

# Survey Results

# Executive Summary

## Introduction

In recent years, a line of research has appeared in the library literature under the auspices of “Library Value” or “Library Impact” studies. The purpose of this research is to determine how library usage (e.g., of resources, services, spaces, etc.), relates to student learning and academic achievement outcomes. As a result of this, academic libraries are increasingly building capacity for, and participating in learning analytics (LA), which is defined as the “measurement, collection, analysis, and reporting of [student and other data] for the purposes of understanding and optimizing learning and the environments in which it occurs” (LAK, 2011). Using LA, libraries and their institutions believe they are more prepared to describe (what is happening?), diagnose (why did it happen?), and predict (what is likely to happen?) factors that influence or inhibit student learning, and prescribe (what should we do about it?) interventions. The success of LA depends in part on an institution’s ability to connect campus information systems—including those under the purview of libraries—to aggregate and analyze data about student. But as institutions continue to surface granular data and information about student life, the risk to student privacy grows. It is unclear how libraries are addressing those risks.

The purpose of this survey was to illuminate current practices, policies, and ethical issues around libraries and learning analytics. This environmental scan explores how ARL member institutions are navigating the balance between gathering and managing data in support of learning analytics initiatives and attending to the profession’s ethics commitments. To these ends, the survey questions sought to answer these broad questions: how are academic libraries planning for, adopting, and participating in learning analytics initiatives?; what mechanisms do they use to maintain data security and privacy?; what ethical issues do they encounter when participating in learning analytics?; and how do they negotiate and resolve those issues?

The survey was conducted between April 30 and June 15, 2018. Fifty-three of the 125 ARL libraries responded to the survey for a 42% response rate.

## Learning Analytics Initiative Participation (Q1–Q6)

The introductory questions asked about current participation in learning analytics initiatives within the libraries, focusing on participation, storage, and types of data collected both with or without personal identifiers.

Of the 53 responding libraries, 83% indicated that they were participating in learning analytics projects, suggesting broad uptake across ARL institutions. Further, nearly three-quarters of respondents indicated that they had staff allocated to these types of projects. This high percentage of uptake and the

dedication of staff to positions supporting learning analytics initiatives suggests the expansion of this type of metric as well as administrative perception of the importance of these efforts.

Responses about institutional data storage for learning analytics data revealed a variety of storage strategies. Respondents had the option to select multiple answers. The most common LA data storage location is a central data warehouse (41 responses, or 80%). Almost as many respondents (38 or 75%) reported that data is stored by the unit that collects it. Nearly 20% of respondents indicated that they store data in a distinct learning analytics warehouse and 20% also indicated that another repository was being used.

Respondents were asked to identify what types of library data are collected and whether this data is collected with or without individual patron identifiers. The most commonly reported types of data captured concern patron interaction with library staff (research consultations, reference, instruction) and materials usage (print and electronic). These data points are being gathered by more than 80% of respondents.

The majority of respondents indicated that individuals (via unique identifiers) are not tracked. The two highest measures tracked with personal identifiers are tied to collections: physical circulation and interlibrary loan information. While students are unlikely to be directly identified for coursework and workshop attendance, individual information is required for delivery of materials.

### **Library Practices (Q7–Q12)**

Questions about library practices covered who participates in collecting and analyzing information and data retention durations.

All of the respondents reported that staff librarians gather library LA data, which corresponds with the regular collection of reference and instruction data. There was also nearly universal agreement that 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%).

Fewer than half of the responding institutions reported having a records-management schedule or policy that controls the retention of learning analytics data. The survey results did not show a difference between public or private institutions regarding the existence of a retention policy. Only two institutions indicated that their policies had changed because of learning analytics. Text responses about the duration for library learning analytics data retention reveals that institutions that do not have a retention schedule are more likely to keep data indefinitely. At institutions that have a policy, retention periods vary by data type and collection purpose, with periods between one month (electronic vendor data) to ten years (circulation) data being reported.

### **Library and Institutional Data Sharing (Q13–Q24)**

Fewer than half of respondents reported sharing data with other departments on campus or to a central warehouse, although twenty percent did indicate that they were planning to begin doing so within the next 6–12 months.

Interestingly, the data most often shared with other departments concerns collections usage—circulation and e-resource usage—rather than data about patron interaction with library staff. This may be tied to the need to provide contextual numbers to obtain more funding for materials budgets; whether this is directly related to department or university level learning analytics is unclear.

The respondents who indicated that they are not sharing data beyond the library cited privacy and confidentiality as the primary concerns, although lack of resources was also ranked highly. Other reasons included that the library is not seen as a data source and that there are a lack of campus initiatives or requests for the data.

Only eight of the respondents indicated they place restrictions on how shared data is used by other departments; while institutional data shared with the library comes with greater acknowledged restrictions.

Several questions focused on the perceived importance of library LA. The majority of respondents indicated that, in response to institutional LA efforts, they are collecting the same or more data with personal identifiers than they had previously. However, despite this increase, only about half felt that library data was important to campus-level initiatives. This is markedly smaller than the 80% of respondents who felt that library participation in LA was important to library administration, suggesting a greater value is being placed internally than externally on these initiatives.

### **Data Protections (Q25–Q28)**

This section of the survey specifically dealt with library policies, practices, and training around data protections (e.g., handling and management).

The most common data protections identified in learning analytics projects include limiting staff access to unanalyzed data, removing direct identifiers, limiting the scope of data collection, and securing storage. Few libraries reported securing data during transit, deleting data, or limiting retention. Coupled with previous results indicating long data retention periods, this suggests that libraries do not consider data deletion or limited retention as a necessary data protection strategy.

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. Others described basic de-identification such as removing student ID numbers and names and masking identifiers, though these practices are not equivalent to full anonymization.

Only two libraries have a learning analytics data management plan. A few libraries indicated that they intend to make a data management plan. When asked for plan details, several libraries linked to a webpage on data management plans for researchers with little indication as to whether these practices were used internally on library data.

### **Privacy Policies and Practices (Q29–Q36)**

A particular focus for this survey is the privacy policies relevant to library learning analytics and how they are implemented by the library.

While 45 respondents (90%) indicated that their institution has a privacy policy, only 31 of those 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. Fewer than half point to software terms of service, the 2001 USA PATRIOT Act, the 1974 Family Educational Rights and Privacy Act (FERPA), or another document.

There is a general lack of consistency regarding policy review and revision. Several respondents indicated updates happen “as needed” or “periodically” without further detail. Notably, a couple mentioned that they are currently reviewing these policies for update in 2018, with at least one mention of making changes based on the European Union’s General Data Protection Regulation (GDPR) requirements. Others are reviewed every few years, one is updated when laws change, and one was last updated nearly 15 years ago. Most respondents indicated that LA has not caused changes in their privacy policies. Only one respondent indicated that they created a “Responsible Use of Library Data” statement in alignment with their learning analytics project.

Eighteen libraries (42%) inform students about library learning analytics initiatives. However, 11 of these—nearly three-quarters—indicated that there was no mechanism for students to opt out or that any kind of non-participation option was available.

The majority of respondents (28 or 70%) obtain Institutional Review Board approval for learning analytics projects. Those who indicated that they did not seek approval commented that the projects were for non-research purposes, library internal use, or process improvements, all of which are typically exempt from IRB oversight. Two institutions indicated that when they used data beyond strictly internal process review, they obtained consent from students and allowed participants to opt out.

Sixty percent of respondents indicated that they review FERPA with staff members for their learning analytics work. Several comments indicate a reliance on general institutional training, without further specific training regarding LA.

### **Procedures (Q37–Q40)**

In addition to understanding the overarching policies about data handling and privacy, the survey sought to understand the day-to-day documentation and training available to prepare librarians gathering data and participating in LA initiatives to meet best practices or respond to data requests.

Internal staff guidelines and documentation are only available at one-quarter of 44 responding institutions. These include both internal and external training, planning documents, and a document specifying levels of data access (unanalyzed data, de-identified, etc.) One interesting response indicated that not only did they provide information about how patron data was used, they also had a statement that addressed the data gathered about the librarians as well.

Only a third of 45 responding libraries have a process for handling external requests from subject departments or other campus entities for library data. Comments indicate that administrators or staff responsible for assessment may be called upon to review these requests on an ad hoc basis. One respondent reported that “we would cooperate and collaborate with any department requesting institutional data” without further suggesting any restrictions or parameters under which the data might be shared.

Library staff who are involved in learning analytics projects are most likely to receive training on specific tools and IRB and FERPA requirements. Some of the responding libraries also provide training on data visualization, security, and handling (e.g., cleaning). Seven respondents (16%) indicated that librarians received no training for learning analytics projects.

### **Partnerships (Q41–Q43)**

The survey next asked whether the library is participating in any learning analytics partnerships either on or beyond campus. Almost 40% of respondents indicated they participate in LA initiatives alongside campus units such as the Office of Institutional Research, the Writing Center, Information Technology, Provost, Office of Assessment, and Undergraduate Affairs. A third of the respondents are working with consortia, such as the Greater Western Library Alliance Student Success Initiative and Unizin.

A final question offered respondents the opportunity to add anything the survey missed. A majority of respondents pointed out that learning analytics projects at their institutions and their libraries are nascent. They generally indicated an interest and willingness to engage in the gathering and assessment of this data without reservations. Only one institution clearly stated that they were not undertaking learning analytics projects and did not intend to do so.

### **Recommendations**

Overall, the survey results suggest that participation in library learning analytics, broadly defined, is of great interest to ARL libraries, with the majority of respondents participating in some sort of initiative within their library, if not yet within their institution. Libraries are increasingly capturing learning analytics data with personal identifiers, although little data is being formally or regularly shared with

campus partners or externally to consortia; however, the comments suggest an interest in engaging with both. Currently, libraries are inconsistent in whether they have a distinct data policy, staff documentation on data handling, and comprehensive internal training. This informs the recommendations set out below:

- 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.
- Libraries should expand training on data handling best practices that goes 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.
- 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 risk to students internally, rather than relying on IRBs, regardless of whether they have immediate plans to disseminate findings from their work.
- Libraries should be more transparent about their student 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.

# Survey Questions and Responses

The SPEC Survey on Learning Analytics was designed by **Andrew Asher**, Assessment Librarian at the Indiana University Bloomington Libraries; **Kristin A. Briney**, Data Services Librarian at the University of Wisconsin-Milwaukee; **Abigail Goben**, Associate Professor, Information Services and Liaison Librarian at the University of Illinois at Chicago; **Kyle M. L. Jones**, Assistant Professor, Department of Library and Information Science at Indiana University-Indianapolis; **Michael R. Perry**, Head of Assessment & Planning at Northwestern University Library; **M. Brooke Robertshaw**, Assistant Professor & Assessment Librarian at Oregon State University Libraries & Press; and **Dorothea Salo**, Faculty Associate in the Information School at the University of Wisconsin-Madison. These results are based on responses from 53 of the 125 ARL member libraries (42%) by the deadline of June 15, 2018. The survey's introductory text and questions are reproduced below, followed by the response data and selected comments from the respondents.

Learning analytics is commonly defined as the “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). In recent years, library researchers have begun pursuing a research agenda under the auspices of “Library Value” to determine how library usage (e.g., resources, services, spaces, etc.) as expressed in student data is related with and improves student learning outcomes. Effectively, Library Value research is aligned with learning analytics goals.

The purpose of this survey is to illuminate current practices, policies, and ethical issues around libraries and learning analytics. This environmental scan will explore how ARL member institutions are navigating the balance between gathering and managing data in support of learning analytics initiatives and attending to the profession's ethics commitments. To these ends, the survey will seek to answer these broad questions: how are academic libraries planning for, adopting, and participating in learning analytics initiatives?; what mechanisms do they use to maintain data security and privacy?; what ethical issues do they encounter when participating in learning analytics?; and how do they negotiate and resolve those issues?

## LEARNING ANALYTICS ENGAGEMENT

Learning analytics is commonly defined as the “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 include library assessment projects that utilize educational and institutional data, data analysis methods, and share similar goals of other non-library learning analytics work. Please

consider your library assessment work as being situated under this inclusive term when answering the survey questions.

**1. Is your institution engaged in learning analytics projects/initiatives as defined above? N=53**

Yes	43	81%
No	10	19%

**Comments N=19**

**Answered Yes N=15**

Based on my initiatives only. They do not do any of this relating to the library unless we initiate the project.

But only in ad hoc projects.

Here it is referred to as Learning Outcomes, although there is no formal office on campus doing this that we are aware of.

In a very rudimentary way, the university is engaged in learning analytics. I believe this is done mostly for reporting purposes at a very high level. I am not aware of college or department level analytics projects, except for those happening in my own Research and Instruction Services department.

In the context of university-wide assessment and accreditation, the university conducts an evaluation of student portfolios as well as writing samples. These are qualitative assessments, not quantitative.

Isolated discussions on the learning environment but nothing formal. Some indicators are reported for strategic theme of outstanding academic programming.

Mostly the User Experience (UX) Department, the READ scale through the Research Instruction and Outreach (RIO) Department.

One-off projects to study things like impact of learning commons, embedded librarianship.

The Assessment & User Experience (AUX) Department, in collaboration with other departments, engages in learning analytics projects and initiatives. In the Libraries, assessment and analytics-based work is often tied to either library strategic initiatives and goals, or departments goals. We define assessment as a set of activities that allow us to understand our impact upon institutional outcomes, identify user needs and satisfaction, and can be used to improve collections and library services.

Other departments within the library pursue their own analysis of data. These efforts are often very contextual designed to seek feedback for service or instruction improvement. One of the most robust examples includes a yearlong multi-modal learning assessment from the doctoral program in the School of Education. Students are assessed various ways, such as after online synchronous workshops; emails; research consultations, and after face-to-face orientations. Individual librarians also collect learning statistics through their instruction and outreach. Our library also administratively houses a department responsible for robust professional development for teaching faculty—and there is a great deal of assessment and analysis around the work such as exploration of short-term, mid-term, and long-term learning outcomes associated with the activities of this particular department. Their assessment and analytics are directed to the provost of the university and not included in library service design, assessment, or collection assessment so for the purposes of this survey, this unit has not been included because most other programs like this at other institutions are housed administratively outside of the library.



The terms “data science” or “data empowered learning” are used here, rather than “learning analytics,” since “learning analytics” comes with many connotations, and does not cover the full breadth of data activities and possibilities.

Though the university doesn’t have a campus unit responsible for learning analytics projects, there are a variety of resources available to instructors and academic departments.

University is in the process of implementing student data analytics software for predictive analytics and personalized education purposes.

We are just starting to look at these projects. There are a few individual research projects.

We have limited but somewhat decentralized learning analytics efforts. Learning Innovation, which is organizationally part of the Libraries, uses data from Sakai (our LMS) and associated learning technologies to inform decisions about usage and to optimize learning and the environments in which learning occurs. Learning Innovation also collaborates with other faculty and offices on research projects using our large Coursera course dataset with a primary focus on improving learning outcomes or optimizing courses. There are other groups exploring the use of analytics, but those groups are currently focused on creating policies and guidelines. For example, the Office of Assessment is involved with a Student Data Analytics Team looking at guidelines for access to data in our large ERPs (PeopleSoft, SAP, etc.).

While there are learning analytics projects (mostly led by colleges/departments, not campus-wide), the library is not currently participating in any learning analytics projects.

**Answered No N=4**

Not yet. We have been building the capacity to develop learning analytics and have revised our vacant Assessment/User Experience Librarian position to be heavily focused on Library Value initiatives, but at this point, we are not currently engaged in LA initiatives.

Nothing university-wide. Some individual colleges may have programs or pilots with no library involvement.

There is a campus group that is starting to look into using learning analytics to support student learning. Nothing formal, yet.

We have piloted a couple of projects relating to 1) library usage and demographics, but not success indicators (library) and 2) predictive analytics to develop statistical model related to student retention (Office of Undergraduate Education), but we have not yet initiated an institutional program.

**2. If yes, does your institution have a program/office that is responsible for learning analytics projects/initiatives? N=41**

Yes 29 71%

No 12 29%

**If yes, please name the program(s)/office(s). N=26**

Academic Planning and Institutional Research (APIR), Registrar’s Office, Vice Provost for Teaching & Learning (Assessment Division), Division of Information Technology (Highly distributed)

Assessment and Research, which is a division of the Office of the Vice Provost for Undergraduate Education.

Center for Assessment and Applied Research

Data Analytics

EAB Campus

Exists in three offices: Office of the Provost, The Institute for Teaching and Learning (TILT), and CSU Online.

I believe the university's Office of Budget and Planning is responsible for this work.

Institutional Assessment & Studies

Institutional Effectiveness & Assessment; Office of Research

Institutional Research & Information Management

Institutional Research, Assessment & Research in Division of Student Affairs, and Registrar all work on this.

Institutional Research, Planning and Assessment

Learning Analytics Research Network

Office of Assessment of Teaching and Learning

Office of Institutional Analysis

Office of Institutional Planning and Research (OIPR)

Office of Institutional Research (university), Assessment and Government Information (library)

Office of Institutional Research and Planning (OIRP), Division of Academic & Student Affairs (DASA), Distance Education and Learning Technology Applications (DELTA)

Office of the Provost and Information Technology Services

Office of the Provost, Vice Provost for Data and Information

Several offices are involved in learning analytics efforts at different levels.

The University Assessment Committee

The University Libraries are increasingly involved in assessment activities to better understand and demonstrate the impact of the Libraries on student outcomes. The Undergraduate Experience Initiative/ Office of the President was recently launched and the Libraries are partners in this effort.

Unizin Governance and Working Teams has a Learning Analytics cross-functional team. Other learning analytics efforts are decentralized in individual colleges. There is a Learning Analytics Informal Community of Practice.

UX & RIO

Within the library, there are several units responsible for and engaged in their own efforts for learning analytics, such as Data Management Services and Academic Liaisons (focused on learning and teaching). The Center for Educational Resources partners with faculty and graduate students to extend their instructional impact by connecting innovative teaching strategies and instructional technologies. Across the institution, analytics and assessment often are distributed in various offices throughout the university and medical campuses—so while various offices engage in these activities, there is no one, central office completely responsible for institutional assessment or analytics. This leaves some organizational analytics-based gaps that the Assessment and User Experience Department plans to help fill.

**Additional comments N=4**

Learning analytics is being done more in a collaborative way, rather than a centrally coordinated way at this time. Learning analytics activities initiate centrally and data reports are pulled from a central office of institutional research, but ad hoc data are requested as required by other initiatives. No formal program, charge, or assignment exists.

Not at the Libraries. The Learning Analytics Group (collaboration between the Associate Provost for Undergraduate Education and The Hub for Innovation in Learning and Technology) aims to coordinate and develop initiatives, but does not manage, oversee, or approve individual department, college, and administrative projects.

See above. Learning Innovation is often the starting point for learning analytics projects and initiatives, but Learning Innovation is not considered our centralized owner of learning analytics.

The Teaching & Learning with Technology (TLT) group is farthest along, but many groups are responsible for and involved in learning analytics initiatives, including World Campus and Undergraduate Education.

**INSTITUTION DATA STORAGE**

Note: Institutions use data warehouses, or a central set of databases, to aggregate and store data of interest. This can include, but is not limited to, student data from systems like student information systems, student activities data, university budget data, and human resources data. People throughout the institution are given different levels of access to the central data warehouse based on their institutional needs for access to the data.

**3. Please indicate which of the following describes how student data is stored at your institution. Check all that apply. N=51**

Data is stored in a central data warehouse	41	80%
Data is stored by the office/department that collects it	38	75%
Data is stored in a separate learning analytics warehouse	9	18%
Data is stored in another repository	10	20%

**Please briefly describe the other repository. N=10**

Assessment and Research maintains separate files specifically for learning analytics analysis projects. This is not a formal repository, but rather a server space (via Box Entrusted).

Data is stored in many different systems across the library. Some data is stored in our ILS, other resource management tools for reserves, e-resources, and Inter Library Loan. Currently, working with our library IT, we've been developing a data store for assessment and analytics purpose. Other storage locations for staff are varied and include Spring Share, Google Sheets, internal networked drives, cloud-based storage options provided by the institution, on computer files, internal back-up drives, computer files, and sheets of paper (although the paper tallies eventually are converted to a computer file for reporting purposes).

Data is stored in several different databases. These serve different purposes based on how the data-points are usually reported.

Data is stored on a library shared drive, and in the case of one project by the GWLA consortium, data used for learning analytics is obtained from and stored by institutional research.

Intent is to utilize the Unizin Data Platform.

Planned, but not in place yet, in the Unizin repository.

Springshare and in UX files

Systems of record, the Student Information System, the Canvas LMS, etc.

The Library Technology Services Department securely stores our data.

The place student data is stored depends on the system the data is originating from. Data from Student Information Services and Systems (SISS), Sakai, and other individual component systems/tools often have different data agreements and are stored in different ways. Final grades, official rosters, etc. are only stored and managed by SSIS, for example. There is an effort underway to build a data warehouse that would provide access to many of these data in the same place, but this effort is currently stalled.

**4. If your institution has a warehouse/repository for aggregating student data, which unit/department is responsible for managing the warehouse/repository? N=40**

Administrative Services

Again, there is an effort underway to build a data warehouse that would provide access to many of these data in the same place, but this effort is currently stalled.

Central Information Technology (2 responses)

Central IT, also stored at the Unizin consortium, see <http://unizin.org>.

Computing Services and Systems Development

Division of IT and Registrar's Office

Enterprise Reporting and Analytics Services within Information Technology

Information Technologies

Information Technology Services

Information Technology; specifically, Business Intelligence

Institutional Research (2 responses)

Institutional Research, Planning, and Effectiveness

IRPA - Institutional Research, Planning, and Assessment Office

IT Services - Teaching & Learning

ITS and the departments that "own" the data.

Learning Analytics Data Architecture (LARC) // Office of Enrollment Data warehouse // ITS

Not sure.

Office of Academic Planning & Accountability (OAPA)

Office of Budget and Planning, Office of the Registrar

Office of Data Analytics

Office of Information Technology (OIT) (3 responses)

Office of Institutional Research

Office of the Provost, ITS, Office of the Registrar

Office of the Registrar

OIPR

Registrar's office

Registration and Records

Springshare

The Assessment & User Experience Department is the business owner of the repository. It is supported and developed by the Library Applications Group (IT).

The Office of Business Intelligence manages the data and the platform.

The technical aspect of our data warehouse is managed mostly by the university system IT (Administrative Information Technology Services) and campus IT (Technology Services).

University Business Intelligence

University Information Technology Services

University Information Technology (2 responses)

University Registrar

**5. Please enter any comments you have regarding institutional data storage. N=12**

A challenging environment, operationally and fiscally.

Campus is working towards a data stewardship model where roles are distributed across both units mentioned above [Division of IT and Registrar's Office].

Discussions on institutional data warehousing are taking place on campus.

General student data is stored in a central data warehouse. However, each department may perform their independent assessment projects, in which case the department will store the data they collect. There may be a separate learning analytics warehouse that the library is not aware of.

I don't have any knowledge of how these data are stored at the institutional level. The library has not been involved in any projects that would require access to those data.

It is my understanding that our student data is stored in PeopleSoft. The OAPA has been implementing analytics tools that interact with PeopleSoft.

Learning analytics is still nascent. Various units are collecting and using data, but efforts are not centralized under a single campus body, yet.

Purpose of this office as posted on its website: "The Office of Institutional Research, Planning, and Assessment (IRPA) provides essential information about the university for the purposes of decision-making, policy analysis, strategic planning, mandated reporting, and academic program review. We capture data on faculty, staff, students, and finances and use it to characterize the institution in quantitative ways using nationally accepted definitions."

Student data is aggregated into profiles and affiliation. Individual student data that would be identifiable in the data store is not retained. Personally identifiable data may still be found in the resource management tools for reserves and Inter Library lending, as well as in individual staff files. Data privacy is something we are working on addressing for operational data and library analytics currently. Current data management policy exists but is geared more towards researchers and Principle Investigators external to the library, although conversations are underway about developing a data management plan for library operations and analytics data. The Assessment and User Experience Department aligns our work with campus policy for IRB, HIPPA, and FERPA.

The university is currently in the infancy stages of implementing MyDay, a system dedicated to student, human resources, as well as financial data. Student data is the last phase to be implemented, and library data will not be included.

The university is very decentralized and data is stored in multiple ways.

University Learning Analytics guidelines have been drafted and are being adopted campus-wide, led by Interim Chief Information Security Officer/University Privacy Officer.

## LIBRARY DATA COLLECTION AND RETENTION

6. Please indicate which of the following user data the library collects for its own learning analytics activities and whether that data includes identifiers. Check all that apply. N=46

User Data	Includes identifiers	Does not include identifiers	N
Reference service usage	5	37	42
Research consultations	13	29	42
Course-integrated instruction attendance	11	30	41
Workshop attendance	9	31	40
Physical collection circulation statistics	18	21	39
Attendance at other events (e.g., tour, orientations, etc.)	6	33	39
Database usage	8	30	38
Journal usage	8	30	38
E-resources usage (including eBooks)	10	28	38
Library website usage	2	36	38
Building usage	8	30	38
Instruction evaluations	5	33	38
Interlibrary loan requests	21	16	37
Library computer logins	12	19	31
Single sign-on login portals (e.g., LDAP, Shibboleth)	11	13	24
Security systems (e.g., security camera recordings)	0	23	23
Wifi usage	3	15	18
Other data	8	5	13
Total respondents	32	45	46

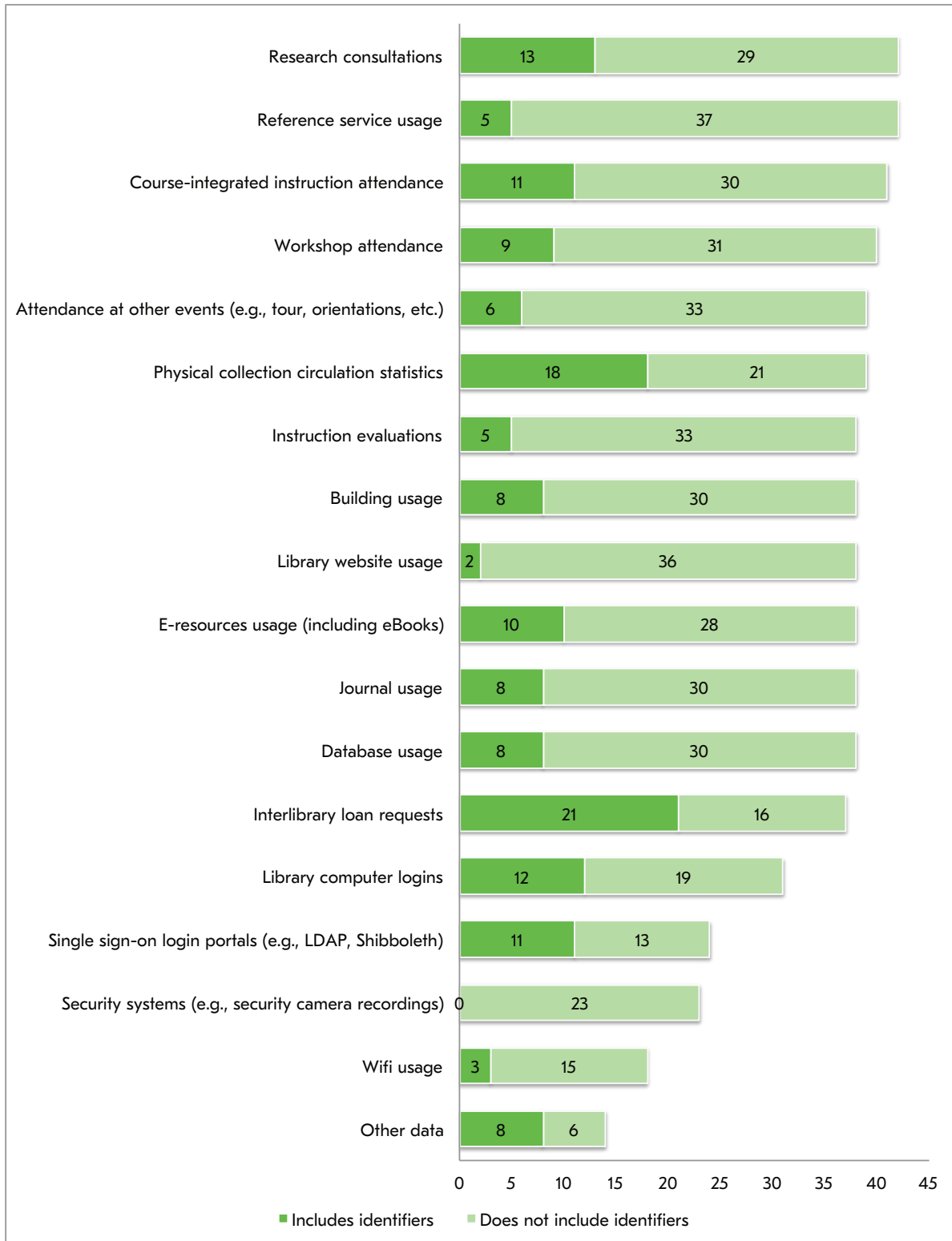
**If you indicated that the library collects Other data with identifiers, please briefly describe that data.** N=7

CANVAS (the LMS) usage data is collected and shared with the academic units, upon request. Note: Generally speaking, the Libraries collects data for improving the Libraries (collections, services, and spaces). We are not currently correlating library data with student outcomes, but we have plans to do so in conjunction with the university. This effort is currently in the planning phase.

Data from online modules used as a face-to-face instruction equivalent; data with identifiers is sent to course instructors for grading purposes, and de-identified versions are used within the library for analysis.

Qualitative data from library research studies; survey data; course assignment performance data.

## Types of User Data Collected, With and Without Identifiers (N=46)



Springshare room reservations includes university IDs, which is an identifier. Customer Resource Management tools: currently this is a tool under investigation for the library, but it would potentially include identifiers, such as name, department, email.

We annually collect the above marked data, some of which may include identifying information at the time of the transaction such as ILL and reference. The identifying information is removed once they no longer are needed for business purposes. For the purpose of learning analytics, we don't keep identifying information collected through these transactions. However, we conduct various assessment projects that may independently collect similar data with identifiers.

We have a graduate student use only floor in one library and it is restricted by students swiping/using their student ID card.

We have access to appointment data with identifiers for all students who make appointments with the Peer Research Assistants through WOnline (writing center scheduling software). We also have an incomplete record of PIDs of students who use the service, which is available through the Student Data Dashboard. These are not entered consistently, though, so might not be useful for much.

**If you indicated that the library collects Other data without identifiers, please briefly describe that data. N=3**

Licensed e-resource use through EZProxy.

Use of videos created by the library, use of LibGuides created by the library

We collect analytics for e-resource and site usage without individual identifiers.

**Additional comments N=11**

Access to many of our systems requires a university computing ID but we do not collect that data for the library's purposes.

All of our circulation and materials usage require authentication but we do not retain those data after 30 days. To date, we have not used those data and there is some resistance to doing so in any capacity.

Building usage includes identifiers at times when card swipe is used (e.g., after normal business hours). Online reference service usage includes identifiers, whereas face-to-face reference service currently does not. Only a subset of instruction evaluations has identifiers. Access to many of our systems requires a university computing ID but we do not collect that data for the library's purposes.

Checked data types \_CAN\_ include identifying information (Unique identifier) depending on how query is constructed. Identifiers are used to aggregate data by user types and demographics, academic units. Data collected for websites and "services" like Springshare uses Google Analytics and is not ID'd to a level that allows association to an individual. No individual user identifiers collected for reference, consultations.

Data collected for websites and "services" like Springshare uses Google Analytics and is not ID'd to a level that allows association to an individual. No individual user identifiers are collected for reference, consultations.

Data comes in with identifiers, but they are not saved.

Data re: catalog use, item check out, electronic resource use, etc., do not report identifying info; at least not the reports that I've seen, anyway.

The majority of yeses above are managed and operated by central OIT.

There may be demographic, department, or status information available, but never personal identifiers.



These questions don't apply to us since our library is not currently participating in any learning analytics projects.

User university ID number is collected on most data with identifiers; if a user provides name and email on an email or in a chat reference session, this info is stored. Data re: catalog use, item check out, electronic resource use, etc., do not report identifying info—at least not the reports that I've seen, anyway.

**7. Who participates in the collection of data used for the library's learning analytics? N=45**

Librarians/library faculty	45	100%
Support staff	40	89%

**8. Who participates in the analysis of data used for the library's learning analytics? N=45**

Librarians/library faculty	43	96%
Support staff	29	64%

**9. Does the library have a records retention schedule or other policy document that covers how long this data is kept? N=47**

Yes	18	38%
No	29	62%

**10. If yes, have data retention requirements been changed because of learning analytics? N=18**

Yes	2	11%
No	16	89%

**11. Please enter the amount of time (e.g., 5 years, 3 months, indefinite) library data that is used for learning analytics purposes is retained. N=28**

**Has a retention schedule/policy N=15**

3

12 months

2 years for SOME data (circulation, ILL, ...)

3 years

5 for paper

5 years

At least 6 years; in practice, often indefinitely

Based on the retention schedule, data is purged either 1-year, 3-years, when patrons become inactive, or after the transaction is complete, depending on the type of data.

Depends on level of data aggregation. Detail data (PID+usage ID)=1 month are kept for purposes such as tracking when a vendor shuts off an IP address.

Duration of the study for manually collected data, auto-collected data has different time periods.

If collected, per IRB requirements, 3 years.

Retention varies by specific type of data

Retention varies from 2 years (EZProxy logs) to 10 years (circulation records).

The retention varies by system.

Varies—Data with IDs: less than two years; without IDs: indefinite.

**Does not have a retention schedule/policy** N=13

Common practice is 3 years retention; there is no formalized retention policy in place.

Every several years, or so

Indefinite (8 responses)

Indefinitely

Varies greatly depending on the type of data and why it was collected

We automatically anonymize circulation data 30 days after an item is returned as long as there are no outstanding fines/fees. We clear from the Libraries' ILS all patrons who have been gone at least one year on an annual basis. We do not get rid of ILL patron data. There is no way to anonymize ILL data, and we'd lose all related transactions if we removed patron data.

**12. Please enter any comments you have regarding library data collection and retention.** N=22

All historical data not purged from systems. While data may contain personal identifiers, it is used in aggregate to count users and usage patterns for administrative and reporting purposes.

Although we do not currently have a data retention schedule or policy document, we are in the process of developing one and have reviewed our existing policies in order to be explicit about how data is used.

As noted earlier, the library doesn't engage in "learning analytics" per se, but it definitely engages in collecting usage statistics. With the exception of on-site professional training and ILL requests, identifiers are not used.

Circulation records are purged weekly.

Currently, we do not have a retention guideline that is specific to library records. However, we do have two general retention guidelines, the Administrative and Management Records guideline and Fiscal Records guidelines that apply to all university offices. These would apply to library administrative and financial records in lieu of a more specific guideline.

Data collection and retention is driven by external reporting needs as well as for specific decision-making related functions within individual units or departments.

Data collection varies across units, departments, and even librarian/instructor. We have not developed specific retention policies to govern learning analytics data collection because the data we are using for learning analytics is covered by existing categories in the data retention schedule.

I'm not certain it is accurate to describe use of the data as learning analytics. Various departments and libraries collect data. There is no comprehensive program to use the data in the way I think you are hoping to understand.

Identifiers are not included with on-campus usage of databases, journals, and e-books.

It is generally best practice to retain all information until it is no longer perceived to be needed.

Journal usage only includes identifiers when obtained via EZProxy System. Building usage only included identifiers when using card swipe system (only some areas). Studies with IRB approval will typically have data retention and destruction policies.

Library data retention follows university policy.

Library does not collect any data for learning analytics purposes.

Looked at only when something emerges causing attention to be refocused upon it.

Many data types are collected in the aggregate for reporting and may not be traceable to a specific user. Computer use data is collected by a non-library office.

State requirement

The Libraries' retention policy is currently under review and subject to change.

There is nothing explicit covering data collection and retention in terms of retention policy, but current thinking within the Assessment & User Experience Department is that we should follow the university record retention policy, in conjunction with developing our own internal data management plan.

These data are often available with the existing technology but are not collected in very useful formats and/or are not pursued based on cultural norms and long time library practice.

We have new library data community of practice that will discuss issues.

We separate personally identifiable data from specific item used. The two "streams" never come back together.

Working on a records retention policy is on our list for the summer, and we have only been collecting data for 3 years; I plan to advocate for keeping 3 years of data, so next year I expect that we will purge raw data from year one; data without identifiers that has been aggregated I plan to keep/display.

## LIBRARY DATA SHARING

### 13. Does your library share any user data with other parts of the institution? Check all that apply.

N=52

Yes, to specific office(s)/department(s)	18	35%
Yes, to the central data warehouse	6	12%
Yes, to another data repository	2	4%
Yes, to the learning analytics warehouse	1	2%
Not yet, but we plan to in the next 6 months	3	6%
Not yet, but we plan to in the next 12 months	8	15%
No	26	50%

**If your library contributes data to specific office(s)/department(s), please identify which one(s).**

N=19

Aggregate numbers are sent to the Office of Institutional Research for IPEDS reporting.

Assessment and Research

CANVAS user data is contributed to the academic units, upon request.

Institutional Research for IPEDS reporting

Learning Commons partners, provost's office

Library fines are shared with the registrar's office.

Limited aggregated use data (for an academic department online program) was shared as a test.

Office of Assessment of Teaching and Learning, Office of Undergraduate Education, Department of English, College of Communication, Department of History

Office of Institutional Research, course-integrated instruction data is shared with local APAS system.

Office of Research, for annual reporting (ARL, ACRL, IPEDS/NCES) in aggregate with no identifiers.

Office of the Provost

OIPR, dean's office, Office of Academic Assessment and Institutional Effectiveness

OIT, so that identifiers can be married to the demographic data they maintain.

Provided to the instructors of the classes.

Provost's office and Institutional Research and Institutional Management, Office of Institutional Effectiveness

Research Office

Statistics on workshops & consultations to Graduate Studies & Post-doctoral Affairs

The library contributes aggregated data to the various academic departments, the Office of the Provost, the Budget Office.

We contribute data to the provost's office annually for both institutional goals and initiatives that the library and museums undertook. We also provide a libraries and museum dashboard of some key facts and operational usage data for the building, collection usage, research consultations, and instructional statistics.

**If your library doesn't yet contribute data to the institution but plans to, please describe when that will begin, what data will be included, and where the data will go. N=10**

A request for library data has been made by the provost's office. We are now in discussions about what data could be made available and to ensure that it is not going to be used for purposes contrary to ALA privacy guidelines.

A university-wide survey working group; Student Affairs; Office of Planning & Institutional Assessment. There is no slated time for when this process will begin, no specific data identified, and no specific location identified for the data at this time.

Currently, in collaboration with faculty in the School of Education, we are exploring how to map internal research collaborations among various academic departments both at our university and other peer institutions.

During re-affirmations, we share data with the SACS steering committee.

Institute for Social Research

Library consultation services may be included in the Learning Analytics initiative at the university.

Summer 2019: ILS data; ILL; database usage

These plans have not yet been determined.

Unizin Data Platform, but we don't yet know specifics of what they will want or what we will share. While we are willing to experiment, we do not yet know whether library data will be useful for institution-wide learning analytics purposes.

We are still determining what this will look like, but we are considering a combination of aggregate lending statistics, instruction attendance, and overall building usage.

**Additional comments** N=6

As far as we are aware, no one on campus has asked for any library-specific data beyond what was described in part one of this survey (related to data collected by Learning Innovation), and therefore we have not shared it. That said, institutional staff are beginning to express interest in having library-specific data related to how students are using library resources and services, so we anticipate being asked for data in the coming months/years. At this point, we do not have formal plans for how data will be shared. We do currently share results of aggregate analysis with other offices on campus when asked or when we feel other campus offices and units would be interested in the results of library studies or analysis.

As stated above, some of our Peer Research Assistant data goes to the Student Success Data Dashboard as part of the Engagement Centers initiative.

No plan to contribute library transactions data to the campus data warehouse. There is some interest but we don't have the capability.

The university does not have an institutional research office. There is a business intelligence unit, and there are some discussions starting with that team.

We are in contact with the office of student affairs to include library data in their analyses. No timeline has been set and no decisions about what data to include have been made.

We only share aggregated data with the Office of Assessment and Decision Support a couple of times per year. They collect IPEDS, Peterson Guide, and other types of high-level collections and budget figures.

**14. Does the library place stipulations on how those units must handle the library's analytics data?**

N=33

Yes	8	24%
No	25	86%

**If yes, please briefly explain the stipulations.** N=8

All data is anonymized to protect personal information.

Circulation and ILL data are aggregated by department. Individual data is not released.

Library would not supply any data that would allow to identify what materials are used by individuals (e.g., books read, journals articles accessed, etc.)

Raw data is not provided. Reports and visualizations include aggregated statistics and summaries that include observations and recommendations. Currently, identifiers are not provided in the data we report or provide to others. In research projects, we often have to comply with the Institutional Research Board in order to protect privacy of students participating in assessment or UX projects.

There are very few cases that we share the data, but the data shared does not include patron information that it violates privacy.

We are in the process of developing these stipulations in a formal document; at this point, they are handled on a case-by-case basis.

We are in the process of making that determination.

We require completion of a data sharing agreement, signed by the researcher and the Associate University Librarian or Library Information Technology, that specifies the data requested, the specific uses it will be put to, and requirements around destroying/de-identifying any PII that is included in the specific data set.

**Additional comments** N=5

No, as data for annual reporting (ARL, ACRL, IPEDS/NCES) is in aggregate with no identifiers.

No, we don't share data.

They are more protective of the data than we are.

We do not currently have any stipulations in place. Other than CANVAS usage data, any data that we share has been anonymized.

We have not yet had the need because the few with whom we share have stringent regulations around what they collect and store.

**15. Are the stipulations codified in a formal document?** N=8

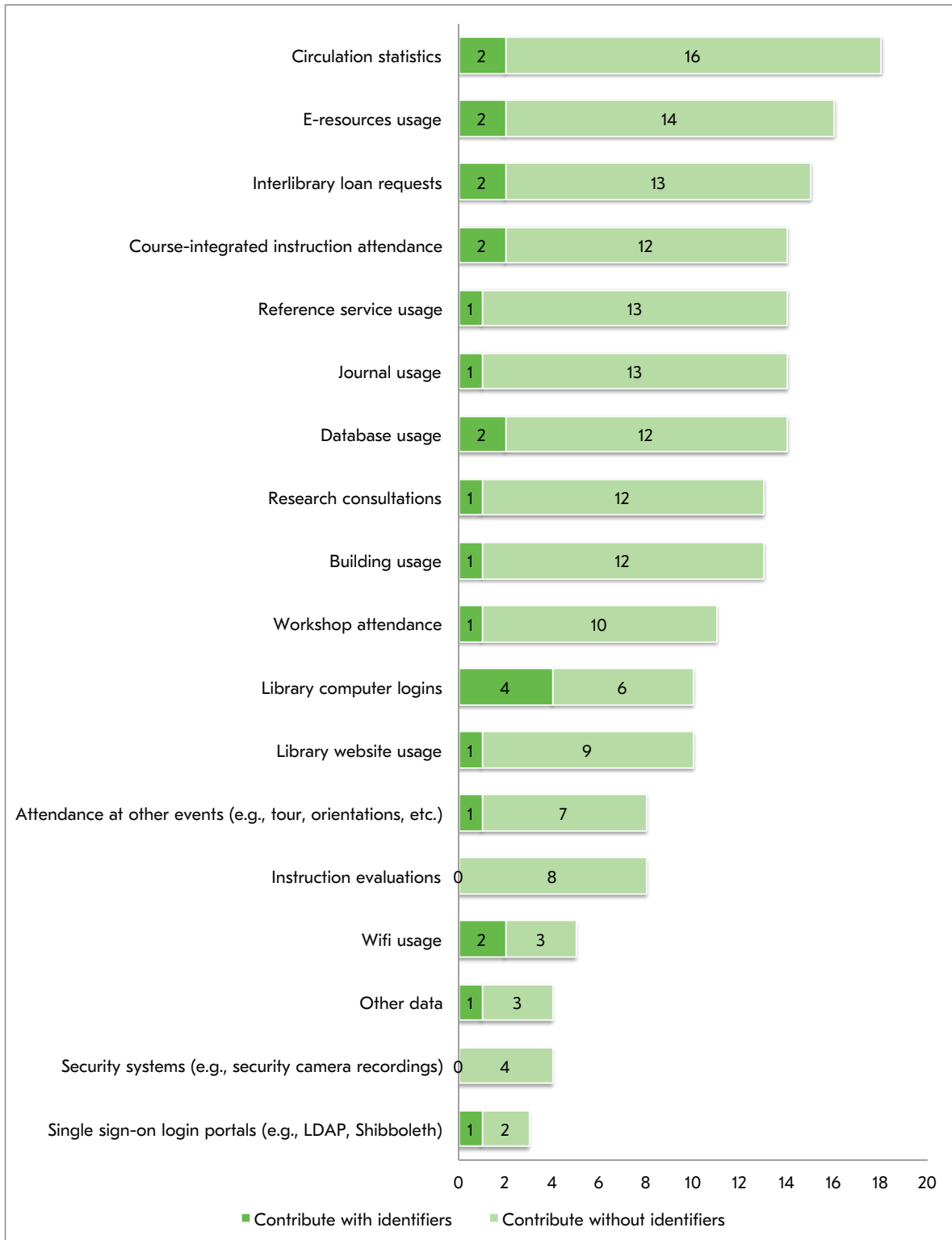
Yes 2 25%

No 6 75%

**16. Please indicate which types of data your library shares with other parts of the institution and whether that data includes identifiers. Check all that apply.** N=24

Types of Data	Contribute with identifiers	Contribute without identifiers	N
Circulation statistics	2	16	18
E-resources usage	2	14	16
Interlibrary loan requests	2	13	15
Database usage	2	12	14
Journal usage	1	13	14
Reference service usage	1	13	14
Course-integrated instruction attendance	2	12	14
Building usage	1	12	13
Research consultations	1	12	13
Workshop attendance	1	10	11
Library website usage	1	9	10
Library computer logins	4	6	10
Instruction evaluations	0	8	8
Attendance at other events (e.g., tour, orientations, etc.)	1	7	8
Wifi usage	2	3	5
Security systems (e.g., security camera recordings)	0	4	4
Single sign-on login portals (e.g., LDAP, Shibboleth)	1	2	3
Other data	1	3	4
Total respondents	6	20	24

## Types of Data Shared With Other Parts of the Institution (N=24)



**If you indicated that your library contributes Other data with identifiers, please briefly describe that data. N=1**

Student PIDs for students who visit Peer Research Assistants (as noted above, these are not entered for every interaction).

If you indicated that your library contributes Other data without identifiers, please briefly describe that data. N=1

Use of library created videos, use of LibGuides

**Additional comments N=10**

Again, we share data with a personal identifier (student ID) but no information on what book, article, database, etc. the person used.

Although we do not currently contribute any data with identifiers, we plan on doing this in the near future. Specific examples include research consultations, instruction attendance, workshop attendance, and other learning-related opportunities.

Budget information and volume counts to Institutional Analysis & Planning for KPIs. Library usage information during presentations about the library.

Building usage: yes, as door counts. Course-integrated instruction attendance: yes, aggregated instruction sessions of all types.

For annual reporting (ARL, ACRL, IPEDS/NCES) is in aggregate with no identifiers.

Security camera data is only shared with the campus police department as a result of an incident.

There are only a few cases we are sharing aggregate numbers with the university at this time.

These are total number counts. For example, total number of item circulations in a fiscal year, total number of reference and research consultations in a fiscal year.

We are not currently sharing any of this type of data.

We share summaries and data visualizations about use of library materials, workshops, and as part of curricular assessments (e.g., accreditation).

**17. If your library is not contributing all of its data to your institution, what are the reasons for not doing so? Check all that apply. N=41**

Privacy concerns	21	51%
Confidentiality concerns	18	44%
Resources (time, personnel)	16	39%
Lack of identifiers	8	20%
Bureaucracy	7	17%
Cannot collect appropriate data	7	17%
Cannot access data from different data sources	4	10%
Cannot provide data in formats required	3	7%
Other reason	23	56%

**Please specify the other reason. N=23**

As far as I know, the university has never asked for this data, except during re-affirmation periods.



As stated above, the university is not currently asking for library-specific data beyond that collected by Learning Innovation as described in part 1 of this survey. Again, we anticipate increased interest in library-specific data in the coming months/years and so are beginning to think about how we can collect, store, and share these data. We have no formal plans or process at this time.

Because assessment and data analytics are relatively new in our library, often others do not perceive the library as a place to obtain this type of data. This is slowly expected to change as our efforts at outreach continue across the libraries as well as across the institution.

Campus does not have a central data repository for data contributions.

Current data is shared as aggregate reports or for specific projects. As the campus implements learning analytics software we will provide most relevant data.

In general, I think the university tends to put less emphasis on data warehousing, analytics, big data, etc., when compared with its peers. I have a good relationship with the Office of Assessment and Decision Support, but their work does not involve learning analytics, only campus-wide surveys and demographic information about students. I have not seen any campus-wide efforts to mine student data for actionable findings, although I know that three years ago, when I started in this position, there was some effort to use “big data” at the university level. I think interest in that project has waned, and the leader of that initiative has moved on.

Institution is not requesting this data. No central learning analytics initiative.

It's not requested of us by campus units or leadership.

Lack of interest from institution or the library. Learning Analytics is piecemeal and silo-ed. Further, it's difficult to scale because the schools do not use a unified data structure and students can take classes within multiple schools.

Library data is not needed for current learning analytics efforts.

No clear objective that requires it and that would promise to bring value to offset resource investment.

No initiatives

No patron information is shared, only status and sometimes department, if possible.

Not requested.

Other than data required for institutional reporting, no data requested by other institutional units such as Office of Research.

Others on campus may not want the data or we have never been asked for it.

Our institution is very decentralized, and therefore we collect, store, and analyze our data based on various assessment needs within the library. Data may be shared with other parts of the institution on ad-hoc basis.

The library system is decentralized, making data collection a challenge. There is not a culture of strong data collection for the purpose of sharing in the libraries.

We are not entirely clear yet of campus needs and uses for library information.

We have no evidence that it would be useful to meet institutional goals in this area.

We haven't been asked to share this data with other university units, although we share selective data when we're addressing specific topics, such as the collections budget (e.g., database usage) or making a case for additional resources (e.g., building and equipment usage), etc.

We haven't had these conversations yet.

We need to analyze the data we've been collecting more closely before determining whether it makes sense to share the data. And, we have not had the personnel to help formulate a plan.

**18. In response to institutional learning analytics efforts, is your library collecting more, the same amount, or less data with identifiers? N=43**

More	15	35%
Same	24	56%
Less	4	9%

**19. How important is library data to learning analytics initiatives at your institution? N=44**

Very important	6	14%
Important	18	41%
Not important	20	46%

**20. How important is it to your library's administration to participate in learning analytics initiatives? N=44**

Very important	13	30%
Important	23	52%
Not important	8	18%

**21. Please enter any comments you have regarding library data sharing. N=20**

Although we are not currently doing so, our plan is to collect more data with identifiers in the near future in response to institutional learning analytics efforts and initiatives.

Although we haven't been asked to share our data systematically, we are expected to conduct assessment and collect data that support our strategic plan, its objectives, and metrics that show what we're accomplishing every year and how we're making an impact on the university's goals and objectives.

At this time, we have other priorities and limited resources.

If I thought I had birds of a feather at the university level, people who were interested in working with the library to pull in some of our data and track it alongside other metrics, I would be interested in testing out those waters, and I think library administration would be supportive of sharing some of our metrics. But by and large this is not a heavily data-driven campus.

Institution is not requesting this data. No central learning analytics initiative.

Learning analytics and library participation/sharing is becoming increasingly important with new budget models.

Learning analytics is important to my department, because we are responsible for instruction of information literacy and library skills, in all delivery formats. I do not feel that learning analytics is important to the library administration or university administration. They are more interested in quantitative data that can influence budgets, resources, etc.

Much library data is shared to external bodies and is public data, e.g., ARL, CARL, CAUBO.

Not a top priority at this time, but administrators have mentioned that it's a conversation we should be aware of.

Not yet on the attention level strategically for our institution. More of a required reporting activity.

Once the university implements the new integrated data structure, then more opportunities will open up for data sharing, and the importance of participating in the university's system may be heightened.

Share data on library's required information literacy course.

The Business Intelligence System is evolving to the point where data from the library could be incorporated. We expect to share more data in the future.

The Libraries are in early stages of participation in learning analytics and anticipates collecting more data in the future.

The library has not been seen as engaging in learning analytics, but this is an undertaking that is increasingly valued across the libraries, library administration, and the provost's office. There is some internal learning curve on how to best undertake this work, but it is exciting to see capacity and interest for this type of work growing across the libraries.

The library is interested in contributing to the success of the institution and our faculty and students. There are multiple challenges involved in moving in that direction, but work has started, slowly.

The library shares aggregate data with the institution to demonstrate our value. We do not contribute to an institutional data warehouse. We do not share identified data with the institution.

Useful/important for us to be involved in discussions, but we don't know whether our data itself will be useful.

We are just getting to the point where this is a priority; its not that it can't be done but we are in the process and there are various barriers that simply take time and evidence to change.

Within the Libraries, we are certainly interested in knowing more about how users are engaging with library resources and so have begun collecting more information. I also believe it's beginning to be important to the university that we collect and share library-related data. Up to this point, it has not been a high priority for the university to collect library data.

## LIBRARY USE OF INSTITUTIONAL DATA

### 22. Does the library join/connect its data with institutional data via a common identifier for learning analytics purposes? N=48

Yes	13	27%
No	35	73%

### 23. Does the institution place stipulations on how the library must handle institutional data? N=40

Yes	28	70%
No	12	30%

#### If yes, please briefly explain the stipulations. N=27

All projects using patron data need to be approved by IRB. "Honest brokers" need to be used when connecting data points with individual identifiers.

All university data must be handled according to university-wide data management policies and procedures.

"All users of University information technology (IT) resources are required to use them in an ethical, professional, and legal manner." "Use of the University's information technology (IT) resources shall support the basic missions of the University in teaching, research, public service, and healthcare. Users of the University's IT resources are responsible for using these resources appropriately and respecting the rights of others."

Data is largely anonymized.

Data that includes identifiers must be kept on a certain platform and can't be shared but only with certain individuals.

FERPA laws are applied in the use of all such data.

Handling institutional data must comply with IRB and FERPA requirements.

Institutional data must be stored in such a way as to ensure that the data is secure and that access is limited to authorized users. Reference the university's data management policy for more information.

Institutional data requests happen on ad-hoc basis and depending on the type of information requested, we might be asked to follow certain protocols on how to store and use the data, especially if the data includes identifiers.

IRB approval

Just the usual stipulations around confidentiality and privacy. There is an information management policy.

Must be secure using standard computer security practices.

Personally identifiable information must be reported.

Privacy and security

Privacy restrictions

The Office of Information Technology requires an explanation of how data is to be used and limits access based on the use case.

The university stipulates that we cannot share data provided to us. Further, we must store that data on a separate, secured server.

These are handled on a per-project basis through the Institutional Review Board process.

These offices and policies cover stipulations, including Institutional Research Board, HIPPA, and FERPA.

Training is required to use student-level data. Student data is kept in secure server environments.

We are exploring what policies we would like to put in place in order to protect privacy and confidentiality and determine what information would be useful not only to share, but to receive back.

We are very limited in what we can acquire. Currently, we get patron status data and academic department only.

We have data-related policies at the central level for institutional data, and we must comply with those policies.

We have to honor FERPA and student/employee-initiated privacy blocks. We have to comply with the university's data sensitivity framework controls.

We provide a dataset collected using IRB approvals and this dataset is provided with requested data points and returned to the library. We anonymize the dataset and retain and manage it using FERPA and IRB requirements.

We regularly partner with Institutional Research. IR will not give us any institutional data unless we have conferred with IRB about the study and followed their protocols for approval/exemption. IR does not provide stipulations in a formal manner, but generally we must keep study participants' identities private. To directly email users and ask that they participate in studies, we need names/emails, which means that we are not able to receive truly anonymous data (receiving anonymous data would be the Libraries' preference).

Yes; the Office of Information Security places stipulations on all personal, confidential, and sensitive data.

**Additional comments** N=2

I assume that there would be stipulations if we collected identifiers as well, but we do not at this point. The university aligns with relevant government regulations.

**24. Please enter any comments you have regarding library use of institutional data.** N=10

In the future we may explore linking certain library user data with institutional data for learning analytics purposes.

Institutional research provides de-identified student information that library instruction data is matched to based on course enrollment rather than attendance.

It is growing but very time consuming, as the library has few sources for usable data that are accessible at this time.

Occasionally use public information such as student FTEs. We may need to access personal data to resolve account issues.

See above. We often use data from Institutional Research to identify the demographics of students, faculty, and staff who use library services and resources or who participate in library studies (e.g., surveys, focus groups).

The library often obtains institutional data by request to Information Technology Services.

This is an area we hope to grow into in the future in terms of strategically streamlining library and institutional data where it makes sense, such as perhaps embedding the library into the early alert system for students.

We are not doing this yet.

We want to move in this direction.

We're looking at enrollment data for course related interactions and possible collections correlations in the future.

## DATA PROTECTIONS

**25. Please indicate which of the following data protections the library applies to its learning analytics projects. Check all that apply.** N=40

Limit library staff access to raw data	39	98%
Remove direct identifiers from data (e.g., removing student ID number)	34	85%
Limit scope of data collection	31	78%
Technical security protections during data storage (e.g., encrypting datafiles in a cloud system)	26	65%
Physical security protections (e.g., locking up paper forms)	24	60%
Limit library staff access to analyzed data	24	60%
Delete data	20	50%
Limit data retention	18	45%
Technical security protections during data transfer (e.g., encrypting datafiles sent over email)	13	33%

Suppress data (e.g., removing data for groups smaller than 20)	13	33%
Other data protection measure	5	13%

**Please briefly describe the other data protection measure. N=5**

Access to data is limited to FERPA-certified staff.

Aggregate data as highly as possible across both collection usage and student profile information so that individuals are not identifiable.

Follow IRB guidelines for studies with people.

Most of our raw data is stored on secure active directories managed by the Office of Institutional Research. Again, data have a student ID but no identifiers on items used.

The library does not engage in “learning analytics” per se, but the techniques checked in the list above are used to protect circulation and on-site usage data.

**26. If your library anonymizes its learning analytics data, please briefly describe the anonymization procedure. N=16**

Data is anonymized by institutional research before it reaches the library.

Data provided as aggregate without identifiers. Identifiers purged from data two years after individual leaves university.

In presentation we only make available in aggregate.

Library data is typically presented in the aggregate.

Manual

OIT performs this function for the library.

Remove all ID numbers and names.

Removing the student ID number.

Strip personal information from data set.

University IDs are used only to associate data with aggregated user profiles and they are not retained in our systems or tools.

Use of “honest brokers” to link library and institutional data. Returned data for analysis is stripped from any identifying information. All subsequent analyses are carried out at cohort levels.

We are not currently anonymizing data, but we will be looking at demographics that define students in order to participate in program-level assessments and predictive learning projects.

We assign random numbers to individuals, and retain a key on an OIR server for use with longitudinal analysis.

We do not collect identifying information or IPs when we conduct surveys.

We mask identifiers for some of our data.

When we receive data from Institutional Research or other campus units/departments, we either request that data be anonymized before it is sent to us, or we anonymize it when we receive it. As described earlier, we anonymize circulation data after 30 days as long as there are not fines/fees associated with the data. Whenever possible, we anonymize data and use only unique identifiers to refer to user data.

**27. Does the library have a data management plan for its learning analytics data? N=40**

Yes	2	5%
No	38	95%

**28. Please enter any comments you have regarding data protection. N=8**

Different data management strategies have been used for different projects.

The Assessment Team has a data management plan.

The university does not currently have a data classification policy, which is often used to identify appropriate IT security for data stored electronically. Reference the Data Management policy for more information.

This will be a goal for the Assessment Librarian and Data Management Librarian.

We currently don't have a data management plan for learning analytics, but, we plan to do so.

We do not currently have a retention and deletion procedure, but will be developing one in the near future.

We follow certain procedures for managing our data, but have not recorded them in a formal data management plan.

While the library does not currently have a data management plan for library data, conversations and plans are underway to develop one within the next 12 months. The Libraries does have a privacy officer and our library tools and systems must comply with university privacy policies. Therefore, university policies around data protection should also extend to the library. There is a great deal of library material available about data management planning that has been mostly focused on external (to the library) researchers and principle investigators, but we're currently working to create a library data management plan for operational data and analytics. As stated earlier, analytics projects and work undertaken by the library's Assessment and User Experience Department to comply with IRB and other data privacy policies from the university.

## **PRIVACY POLICIES**

**29. Does your institution have a privacy policy? N=50**

Yes	45	90%
No	5	10%

**30. Does your library have a privacy policy that is separate from the institution's policy? N=50**

Yes	31	62%
No	19	38%

**If yes, does the library's privacy policy reference any of the following professional or legal documents? Check all that apply. N=29**

University policies	20	69%
State/provincial laws on library records	19	66%
ALA Code of Ethics	17	59%
Terms of Service for software/application (e.g., Google Analytics)	13	45%

USA Patriot Act of 2001	9	31%
Family Educational Rights and Privacy Act (FERPA)	8	28%
Canada's Privacy Act	0	—
Personal Information Protection and Electronic Documents Act (PIPEDA)	0	—
Other document	3	10%

**Please briefly describe the other document.** N=3

ALA Policy on Confidentiality and Privacy of Library Records

California Digital Libraries commitment to user policy

HIPPA, Information Technology Policies—Electronic Information Classification

**31. How often is the privacy policy updated or reviewed?** N=27

Annually

Annually or as needed

Approximately annually

As needed (3 responses)

As the laws change and library stays in compliance on known policies.

Currently under review.

Every 3 years

Every 3–4 years.

Hasn't been updated since 2004.

I have no idea.

Infrequently

It is reviewed annually.

It should be noted that the institution privacy policy is brand new and in response to a new law requirement imposed by the European Union [GDPR]. That document was to be ready by June 1 but has yet to be posted.

It was updated this year. It is updated as needed and reviewed by both the University Library Dean's Council and General Council. There is not a set timeline for reviewing it, but it should be reviewed each time the website is redesigned, as well as any need for clarifying privacy policy that might emerge on an ongoing basis.

Last update of university policy 1/17, Libraries' policy 10/2013

No library specific policy.

Not sure. Last update was January 2018.

Periodically, but not on a regular cycle.

Periodically; undertaking review now.

Review cycle: every 2 years

The privacy policy is being discussed now at the university level to reflect institution's desire to use student data for predictive analytics projects. A group out of provost's office is tasked with developing guidelines and policy relating to the use of student personal data.



Typically once every few years and in response to new policy developments. Last update was in 2012.  
Unknown  
Varies  
Yearly

**32. Has your library’s privacy policy changed in response to learning analytics initiatives? N=37**

Yes 7 19%  
No 30 81%

**If yes, please briefly describe how it changed. N=5**

Library does not have a specific privacy policy but our data handling is guided by state and federal laws and professional codes and guidelines.

Meaning that, the university-level privacy policy has changed in response to an environment that takes into consideration learning analytics, and the university-level policy will supersede the Libraries policy.

On occasion, with the Institutional Review Board (IRB) approval and with individual library user consent, the library may collect personal information to conduct user behavior research as part of our effort to continue enhancing our services.

Please see responses above, we are going to determine this information.

We created the “Responsible Use of Library Data” statement just prior to initiating the learning analytics project.

**33. Do you inform students about your library learning analytics initiatives? N=43**

Yes 18 42%  
No 25 58%

**If yes, after being informed about library learning analytics, do students have an opportunity to opt in or opt out? N=15**

Can opt in 4 27%  
Can opt out 5 33%  
Can neither opt in or opt out 6 40%

**34. Does the library obtain institutional review board (IRB) approval for its learning analytics initiatives? N=40**

Yes 28 70%  
No 12 30%

**35. Does the library consult with university officials regarding the Family Educational Rights and Privacy Act (FERPA) and/or other similar legal requirements for its learning analytics work? N=40**

Yes 24 60%  
No 16 40%

**36. Please enter any comments you have regarding privacy policies. N=13**

All library staff are required to complete university-wide training on FERPA. The precise form of information/consent/opt-in varies by the project and the information collected. IRB approval has been sought and granted for project-based data collection.

Any data that we are gathering about student use of the library's resources, spaces, services, etc., is used for non-research purposes and within the library only.

Consult as necessary with general counsel and other administrative offices in the university depending on the nature of the project or initiative.

IRB approval gained if needed; not always needed for internal review purposes. Google analytics is running on our sites; students don't have the opt-in/opt-out option for those analytics. Our public services staff are trained on patron privacy and confidentiality.

Not at the moment, but we are taking all of these options into consideration.

On the advise of our APIR data analytics is for process improvement, not research subject to IRB restrictions.

The Libraries does not have learning analytics initiatives.

The library protects the privacy of its users. Library employees have no expectation of privacy in using library resources/collections or systems.

The university level privacy policy will supersede any library or departmental level privacy policies developed.

We consult with IR, the IRB, internal library legal experts, and the university's general counsel when we are beginning a new assessment/learning analytics endeavor. Our process for seeking advice/counsel depends on the scope of the study.

We don't additionally inform students for general data collection beyond the university's disclosure policies. However, for many studies involving more detailed and specific data (e.g., performance on assignments) we obtained signed consent.

We inform students about some learning analytics initiatives, particularly those that involve identifiers. These projects provide the option to opt out. These projects are subjected to IRB review. Other data is simply analyzed without identifiers.

We only consult and obtain approval from IRB if we intend to publish or present the results of our learning analytics to individuals outside our organization. If the data collection is solely for organizational development purposes, we do not seek IRB approval, however we still make every effort to adhere to IRB participants' privacy protection protocols.

## **PROCEDURES**

**37. Does your library have any internal staff documents or guidelines that inform your learning analytics initiatives? N=44**

Yes	11	25%
No	33	75%

**If yes, please briefly describe the contents of the document. N=9**

Definition of performance indicators, process for reporting data and trends

It's not just about learning analytics; it is our Statement on Data Use for Library Assessment Purposes, and it covers data that we collect about librarians too.

Library Assessment website

Prepared and maintained in UX

Project plans for scoping of data analysis for research question determined by library.

Through past training led by staff and consultants around data analytics, assessment, and data visualization. Also, there have been outreach efforts such as providing access to webinars around visualization or data privacy in order to have a better conversation related to these topics across the organization. Some of these efforts are documented on the wiki. Overall, most of the current learning analytics initiatives are being guided by an internal planning document that is a strategic plan developed by the Assessment and User Experience Department. This plan outlines strategies for building capacity in learning analytics, data visualization, user experience and overall assessment.

We have a document that specifies who can access which data sets (raw data, anonymized data). Distribution of the data is approved by the university librarian or other appropriate administrator.

We have an assessment plan.

We have policies relating to collection, storage, and access to data as well as levels of aggregation and reporting. All projects are cleared through university's IRB process.

**38. Does your library have a process in place for handling institutional data requests (e.g., If campus IT requests information on study room reservations)? N=45**

Yes	15	33%
No	30	67%

**If yes, please briefly describe the process. N=13**

All ad hoc responses

All requests are brought in for discussion/decisions to the Library Management Team.

All requests come to library administration. FERPA data release must be approved in writing by the registrar. Third party software is reviewed and legal agreements executed before LTI integrations are approved.

Escalate to library administration for approval before sharing with other campus entities.

Information requests usually come to an associate dean and are handled, with assistance, through their office.

It must go through the Department of Assessment and Government Information.

Libraries' privacy policy informs responses to requests for data.

Most requests are referred to the OIPR; however standard library surveys are routed to the assessment librarian.

Our Library Reporting and Assessment Analyst handles regular institutional requests related to KPIs. Out-of-the-ordinary requests would be sent to the library executive.

Requests are made known to the Dean of Libraries and the path forward is discussed with appropriate stakeholders.

Requests are reviewed by the appropriate division and approved by the University Librarian before data is shared.

Requests are routed through the assessment and statistics coordinator, who determines how to respond and gathers data as needed

We apply our standard privacy policy.

**Additional comments** N=5

I don't think we generally have received these types of requests.

Not a formal process. The person listed as responsible for collecting and keeping the data is contacted and is responsible for responding when data requests are received.

The institutional request for data has prompted us to begin this analysis and discussions.

We would cooperate and collaborate with any department requesting institutional data.

While there is not currently a plan in place, these types of requests would likely be routed to the appropriate people if they came into the library as a request from another office. To my knowledge, no other campus partner has requested this type of data from us yet, but it would be good to have a workflow in place in case this does happen in the future.

**39. What types of training have library staff received to support library learning analytics projects?**

**Check all that apply.** N=43

Training on specific tools	29	67%
Institutional Review Board requirements	27	63%
Privacy requirements (e.g., FERPA)	22	51%
Data visualization	20	47%
Data management	17	40%
Data security	15	35%
Anonymization practices	9	21%
Data cleaning	8	19%
No training	7	16%
Other training	6	14%

**Please specify the other training.** N=6

Creating protocols for user surveys. Staff can consult with our library reporting and assessment analyst.

Library staff have expertise in many of these areas but have neither received nor been required to participate in formal training offered by the university or other entity.

Research analytics

Research methods

Statistics (a little)

We will likely need more training as we begin to consider what data to share, policies, etc.

**40. Please enter any comments you have regarding learning analytics procedures.** N=7

All are trained on FERPA by the university. Training on other topics varies by staff member and project.

Currently our learning analytics are informal, ad hoc user assessment. Usually anonymous and qualitative.

Our efforts at learning analytics are growing, but relatively new, so sometimes procedures may be a bit lacking related to analytics—but this is something that should be articulated and documented.

Procedures are carried out by staff across multiple departments across the libraries.

The assessment analyst has training on all the above marked items. We have not provided official training for other staff beside IRB required trainings. However, the assessment analyst provides consultations on majority of learning analytics projects to ensure adherence to best practices.

The library hires staff with training in all these areas to conduct learning analytics projects.

We do not have a formal process for handling data requests, but these requests would be reviewed for privacy implications before data is provided.

## LEARNING ANALYTICS PARTNERS

### 41. Is your library currently working with consortia that are building capacity for learning analytics (e.g., Unizin, University Innovation Alliance, regional consortium, etc.)? N=49

Yes	16	33%
No	29	59%
No, but our institution is currently working with consortia	4	8%

#### If yes, please specify which one(s) and the nature of the work. N=14

Greater Western Library Alliance (GWLA)

GWLA Student Success initiative as an example of us contributing data to broader projects.

GWLA, study to understand how libraries contribute to student learning.

Statewide learning analytics initiative. Unizin member.

The Ivy League Libraries (Borrow Direct)

Through GWLA

Triangle Research Libraries Network (TRLN): TRLN institutions are interested in collecting aggregate usage data of library resources in order to analyze cost per use and determine how users are engaging with consortial resources. Ivy Plus Libraries (IPL): as with TRLN, the Ivy Plus Libraries are interested in collecting aggregate usage data of library resources in order to analyze cost per use and determine how users are engaging with consortial resources. We are also interested in gathering consortial data in order to negotiate pricing with library vendors. We have also worked with IPL partners to develop and explore innovative ways to collect and use aggregate user data. We are the beginning stages of this, but IPL partner libraries are interested in combining resources and expertise to build capacity for learning analytics projects that would be of use to all 13 IPL libraries (and beyond IPL, too).

University Innovation Alliance. Have initiated an Educational Advisory Board Student Success Collaborative. Also Monitoring Advising Analytics to Promote Success (MAAPS).

Unizin (2 responses)

Unizin, IMLS grants

Unizin advisory committees

Unizin, and some with Barnes & Noble. With Unizin, we are collaborating on a data platform using a common data format, specifically linked to the Canvas LMS.

Unizin's common data platform

**42. Does the library partner on learning analytics initiatives with any campus units for learning analytics initiatives? N=48**

Yes 18 38%  
No 30 62%

**If yes, please specify which one(s) and the nature of the work. N=17**

Academic Technology Services (ATS) is a division within the Libraries. ATS is responsible for administering CANVAS, the library's LMS. Out of the box, all instructors can see course-level analytics for the courses they teach. ATS has partnered with some academic programs to correlate this general usage data specifically for instructional design and program improvements. This is not "learning analytics" proper, nor a specific initiative as alluded to in the question, but perhaps worth mentioning. These programs include the School of Theology DMin program and the School of Public Health EMPH program.

APIR: we provide data visualizations about course related library instruction interactions. Departments: we develop e-learning micro-courses that create learning data that is co-shared.

Assessment and Research: quantitative statistical analysis and modeling of data.

Campus units we partner with include Institutional Research (IR), Office of Assessment, Social Science Research Institute, Registrar, Student Information Services and Systems, and the Office of Information Technology. We partner with these units and departments in order to match data they have about library users with data collected in library systems. We use and analyze these data in order to learn more about how students, staff, and faculty are using library services and resources and to make improvements to existing services and resources. We also analyze usage data to understand more fully how resources (e.g., online journals) are being used, relative to costs.

In past we have partnered with School of Humanities and Writing Center to assess the effectiveness of our Research Consultation Services.

Institutional Effectiveness

Joining the EAB campus initiative, along with Learning Commons partners.

Office of Assessment of Teaching and Learning, Office of Undergraduate Education, Department of English, College of Communication, Department of History

Office of the Provost

Office of the Provost for Learning Commons usage

Provost Office: data collection. School of Engineering, Office of Deputy Dean for Academic: regression analysis of factors influencing GPA among undergrad engineering students.

Unizin Governance teams, Learning Analytics Cross Functional Team, College of Liberal Arts, Information Systems, Office of Institutional Research

We are exploring harvesting data from wifi logs and EZProxy from the IT Security unit.

We plan to pilot sharing some library use data with Undergraduate Studies to use in their predictive model for student retention.

We share data and work with the Office of First Year Studies and the Office of Faculty Affairs relating to classes taught by and through the Libraries.

Yes for research analytics and also the library has some involvement and participation into a campus-wide initiative called Student Services Excellence Initiative (SSEI). SSEI is a multiyear, university-

wide effort to improve the experience of students by refining administrative procedures and updating/streamlining the student experience across the university.

Yes, just started partnering with the Division of Academic & Student Affairs to share data around student use of space and services in a new Academic Success Center in the Libraries, and to share expertise and potential methodologies for investigating the impacts of library use.

**Additional comments N=3**

Again, while we do not currently partner in this way, we plan to in the near future.

No, except with OIPR, from whom we get aggregated student data.

When we did an Assessment in Action project (before my time), I think we partnered with someone from IT Services, Teaching and Learning, and also from the Neighborhood Student Success Initiative.

## **ADDITIONAL COMMENTS**

**43. Please enter any additional information regarding learning analytics activities at your library that may assist the authors in accurately analyzing the results of this survey. N=14**

Because the university is in its infancy with learning analytics, so are the University Libraries. Beyond some stats collected in regards to instruction/workshop/research consultation attendance, we don't collect much data in this arena. The university analyzes student portfolios and writing samples, but this data is rarely shared with the libraries, and we are not connected to it in any way. The librarians do informal assessments, but nothing robust enough to categorize as a "learning analytics initiative".

Current learning analytics work is tied to the First Year Studies program and a few other required courses with a major library component. Past projects have been more all-inclusive, and future work will likely be expansive.

Generally speaking, the Libraries collects data for improving the Libraries (collections, services, and spaces). We are not currently correlating library data with student outcomes, but we have plans to do so in conjunction with the university. This effort is currently in the planning phase.

I think it is fair to say the library is in the very beginning stages of considering how to engage in learning analytics. We are very interested in the results of this survey, and of learning more about how to move along the path.

"Learning analytics" efforts still nascent at the university, but foundations are being laid. At this stage, efforts are not coordinated across campus units but there are beginnings. The Libraries are beginning by analyzing usage trends by types and patron groups across academic units to inform resource allocation and outreach activities.

Most of the questions do not apply to our library and have been left blank. We have supplied responses to what seem relevant.

My library is trying to catch up on collecting appropriate data for analysis. We're ahead in some areas (journal use, circulation, etc.) but behind in others (assessment of learning outcomes). We tend to rely on our data collection tools to do the storage and management for us (we use LibInsight, which is a relatively newly acquired tool. Before that we were using spreadsheets stored in Sharepoint). It's difficult to get buy-in from librarians and staff members to report. We can only work with the data we have. I also find that the privacy concerns beyond FERPA no longer serve us well as a library. How are we supposed to show that students who have multiple contact points with the library across their undergraduate time do have improved retention, graduation rates, GPAs, etc., if we cannot link those

contact points (check outs, journal use, study room booking, research consultation scheduling) with students and categorize them into groups or cohorts? It's not possible.

One note regarding our institutional data collection; the library is planning to join the university EAB initiative, however we haven't joined yet.

The Libraries are not involved in learning analytics at this time and has no immediate plans to do so.

This is an emergent area of practice. As we develop strategies to move forward, we are aligning to university policy and procedure. We expect this area to further develop over the next year. We are participating with efforts such as Unizin and IMLS grants to further our infrastructure policy framework and practices.

We are implementing a new business analytics system, and are exploring how, and how much, to get the Libraries integrated into this environment.

We do instructional assessment for our own use to assess effectiveness. Ethics approval is not usually required for internal service assessment. We have a library data community of practice where data discussions can take place. Google analytics runs on our websites.

We feel that it IS possible to participate in institutional initiatives that improve the experiences and outcomes of our students without compromising student privacy or our professional ethics. Although we value our ability to contribute to learning analytics discussions on our campus, we will not contribute data to learning analytics unless there is evidence that the data we can provide will make a positive difference for our students.

While we are aware of and very interested in library value research, it was not clear how the Siemens definition and library as value relate to the survey questions—as some questions were very broad, while others were focused. It was also not entirely clear in every question if institution referred to the library or the university, so we interpreted it sometimes as the library, and other times as the university depending on the answer we provided. Lastly, in most of the answers, we did not include the assessment initiatives of the Center for Educational Resources, as it has different goals and practices in place for analytics that are separate from the library even though administratively housed in the same building and sometimes aligning on outreach, initiatives, and goals.



# Responding Institutions

University of Alabama  
University at Albany, SUNY  
Boston College  
Brigham Young University  
University of Calgary  
University of California, Irvine  
Case Western Reserve University  
University of Colorado at Boulder  
Colorado State University  
Cornell University  
University of Delaware  
Duke University  
Emory University  
University of Florida  
Georgetown University  
University of Hawai'i at Manoa  
University of Houston  
University of Illinois at Urbana-Champaign  
Indiana University Bloomington  
University of Iowa  
Iowa State University  
Johns Hopkins University  
Library of Congress  
Louisiana State University  
University of Louisville  
University of Maryland  
University of Massachusetts, Amherst  
University of Miami  
University of Michigan  
Michigan State University  
University of Minnesota  
University of Nebraska—Lincoln  
New York University  
North Carolina State University  
Northwestern University  
Ohio University  
Oklahoma State University  
University of Oregon  
Pennsylvania State University  
University of Pittsburgh  
Rutgers University  
Syracuse University  
Temple University  
University of Tennessee  
Texas Tech University  
University of Toronto  
Vanderbilt University  
University of Virginia  
Washington State University  
Washington University in St. Louis  
University of Waterloo  
Western University  
University of Wisconsin—Madison  
Texas Tech University  
University of Toronto  
University of Virginia  
Virginia Tech  
Washington State University  
University of Waterloo  
Western University  
University of Wisconsin—Madison