



Three-part series on the Measures that Matter initiative, a field-wide discussion of the current state of public library data.

Part Three: July 26

Today's Presenters



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MEASURES THAT MATTER
DETAILING THE DATA-BASED STORY
OF PUBLIC LIBRARIES

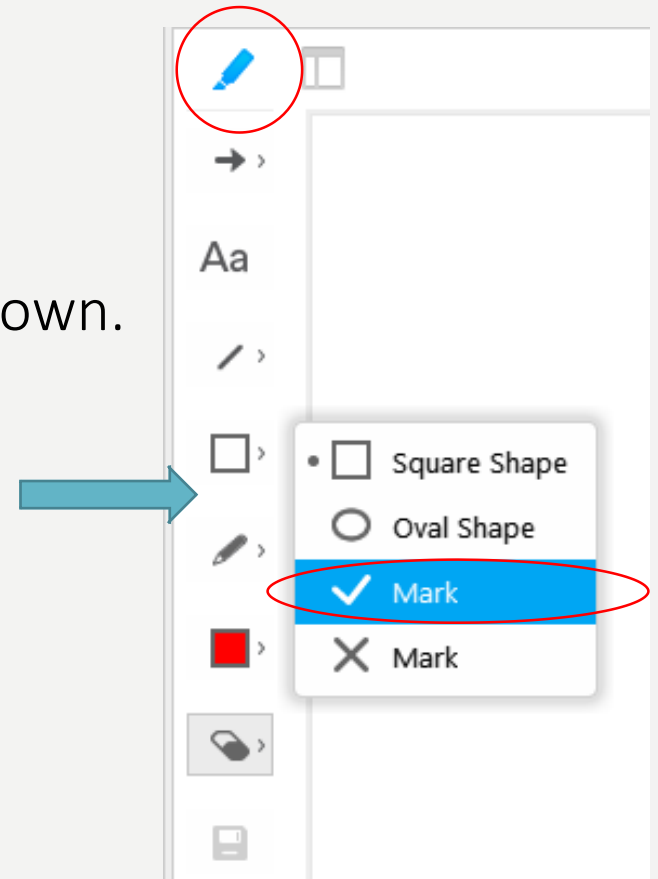
ANNOTATION TOOLS

Find the **grey marker pen** in top left corner of the presentation screen.

Click to open the tool buttons in a column on the left side; the marker pen will turn **blue**.

Check mark

- Click on square shape, half-way down.
- Use the drop-down menu and choose the check mark.
- Click on slide to indicate choice.



Rate your knowledge about data
(click on the arrow):



I'm just getting
started learning
about data

I'm a data geek!

MEASURES THAT MATTER



INSTITUTE *of*
Museum and **Library**
SERVICES

Chief Officers of
COSLA
State Library Agencies

MEASURES THAT MATTER – WEBINAR SERIES

Webinar I

Measures that
Matter – who, what,
when, where, and
why

MEASURES THAT MATTER – WEBINAR SERIES

Webinar 1

Measures that Matter – who, what, when, where, and why

Webinar 2

Sampling, data types, and data management: how do these concepts impact the public library data landscape?

MEASURES THAT MATTER – WEBINAR SERIES

Webinar 1

Measures that Matter – who, what, when, where, and why

Webinar 2

Sampling, data types, and data management: how do these concepts impact the public library data landscape?

Webinar 3 – July 26

A conversation about meaningful measures – from perspectives within and outside of the library field

PUBLIC LIBRARY DATA LANDSCAPE

Current national efforts:

Public Libraries Survey (PLS) Institute of Museum and Library Services	Public Library Data Service (PLDS) Public Library Association
Edge Urban Libraries Council	Impact Survey University of Washington
Project Outcome Public Library Association	

Discontinued efforts:

Public Library Funding & Technology Access Survey (PLFTAS) University of Maryland	Digital Inclusion Survey University of Maryland
Library Topology Survey Pew	

COMMON TOPICS

- Organizational characteristics – expenditures, staff, hours, etc.
- Infrastructure – facilities, staffing, space, etc.
- Resources – size and use of collections
- Technology – availability and use
- Community – importance of public Internet to community
- Education – how library resources/technology assist in the education of library patrons

WHO ARE THE RESPONDENTS?

Library Staff

- Public Libraries Survey
- Public Library Data Service
- Edge
- PLFTAS
- Digital Inclusion Survey

Library Users

- Impact Survey
- Project Outcome

General Public

- Library Topology Survey



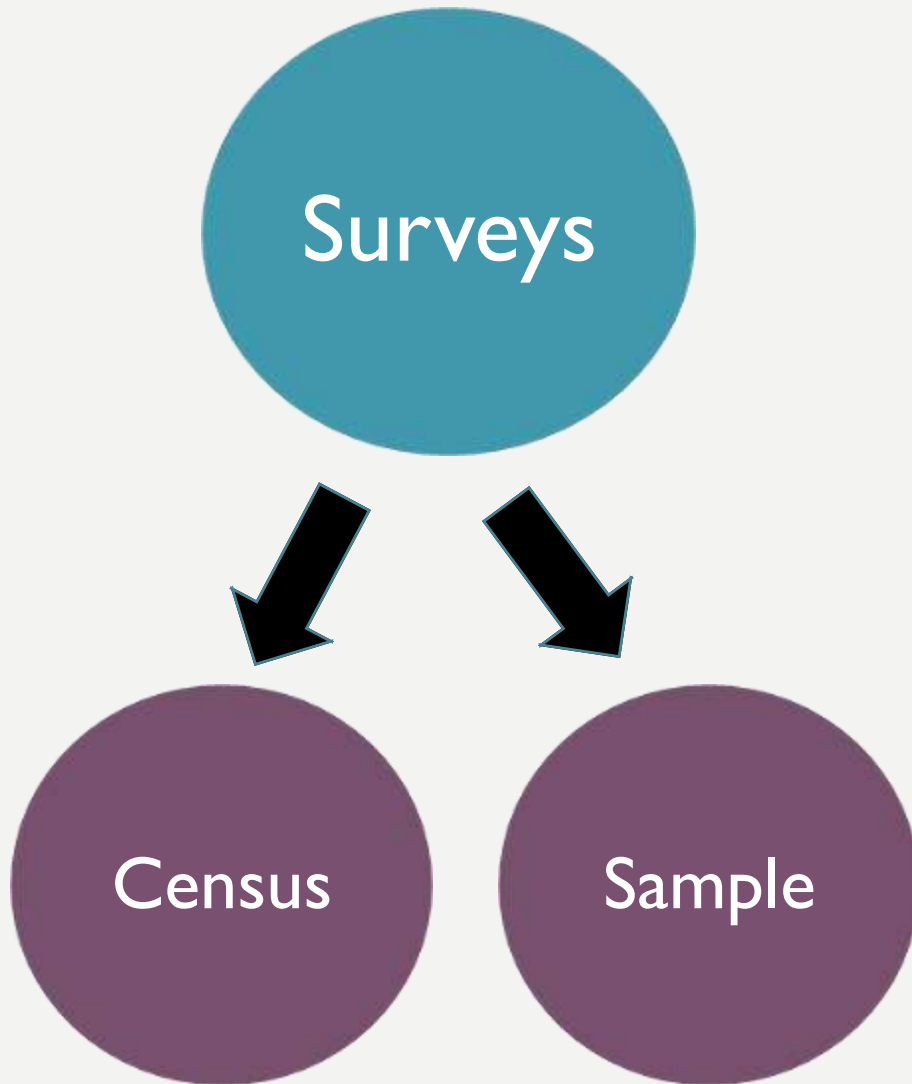
SAMPLING

MEASURES THAT MATTER | SAMPLING



Surveys

MEASURES THAT MATTER | SAMPLING



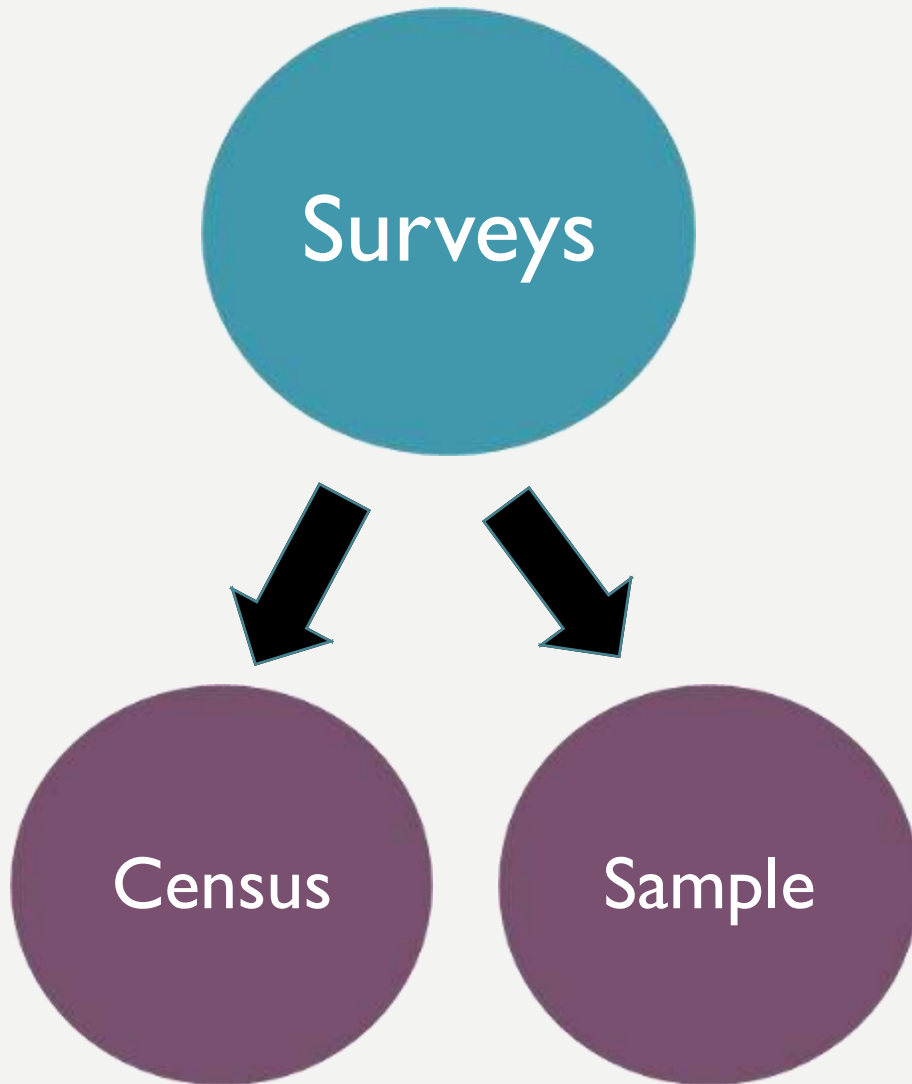
MEASURES THAT MATTER | SAMPLING

United States[®]
Census
2010

MEASURES THAT MATTER | SAMPLING




MEASURES THAT MATTER | SAMPLING



MEASURES THAT MATTER | SAMPLING

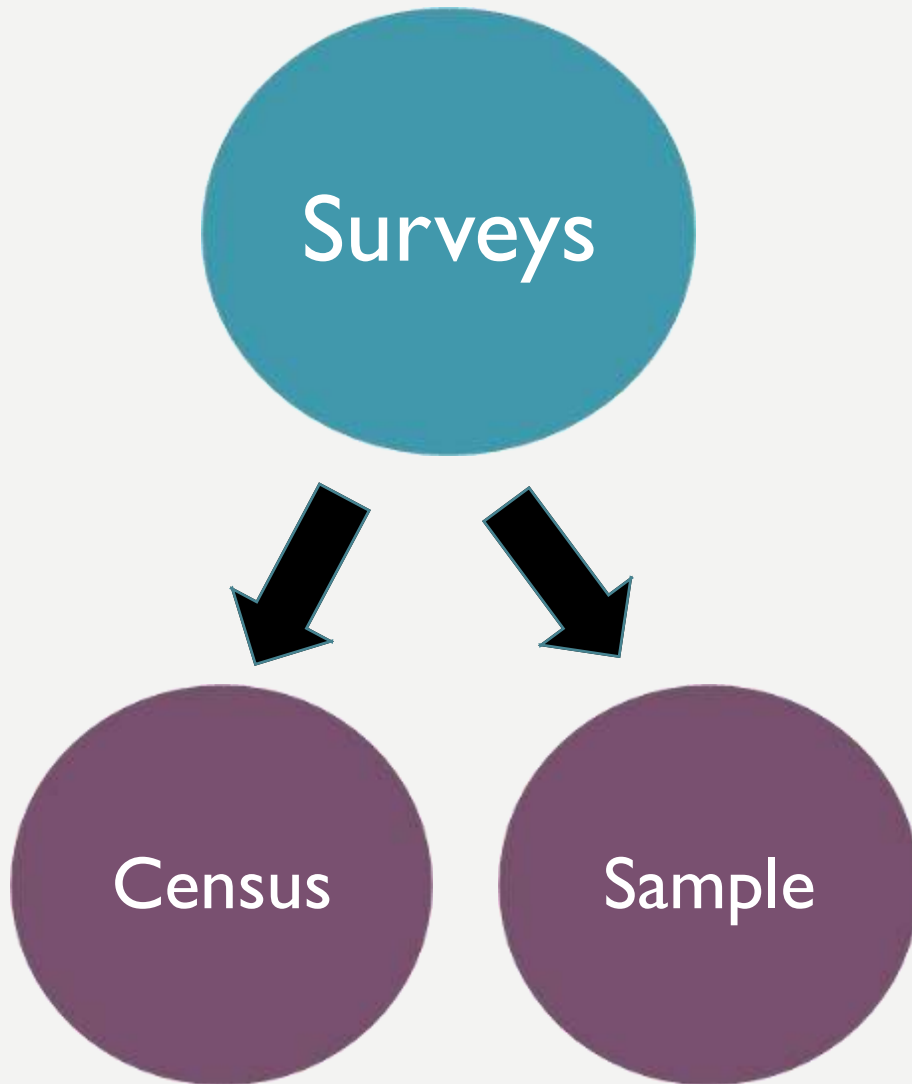
Census

- Aims for 100% of U.S. public libraries to respond

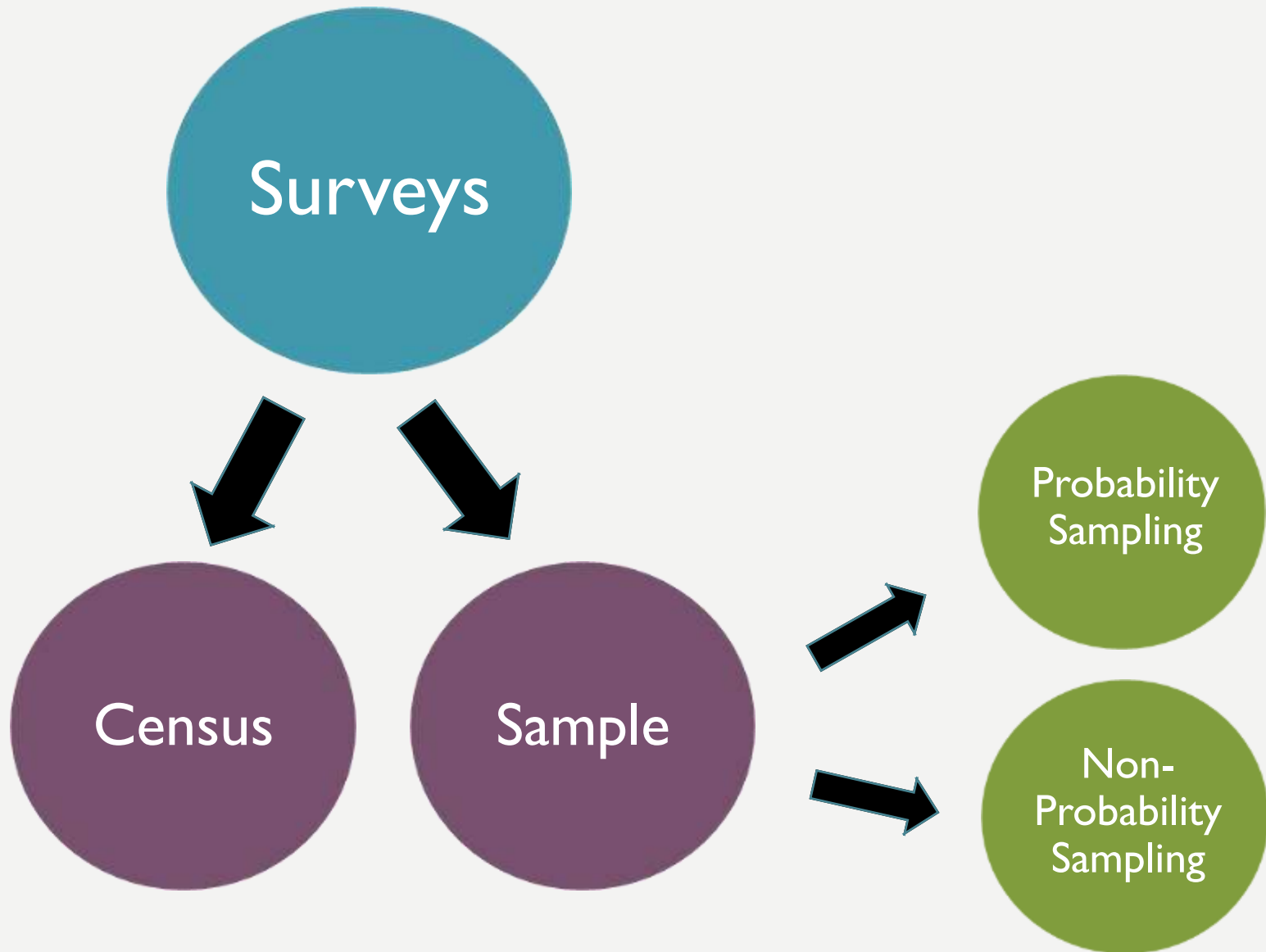


Public
Libraries
Survey
(PLS)

MEASURES THAT MATTER | SAMPLING



MEASURES THAT MATTER | SAMPLING



MEASURES THAT MATTER | SAMPLING

Probability Sampling

Examples

- Simple random sampling
- Systematic sampling
- Stratified sampling
- Cluster sampling
- Multistage sampling

MEASURES THAT MATTER | SAMPLING

Stratified sample

- Provides data that can be generalized and used to calculate national estimates


A large teal circle is positioned on the right side of the slide. Inside the circle, the text "Digital Inclusion Survey (Report)" is written in white, centered vertically and horizontally.

Digital
Inclusion
Survey
(Report)

MEASURES THAT MATTER | SAMPLING

Multiple probability
sampling methods

- Provides data that can be generalized and used to calculate national estimates



Library
Topology
Survey

MEASURES THAT MATTER | SAMPLING

Non-Probability Sampling

Examples

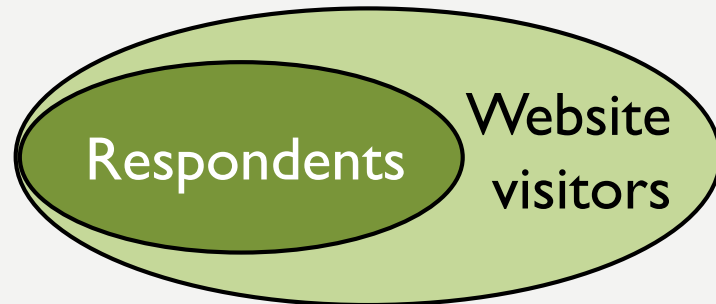
- Purposive sampling
- Snowball sampling
- Convenience sampling

MEASURES THAT MATTER | SAMPLING

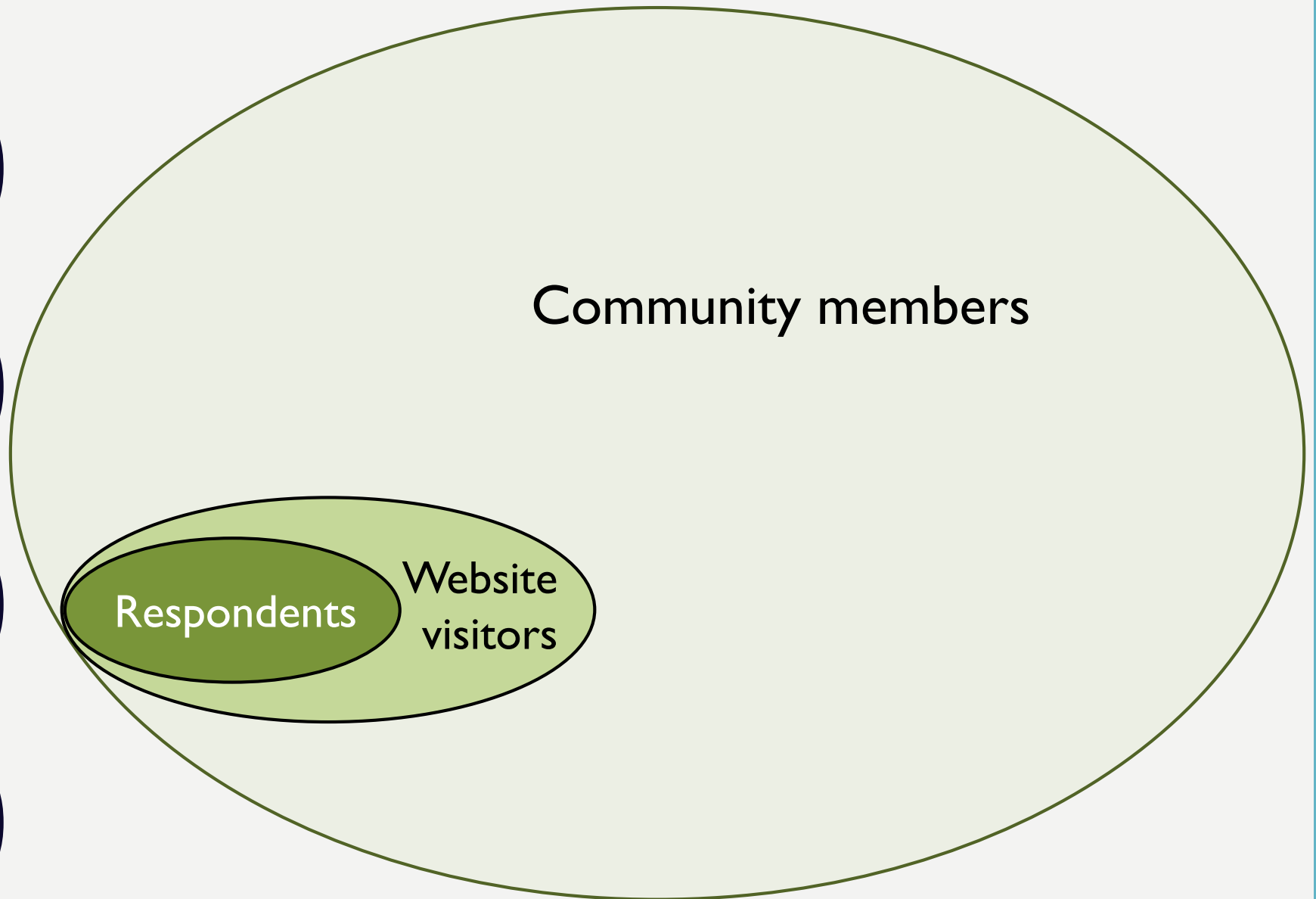


Respondents

MEASURES THAT MATTER | SAMPLING



MEASURES THAT MATTER | SAMPLING



MEASURES THAT MATTER | SAMPLING

Convenience sample

- Provides data about the libraries that respond
- Sheds light on specific libraries and can be used to conduct benchmarking



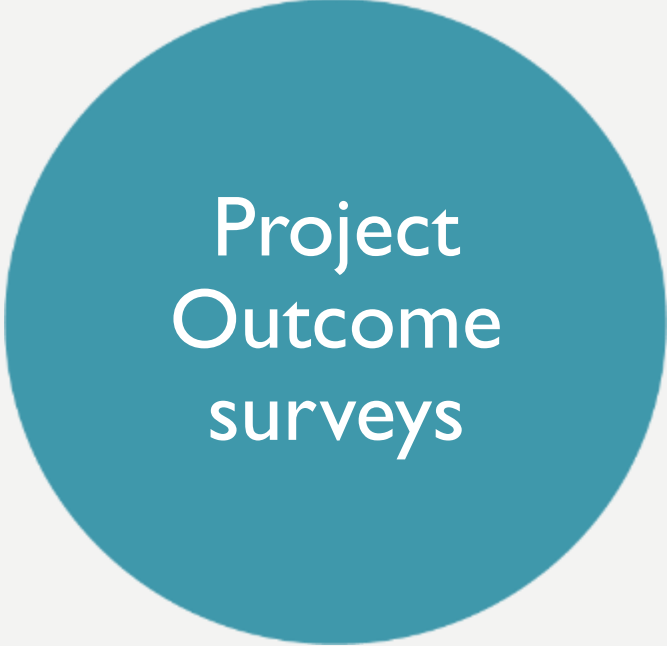
Public
Library Data
Service
(PLDS)

MEASURES THAT MATTER | SAMPLING

National level:

Convenience sample

- Provides data from libraries that opt in



Project
Outcome
surveys

MEASURES THAT MATTER | SAMPLING

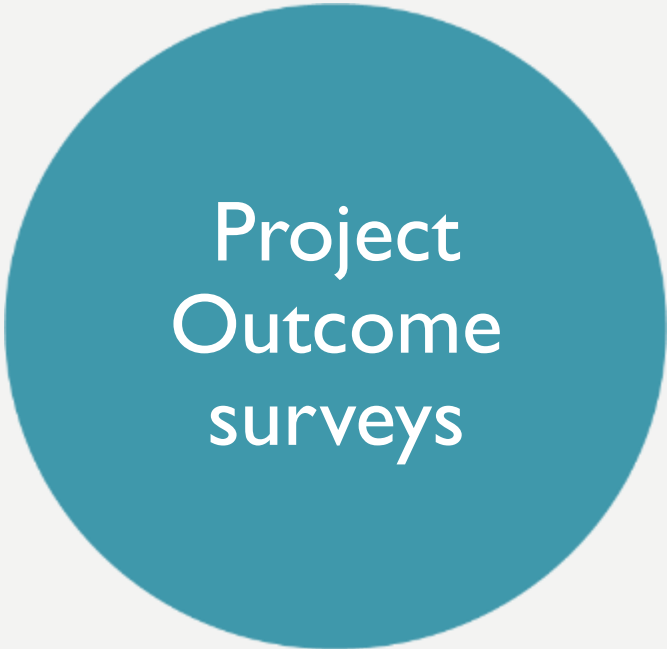
National level:

Convenience sample

- Provides data from libraries that opt in

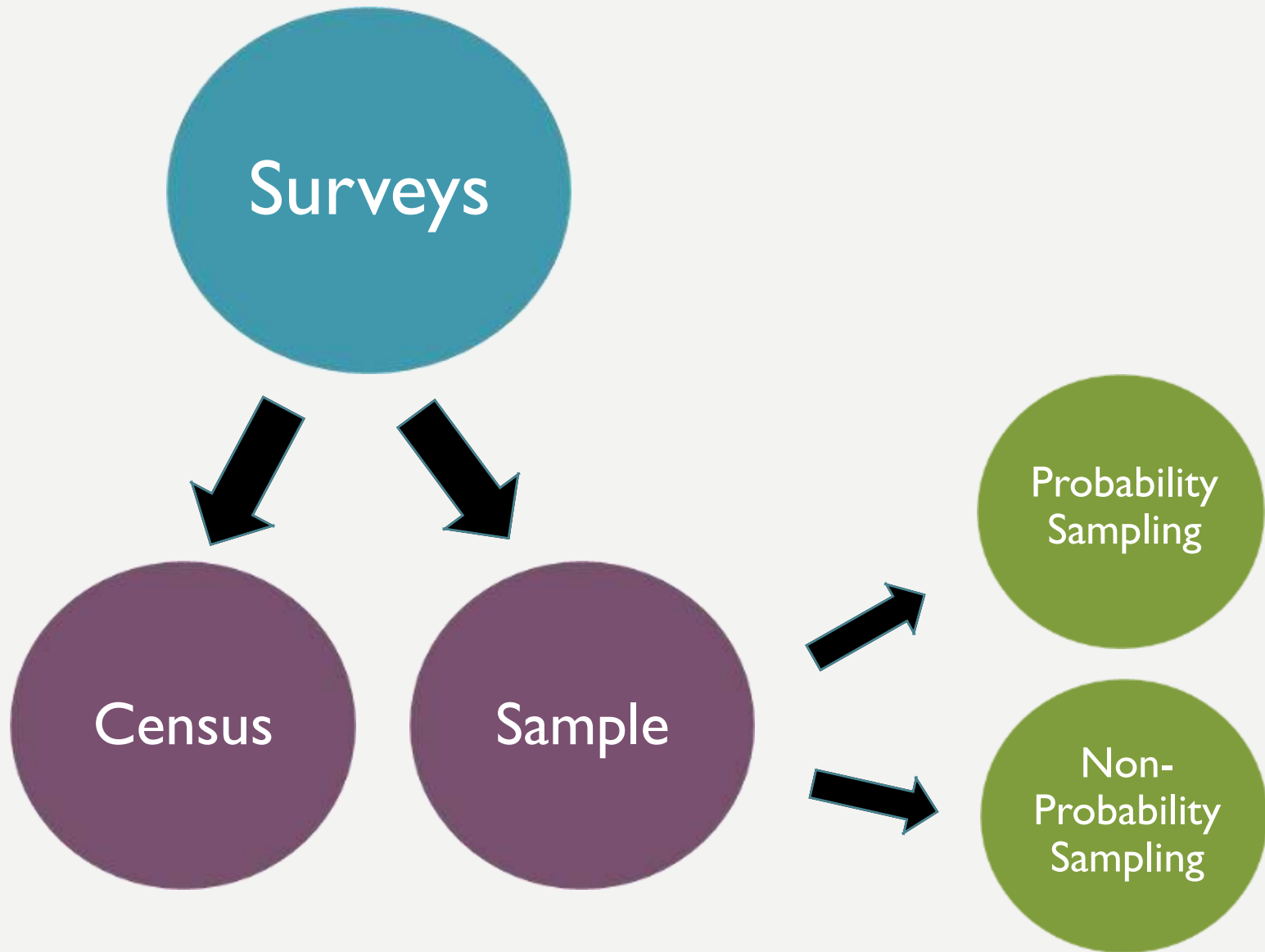
Local level:

Variety of samples



Project
Outcome
surveys

MEASURES THAT MATTER | SAMPLING



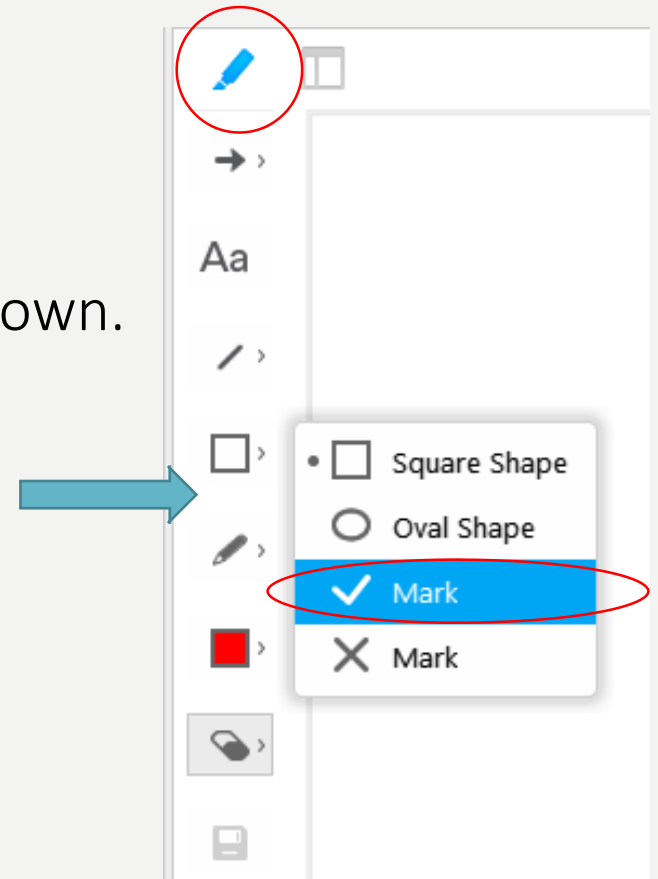
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Does your library conduct any surveys? If so, what sampling method(s) are used?

Census

Probability Sampling

Non-Probability Sampling

Not Sure

Other – tell us about it in chat



DATA TYPES

MEASURES THAT MATTER | DATA TYPES

Inputs

What resources did we use?

MEASURES THAT MATTER | DATA TYPES

Outputs

What did we provide?

How many people did we serve?

MEASURES THAT MATTER | DATA TYPES

Outcomes

What difference did it make?

MEASURES THAT MATTER | DATA TYPES

Outcomes

What change took place?

- Knowledge
- Attitude
- Skill
- Behavior
- Condition

MEASURES THAT MATTER | DATA TYPES

Inputs

Resources libraries use to deliver programs and services.

Outputs

Program and services libraries provide. Level of participation in those programs and services.

Outcomes

Effect of libraries' programs and services. Change in individuals' lives and in communities.

MEASURES THAT MATTER | DATA TYPES



MEASURES THAT MATTER | DATA TYPES

Inputs

Tea bags

Water

Ice

Pitcher

Glasses

MEASURES THAT MATTER | DATA TYPES

Inputs

Tea bags
Water
Ice
Pitcher
Glasses

Outputs

1 pitcher of iced
tea prepared

5 friends drank
iced tea

MEASURES THAT MATTER | DATA TYPES

Inputs

Tea bags
Water
Ice
Pitcher
Glasses

Outputs

1 pitcher of iced
tea prepared

5 friends drank
iced tea

Outcome

Thirst quenched

(Condition)

MEASURES THAT MATTER | DATA TYPES



Inputs

Public Libraries Survey

- Operating revenue
- Expenditures
- Open hours

EDGE

- Number of computers
- Internet speed

MEASURES THAT MATTER | DATA TYPES

Outputs

Public Library Data Service

- Visits
- Circulation
- Program attendance

Digital Inclusion Survey

- Digital content
- Digital literacy programs

MEASURES THAT MATTER | DATA TYPES

Outcomes

Project Outcome

- Learned something new
- Increased confidence

Impact Survey

- Learned about specific topics
- Engaged in specific behaviors

MEASURES THAT MATTER | DATA TYPES

Inputs

What resources were used?

- Data from libraries

MEASURES THAT MATTER | DATA TYPES

Inputs

What resources were used?

- Data from libraries

Outputs

What was provided? How many people were served?

- Data from libraries and/or community members

MEASURES THAT MATTER | DATA TYPES

Inputs

What resources were used?

- Data from libraries

Outputs

What was provided? How many people were served?

- Data from libraries and/or community members

Outcomes

What difference did it make?
What change took place?

- Data from community members



**WHAT OUTCOME DATA DOES
YOUR LIBRARY COLLECT?**



DATA MANAGEMENT

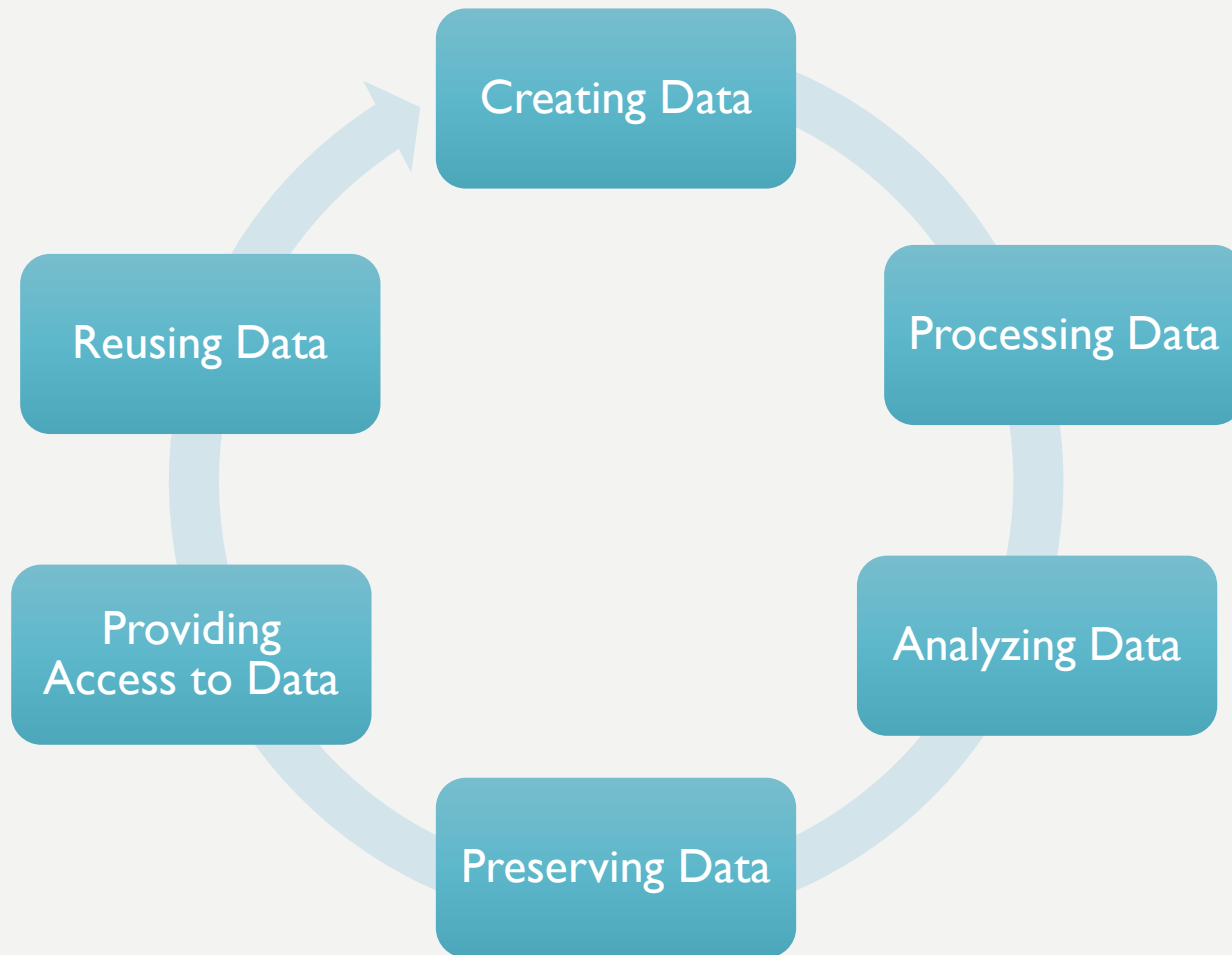
SOME KEY QUESTIONS TO ASK

- For what purpose(s) do you intend to collect the data?
 - Organizational learning
 - Adding to knowledge
- Do you have any data compliance requirements?
 - Privacy, confidentiality, retention, open access, permission to collect (IRB)
 - City, County, State, Federal, University, Other
- Do you intend to share the data?
 - Organizationally
 - At large, open data

SOME KEY QUESTIONS TO ASK

- Do you want to maximize reuse of the data?
 - Internally
 - Externally
- Is the data you are collecting one-time or ongoing?
- Do you intend or are you required to ensure long-term preservation of the data?

DATA LIFECYCLE



CREATING DATA: SELECTED CONSIDERATIONS

- Research design
- Data management
 - Formats
 - Storage
 - Access mechanisms
 - Full data sets, APIs
- Sharing consent
- Capture data in way that facilitates reuse

PROCESSING DATA: SELECTED CONSIDERATIONS

- Data entry
 - Can affect the ability to reuse the dataset
- Check/scrub the data
 - Try to make the data as clean as possible
- If confidentiality is an issue, anonymize/aggregate data where necessary
- Make sure you describe the data
- Manage and store data

PRESERVING DATA: SELECTED CONSIDERATIONS

- Data format is critical
 - CSV (generic use)
 - In general, generic is best for long-term use/reuse
 - Proprietary (Excel, SPSS, SAS)
- Choose a suitable storage medium
 - Cloud, disk, other
- Make back-ups and ensure appropriate security protocols
- Data documentation
 - Codebooks, descriptions
- Archive data
 - Ensure long-term preservation

PROVIDING ACCESS TO DATA: SELECTED CONSIDERATIONS

- Data distribution
- Data sharing
- Data access control
- Copyright? Open?
- Promote data availability

RE-USING DATA: SELECTED CONSIDERATIONS

- Follow-up research
 - Longitudinal (ongoing)?
 - Change over time – how make data series available to facilitate analysis/reuse
 - Periodic updates
- Combining datasets
- Program evaluation
- Build a culture of assessment

SELECT A LIBRARY OR NEIGHBORHOOD

LIBRARY NAME: LIBRARY LOOKUP: SELECT CUSTOM AREA:

HOW TO USE THE APP:

Get started by either entering part of a library or city name and selecting a match or by drawing an area on the map using the tools provided.

Click on libraries on the map to view digital inclusion survey data, community profiles and library service areas.

After selecting a neighborhood or library service area, toggle community map layers on and off using the community profile buttons.

Public Transit: 0.0%

Show Unemployment Rates on

Legend: Library System, 2014 Di Survey Respondent, Has Not Taken Di Survey, Library Branch, 2013 Di Survey Respondent, User-Submitted

SELECT A LIBRARY OR NEIGHBORHOOD

LIBRARY NAME: LIBRARY LOOKUP: SELECT CUSTOM AREA:

INDIAN RIVER COUNTY LIBRARY
Survey Respondent: 2014 Survey

Services Offered: Technology Infrastructure, Public Access Computers: 128, Broadband Speed: 91.2 Mbps, Wi-Fi, Technology Services/Resources, Laptops, Online Homework Resources, Mobile Work Spaces, Online Job Resources, e-Books, Tablets, Technology Training, Computer Skills, New Technologies, Internet Skills, Online Privacy, Programs/Assistance, Basic Literacy, Job Applications, GED, Government Forms, Online Health Info.

Demographics

POPULATION: 36,839

AGE & SEX: 48% Male, 52% Female

FOREIGN POP.: 11%

LIMITED ENGLISH: 2%

RACES OF ANCESTRY: African American 27%, Cuban 11%, Spanish 9%, German 4%, French 1%, Italian 1%

RACE: White 91%, Black 7%, Native Amer. 1%, Asian 1%, Pacific Isl. 0%, Other 1%

F. IMMIGRATION: 1990-2000, 2000-2010

Legend: Library System, 2014 Di Survey Respondent, Has Not Taken Di Survey, Library Branch, 2013 Di Survey Respondent, User-Submitted

SELECT A LIBRARY OR NEIGHBORHOOD

LIBRARY NAME: LIBRARY LOOKUP: SELECT CUSTOM AREA:

Demographics

WITHIN 3 MILE RADIUS

Total Jobs: 13,540

Unemployment: 14.8%

Public Transit: 0%

TOP EMPLOYERS

Health Care: 26%, Retail Trade: 11%, Educational Services: 10%, Food Service: 10%, Public Administration: 9%, STEM: 9%, Construction: 5%, Manufacturing: 4%, Agriculture: 3%, Other: 17%

Home Owners: 66%

STEM Jobs: 5%

Poverty Rate: 18.7%

HOUSEHOLD INCOME (Annual)

\$20K or less: 4%, \$10K to \$20K: 10%, \$7K to \$10K: 8%, \$5K to \$7K: 14%, \$3K to \$5K: 20%, \$2K to \$3K: 19%, Less Than \$2K: 25%

Legend: Library System, 2014 Di Survey Respondent, Has Not Taken Di Survey, Library Branch, 2013 Di Survey Respondent, User-Submitted

SELECT A LIBRARY OR NEIGHBORHOOD

LIBRARY NAME: LIBRARY LOOKUP: SELECT CUSTOM AREA:

Technology Infrastructure

of Public Access Computers: 128

Download Speed (Mbps): 91.2

Upload Speed (Mbps): 0.0

Wi-Fi:

Technology Services/Resources

Laptops: Work Spaces for Mobile Workers: Online Homework Resources: Online Job Resources:

Tablets: e-Books:

Technology Training

Computer Skills: Internet Skills: New Technologies: Online Privacy:

Programs/Assistance

Basic Literacy: Job Applications: Government Forms:

GED: Online Health Info:

E-rate Survey

Did the library apply for E-rate discounts during the July 1, 2016 E-rate funding year? (check one)

Yes No Yes, another organization applied on behalf of the library

If the library did NOT apply for E-rate discounts in 2016, it was because: (check all that apply)

The E-rate application process was too complicated

Our E-rate discount is low and not worth the effort to apply

Of the need to comply with CIPA's filtering requirements

Unsure

Other reason

What are the factors that affect the library's ability to increase broadband connectivity? (check all that apply)

The library is at the maximum speed available to the location

The library cannot afford the costs of increasing bandwidth

City/county/other entity makes the decisions regarding the library's bandwidth

Legend: Library Branch, 2013 Di Survey Respondent, User-Submitted

NATIONAL DATA: AVAILABILITY



Open Data

- Public Libraries Survey
~2 years after collection
- Digital Inclusion Survey
Discontinued
- Pew
Discontinued



Closed Data

- PLDS
Subscription required to access data
- Project Outcome
Under consideration
- EDGE
Subscription required to participate
- Impact
Subscription required to participate

NATIONAL DATA: LEVEL OF DATA

Survey/Data Source	Branch	System	Users	Participation
Public Libraries Survey	X (mostly library demographics – e.g., geocodes, metropolitan status, square footage)	X (budget, FTEs, services, resources, use)		Census
Digital Inclusion Survey	X (broadband, PACs, resources, services)			Sample
PLDS		X		Voluntary
EDGE	(X)	X		Voluntary
Impact		(X)	X	Voluntary
Pew			X	Sample



QUESTIONS?

WHAT'S COMING UP?

WHAT'S COMING UP?

- ALA Annual Presentation: **Measures that Matter: Building Bridges Between Data Collection Activities in Public Libraries**, June 24, 10:30-11:30

WHAT'S COMING UP?

- ALA Annual Presentation: **Measures that Matter: Building Bridges Between Data Collection Activities in Public Libraries**, June 24, 10:30-11:30
- Webinar: **Measures that Matter Part 3: Moving Toward More Meaningful Measures**, July 26, 3:00-4:00 Eastern/12:00-1:00 Pacific

THANK YOU!

- Questions? Feedback? Please contact info@cosla.org or Tim Cherubini, COSLA Executive Director, at tcherubini@cosla.org
- Follow Measures that Matter on Twitter: [@libmeasuresmtr](https://twitter.com/libmeasuresmtr)
- Sign up for the email distribution list at <https://www.surveymonkey.com/r/MtMEmailList>



Learner Guide

Measures that Matter Part Two: Detailing the Data-based Story of Public Libraries

<http://www.webjunction.org/events/webjunction/measures-that-matter-2.html>

Event Description: In the United States, there are a number of national surveys of public libraries and their patrons. While all of these efforts help us tell a data-based story of public libraries, they differ in terms of their samples, what types of data they collect, and how their data are collected, stored, and accessed. During the [first webinar](#) in this three-part series, we scanned the landscape of major public library surveys and considered how library data could be used more productively in the future. In this second [webinar](#), we will drill deeper into the concepts of sampling, data types, and data management, and how they impact what we know about public libraries and their patrons. At the end of this [webinar](#), participants will have a greater understanding of various sampling methods, recognize the differences between inputs, outputs, and outcomes, and be aware of the data management practices for various national public library surveys.

Presented by: Rebecca Teasdale, John Bertot, and Linda Hofschire

What are your goals for viewing this webinar?	
Personal Goals	
Team Goals	
Sampling Methods	
Identify the methods for any surveys your library conducts or participates in (indicate which survey per method):	
<input type="checkbox"/>	Census
<input type="checkbox"/>	Probability Sampling (e.g. simple random, systematic, stratified, cluster, or multistage)
<input type="checkbox"/>	Non-Probability Sampling (e.g. purposive, snowball, or convenience)
<input type="checkbox"/>	Other
Explore these additional resources on sampling methods:	
<ul style="list-style-type: none">• Understanding random sampling, a video from Pew Research Center• Understanding Sampling, a toolkit from the Pell Institute• Sampling: Design and Analysis, a book by Sharon Lohr	

and identify whether they are **inputs, outputs, or outcomes**.

public library data can be accessed, displayed, and this, find your library on the Digital Inclusion Survey bins data from the Public Libraries Survey, Digital [weyl], Census, and American Community Survey).

data points listed above. (Consider using the [27-9-3 method](#) to what can be presented using no more than 27 words, within a, and discussing no more than three points.)

nts or questions about Measures that Matter to

info@cosla.org