

# Learning Analytics

SPEC Survey  
Webcast Series  
October 10, 2018

ASSOCIATION  
OF RESEARCH  
LIBRARIES

# Introductions



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# Introductions Cont.



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# What Are Learning Analytics (LA)?

“measurement, collection, analysis and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs” (Siemens, 2012)

Learning Analytics (LA) vs. Assessment

# Topics Covered in the Survey

The survey focused on these main areas:

- LA Initiative Participation
- Library Practices
- Library and Institutional Data Sharing
- Data Protections
- Privacy Policies and Practices
- Procedures and Training
- Partnerships

# Survey Response

- 53 of 125 ARL Institutions Replied (42%)
- Questions were not required so response rates for individual questions varied.
- The survey was open from April 30th to June 15, 2018

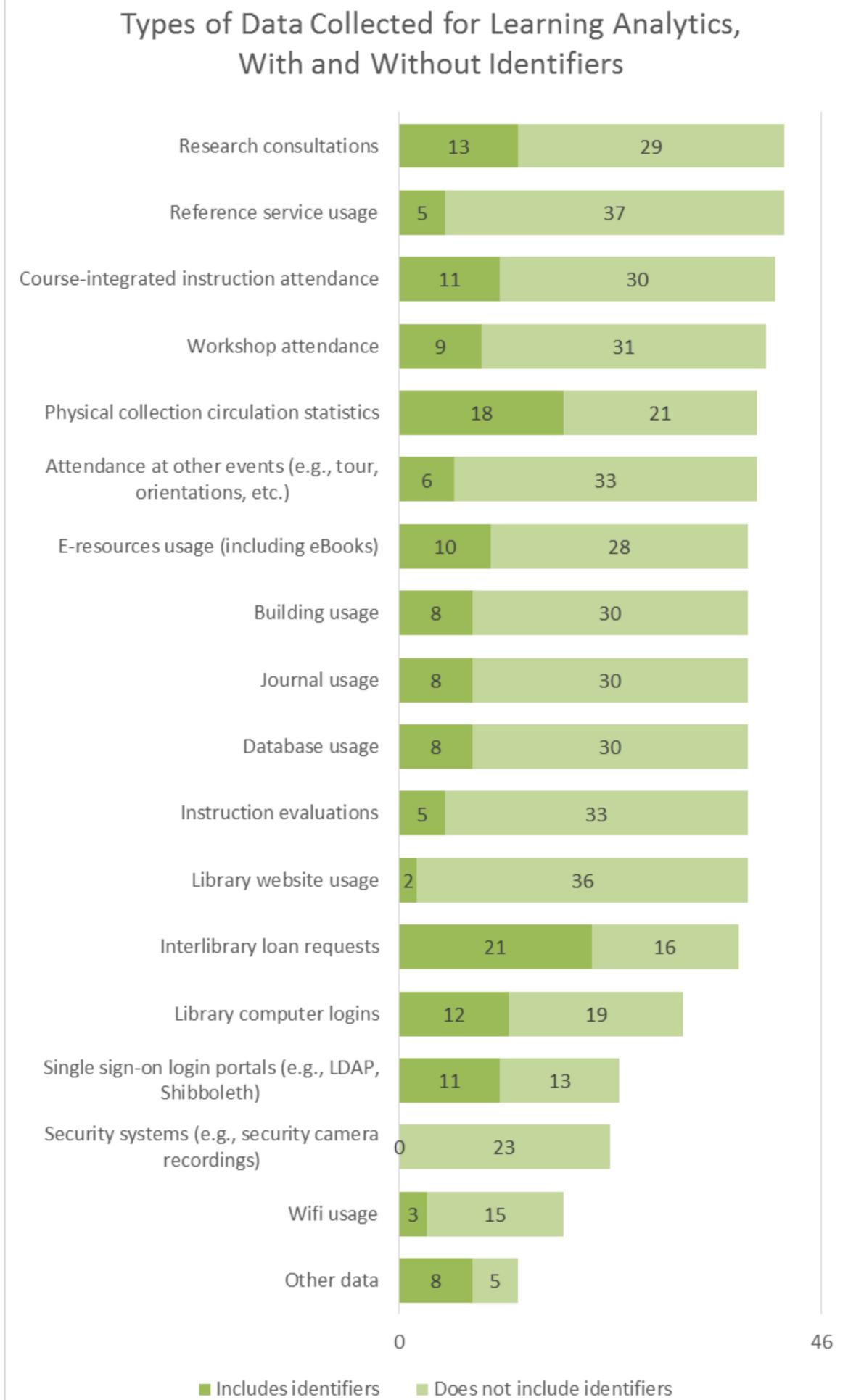
# LA Initiative Participation

- 81% (N=53) of respondents indicated they are participating in LA projects
- Over 75% (N=53) of libraries indicated they had staff allocated to these projects

# Library Practices

- All libraries (N=45) said LA data is gathered by staff librarians
- 96% of libraries (N=45) said staff librarians were involved in the analysis of data
- 89% of libraries (N=45) also had non-librarians gathering data
- Only 64% of libraries (N=45) have non-librarians analyzing the data

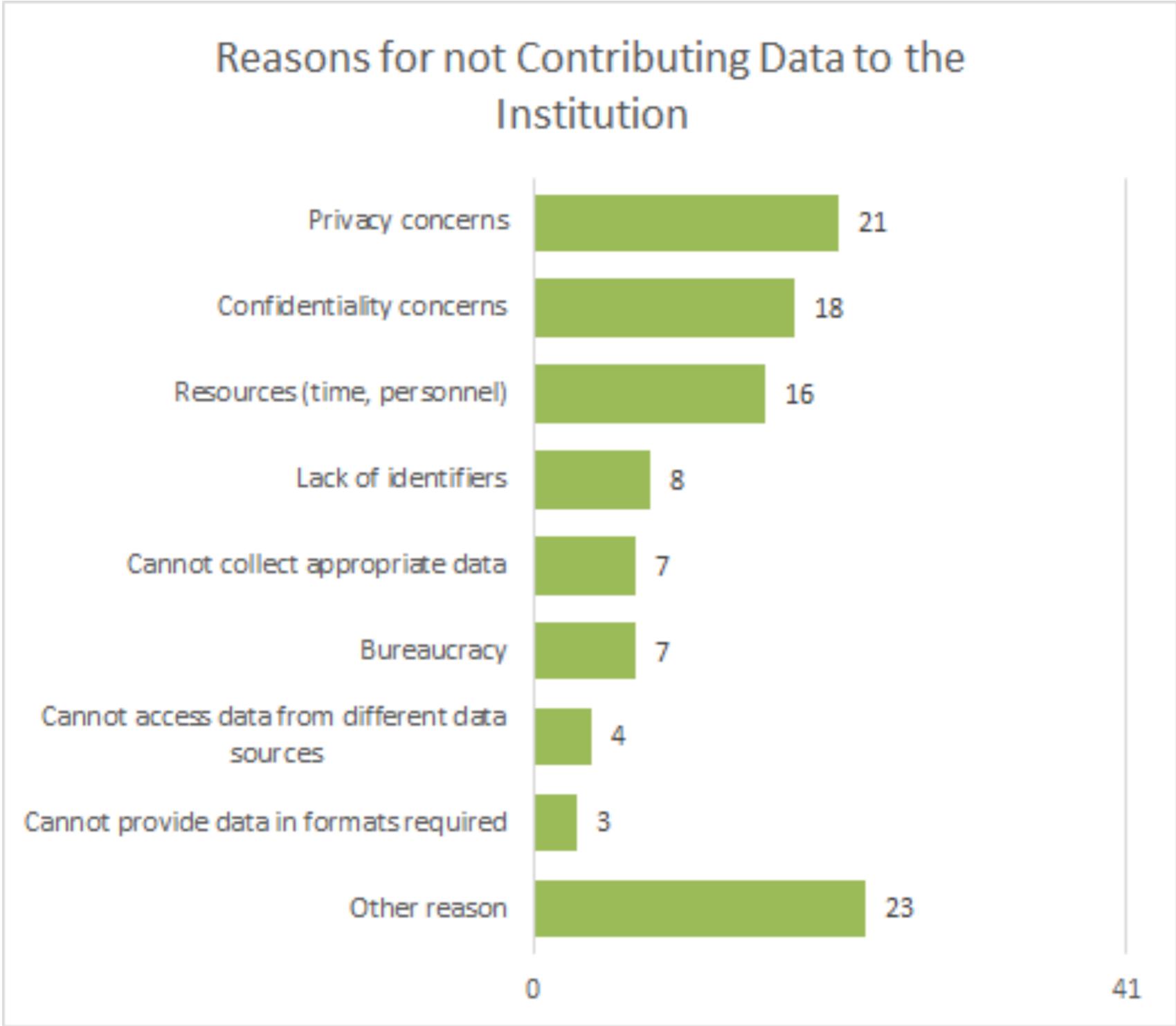
# Types of Data Collected



# Library and Institutional Data Sharing

- Fewer than 50% (N=52) of libraries reported sharing data with other departments on campus or to a central warehouse
- 20% (N=52) did indicate that they were planning to begin doing so within the next 6–12 months
- Data most often shared with other departments concerns collections usage rather than data about patron interactions

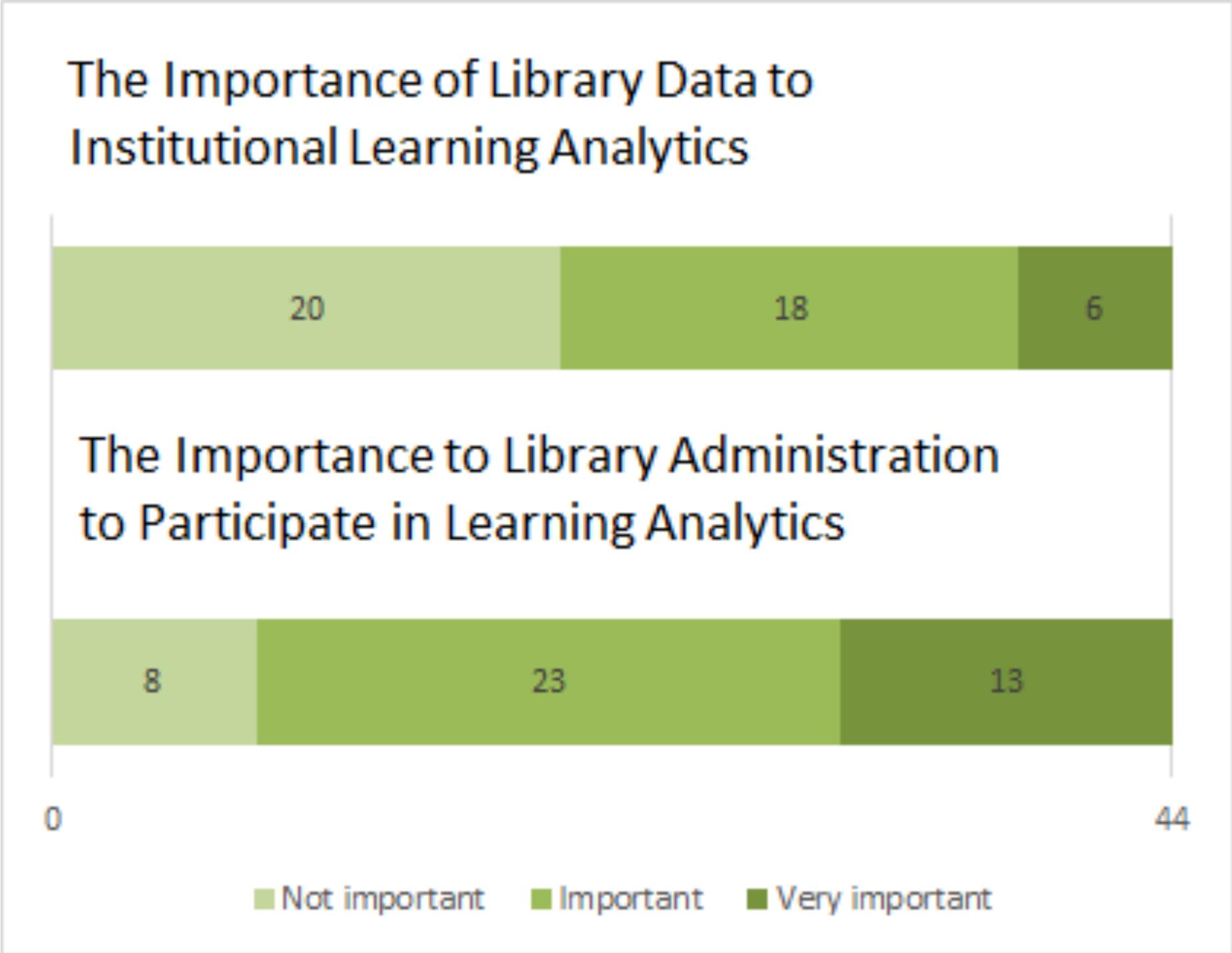
# Library and Institutional Data Sharing Graph



# Library Data Collection

- The majority (91%, N=43) of libraries indicated that, in response to institutional LA efforts, they are collecting the same or more data with personal identifiers than they had previously
- Despite this increase, only about 50% (N=44) felt that library data was important to campus-level initiatives

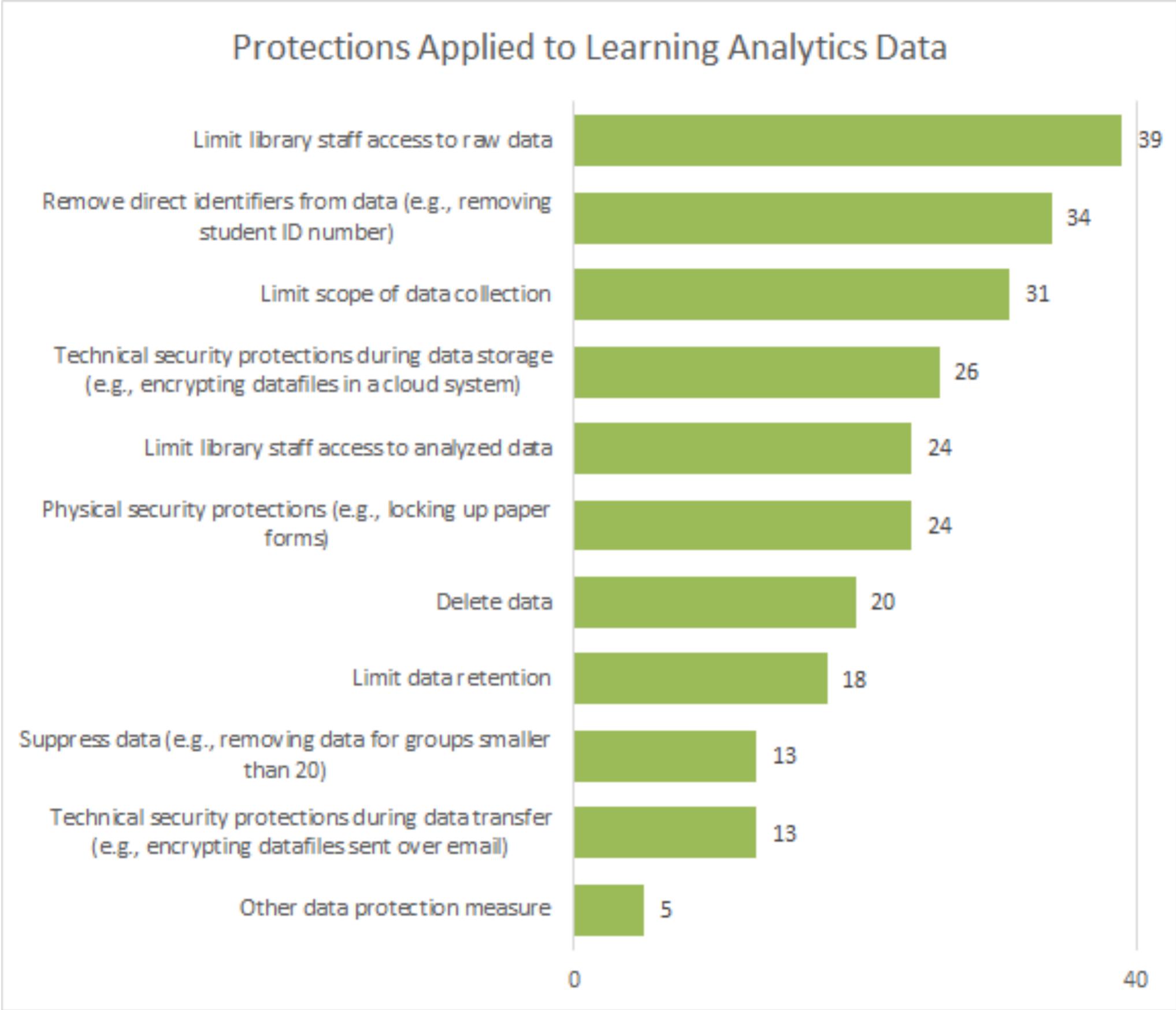
# Learning Analytics Perceived Importance



# Data Protections

- Only 16 libraries answered a question about library anonymization techniques
  - Several described relying on the Office of Institutional Research to de-identify data
- About 38% (N=47) of the libraries reported having a records-management schedule or policy that controls the retention of LA data
- 9 libraries without a retention schedule or policy report they plan to hold LA data “indefinitely”
- Only two libraries have a learning analytics data management plan

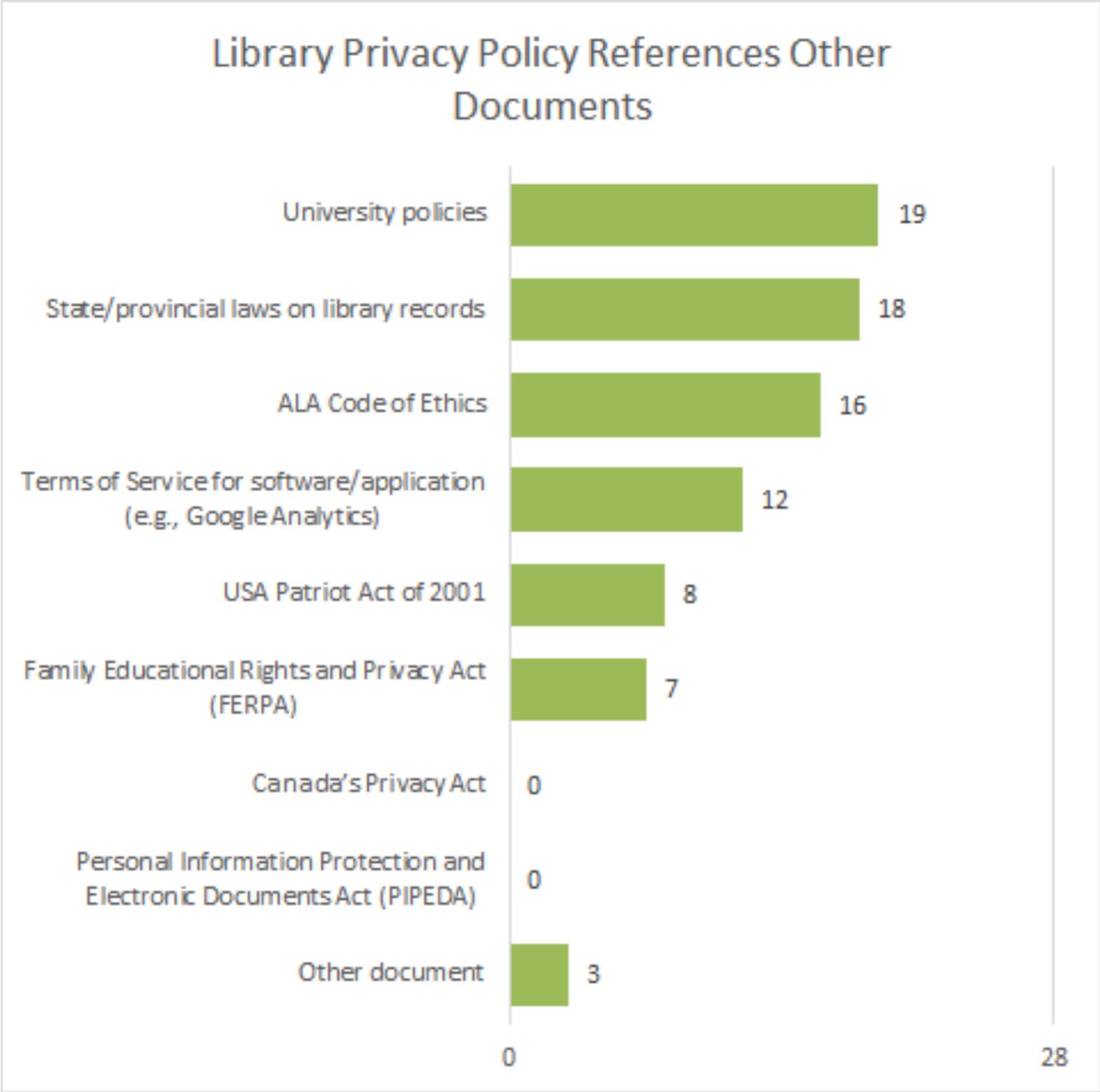
# Data Protections Graph



# Privacy Policies and Practices

- While 90% of libraries (N=50) indicated that their institution has a privacy policy, only 62% (N=50) have a separate library privacy policy
- There is a general lack of consistency regarding policy review and revision.
- Only 7 libraries indicated privacy policies have been updated for LA

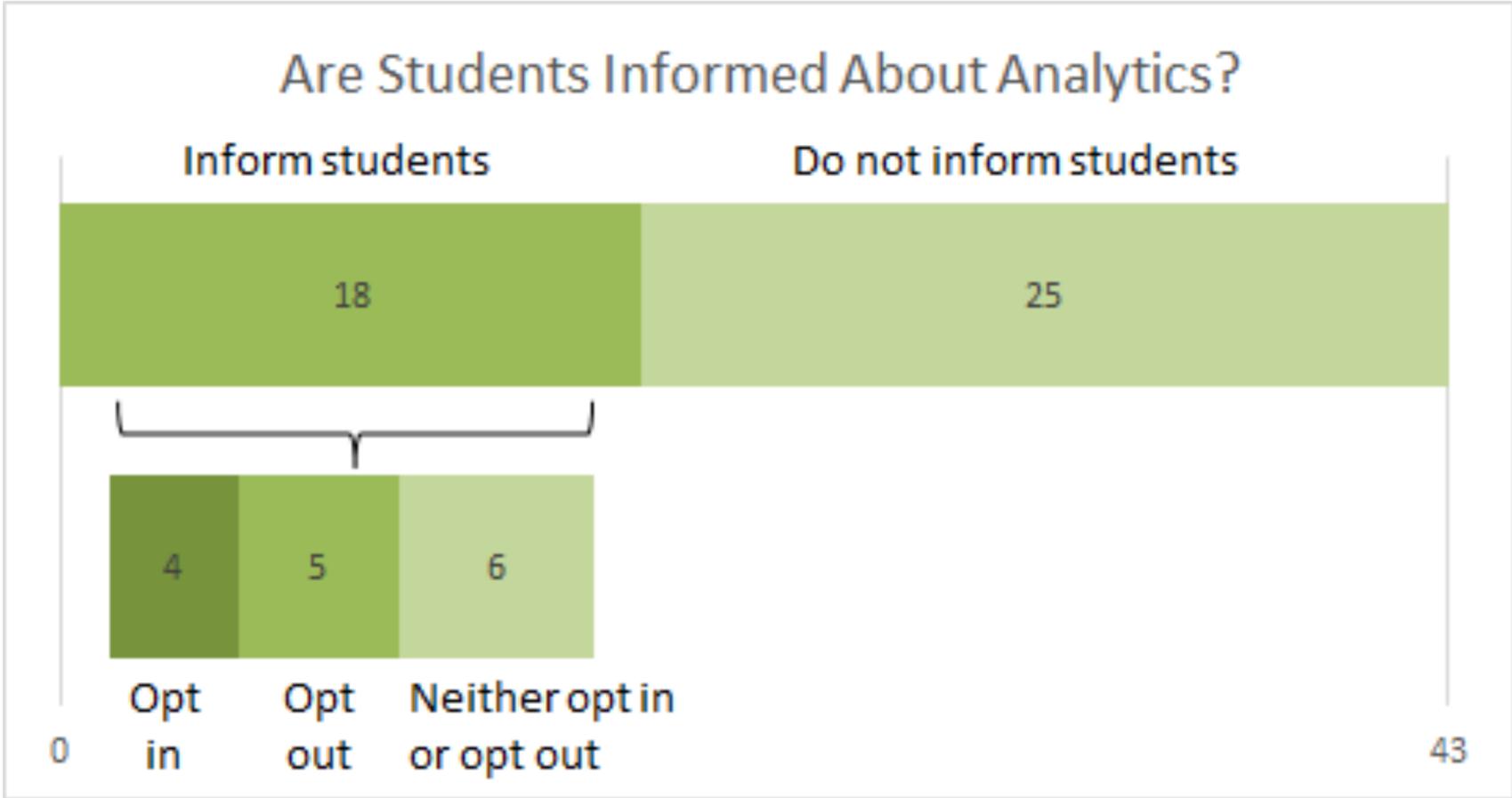
# Privacy Policies and Practices Graph



# Informed Consent and Review

- 42% of libraries (N=43) inform students about library learning analytics initiatives
- Only 4 libraries indicated that there was a mechanism for students to opt in
- The majority of libraries (70%, N=40) obtain Institutional Review Board approval for LA projects
- 60% of libraries (N=40) indicated that they review FERPA with staff members for their LA work

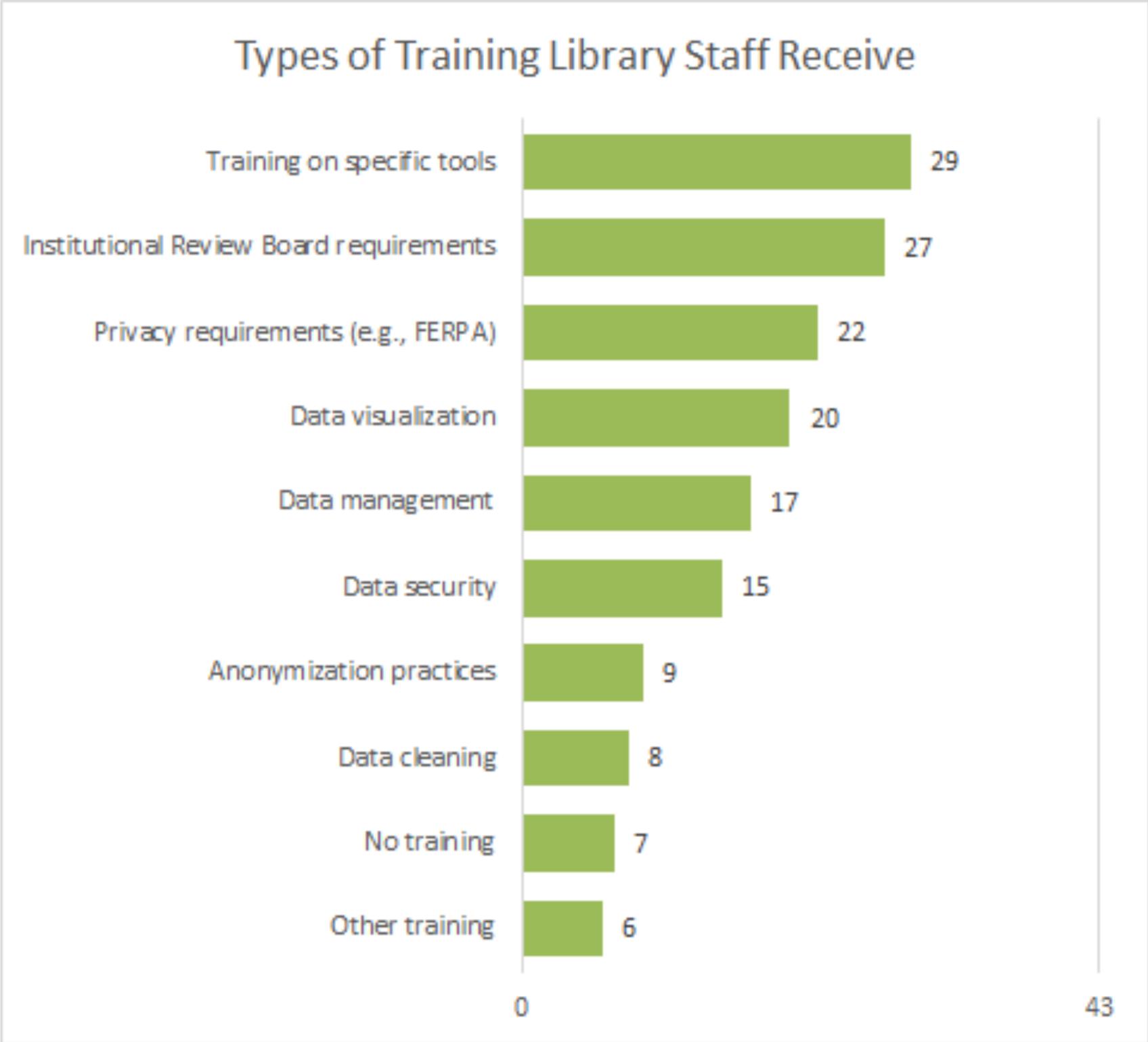
# Informed Consent and Review Graph



# Procedures

- Internal staff guidelines and documentation are only available at 25% of libraries (N=44)
- Only 33% of libraries (N=45) have a process for handling external requests from other campus entities for library data
- Library staff who are involved in learning analytics projects are most likely to receive training on specific tools and IRB and FERPA requirements

# Procedures Graph



# Partnerships

- Almost 40% (N=48) of libraries indicated they participate in LA initiatives alongside campus units
- Nearly 33% (N=49) of the respondents are working with consortia, such as the Greater Western Library Alliance Student Success Initiative and Unizin

# Recommendations

1. Libraries should put in place a schedule for reviewing and/or developing privacy and data management policies
2. Libraries should expand training on data handling best practices that goes beyond institutional FERPA and IRB training
3. Libraries should develop best practices for assessing the ethical and personal privacy risk to students internally, rather than relying on IRBs
4. Libraries should be more transparent about their student learning analytics projects

## Questions & Discussion

Join the conversation by  
typing questions in the chat  
box in the lower left corner  
of your screen

**Thank you!**

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## SPEC Survey Webcast on Learning Analytics

### 1. Welcome (Lee Anne)

Hello, I am Lee Anne George, coordinator of the SPEC Survey Program at the Association of Research Libraries, and I would like to thank you for joining us for this SPEC Survey Webcast. Today we will hear about the results of the survey on Learning Analytics. These results have been published in SPEC Kit 360, which is freely available at [publications.arl.org](http://publications.arl.org).

### Announcements (Lee Anne)

Before we begin there are a few announcements:

Everyone but the presenters has been muted to cut down on background noise. So, if you are part a group today, feel free to speak among yourselves.

We do want you to join the conversation by typing questions in the chat box in the lower left corner of your screen. I will read the questions aloud before the presenters answer them.

This webcast is being recorded and we will send registrants the slides and a link to the recording in the next week.

### 2. Introductions (Lee Anne)

Now let me introduce the seven survey authors:

**Michael R. Perry** is Head of Assessment & Planning at Northwestern University Library,

**Kristin A. Briney** is the Data Services Librarian at the Golda Meir Library at the University of Wisconsin-Milwaukee,

**Abigail Gobin** is Assistant Professor, Information Services and Liaison Librarian at the Library of the Health Sciences at the University of Illinois at Chicago,

### 3. Introductions Cont. (Lee Anne)

**Andrew Asher** is the Assessment Librarian at the Indiana University Bloomington Libraries,

**Kyle M. L. Jones** is an Assistant Professor in the School of Informatics and Computing at Indiana University-Indianapolis,

**M. Brooke Robertshaw** is an Assistant Professor & Assessment Librarian at Oregon State University Libraries & Press, and

**Dorothea Salo** is a Faculty Associate in the Information School in the College of Letters and Science at the University of Wisconsin-Madison.

Use the hashtag **ARLSPECKit360** to continue the conversation with them on Twitter.

Now, let me turn the presentation over to Mike.

#### **4. What Are Learning Analytics (LA)? (Mike)**

Thank you, Lee Anne.

What are learning analytics?

For this project we used the common Siemens definition above.

How does LA differ from Assessment?

LA is the aggregation and analysis of student data for the purposes of better understanding learning and the contexts in which learning occurs to improve instructional and institutional practices.

Assessment is the evaluation of student learning outcomes using educational designs.

LA is different from assessment because 1) the data is primarily quantitative and 2) does not, at the present time, focus on strategic educational designs, but instead the observation of student behaviors—learning or otherwise—and their relationship to a variety of outcomes.

#### **5. Topics Covered in the Survey [Mike]**

The survey focused on these main areas:

- LA Initiative Participation
- Library Practices

- Library and Institutional Data Sharing
- Data Protections
- Privacy Policies and Practices
- Procedures and Training
- Partnerships

## **6. Survey Response [Mike]**

53 of the 125 ARL Institutions replied (42%).

The survey was open from April 30<sup>th</sup> to June 15, 2018.

## **7. LA Initiative Participation [Mike]**

Of the 53 responding libraries, 81% (43) indicated that their institutions were participating in learning analytics projects, suggesting broad uptake across ARL institutions.

Nearly three-quarters of respondents indicated that they had staff allocated to these types of projects.

Now Kristin will describe the findings on library data practices.

## **8. Library Practices [Kristin]**

Thank you, Mike.

Forty-five respondents answered questions about who collects and analyzes data for library LA. All of them reported that the gathering of LA data is done by staff librarians, which corresponds with the regular collection of reference and instruction data.

There was also nearly universal agreement that staff librarians are engaged with analyzing the data (43 responses, or 96%).

Non-librarian staff also frequently gather LA data (40 or 89%), though fewer are engaged in analyzing the data (29 or 64%).

This generally aligns with data being gathered around library instruction.

## **9. Types of Data Collected (Kristin)**

This chart outlines the type of data collected and if it is done so with or without an identifier for the individual.

Most common data collected revolved around research and reference consultations or instruction.

## **10. Library and Institutional Data Sharing (Kristin)**

Fewer than half of the respondents (20 of 52) reported sharing data with other departments on campus or to a central warehouse.

20% (11 of 52) did indicate that they were planning to begin doing so within the next 6–12 months.

Data most often shared with other departments concerns collections usage—circulation and e-resource usage—rather than data about patron interaction with library staff.

## **11. Library and Institutional Data Sharing Graph (Kristin)**

The respondents who indicated that they are not sharing data beyond the library cited privacy and confidentiality as the primary concerns.

Privacy = Kept to themselves (unknown)

Confidentiality = Know but kept to the library

## **12. Library Data Collection (Kristin)**

The majority of respondents (39 of 43) indicated that, in response to institutional LA efforts, they are collecting the same or more data with personal identifiers than they had previously.

Despite this increase, only about half (24 of 44 or 55%) felt that library data was important to campus-level initiatives.

## **13. Learning Analytics Perceived Importance (Kristin)**

The difference between the perceived importance of library data/participation in LA:

How important is library data to learning analytics initiatives at your institution?

How important is it to your library's administration to participate in learning analytics initiatives?

#### **14. Data Protections (Kristin)**

Only 16 respondents answered a question about library anonymization techniques; of those, several described relying on the office of institutional research to de-identify the data.

Only a few more than a third of the responding institutions (18 of 47 or 38%) reported having a records-management schedule or policy that controls the retention of learning analytics data.

Nine libraries without a retention schedule or policy report they plan to hold LA data "indefinitely".

Only two respondents have a learning analytics data management plan.

#### **15. Data Protections Graph (Kristin)**

This graph shows what kinds of protections libraries apply to learning analytics data.

Most common is limiting staff access to raw data and removing identifiers.

Next, Abigail will discuss privacy policies and practices.

#### **16. Privacy Policies and Practices [Abigail]**

Thank you, Kristin.

While 45 respondents (90%) indicated that their institution has a privacy policy, only 62% of those (31) have a separate library privacy policy.

Most of those library policies link to the university policy, state laws on library records, and to the ALA Code of Ethics.

There is a general lack of consistency regarding policy review and revision.

Most respondents indicated that LA has not caused changes in their privacy policies.

## **17. Privacy Policies and Practices Graph [Abigail]**

This graph outlines the most common outside policies and documents that are referenced in privacy policies.

Most common are university policies and state laws.

## **18. Informed Consent and Review [Abigail]**

42% of libraries (18 of 43) inform students about library learning analytics initiatives.

Only 4 libraries indicated that there was a mechanism for students to opt in.

The majority of libraries (70%, 28 of 40) obtain Institutional Review Board approval for LA projects.

60% of libraries (24 of 40) indicated that they review FERPA with staff members for their LA work.

## **19. Informed Consent and Review Graph [Abigail]**

This breakout chart shows how institutions handle informing students about learning analytics and if students can opt out.

## **20. Procedures [Abigail]**

Internal staff guidelines and documentation for processes are only available at 1/4 of 44 (n=11) responding institutions.

Only 1/3 of 45 (n=15) responding libraries have a process for handling external requests from other campus entities for library data.

Library staff who are involved in learning analytics projects are most likely to receive training on specific tools and IRB and FERPA requirements.

## **21. Procedures Graph [Abigail]**

This chart outlines the types of training staff receive.

Most training is based around specific tools or IRB/FRPA.

## **22. Partnerships [Abigail]**

Almost 40% of respondents (18 of 48) indicated they participate in LA initiatives alongside campus units.

One third of the respondents (16 of 49) are working with consortia, such as the Greater Western Library Alliance Student Success Initiative and Unizin.

Now back to Mike.

### **23. Recommendations [Mike]**

Thank you, Abigail.

1. Libraries should put in place a schedule for reviewing and/or developing privacy and data management policies. This process should be handled by an informed and dedicated committee, office, or individual. Policies should be written in clear, concise, and understandable language. Wherever possible, actual systems or data types should be identified. Policies should include a revision history, approval process, and last reviewed date, as well as contact information for questions. Policies should link, as appropriate, to other governing documents, such as university policies, state and federal laws, and the ALA Code of Ethics.
2. Libraries should expand training on data handling best practices that go beyond institutional FERPA and IRB training. Library staff would most benefit from training on underutilized data protection practices identified in the survey results, including: technical protections, like encryption, for both storage and transit; processes for data minimization, including limiting data collection and retention times; and anonymization strategies. Libraries commit to protecting the privacy of the information about their users and their information habits; such commitments should also be applied to user data they keep and share.
3. As many projects are perceived to be for internal use only, the Institutional Review Board may not be contacted, even when the data are subsequently used for research. Similarly, many IRBs do not see data already collected as carrying potential for harm. Libraries should develop best practices for assessing the ethical and personal privacy risks to students internally, rather than

relying on IRBs, regardless of whether they have immediate plans to disseminate findings from their work.

4. Libraries should be more transparent with their students about learning analytics projects. Only one respondent provided a document outlining learning analytics projects, and it is unclear whether the document was ever publicly available. This transparency includes engaging with students to inform them about what data is collected about them and how it is used.

#### **24. Questions & Discussion (Lee Anne George)**

Thank you, Mike, Kristin, and Abigail. And now we welcome your questions. Please join the conversation by typing questions in the chat box in the lower left corner of your screen. I will read the questions aloud before the presenters answer them.

#### **25. Thank You! (Lee Anne George)**

Thank you all for joining us today to discuss the results of the learning analytics SPEC survey. You will receive the slides and a link to the recording in the next week.