access
ME	2018-ME-81580	Maine InfoNet -Partnership with the University of Maine

ME	2018-ME-81583	Maine School and Library Network (MSLN)
NC	2018-NC-81003	COOLEY LEARNING LAB
NC	2018-NC-81026	MOBILE COMPUTER LAB
NC	2018-NC-81038	ENHANCING MEDIA AND EMERGING TECHNOLOGY
NC	2018-NC-81052	REFRESHABLE BRAILLE DISPLAY STATEWIDE PROJECT
NH	2018-NH-81962	New Hampshire Downloadable Book Program
NV	2018-NV-81724	A Better Look into the Past through Microfilm
OH	2018-OH-81818	VR Field Trip Lab
OK	2018-OK-80886	Website Development

\$2.1 million, 65% LSTA supported

Information Access Defining Characteristics

FY18 Digital Literacy Projects

Of the 18 Projects:

- 14 involved content and 12 involved instruction
- 10 planning efforts
- Audience focus:
 - Adults (3)
 - Blind & Visually Impaired (2)
 - College Students (2)
 - Youth (1)



Example of Innovation

- North Carolina “Refreshable Braille Display Statewide Project”
 - Piloted the concept of the library providing refreshable braille displays for blind or physically handicapped patrons
 - Allows more to access braille format digital items who otherwise could not afford them.



Example of Adaptability

- Washington, DC, “Digital Literacy Initiatives”
 - Designed and built visualization of how to assess users' current digital literacy level and apply to better serve their needs.
 - Sensitivity to disadvantaged groups of patrons
 - NorthStar Digital Literacy Assessment (NDLA)
 - Focus on 12 areas of digital literacy



Example of A Promising Practice

- Indiana, “Clinton County: Fun in the ‘50s”
 - Focus on digitization of photos from 1950s in engaging with community’s senior citizens
 - partnerships with community clubs and senior centers



FUN IN THE 50S

Slide: 530922

Year: 1953

Location: Courthouse Square

Institutional Capacity Projects

FY 2018 Digital Literacy Portfolio

CO	2018-CO-81716	Highly Effective School Library Program
MO	2018-MO-80783	TLD: Tracking Digital Literacy Growth to Increase the Impact of KCPL's Tech
MO	2018-MO-80798	TMG: 2018 Computer Update
MO	2018-MO-81216	SW: Missouri Edge Library Cohort
NH	2018-NH-81974	Technology Resources for Public Librarians
OH	2018-OH-80932	Mobile Lab /On Demand Training
UT	2018-UT-81456	Expanding Technology for Education
WA	2018-WA-81373	K-12 Project

- 8 projects spanning 6 states
- About \$450,000 total with 95% LSTA support
- Projects' Intents:
 - Improve library workforce (5)
 - Improve library physical & technological infrastructure (3)



Institutional Capacity Defining Characteristics FY19 Digital Literacy Project Insights

Of the 8 projects:

- Five grantees were SLAAs and 3 were public libraries
- All involved either planning or infrastructure support
- Three included librarian training
- While all involved digital technologies, not all explicitly focused on specific digital literacies.
- One project entailed school library professional development.

Example of Adaptability

- Washington “K-12 Project”
 - SLAA multi-year initiative that focuses on training support to teacher librarians
 - FY 2018 grant focused on developing a curriculum on digital citizenship
 - Developed in collaboration with a group of teacher librarians for their peers
 - Curriculum linked to six hours of training



Employment Support

FY 2018 Digital Literacy Portfolio

NC	2018-NC-81009	Edgecombe Workforce Development
TX	2018-TX-81380	Get Started with Computer Basics
TX	2018-TX-81382	Digital Literacy for the Smithville Workforce
TX	2018-TX-81412	Prison Library Program
VT	2018-VT-82113	Job Hunt Helpers Grant Program
VT	2018-VT-82115	Digital Literacy for Job-Seekers

- 6 projects, 3 states
- About \$183,000, 93% LSTA support



Employment Support Defining Characteristics FY18 Digital Literacy Projects

Of the 6 projects:

Focus on employment

3 Public libraries, 1 SLAA library, 1 academic library, 1 other

Generally strong demonstration of partnerships including SLAA-public libraries, and public libraries with schools and institutions of higher learning

One worked with expanded rehabilitation effort with prison population.

Variations of project activities ranging from planning, acquisitions of equipment and software, consultations, presentations and training.

Example of Adaptability

Vermont “Digital Literacy for Job-Seekers”

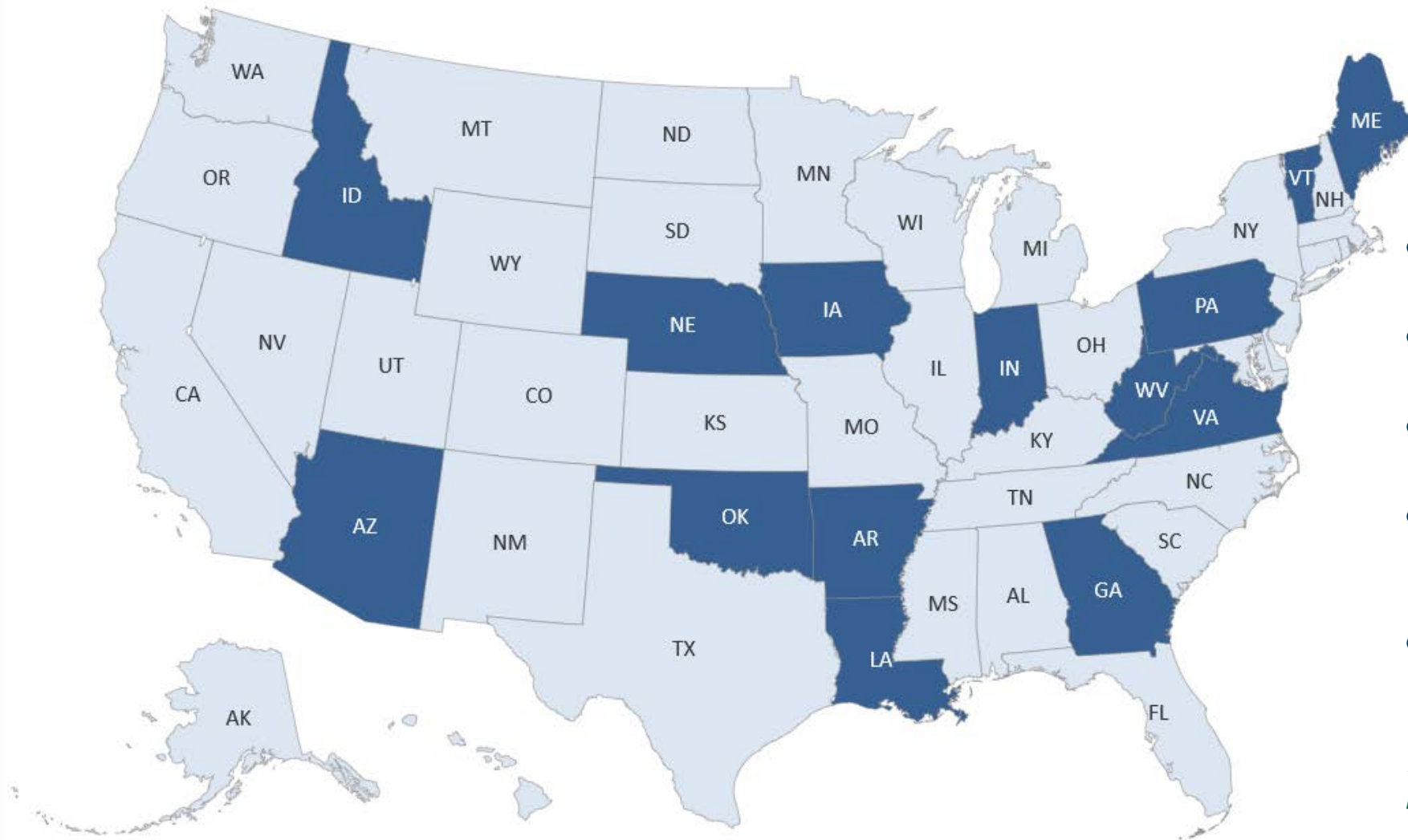
- SLAA purchased a statewide license for Ebsco’s “Learning Express-Library,” offering online career and educational resources.
- Increase in public, school and academic libraries accessing software from 12 to 541
- Future: increasing product’s usefulness
 - Direct outreach to library directors
 - Extensive and multi-faceted training on how to use the product
 - Creating and distributing publicity materials



FY 2018 Broadband Projects

Defining Characteristics

Where? 14 States had Broadband Projects in FY18



- **15** Projects
- **30** Activities
- **\$3.2M** Total Budget
- **\$116,765** Median (per project)
- **6.7%** Exemplary

None of the five territories reported projects in this area

FY 2018 Broadband Projects

How? Projects' Activities

# Activities	Frequency	Percent
One	4	27%
Two	8	55%
Three	2	13%
Four	1	7%

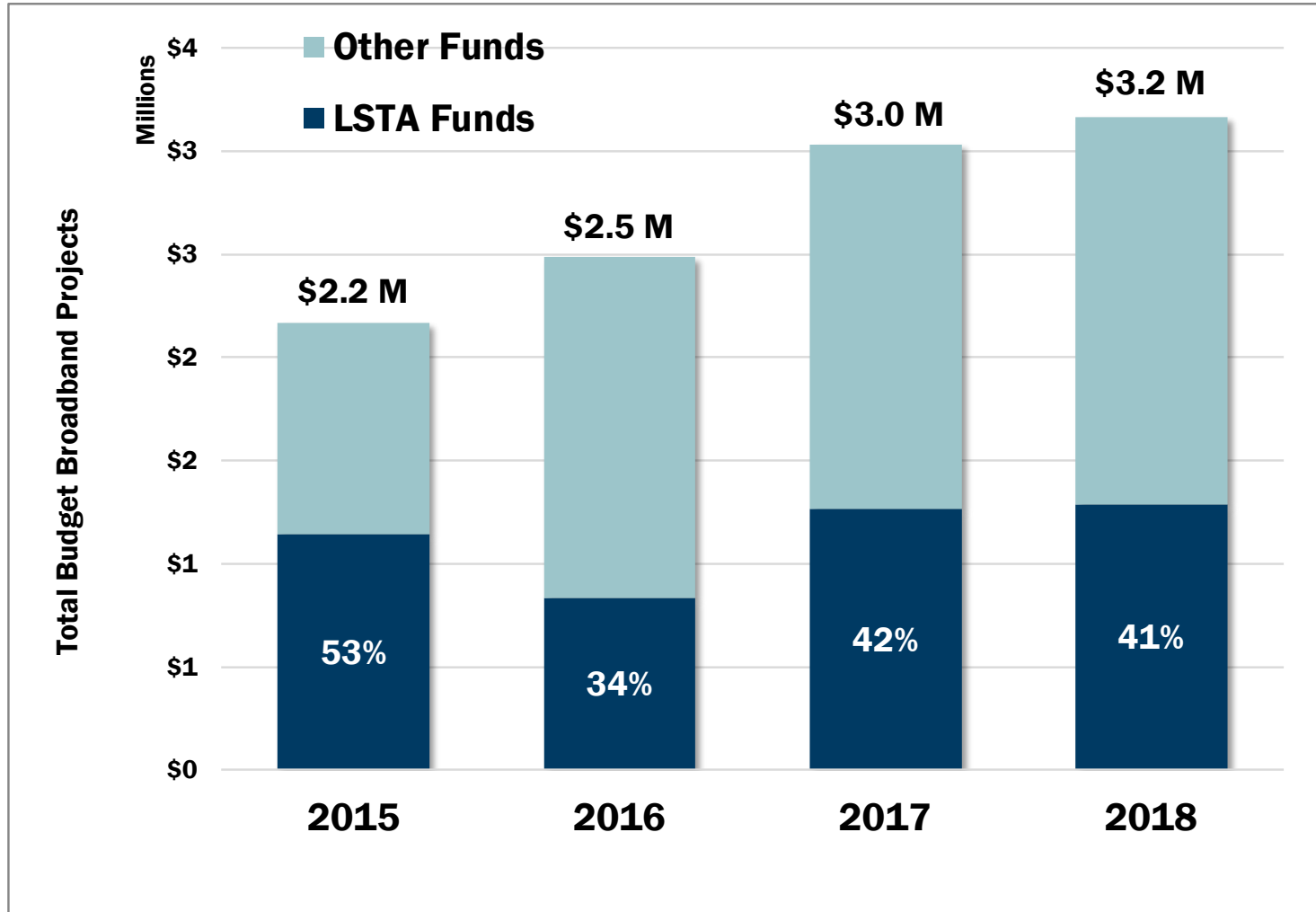
Activity Type	Frequency*	Percent
Instruction	13	87%
Content	3	20%
Planning & Evaluation	4	27%
Procurement	3	20%

* # projects with at least one such activity type

67% of all instructional activities involved consultations

FY 2018 Broadband Projects

How Much? Total Budget Trend



\$XX,XXX = total budget
XX% shows percent of total
budget from LSTA funds

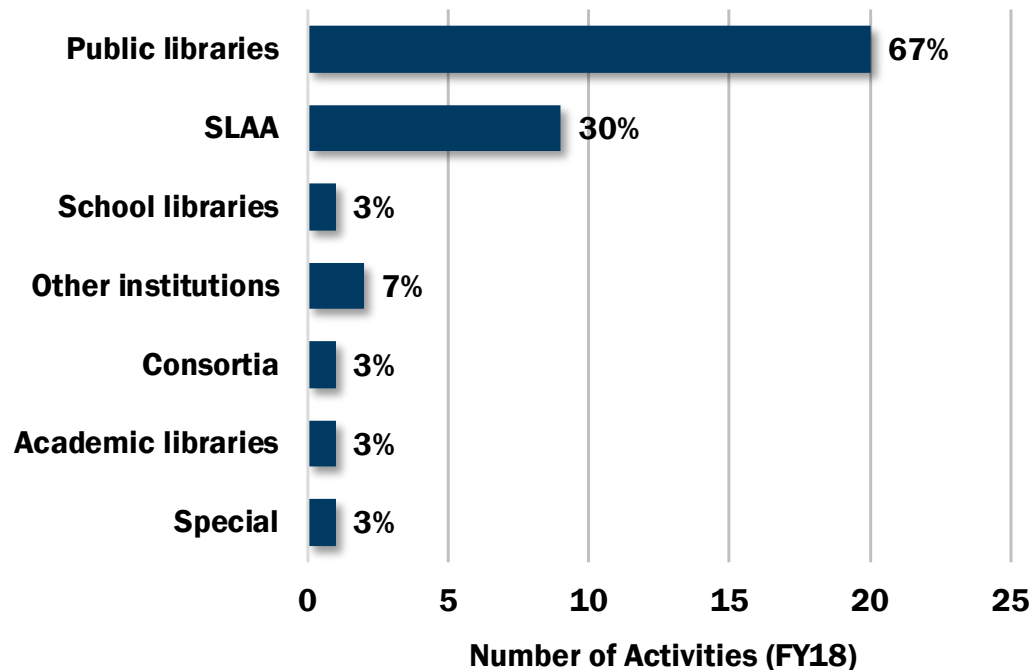
- Total funding has increased each year since 2015
- FY18: 46% higher total budget than in FY15*
- Decreasing proportion from LSTA funds: 41% in FY18 versus 53% in FY15

FY 2018 Broadband Projects By Whom? Grantees



FY 2018 Broadband Project Activities: With Whom? Implementers* and Partners

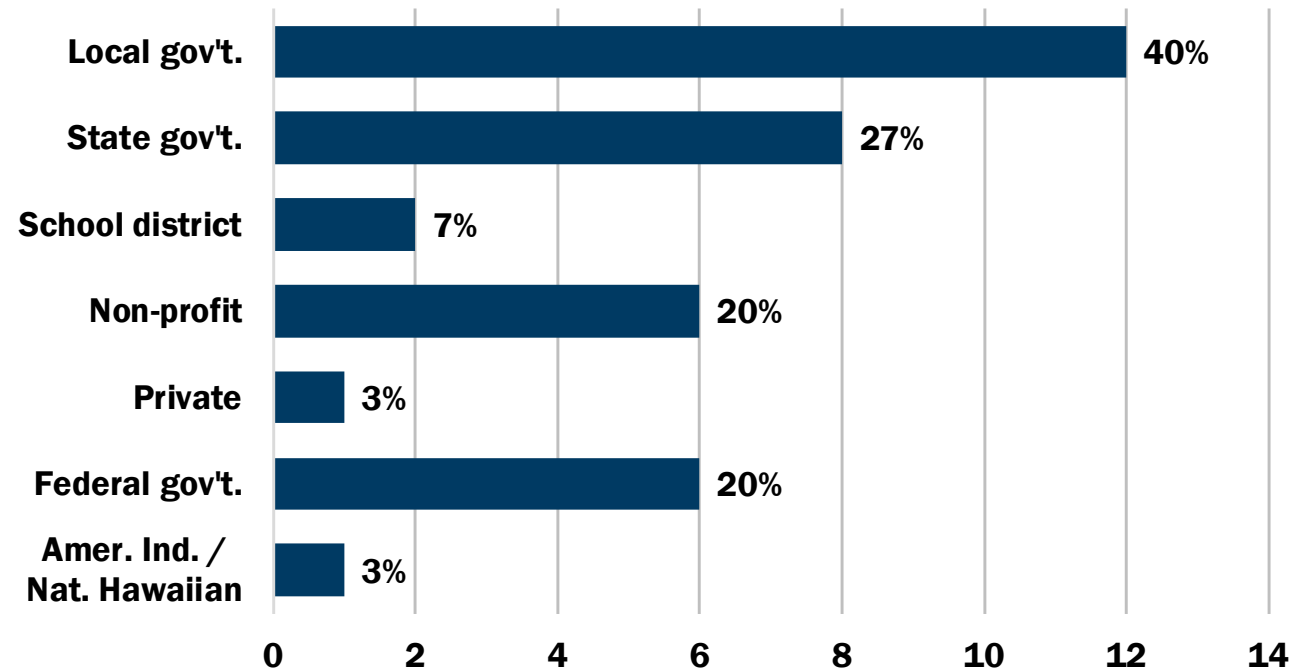
Implementing Sites (Locale)



All Projects: Public libraries (42%), SLAAs (25%)

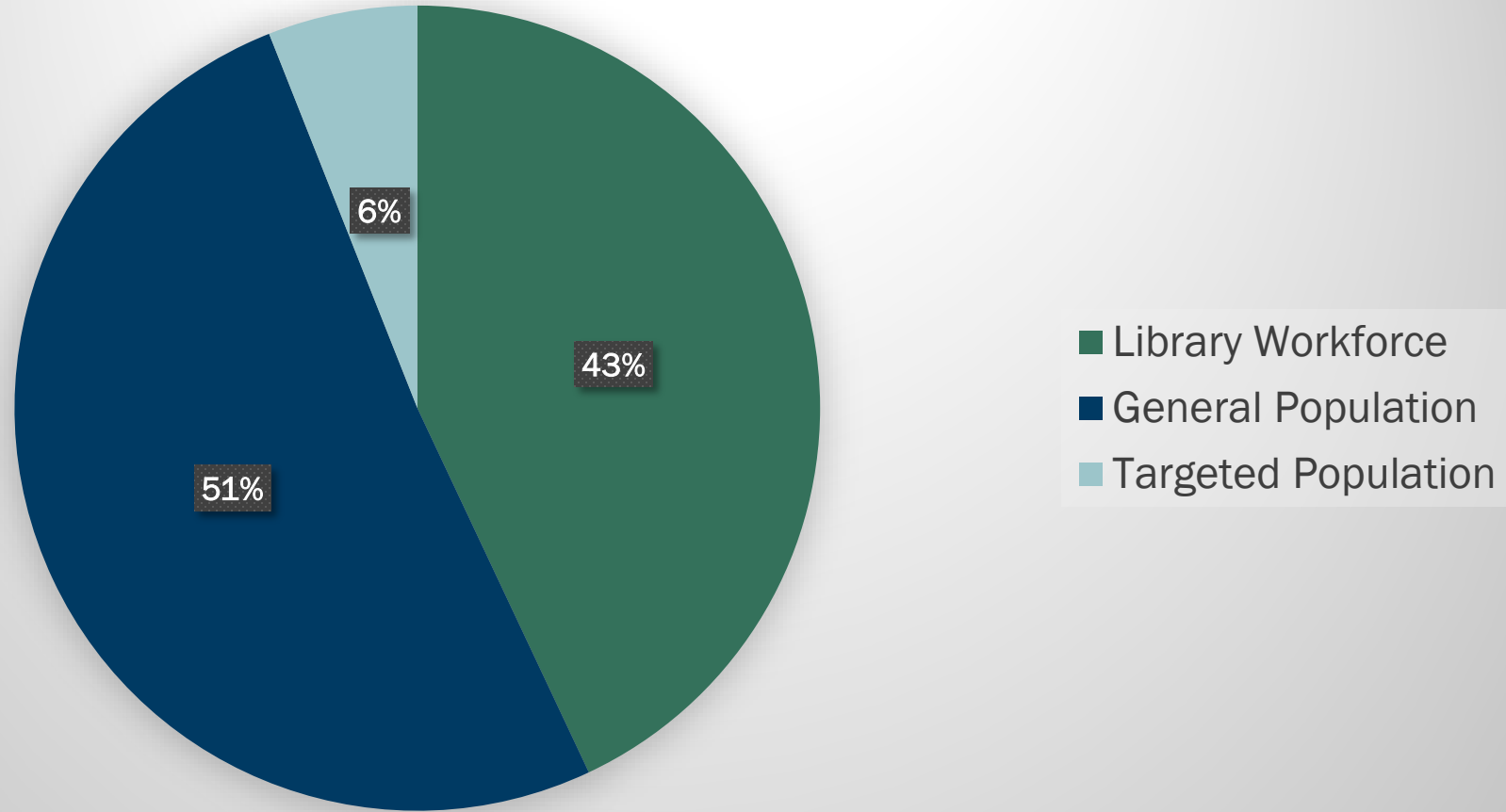
**Optional information in the SPR*

Partner Areas



All projects: Local government (60%), School districts (25%) and State government (47%) 39

FY 2018 Broadband Projects For Whom? Beneficiaries



FY 2018 Broadband Projects

Why? Focal Areas

Focal Area	Broadband	Entire Portfolio
Institutional Capacity	93%	32%
Information Access	7%	30%
Lifelong Learning	0%	32%
Economic development	0%	2%
Civic engagement	0%	3%
Human services	0%	2%

FY 2018 Broadband Portfolio

AR	2018-AR-80925	Technology and E-Rate Support
AZ	2018-AZ-81328	Digital Inclusion
AZ	2018-AZ-81337	E-rate Support
GA	2018-GA-81600	IT Broadband Upgrade & Ongoing Support
IA	2018-IA-81997	Broadband Access
ID	2018-ID-81265	Library Capacity Building
IN	2018-IN-81805	Back (up) to the Future: Preparing Eckhart Public Library Data for Disaster
LA	2018-LA-81883	E-Rate Training and Support

ME	2018-ME-81583	Maine School and Library Network (MSLN)
NE	2018-NE-81789	Statewide Library Improvement Services
OK	2018-OK-80891	Edge
PA	2018-PA-80952	Keystone Initiative for Network Based Education and Research
VA	2018-VA-81758	E Rate
VT	2018-VT-82193	FiberConnect Wide Area Network (WAN)
WV	2018-WV-80982	State Library Network

15 projects spanning 14 states

Broadband Projects Insights

- 15 projects totaled nearly \$3.2 million; 41% LSTA funded.
- Of the 14 of 15 projects focused on improving library institutional capacity:
 - 9 involved E-Rate support
 - 6 did training, consultation or assessments on library IT infrastructure
- 3 of 15 projects focused on digital inclusion



Example of Innovation

Arizona “Digital Inclusion”

- SLAA project to support digital inclusion to 12 public libraries by starting or maintaining Wi-Fi hotspot lending programs.
- 262 hotspots circulated a total of 2,446 times during the grant period across the 12 libraries
- According to the user surveys completed by patrons after returning the hotspots:
 - 79% live in a household that does not pay for internet service
 - 73% report using the hotspot for several hours a day
 - 96% plan to check out a hotspot from the library again.



Example of Adaptability

Oklahoma Department of Libraries "Edge"

- Provided public libraries with access to the Edge toolkit for assessing digital inclusion needs and targeting grants to libraries to offset those needs.
- Many serve rural poverty areas where access to IT is a challenge; many with little experience as grantees.
- Edge consultant:
 - Helped public libraries use the Edge toolkit
 - Create instruction classes and documents to help public libraries meet Edge benchmarks
 - Coordinated the Edge Technology grant
- Many libraries reported that Edge helped them create better library services, but a significant number didn't or didn't fully due to lack of time and staffing.
 - ODL will work to provide more grant writing resources to public libraries
 - Future grant applications will include more information about IT planning.



Example of a Promising Practice

- **Georgia “IT Broadband Upgrade & Ongoing Support**
 - SLAA’s 3-person E-Rate team supporting all 62 Georgia library systems (with 35 different ISPs) in managing local Internet service.
 - Filing RFP’s
 - Performing vendor assessments
 - Identifying and negotiating with local broadband vendors
 - Providing technical support.
 - Centralized resource for network management allows libraries to form consortia, leverage positive contract outputs and consolidate billing data.
 - SLAA continues evolving its business model for securing highest speeds possible for its public libraries

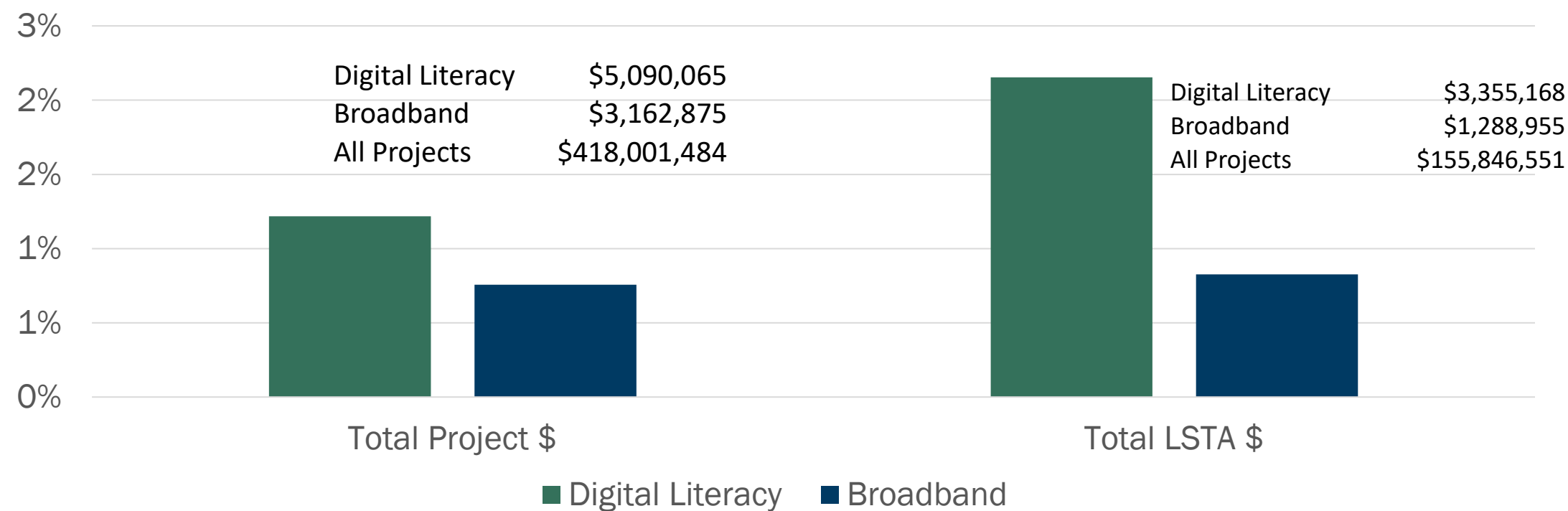


Emerging Impressions

FY 2018 Digital Literacy and Broadband Projects

Contextualizing The Portfolio

Share of Digital Literacy and Broadband Project Investments



Issues for Further Exploration

- Qualitative Methodology:
 - Bringing projects to life in describing nuances of project design and implementation.
 - Generating more evidence on outcomes, particularly with patron surveying
 - Continued coding finetuning
- Defining “digital literacy”
- Diverse IT Infrastructure Efforts
 - Broadband
 - Wi-Fi hotspots and mobile personal computing
 - Digital inclusion
- Clarifying project intents
 - Delineating library institutional capacity versus patron outcomes
 - Delineating lifelong learning versus employment support
- Upcoming 5-year plans and evaluations
 - Relating focal areas/intents with state goals
 - Tracking the linkage between planning and implementation
 - Tracking projects that span across multiple fiscal years and across multiple locales



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New in the IMLS Data Catalog

LSTA Training Conference

May 12-13, 2020

NEW IMLS Data Product!

IMLS Indicators Workbook: Economic Status and Broadband Availability and Adoption

Data Catalog: <https://www.imls.gov/research-tools/data-collection>

Compiles data from three other sources:

- Bureau of Labor Statistics
- U.S. Census Bureau – American Community Survey
- broadbandnow.com – commercial aggregator (FCC 471 filings and private sources)

Ten Metrics

- 4 economic indicators
- 3 broadband access/adoption indicators
- 3 broadband availability indicators

Two levels of data:

- State (50 states, DC and Puerto Rico)
- County (n=3,220 counties and county equivalents)

User's Guide includes state/national summary table



Research & Evaluation	>
Data Catalog	▼
Public Libraries Survey	>
State Library Administrative Agency Survey	>
Public Needs for Library and Museum Services Survey	
Museum Data Files	
Administrative Discretionary Grant Data	
Heritage Health Information Survey (HHIS)	
State & County Economic Status & Broadband Statistics	
Library Search & Compare	

NEW IMLS Data Product!

IMLS Indicators Workbook: Economic Status and Broadband Availability and Adoption

Data Catalog: <https://www.imls.gov/research-tools/data-collection>

Metric	National Level
Economic Indicators	
Unemployment rate (%)	4.4%
Poverty rate (%)	11.8%
Percent without health insurance	10.0%
Percent received SNAP	11.3%
Broadband Access (Adoption)	
Percent with no home computer	11.2%
Percent with no home Internet	14.7%
Percent with Broadband at home	80.4%
Broadband Availability	
Number of broadband providers	4.1*
Population for whom broadband is available (%)	73.8%*
Lowest cost per month	\$67.33 per month*