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Survey Report: Research Data Management Services in Oberlin Group Libraries

C. Jeff Lacy, Assistant Professor, Instruction/Liaison Librarian Elizabeth Huth Coates Library, Trinity University Iune 2017

Introduction

Librarians at the Elizabeth Huth Coates Library at Trinity University first offered research data management services (RDMS) in fall 2012. According to Toups and Hughes (2013), the Coates Library's initial RDMS offerings were received well by faculty and some RDMS-related projects developed in short order. The library seemed primed for data curation efforts on a larger scale. By fall 2014, however, this momentum had waned. During the 2014-2015 academic year, the entirety of the library's RDMS transactions consisted of two consultations for faculty data management plans.

In late 2014, I was hired as science librarian and became point-person for many of our RDMS. At the time, we had numerous informational LibGuides developed by prior librarians in science and data roles, offered on-demand consultations on many data management topics (usually requested by faculty who found the LibGuides or who were referred from the Office of Research), and provided data storage in our institutional repository if faculty could not find a more appropriate archive. The science librarian managed the LibGuides and consultations; the discovery services librarian managed submissions to the institutional repository and related matters.

To familiarize myself with RDMS, I undertook professional development and reviewed the library literature related to RDMS. The workshops I attended were led

by data services librarians from larger schools who at their home institutions were members of interdepartmental teams specializing in RDMS. Likewise, most of the library literature on RDMS—case studies, reports, and surveys covering the variety of possible services, staffing models, directions for growth, etc.—were written by and for librarians from large research institutions. These institutions have more faculty and graduate students who conduct research, seek grants, and need to learn about practices such as data management plans and data archiving. Therefore, libraries in these institutions are more likely to have dedicated RDMS staff since they. The situation at Trinity University is very different: with fewer faculty and graduate students as well as less emphasis on research and grant-seeking, we have significantly fewer patrons interested in RDMS.

To evaluate the state of the Coates Library's RDMS, then, I needed to compare our situation with other small liberal arts schools. Since the library literature included several RDMS-related surveys, I decided to conduct a similar survey among our institutional peers in the Oberlin Group library consortium.

The Survey

The survey contains questions adapted from three RDMS surveys originally directed at large research institutions: Reznik-Zellen (2012), Tenopir (2012), and Fearon (2013). The core of the survey focuses on just a few topics: the RDMS offered by libraries at small schools, their staffing and service models for RDMS, and how and why they developed RDMS on their campuses. Several open-ended questions and free-text entries allow for librarians to describe plans, challenges, assessments, and other details they care to share about their situations.

I developed the survey using Qualtrics to be available online. The survey totals 31 questions in four sections. The first section includes questions about populations served (Q01 – Q03), RDMS needs assessment (Q04), and RDMS staffing models (Q05 – Q08). The second and third sections address discrete RDMS offerings divided into two categories: informational and consulting services (Q09 – Q16) and infrastructure and technical services (Q17 – Q24). The fourth section (Q24 – Q31) asks reflective questions about how each library developed their RDMS. See Appendix A for the survey instrument.

The Coates Library is a member of the Oberlin Group consortium of liberal arts college libraries. The Oberlin Group libraries were the ideal targets for the survey. Compared to Trinity, they serve institutions of similar size, are on campuses that similarly emphasize instruction over research, and have a history of cooperating with surveys such as this one. Library directors at the eighty Oberlin Group schools received a link to the survey by email on March 7, 2017. The survey was open until March 31, 2017.

Results

Of the eighty Oberlin Group libraries, twenty-five responded (including Trinity), for an overall response-rate of 31%. Appendix B includes the complete, compiled survey results. Not every respondent answered every question, so the data includes the number of responses for a given question.

Student and Faculty Counts

The questions about student and faculty counts were included in case further analysis was necessary to determine patterns. For example, perhaps libraries with

larger student bodies conduct more RDMS workshops. However, the student and faculty counts are not significantly varied, nor do the survey results suggest any trends related to population.

Needs Assessments

A majority of respondents, 71%, have not conducted a needs assessment to gauge their institution's need for RDMS.

Staffing Models and Campus Support

When asked about staffing for RDMS support, 29% reported their library does not offer any RDMS.¹ Of the libraries that do provide RDMS, 21% have a single librarian responsible for RDMS, 8% have a department or unit, 13% have an interdepartmental group or team, and 29% reported "other." Of those reporting "other," three libraries (13% of all respondents) described a two-person model similar to Trinity.

When asked about RDMS support from campus departments beyond the library, 50% of respondents reported that their campus I.T. departments support RDMS, 25% reported that their Office of Research supports RDMS, 25% reported that other departments on campus (provided examples include "colleagues" and "our Center for Teaching and Learning") support RDMS, and 13% have no RDMS support from campus departments outside the library. 54% of respondents reported that their library coordinates with other campus departments providing RDMS.

¹ This number conflicts with other results, however. Only 17% of respondents do not offer information on finding and citing data and datasets. Similarly, only 25% of respondents do not assist researchers in finding appropriate data repositories. So a few of these libraries claiming to not provide RDMS offer one or both of these.

A slight majority of respondents, 58%, indicated that they are not involved with establishing institution-level research data management policies.

RDMS Offered

The survey asks a series of questions about particular kinds of RDMS offered.

Additionally, some questions ask about the means through which the service is provided (i.e. via online guides, scheduled workshops or training sessions, ondemand consultations, or other form). Figure 1 summarizes the responses as simple

Informational / Instructional RDMS	Yes	No
Provide information about research data management requirements of grant-funding agencies	67%*	33%
Provide information for researchers developing data management plans (DMPs)	71%*	29%
Provide information about best practices in data management	67%*	33%
Provide information on finding or applying metadata standards to research data	58%	42%*
Provide information on other topics or skills related to research data management	42%	58%*
Support any content related to research data management in credit-bearing courses	8%	92%*
Infrastructure / Technical Support RDMS	Yes	No
Provide information on finding and citing data, datasets, and data repositories	83%*	17%
Provide tools for data analysis	38%	63%*
Provide support for GIS or geospatial analysis	42%	58%*
Provide technical support for any kind of research data management system	61%*	39%
Help researchers identify appropriate data repositories	75%*	25%
Help researchers prepare data for deposit to a repository or journal publisher	39%	61%*
Help researchers create or apply metadata to datasets for description or discoverability	33%	67%*
Provide any other kind of infrastructure or technical services for research data management	33%	67%*

Figure 1: Provision of specific research data management services * indicates Trinity's answer

Service	Online Guides	Scheduled Workshops or Training Sessions	On-Demand Consultations	Other	Do not offer
Provide information about research data management requirements of grant-funding agencies	33%*	8%	46%*	13%	33%
Provide information for researchers developing data management plans (DMPs)	33%*	8%	13%*	2%	29%
Provide information about best practices in data management	25%*	17%	58%*	4%	33%
Provide information on finding or applying metadata standards to research data	8%	8%	58%	0%	42%*
Provide information on other topics or skills related to research data management	8%	13%	42%	0%	58%*
Provide information on finding and citing data, datasets, and data repositories	46%*	38%	83%*	4%	17%

Figure 2: Means of provision for specific research data management services * indicates Trinity's answer

yes/no answers. Figure 2 summarizes the answers about the means of provision. In each figure, an asterisk (*) denotes the Coates Library's answers.

Reflection

The survey ends with a series of reflective questions about the development, plans, and reception of each library's RDMS. The answers for these questions are mostly open-ended, free-form responses. Figure 3 includes select summaries and excerpts; see Appendix B for all of the responses.

Discussion

The purpose of this survey is to find points for simple comparison, to see how Coates Library fares against its peers, not to go into deep statistical analysis. With

What influenced your library's decision to offer your particular mix of RDMS?

"We have a small handful of faculty who really need this right now, so they have been handled as one-off issues."

"[What] we do right now is extremely minimal. We have had only a handful of interactions and are just now thinking about how to build capacity and begin to be a little more proactive."

"We don't have the demand to justify a more structured set of research data management services."

"We try to respond to individual demand."

"We really don't offer anything formal. Just case by case."

"No interest beyond the Library, and not enough people in the Library."

"We have done very little to date on research data management services but are actively working to change this through a new sciences librarian recruitment."

Would you say that your RDMS were developed opportunistically or strategically? Please explain.

59% respondents indicated primarily opportunistic development, 23% indicated a mixture of opportunism and strategy, 0% indicated primarily strategic development, and 18% reported that their RDMS "just happened" or similar.

What barriers or obstacles have hindered the development of your RDMS (personnel, technology, training, etc.)?

"Time. Data Services librarian is also a reference and instruction librarian with departmental subject liaison duties including collecting." "Lack of demand. We've had a really hard time convincing faculty why they want to manage their research data in a structured way or why they might want to share it."

"It takes a while to get faculty to get on board with new services, even if they need them."

"Lack of understanding about the level of demand."

"Limited use."

In what ways do you market your RDMS?

LibGuides or websites appeared 6 times.

Responses to the effect of "We don't" appeared 5 times.

"Soft marketing" and "word of mouth" appeared 4 times.

Partnerships with Grants Office mentioned 3 times.

In what ways do you track use or otherwise assess your RDMS? Which services are most popular? Which are least popular?

Most respondents, 74%, indicated that they either do not track RDMS transactions or do not distinguish them from other classifications of transactions, such as reference or instructional.

20% of respondents mentioned that consultations on data management plans are their most popular service, 6% mentioned assistance with metadata for submissions to their institutional repositories.

No one offered hard use stats. There were a couple comments to the effect of "very little uptake" and "very few requests."

Figure 3: Select free-form responses to reflective questions

this purpose in mind, the tale these data tell is that our situation is comparable to many of our peers and we face many of the same challenges.

To summarize the high points from the numbers:

- We are among the 29% of respondents who have conducted a needs assessment related to RDMS.
- We are among the 29% 42% who provide RDMS with two or fewer staff.
 Furthermore, other answers indicate that, like us, those who provide
 RDMS in Oberlin Group libraries do so in addition to other
 responsibilities.
- We are among the 50% who have RDMS support from campus I.T. and among the 25% who have RDMS support from the Office of Research.
- We are among the 54% who partner/coordinate with departments outside the library. Our connection to the Office of Research is stronger than our connection to I.T.
- We are among the 71% who offer some form of RDMS.

In addition, we offer a very similar menu of RDMS as our peers. We favor the same service delivery methods as the majority of respondents (online guides and through on-demand consultations). Like us, very few other Oberlin Group libraries offer RDMS via workshops. However, there is one service that Trinity has not yet considered. 58% of respondents noted that they "Provide information on finding or applying metadata standards to research data."

The free-form responses to the survey's reflective questions also highlight a few similarities between Trinity and the trends in the Oberlin Group:

- Several comments about little use across all RDMS. Our RDMS see very little use, which results in a lack of attention and development.
- Our most popular service is consulting with data management plans.
- We primarily market RDMS through LibGuides, the Office of Research, and word of mouth.

The survey results demonstrate that our RDMS provision and use are similar to other institutions in the Oberlin Group. The data does not reveal unique or innovative services that might encourage an increase in the value or purpose of RDMS services at our size and type of library. However, there are a few possibilities for the future.

First, I can fill our one RDMS gap by developing a LibGuide for finding and applying metadata standards to research data and become prepared to field questions via consultation. This may require some professional development.

Second, we can promote an open data policy to complement our open access policy. Such a project could create more demand or interest from the faculty.

Third, we can promote research data management as an aspect of information literacy where appropriate. Even in best case scenarios, the number of our faculty who need RDMS support for their own research at any given point will be low. However, by recasting RDMS as an information literacy issue, faculty may be more interested in teaching aspects of research data management to their students.

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Appendix A: Survey Instrument

Preliminaries

- 1. How many FTE undergraduate students are enrolled at your institution?
- 2. How many FTE graduate students are enrolled at your institution?
- 3. How many tenure-track and tenured faculty are employed at your institution?
- 4. Has your library ever conducted a needs assessment to gauge your institution's needs for research data management services?
 - a. No
 - b. Yes
- 5. Who in the library provides research data management services?
 - a. My library does not provide data management services.
 - b. A single individual.
 - c. A department or unit.
 - d. An inter-departmental group or team.
 - e. Other. Please explain.
- 6. What other departments or offices on campus offer any form of research data management services?
 - a. None.
 - b. Information Technology / Academic Computing.
 - c. Office of Research.
 - d. Other. Please explain.
- 7. If other departments on campus offer research data management services, does the library partner/coordinate/collaborate with those departments?
 - a. No
 - b. Yes
 - c. Not applicable

Informational and consulting services

- 8. Is your library involved with establishing institution-level research data management policies?
 - a. No
 - b. Yes. Please explain.
- 9. Does your library provide information about the research data management requirements of grant-funding agencies, such as the NSF? Please select all that apply.
 - a. No.
 - b. Yes, via online guides.
 - c. Yes, via scheduled workshops or training sessions.
 - d. Yes, via on-demand consultations.
 - e. Yes, other. Please explain.
- 10. Does your library provide information for researchers developing data management plans (DMPs)? Please select all that apply.
 - a. No.
 - b. Yes, via online guides.
 - c. Yes, via scheduled workshops or training sessions.

- d. Yes, via on-demand consultations.
- e. Yes, other. Please explain.
- 11. Does your library provide information about best practices in data management (e.g. file-naming, data sharing, data security)? Please select all that apply.
 - a. No.
 - b. Yes, via online guides.
 - c. Yes, via scheduled workshops or training sessions.
 - d. Yes, via on-demand consultations.
 - e. Yes, other. Please explain.
- 12. Does your library provide information on finding and applying metadata standards to research data? Please select all that apply.
 - a. No.
 - b. Yes, via online guides.
 - c. Yes, via scheduled workshops or training sessions.
 - d. Yes, via on-demand consultations.
 - e. Yes, other. Please explain.
- 13. Does your library provide information on other topics or skills related to research data management? Please select all that apply.
 - a. No.
 - b. Yes, via online guides.
 - c. Yes, via scheduled workshops or training sessions.
 - d. Yes, via on-demand consultations.
 - e. Yes, other. Please explain.
- 14. If you answered "yes" to the previous question, please describe the other topics or skills you cover.
- 15. Does your library support any content related to research data management in credit-bearing courses?
 - a. No.
 - b. Yes. Please explain.
- 16. If your library provides workshops or consultations, to whom are they targeted? Please select all that apply.
 - a. Students
 - b. Faculty
 - c. Staff
 - d. Varies. Please explain.

Infrastructure and technical services

- 17. Does your library provide information on finding and citing data, datasets, and data repositories? Please select all that apply.
 - a. No.
 - b. Yes, via online guides.
 - c. Yes, via scheduled workshops or training sessions.
 - d. Yes, via on-demand consultations.
 - e. Yes, other. Please explain.
- 18. Does your library provide tools for data analysis (SPSS, etc.)?
 - a. No.
 - b. Yes. Please specify.

- 19. Does your library provide support for GIS or geospatial analysis?
 - a. No.
 - b. Yes. Please specify.
- 20. Does your library provide technical support for any kind of research data management system (e.g. data repository, access or discovery systems for data)?
 - a. No.
 - b. Yes. Please explain.
- 21. Does your library help researchers identify appropriate data repositories (that is, other than a local institutional repository)?
 - a. No.
 - b. Yes.
- 22. Does your library help researchers prepare data or datasets for deposit to a repository or journal publisher?
 - a. No.
 - b. Yes.
- 23. Does your library help researchers create or apply metadata to datasets for description or discoverability?
 - a. No.
 - b. Yes.

Reflection

- 24. Does your library provide any other kind of infrastructure or technical services for research data management?
 - a. No.
 - b. Yes. Please explain.
- 25. What influenced your library's decision to offer your particular mix of research data management services?
- 26. Would you say that your research data management services were developed opportunistically or strategically? Please explain.
- 27. What barriers or obstacles have hindered the development of your research data management services (personnel, technology, training, etc.)?
- 28. In what ways do your market your research data management services?
- 29. Through what channels does your library receive requests for research data management services? Please select all that apply.
 - a. Direct contact to the staff providing research data management services.
 - Inquiries through the general reference service points in person, by telephone, by email, or by chat.
 - c. Contact through departmental liaisons or subject specialists.
 - d. Referrals from the Department of Research or other non-library campus office.
 - e. Other. Please specify.
- 30. Are there any research data management services you do not currently offer, but intend to make available in the future?
 - a. No.

- b. Yes. Please specify.
- 31. In what ways do you track use or otherwise assess your research data management services? Which services are most popular? Which are least popular?

Appendix B: Compiled Survey Answers

Q01	N=24	4300
		3690
		3080
		2900
		2800
		2696
		2650
		2450
		2409
		2499
		2299
		2200
		2200
		2050
		2000
		1850
		1850
		1850
		1800
		1780
		1600
		1562
		1500
		1400
		1300
		633
Q02	N = 23	2200
		207
		67
		65
		50
		39
		13
		13

		10		
		10		
		8		
		3		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
		0		
Q03	N = 23	700		
		550		
		339		
		306		
		300		
		291		
		290		
		275		
		270		
		268		
		260		
		245		
		235		
		230		
		210		
		200		
		200		
		168		
		149		
		138		
		138		
		130		

		111
		100
Q04	N = 24	A 71% (17) B 29% (7)
Q05	N = 24	A 29% (7) B 21% (5) C 8% (2) D 13% (3) E 29% (7)
		If E, please explain:
		We are a merged ILS organization and support is coordinated between and provided by a small group of librarian, technical support staff at the Office for External Grants. Some (but not all) of the technical support staff are located in the library as part of Help Desk Services.
		Science Data Librarian and Data Services Librarian (both in the Research and Instruction group)
		A team of 2 librarians.
		Different aspects of RDM are provided by different people across ou organization. It is not formed into a "team" or cohesive group at this point.
		Science liaison and digital library staff
		The support is coordinated primarily in one department, and is supplemented/complimented by individuals with expertise in other departments across the library
Q06	N = 24	A 13% (3) B 50% (12) C 25% (6) D 25% (6)
		If D, please explain:
		In addition support provided by a pair of research librarians, data management support is also provided by IT/Academic Computing a the Office for External Grants.
		I worked in an extremely merged library & IT organization so most the people involved are in "my" department. The Office of Institutional Research also offers some minimally related advice/services
		While no formalized service exists, faculty can reach out to various offices and colleagues for assistance.
		Provost
		the grants office
		A member of our Center for Teaching and Learning assists faculty of an as-needed basis. However, there is no systematic provision of he for this.
Q07	N = 24	A 33% (8) B 54% (13) C 13% (3)
Q08	N = 24	A 58% (14) B 42% (10)
		If B, please explain:
		Such guidance would come through the Committee on the Library a IT on which members of LITS sit.
		Research librarians have been integral in identifying the need for clearly "branded", college-specific data management tools and

E 13% (3)

services used throughout the data lifecycle (e.g. short-, medium-, and long-term digital data storage options. In addition to providing most of the educational and outreach elements (e.g. workshops and static web pages) for these tools and services, we have also played an integral (and sometimes primary) role in their creation. There is always more that can be done...both to create new tools/services and to improve upon existing tools/services. However, the fact that "data resource management" is only one responsibility among many for each of the support players means prioritization is important. With limited resources, all desired tools/services can't be created overnight. And even if they could be created instantly, educating users and getting traction will still take time. We opted to focus initially on what we perceived to be the greatest needs and low hanging fruit and this has led to a significant improvement in support and the creation of a core group that can continue to build.

Science Data Librarian has drafted a digital preservation policy for science research data (expandable to other digital objects).

Not happening but we want it to and want to be involved

Our efforts are small and nascent, but our Center for Digital Liberal Arts is leading the discussion regarding future RDM

Our institution isn't big on "policies." But to the extent that there are "guidelines," "best practices," "supported practices," etc., we're involved in developing them.

Data management plans need review and approval by DMP committee (Library, ITS, Grants Office). No other policies about DPM or storage of data except for governance of college systems.

Listed as a resources to faculty as needed.

We are trying to get our act together overall in this area and expect to be more involved in all areas of research data management.

Eventually. For now we're not involved but we'll be recruiting for a science librarian soon and will expect that individual to work with the Office of Sponsored Research and relevant faculty to establish data management policies, workflows, and support services.

Q09 N = 24 A 33% (8) B 33% (8) C 8% (2) D 46% (11)

If E, please explain:

Presently, research data management requirements are communicated via consultations through the Office of External Grants. However, we are actively building a LibGuide resource that will also provide this information.

We will help people applying for an NSF or similar grant (that requires a DMPlan) to understand what they are asking and how to create a plan. We don't proactively talk about generic NSF requirements or DMPlans.

We're working up to this.

Q10 N = 24 **A** 29% (7) **C** 33% (8) **C** 8% (2) **D** 54% (13) **E** 8% (2) **If E, please explain:**

		In general, DMP support is provided through consultation with the Office of External Grants. Sometimes this support is enhanced with additional consultation with a subject research librarian. We also developed an in house worksheet/prompt to help grant writers create a DMP draft. This is an example of a need that we tried to meet where the solution we provided did not get a lot of traction. At present, we are actively considering replacing (or at least supplementing) our online worksheet with the DMPtool (https://dmptool.org/).
		We're working up to this.
Q11	N = 24	A 33% (8) B 25% (6) C 17% (4) D 58% (14) E 4% (1)
		If E, please explain:
		We are a merged ILS organization with most of the outward facing technology support housed in the Library. Information regarding data sharing and security come from both the IT side and the Library side via campus-wide emails, workshops and consultations. However, this information is provided in a distributed fashion (i.e. we have a unified "best practices" resource yet).
Q12	N = 24	A 42% (10) B 8% (2) C 8% (2) D 58% (14) E 0% (0)
Q13	N = 24	A 58% (14) B 8% (2) C 13% (3) D 42% (10) E 0% (0)
Q14	N = 7	If you answered "yes" (B-E) to the previous question, please describe the other topics or skills you cover:
		Data cleaning, data preparation using statistical software
		Back-up strategies, codebook/documentation creation, finding external discipline-specific repositories, etc
		Data archiving. Making recommendations for repositories, preparing datasets and metadata, depositing data.
		Accessing and downloading financial data in services to which we subscribed; also help students download client software for access and manipulation
		we consult on backing up data; data storage needs and options
		Data repositories, data sources to supplement data, data analysis tools and best practices
		Data curation and preservation
Q15	N = 24	A 92% (22) B 8% (2)
		If B, please explain:
		We invited Project TIER to hold a reproducible research workshop and are developing our ability to support faculty doing this work with their classes
		Teaching students how to find data, use data analysis software like STATA, and discuss questions surrounding confidentiality issues.
Q16	N = 16	A 50% (8) B 88% (14) C 0% (0) D 6% (1)
		If D, please explain:

Q17	N = 24	consultations at point of need. A 17% (4) B 46% (11) C 38% (9) D 83% (20) E 4% (1)		
Q17	21	If E, please explain:		
		the science librarian provide this service		
Q18	N = 24	A 63% (15) B 38% (9)		
QIO	N - 24	If B, please specify:		
		We are a merged organization and this support comes from our Research and Instructional Design team of Librarians and Technologists. We provide all information and technology support		
		R, SPSS and Stata are extensively supported by our Social Sciences librarian via in class sessions, LibGuides and a large number of one on one consultations. / SPSS, R, Stata		
		Yes, provided by academic computing/ITS. Stata, SPSS, R, MATLAB, Mathematica, ArcGIS, IRAF		
		No, this is done by Instructional Technology (part of Academic Computing). Library is a partner with Instructional Technology on these services, but they are the lead.		
		Our IT team manages campus licenses for SPSS, Mathmetica, etc. Our CDLA is working with faculty interested in shifting toward R and Python for data analysis needs. We tend to teach into data handling courses using free/open/easy tools, and then move toward more intensive packages once students understand fundamentals.		
		R, Palladio		
		In collaboration with IT		
		SPSS, Stata		
Q19	N = 25	A 58% (14) B 42% (10)		
		If B, please specify:		
		GIS received significant support by several groups on campus. In the library, this support is provided by our Social Science librarian. / Support for analysis with ArcGIS		
		Support provided for non-geography students through librarians (Data Services Librarian). Geography students (and more advanced support) provided by Geography GIS Fellow.		
		No, this is done by Instructional Technology (part of Academic Computing). Library is a partner with Instructional Technology on these services, but they are the lead.		
		We help folks discern which tools are appropriate and then help them We tend to support ArcGISonline, google earth, google maps, storymaps. We support intensive ArcGIS use when needed, but that is primarily handled by the Geo department.		
		minimal, as there is also a separate (small) GIS lab		
		Digital Scholarship group.		

		ArcGIS
		In collaboration with IT
		ARC GIS Exployer, ArcView GIS, ARCView Spatial Analysis
Q20	N = 23	A 39% (9) B 61% (14)
		If B, please explain:
		Digital Commons
		We use Digital Commons and Islandora/Fedora
		Our institutional repository is managed and supported mainly by the research librarian staff. As part of the institutional repository, we recently (within the past year) created an institutional data repository. Formal roll out is imminent. We also support ICPSR with Social Science Librarian serving as OR. / ICPSR and data repository in Digital Commons
		Currently in development using Islandora and Fedora.
		We have an dataverse for the college within Harvard's Dataverse.
		Access and advice on ICPSR, DataFerret, Compustat, ExecuComp, IndiaStat, International Financial Statistics, SourceOECD
		We sort of use our Institutional Repository in Digital Commons to store data if faculty cannot find a better disciplinary repository.
		Again, our merged organization includes IT (networking, etc.). It also includes the people managing our institutional repository (dspace).
		We run the college's institutional repository, which is one option for faculty interested in sharing their data.
		Getting data ready to upload into data repositories. Data analysis how-to for students
		Dataverse
		Collections Management and Metadata services and Digital Scholarship Services are involved.
		Islandora repository
		We have an institutional repository (Digital Commons) in which data sets can be stored. We provide support and assistance for this.
Q21	N = 24	A 25% (6) B 75% (18)
Q22	N = 23	A 61% (14) B 39% (9)
Q23	N = 24	A 67% (16) B 33% (8)
Q24	N = 24	A 67% (16) B 33% (8)
		If B, please explain:
		as a merged organization
		Writing up documentation about the dataset (it is usually missing, so the Library creates this in consultation with the faculty before deposit).
		We do have a policy to accept data sets in our institutional repository

Digital Commons support

Storage as appropriate

Islandora repository

this is a service we are actively working to expand, however the demand for this service has been "wishy-washy" or anemic. We are still trying to determine if this service would be used and valued on our campus.

Q25 N = 21 this is a need of the faculty

A recognized need for developing and promoting commons resources for our scholars and researchers along with a need to comply with the emerging mandates of national governmental funding agencies.

We have limited staffing to support data management, but are growing our expertise in this area

Needs assessment, funding requirements, discussions with faculty, open data movement.

Requests from the faculty and partnership with Instructional Technology to divide up data services on campus.

Existing staff expertise. However, we have been developing our Islandora IR with the expectation that data curation will be a service we will add

Requests from faculty.

The staffing and infrastructure resources that we have, and the kind of demand from faculty.

A slow growth model! We have a small handful of faculty who really need this right now, so they have been handled as one-off issues. As this small numbers grows, we know we need a more holisitic and scalable approach

I haven't had the chance in previous responses to make clear that the sum total of what we do right now is extremely minimal. We have had only a handful of interactions and are just now thinking about how to build capacity and begin to be a little more proactive. I didn't want to answer "no" to the questions; but "yes" gives a somewhat false impression of a routine service offering that isn't true.

Need. We are a small, undergraduate-focused institution, with under 100 faculty who might ever do research that generates data, and probably with under 10 at any point in time who are working on a grant that requires data-sharing. We don't have the demand to justify a more structured set of research data management services.

Needs assessment of faculty

Emergent need

Curricular and Research needs of faculty.

Resource constraints; still getting a sense of the need on campus

We try to respond to individual demand. While the answer to many of the above questions was "yes" it's because we have provided individual help and consultation. We're planning on building our data support programs by beginning with a needs assessment during the 2018 academic year.

Personnel resources and expertise.

Historical reasons and current staffing and neglect.

We really don't offer anything formal. Just case by case.

No interest beyond the Library, and not enough people in the Library

We have done very little to date on research data management services but are actively working to change this through a new sciences librarian recruitment.

Q26 N = 22 opportunistically

opportunistically

Development was and continues to be motivated by a broad strategy and that has been prioritized by either our most pressing needs or needs that can be easily satisfied.

We tried to anticipate faculty needs for data management and developed a web page and support infrastructure at the same time that inquiries from faculty were on the rise

Opportunistically with an attempt to move more strategically

Both. We often use faculty requested projects as an opportunity to äóÖpilotäó» new data services. We then think strategically before committing to do a service for the whole faculty.

Opportunistically. The work that we have done to date has primarily been done is response to demand. We have a longer history of offering and supportingICPSR and US census data.

opportunistically. Services are provided as they are needed.

Opportunistically.

So far opportunistically, but we are working on strategically.

Opportunistically - so far.

Opportunistically.

A bit of both. The library reacted to faculty needs and did not identify the needs proactively and then did not promote the service proactively.

opportunistically, as the need arose

Both, opportunistic and now strategic

Opportunistically. The need is emerging in certain corners of campus without broad coordination.

Opportunistically, definitely. We're moving to develop strategically.

Opportunistically. We have not examined the need for data management services from a strategic perspective.

They weren't developed. They just happened. No strategy. opportunistically would be a compliment. I'm not sure they're developed at all.

		Not in development yet
		No. They were not developed at all in the past.
Q27	N = 22	Limited use
	just getting started	
	Personnel resources, patron buy-in	
		Personnel has been the main limiting factor. We're a small staff, and currently our Science Librarian is serving as the Data Management point person
		Personnel time, funding, time for faculty/students to attend training/workshops
		Time. Data Services librarian is also a reference and instruction librarian with departmental subject liaison duties including collecting
		Also, there are occasional cultural differences to approaching data services between the Library and Instructional Technology.
		Personnel
		training, time, institutional buy-in
		Challenges in coordinating across campus offices, other demands on staff time
		Personnel turnover
		Limited resources (personnel & TIME) and other priorities. It just hasn't been a focus until now.
		Lack of demand. We've had a really hard time convincing faculty why they want to manage their research data in a structured way or why they might want to share it.
		Mostly cultural, the college is very slow to adapt and centralize new services. It takes awhile to get faculty to get on board with new services, even if they need them.
		personnel, training, time
		All listed; challenging prospects. The science departments have their own staff support.
		Personnel and scoping of what services we could provide.
		Lack of capacity in staffing. That's something we'll be looking at building, driven by the needs assessment.
		Personnel resources and lack of expertise
		Personnel and time.
		Lack of understanding about the level of demand
		personnel, interest
		Personnel. Faculty in sciences have come to assume that the library would be no help with regard to research data management services.
Q28	N = 21	Libguide, grants office
		direct work with faculty

Workshops advertised via targeted emails and college media Solicited invitations to departmental group meetings web guide, word of mouth Websites, word-of-mouth, face-to-face meetings, referrals from Office of Research, from faculty, and from ITS. One-on-one contacts with the faculty, through subject librarians, advertising workshops, a data services-related blog. Plan is to make a libguide on the topic. Arranged Census Dept training for campus and local data users in 2016. Reach out to likely data using departments partnership with the Grants Office. We have done blog posts and info on our web page, but mostly word of mouth Not much yet We don't - so far. Except in the sense that we have Liaisons to department whom most faculty will think to just go ahead and ask about whatever, including a question about RDM. The college's Grants Office tells people who are working on a grant that requires a data management plan to talk to us. All soft marketing at this point, word of mouth. A series of workshops are being planned with Grants Office and ITS to promote the service. We don't Listed in resource pages for faculty LibGuides, LibCalendar, direct outreach to faculty NA We don't. we don't, just conversations with librarians is where is comes up Not applicable We haven't (see above) Q29 N = 21A 52% (11) **B** 52% (11) C 57% (12) **D** 52% (11) E 10% (2) If E, please specify: IT staff are usually the ones contacted. On occasion, they work with appropriate librarians. This happens infrequently, however. the grants office has reached out in the past about data management plan support Not applicable We don't receive any yet but hope to receive them through any means. 030 N = 22A 45% (10) **B** 55% (12) If B, please specify: We are presently thinking through mechanisms for archiving research notebooks.

Finish development of repository. Offering more training and outreach.

We would like to offer better support for qualitative data analysis and digital humanities.

As mentioned above, want to expand offering to curation of data sets created or used by students and faculty as the data otherwise is sitting on hard drives.

More coordination with IT

Pretty much everything asked about is on our radar. We know we need to have systems in place within the next two years, and are working to staff/train up.

Perhaps not significantly different services, just a more stable, organized and better communicated suite of RDM (and also data analysis and data visualization) services

Possibly support the creation of DOIs with EZID

Will be defined by upcoming needs assessment

We are just starting the process of evaluating what we can do and will develop a strategy for providing limited quality services in the future. We will partner with IT.

we hope to provide better discipline-specific guidance on our website (libguides or other online resource). We are also looking into the level of demand there might be for a local repository, like Dataverse.

See my previous responses.

Q31 N = 15

At present, we don't have a formal mechanism for assessing use. However, for most of our storage options we have mechanisms that record requests as part of the process of providing/controlling access permissions.

Through our normal statistics gathering (now using LibInsight). Most popular: DMP assistance, data discovery through consultations. Least popular: metadata, GIS (only because it's rarely used outside of power users).

We currently track appointments and faculty interactions them through the same database system we use to track our reference interactions. We count the data-related workshops in the same system we use for tracking other library instruction sessions.

Metadata services picking up as our IR becomes more robust. No formal tracking done

Recorded in LibStats with other reference transactions.

There is very little uptake

Since we've only had a very few requests/needs that have dribbled in over the past few years... we do not yet track or assess. It's not really a fully fledged service at this point. But the needs to date have centered on learning best practices and options for data backup and creating data management plans.

No formal tracking at this point. Popular service is help creating a

DMP.

Only a numerical account of data related inquiries and workshops

We take statistics on the type of consultations are subject liaisons perform. Data plan compliance is probably the most popular.

We're not currently tracking or assessing these services.

We are not doing anything right now.

We don't. We hear everything through the grapevine.

Not applicable

N/A