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UC BERKELEY LIBRARY FACULTY SURVEY 2018 REPORT

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Executive Summary

Introduction

The UC Berkeley Library partnered with national research organization Ithaka S+R to launch a survey of Berkeley faculty[1] in October 2018. The survey was implemented to help the Library gain valuable insights into how faculty discover information, teach, research, and share their work.

The Library contacted all 2,748 faculty members across all disciplines, including professors, associate professors, assistant professors, lecturers, and instructors. In all, 811 faculty, 30% of the total, completed the survey. Their responses formed the basis of the analysis. The findings were further analyzed by parameters such as discipline, job group, rank, and years of experience in the field.

Key Findings

Discovery and Access

- When exploring new scholarly literature, **29% of faculty begin by searching Google Scholar, followed by a specific scholarly database (28%) and the Library's online catalog or website (20%).**

- **Faculty use various tactics to keep up with current scholarship**. The top method employed among faculty in general is "reading materials suggested by other scholars," then "attending conferences or workshops," followed by "following the work of key scholars." The least popular way to keep up with scholarship is using academic social networks such as Academia.edu and ResearchGate.

- **When faculty were asked about the importance of various sources for obtaining or accessing journal articles and scholarly monographs, their top choice was the Library**, with more than 90% of the respondents considering it an important source.

- **When unable to immediately obtain access to a journal article or a monograph, the majority of faculty search for freely available copies online, and more than a third use interlibrary loan services**.

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[1] In the Ithaka S+R Faculty Survey, the term "faculty" is inclusive of ladder faculty (tenured and nontenured) and lecturers. Where appropriate, the report breaks down the data by these job groups, providing a more detailed analysis of responses within the larger "faculty" group.

Research Practices and Format Preferences

● **The vast majority (87%) of faculty conduct academic research**. The analysis of qualitative data is important across all disciplines. Computational text analysis is strongest in the social sciences, and GIS is about the same in Life & Health Sciences and Social Sciences. Using models or simulations and writing software or code are very important in the sciences.

● **The number of faculty who receive external funding for research varies widely by discipline**. Eighty-six percent of faculty in the sciences reported receiving funding in the past five years, compared with 45% in the Social Sciences and 22% in the Arts & Humanities.

● **Most faculty value content in multiple formats for their teaching and research**. Disciplines differ on the importance of print, but faculty of all ages, and in all disciplines, want a wider range of scholarly e-books. In addition, a majority of faculty in all subject areas find digitized primary sources very important.

● **A majority of faculty feel that reading cover to cover is easier in print**; this is true regardless of age or number of years in the field. There is some difference by discipline — a large majority of faculty in the Art & Humanities and Social Sciences find print easier to read deeply; more than half of science faculty agree.

Research Dissemination and Publication

● **Although a variety of publication channels now exist, faculty of all ages overwhelmingly prefer to publish in traditional publications, such as journals and monographs**.

● **Many faculty believe that nontraditional publications — such as software, media, and preprints — should receive less recognition for career advancement and research funding**. This holds true across all age groups and disciplines.

● **Faculty strongly support making scholarly publications freely available**. The attitudes toward article publishing charges vary widely among disciplines. The availability of external funding is another factor.

Research Data Management

● **Faculty value independence when it comes to managing their research data**. Across disciplines, most faculty (87%) who collect research data organize it on their own

computers; more than half (58%) use a cloud storage service such as Google Drive or Dropbox.

Teaching and Learning

- **About half of faculty think that their undergraduate students have poor skills related to locating and evaluating scholarly information**, and nearly three-quarters agree that improving these skills is an important educational goal for their courses. Close to 60% of faculty feel strongly that librarians "contribute significantly" to students' learning by helping them find and access information and develop research skills.

- **Three-quarters of faculty believe that reducing the amount that students pay for texts and other course materials is important**, and most try to assign low-cost or no-cost course materials.

- **There is interest in open educational resources, or OER, among faculty**. About 6 in 10 faculty are interested in using OER in their teaching, and about half would like to adopt new instructional approaches that take advantage of opportunities offered by OER.

Role of the Library

- **The majority of faculty value numerous functions and services provided by the Library**. Faculty value the Library's support of teaching and research, and its role as a provider of content and trusted repository.

- **The majority of faculty believe that the Library should be financially supported to ensure continued access to collections when faced with rising journal costs**.

These findings, along with others from the survey, will help the Library better serve Berkeley's dynamic scholarly community. The data from the survey will guide the Library as it pursues future projects and activities that respond to the diverse needs of faculty.

Methodology

On Oct. 1, 2018, the UC Berkeley Library launched a local version of the Ithaka S+R US Faculty Survey. It was selected based on the focus of the questions, question structure, survey administration, and benchmark capabilities. The survey was open for a month and closed Oct. 31, 2018.

Survey Sample and Respondents

The survey was sent out via email to all 2,748 Berkeley faculty members, based on personnel information provided by the Office for Faculty Equity & Welfare. Professors, associate professors, assistant professors, lecturers, and instructors from all disciplines were included in the sample. In all, 811 faculty, 30% of those who received the survey, completed it — greatly exceeding the average response rate (20%) from other Ithaka S+R US Faculty Survey participating institutions.

The response rates were relatively consistent across age groups, ranging from 24% to 31%. (See Figure 1.)

Figure 1. Number of faculty who were included in the survey sample and who responded to the survey, by age group.
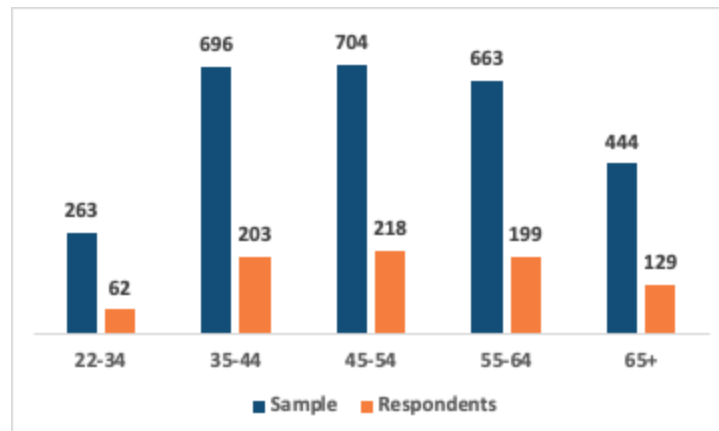

However, there were variations in response rate among other demographic groups. For example, Arts & Humanities faculty had the highest response rate, at 51%. For the other disciplinary groups, the response rates ranged from 20% to 29%. (See Figure 2.)

Figure 2. Number of faculty who were included in the survey sample and who responded to the survey, by four broad disciplines.[2]
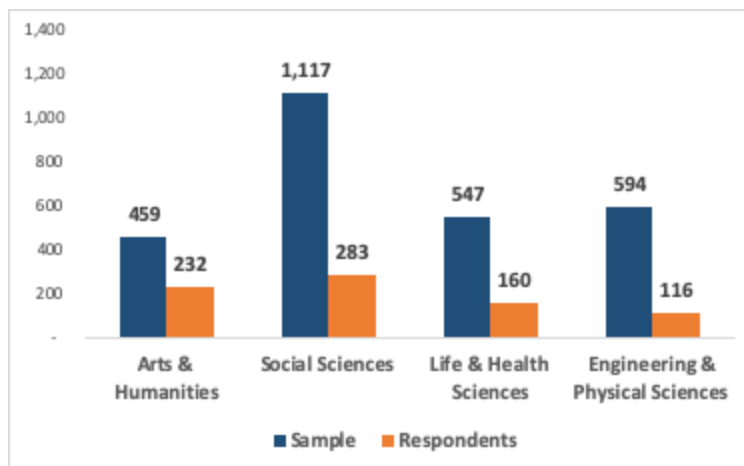
Also, lecturers had the highest response rate (47%) among faculty members. (See Figure 3.) For the other groups, the response rates range from 23% to 38%.

Figure 3. Number of faculty who were included in the survey sample and who responded to the survey, by job title.
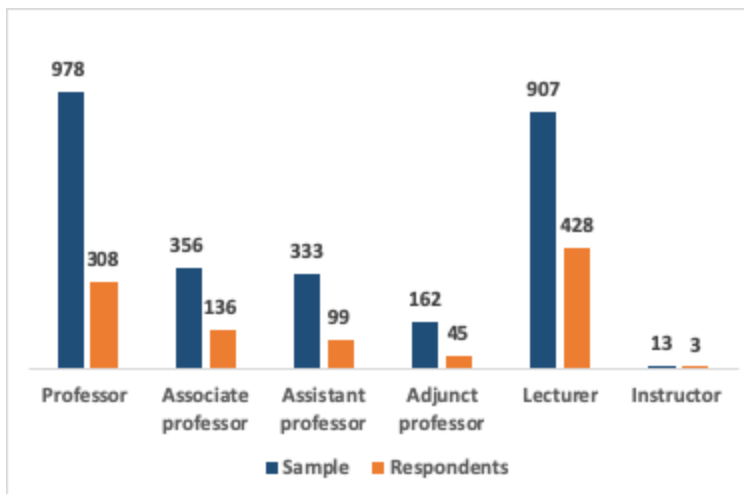
Due to the overrepresentation of certain demographic groups, the results were analyzed through different lenses — for example, age, rank, and discipline — to ensure the results for specific subgroups were accurately reflected.

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[2] Faculty from 81 departments were grouped into four broad disciplines: Arts & Humanities, Social Sciences, Life & Health Sciences, and Engineering & Physical Sciences. (See Appendix A.)

Survey Instrument

The Library's survey includes all the core questions of the Ithaka S+R US Faculty Survey and adopts an additional module from Ithaka S+R consisting of six questions related to material type and format. (See Appendix B.) The core questionnaire includes a total of 35 questions that cover several key areas, including discovery and access, research activities, research dissemination and publication, research data management, teaching practices, and the role of the Library. The core questions were also used in the 2018 Ithaka S+R US Faculty Survey and thus allow for recent benchmark comparisons. In addition to answering these questions, respondents were asked to provide some demographic information, such as their years of experience in their field, age, and title. Embedded information from the personnel database provided additional demographic information, such as their departmental affiliations.

Survey Analysis

Questions in this survey used several different answer scales. Consistent with the Ithaka S+R US Faculty Survey report, answers to these questions were aggregated into three groups for easier analysis. Percentages in this report were rounded to the nearest whole number, so totals may not always add up to 100%.

Ithaka S+R provided the Library with the raw data, a cross-tabulated analysis of the Berkeley results, and national survey results and comparisons. The demographic stratifications were based on faculty's responses and on information from the personnel database, and include age, number of years of experience in their field, department, job group, and title. The analysis and the raw data were ingested into Tableau, a data visualization tool, to better interpret the results. The results were subjected to statistical significance testing to show whether the relationships among variables are caused by something other than chance.

Respondents could share further information or comments on how they use academic information in their research and teaching in an open-ended question at the end of the survey. In total, 160 respondents made comments. Sixty-two of the comments were related to survey design and implementation. The remaining 98 comments were focused in several areas, including collections, services, spaces, open access, and the value of the Library. Select comments appear throughout the report.

Discovery and Access

Introduction

All UC Berkeley faculty who responded to the Ithaka survey were asked questions related to how they discover and access scholarly publications. The responses to these questions are presented in this section.
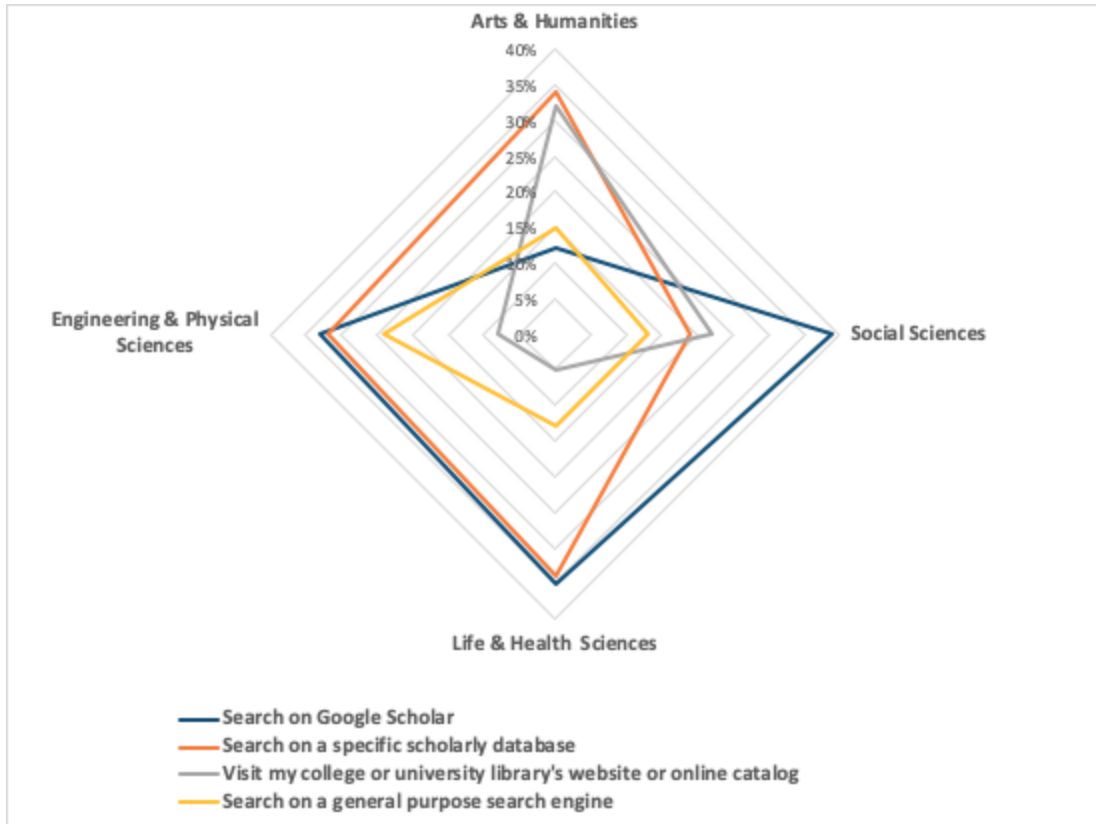
Comparison With National Findings

In general, Berkeley and national findings are quite similar regarding discovery and access. For example, when faculty were asked about how they explore the new scholarly literature, Google Scholar and using a specific scholarly database are the top two selections for Berkeley and other educational institutions nationwide. When asked about preferred methods to keep up with current scholarship, Berkeley faculty ranked reading materials suggested by other scholars as the top tactic, while nationwide it came in second, after attending conferences.

Exploring Scholarly Literature

When exploring new scholarly literature, **29% of Berkeley faculty begin by searching Google Scholar, followed by a specific scholarly database (28%) and the Library's online catalog or website (20%)**.

However, there are some differences among the four broad disciplines in how faculty start exploring scholarly literature. Google Scholar is the top choice for all faculty except those in Arts & Humanities; faculty in Arts & Humanities rely more on searching a specific scholarly database or using the Library website or online catalog. Searching a specific scholarly database is popular across disciplines but less so in Social Sciences; faculty in this discipline rely more on Google Scholar than other discovery channels. (See Figure 4.)

Figure 4. Percent of respondents who most often start with the following channels when they explore the scholarly literature to find new journal articles and monographs relevant to their research interests, by four broad disciplines.

Figure: Radar chart with axes Arts & Humanities, Social Sciences, Life & Health Sciences, and Engineering & Physical Sciences (scale 0% to 40%).

Legend:
— Search on Google Scholar
— Search on a specific scholarly database
— Visit my college or university library's website or online catalog
— Search on a general purpose search engine

The survey data also demonstrates some differences between job groups. (See Figure 5.) Google Scholar is particularly popular with ladder nontenured faculty. Almost half of ladder nontenured faculty often start with Google Scholar, compared with almost a quarter of lecturers and a little over a quarter of ladder tenured faculty. Another interesting finding is that the Library website or online catalog is the top choice for lecturers.
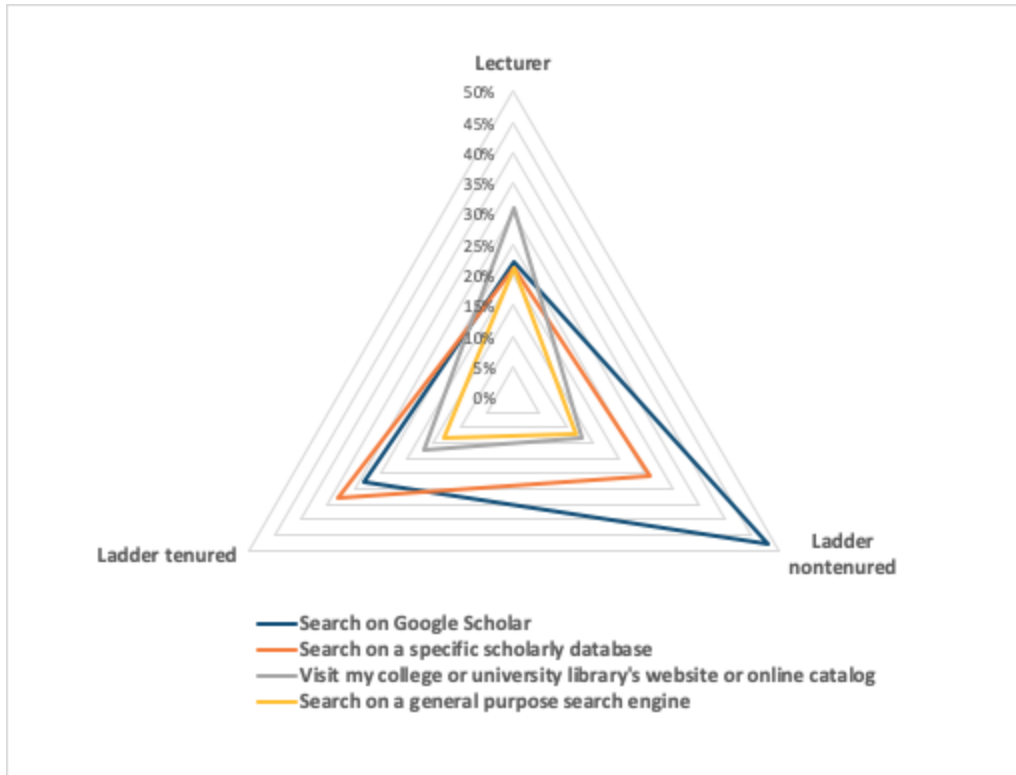
Faculty use various tactics to keep up with current scholarship. **The method faculty view as most important is reading materials suggested by other scholars**, followed by attending conferences or workshops and following the work of key scholars. (See Figure 6.) This preference is present across all job groups. Interestingly, the tactic of utilizing academic social networks, such as Academia.edu or others, trails the rest, with only 20% of respondents considering that an important method.

Figure 6. Percent of respondents who consider the following tactics important in keeping up with current scholarship in their field on a regular basis.
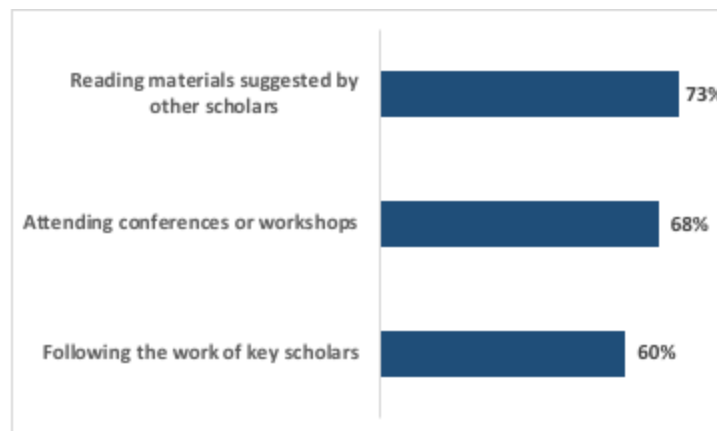
Compared with recommendations from peers, recommendations from personalized search engines are considered much less important. However, the preference gap between peer recommendations and search engine recommendations varies by discipline. (See Figure 7.) For example, a slightly higher percentage of Life & Health Sciences faculty value the recommendations from personalized search engines, and a slightly lower percentage value peer recommendations, compared with faculty in other disciplines.

Figure 7. Percent of respondents who consider the following tactics important in keeping up with current scholarship in their field on a regular basis, by four broad disciplines.
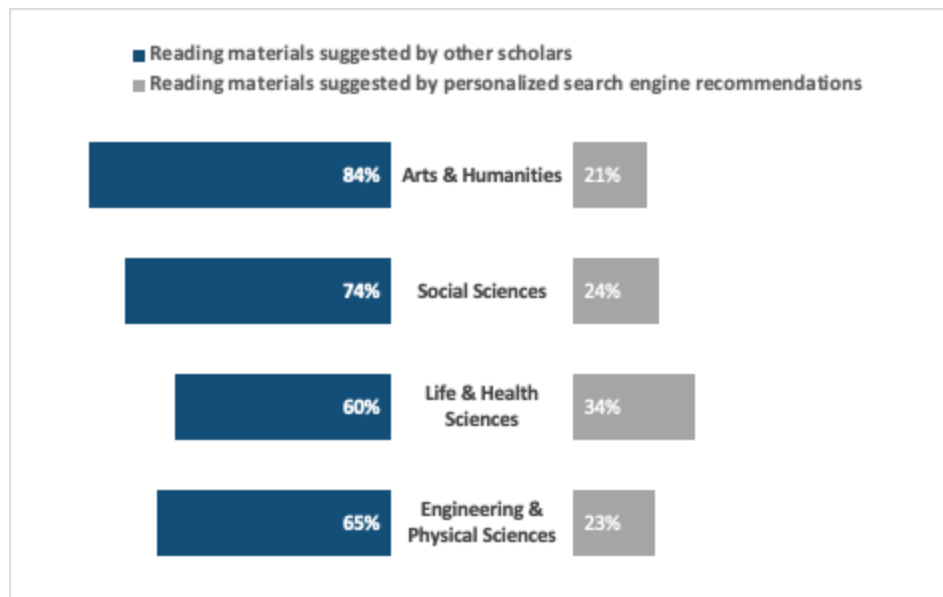
When faculty were asked about the importance of various sources in obtaining or accessing journal articles and scholarly monographs, their top choice was the Library, with more than 90% of the respondents considering it an important source**.** The second most popular selection was freely available materials, followed by their own personal subscriptions and collections, then other institutions' collections or subscriptions. (See Figure 8.)

Figure 8. Percent of respondents who consider the following sources important when they think about the journal articles and scholarly monographs that they routinely use for research as well as for teaching.

Faculty from all disciplines consider the Library's collections and subscriptions and free online materials important for their routine use. However, there are notable differences across disciplines in how much faculty value their personal collections or subscriptions and other institutions' collections and subscriptions. Compared with faculty in the sciences, Arts & Humanities and Social Sciences faculty rely more on their personal collections and subscriptions as well as the collections and subscriptions of other institutions. (See Figure 9.)

Figure 9. Percent of respondents who consider the following sources important when they think about the journal articles and scholarly monographs that they routinely use for research as well as for teaching, by four broad disciplines.
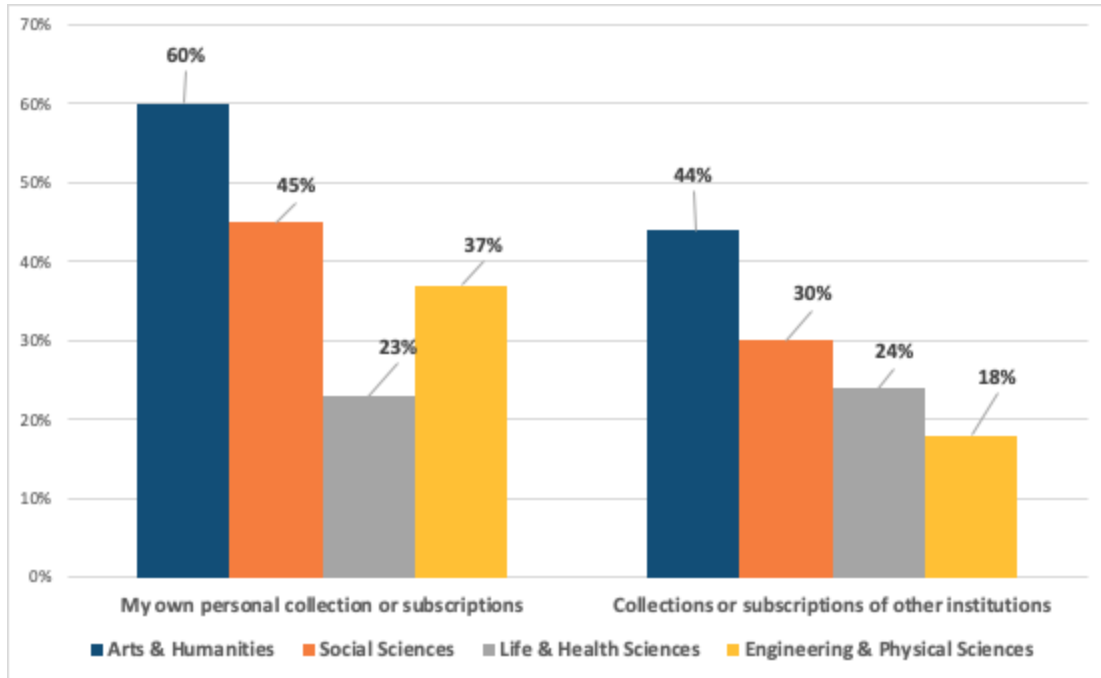
When unable to immediately obtain access to a journal article or a monograph through the Library, the majority of faculty often search for freely available copies online, and more than a third often use interlibrary loan services. Even fewer faculty purchase their own copy or give up and look for a different resource. (See Figure 10.)

Figure 10. Percent of respondents who often use the following methods to seek access to materials that they cannot immediately access through the Library's physical or digital collections.

For all four disciplinary groups, searching for free versions online is a popular method for seeking alternative access. However, there are notable disciplinary differences among other

methods. For example, interlibrary loan is frequently used by Arts & Humanities faculty, who also tend to purchase their own copies more frequently than faculty from other disciplines and are less likely to give up and look for a different resource. (See Figure 11.)
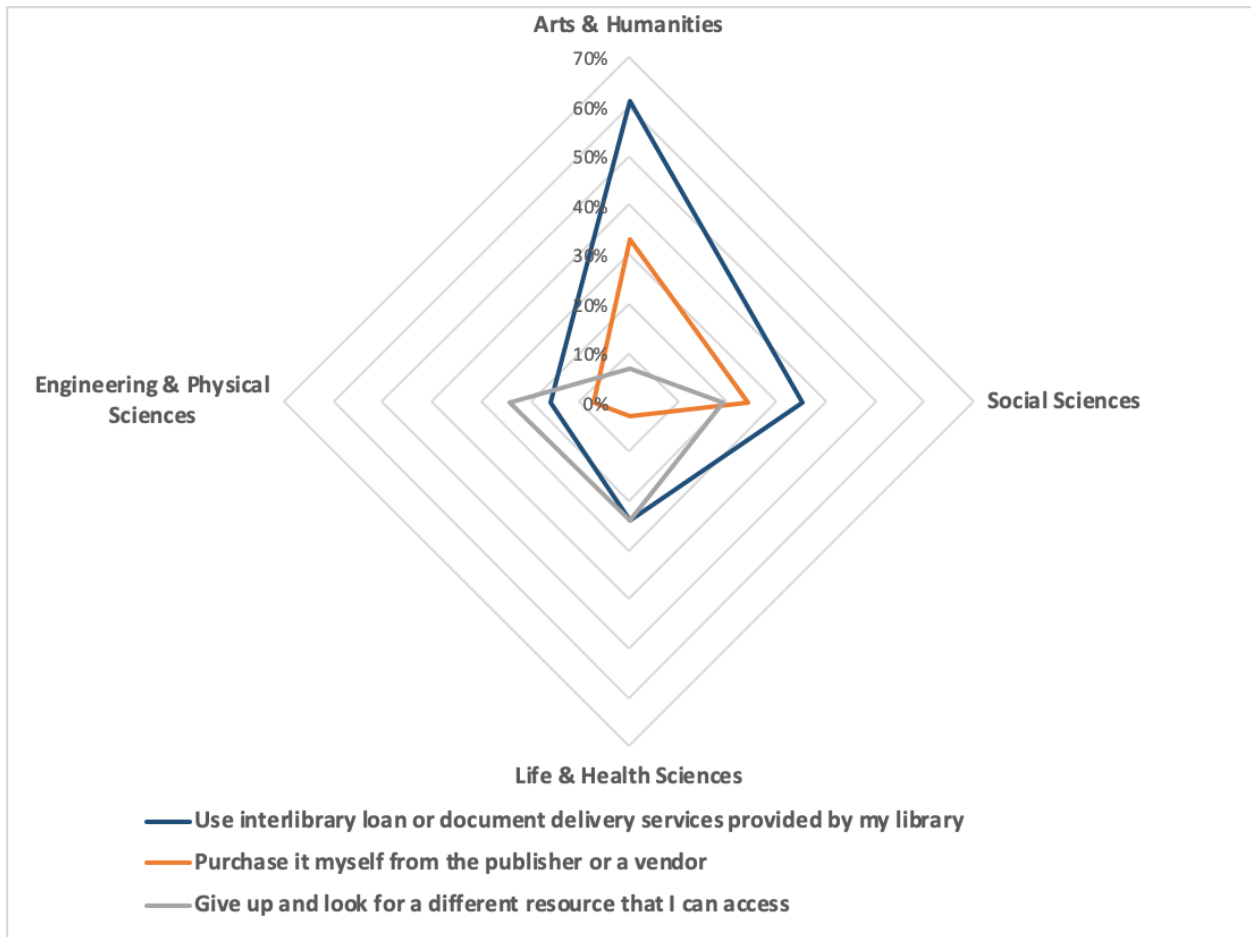
Figure 11. Percent of respondents who often use the following methods to seek access to materials that they cannot immediately access through the Library's physical or digital collections, by four broad disciplines.

Research Practices and Format Preferences

"The library is a critical resource for both teaching and research, and is an adaptive institution that can integrate digital and physical (collections) and assist with their use in teaching and research."

Introduction

This section brings together the questions that focus on the research methods used by faculty, their preference for print versus electronic sources, and how they see the future of the print library. These questions have important implications for collection development and collection management, and the answers show wide variation by discipline.
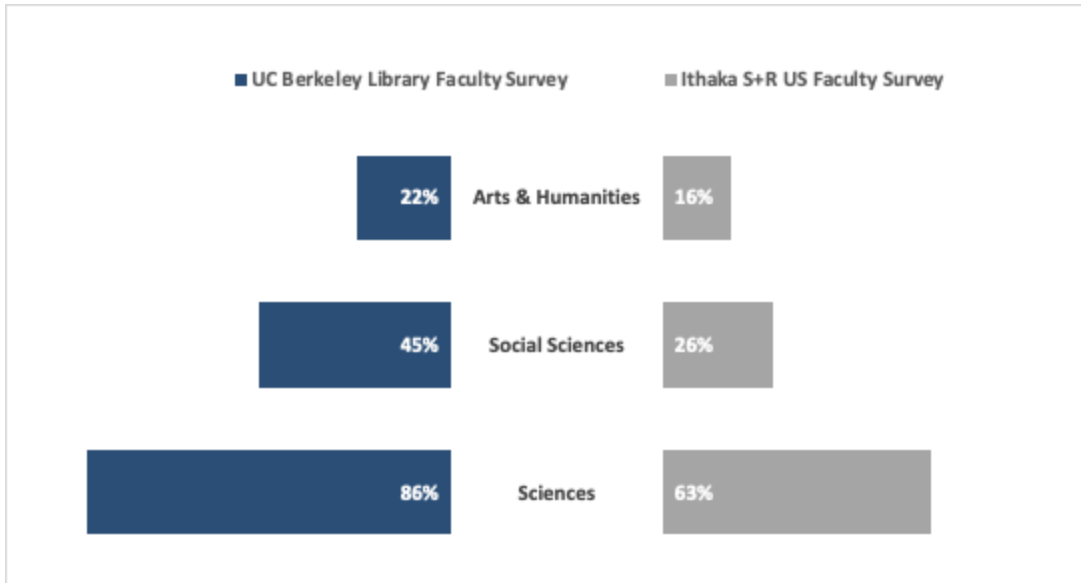
Comparison With National Findings

Faculty at Berkeley are much less likely than national peers to strongly agree that within five years the Library won't need a print collection. At the same time, Berkeley faculty are slightly more likely than their colleagues to assert that e-books are very important to their teaching and research, indicating that their belief in the need for print collections may not be based on an aversion to e-books. Berkeley faculty attitudes by disciplinary groupings are closely aligned with their colleagues nationally, but Berkeley faculty in the oldest group (65 and older) are more likely than their colleagues nationwide to believe that print monographs are very important to their teaching and research.

Berkeley faculty's research methods are similar to those of colleagues nationally, with one difference: Scientists at Berkeley feel more strongly that writing software or code is important, and that is particularly true for faculty in Engineering & Physical Sciences.

More Berkeley faculty indicated receiving external funding than colleagues nationally, in all disciplinary groupings. (See Figure 12.)
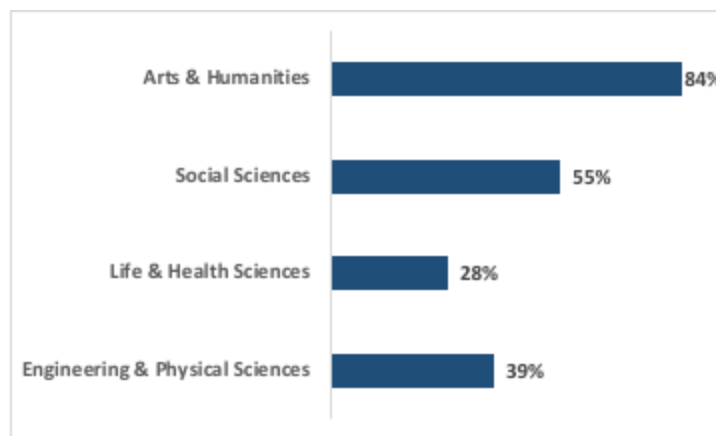
Figure 12. Percent of respondents who indicated receiving external funding for their scholarly research from a public or government grant-making organization (such as the NSF, NIH, NEH, etc.) in the past five years, from the UC Berkeley Library Faculty Survey and the Ithaka S+R US Faculty Survey.

Legend: ■ UC Berkeley Library Faculty Survey   ■ Ithaka S+R US Faculty Survey

Discipline	UC Berkeley	Ithaka S+R
Arts & Humanities	22%	16%
Social Sciences	45%	26%
Sciences	86%	63%

Digital vs. Print

Most faculty want both print and e-books for their teaching and research. But **across disciplines, faculty don't agree on the importance of print**, with Arts & Humanities indicating it is very important (84%), and the sciences less so (28%-39%). (See Figure 13.)

Figure 13. Percent of respondents who feel strongly that print versions of scholarly monographs play a very important role in their research and teaching, by four broad disciplines.

Discipline	Percent
Arts & Humanities	84%
Social Sciences	55%
Life & Health Sciences	28%
Engineering & Physical Sciences	39%

The difference is greater by discipline than by age group. **By age group, 47% to 67% of faculty believe that print is very important**. (See Figure 14.)

Figure 14. Percent of respondents who feel strongly that print versions of scholarly monographs play a very important role in their research and teaching, by age group.
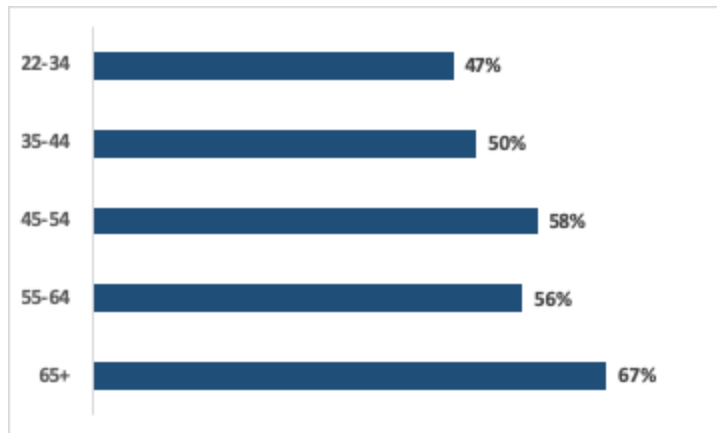
Future of the Print Library

**Only a small percentage of faculty in Arts & Humanities (5%) and Social Sciences (9%) feel strongly that the Library will not need collections of print books within the next five years**, but almost one-quarter of the science faculty agree with that sentiment. (See Figure 15.)

Figure 15. Percent of respondents who feel strongly that within the next five years, the use of e-books will be so prevalent among faculty and students that it will not be necessary to maintain Library collections of hard-copy books, by four broad disciplines.
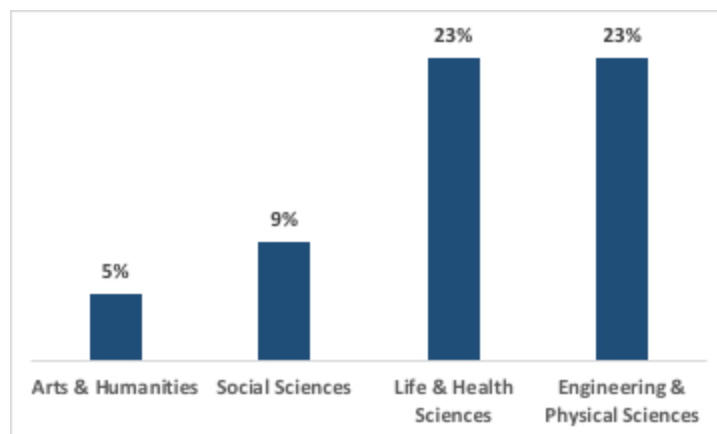
Faculty opinions on this question vary little by age, and in fact, respondents in the youngest group are slightly more likely to think print libraries will still be necessary than those in the oldest group. But adjunct faculty and lecturers are about twice as likely as ladder faculty to strongly agree that the print library will not be needed in five years.

A majority of **faculty feel that reading cover to cover is easier in print**, and this is true regardless of age or number of years in the field. There is some difference by discipline: A large

majority of faculty in the Arts & Humanities and Social Sciences find print easier to read deeply; more than half of science faculty agree. (See Figure 16.)

Figure 16. Percent of respondents who indicated it is easier in print format than digital to read cover to cover in depth, and to read a section in depth, by four broad disciplines.
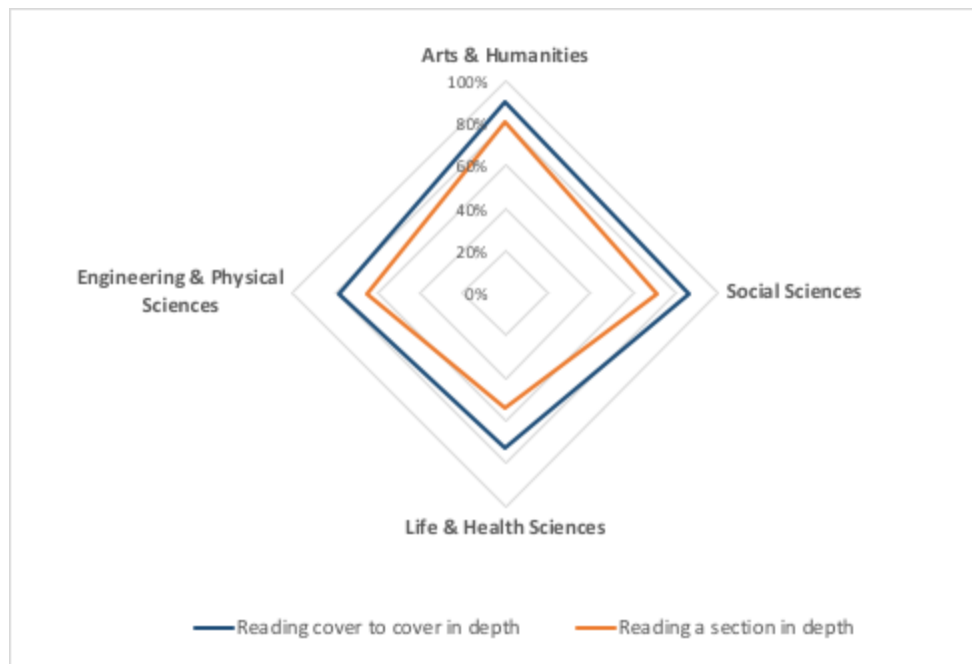
Faculty have strong feelings about e-books versus print books, with 35 taking the time to write comments emphasizing or explaining their preference. In favor of print, faculty noted frustration with the usability of the digital interface, ease of comparison of multiple sources, higher-quality image reproduction, lack of digital availability in some fields, and the importance of maintaining a physical record of scholarship.

In favor of digital, they noted ease of searching, importance of online journals, and the ability to take digitized source materials with them into the field.

Research Practices

Nearly all (>99%) faculty teach. **The vast majority (87%) also conduct academic research**, and 8% produce works of art.

The percentages are fairly constant across all age groups, but there is a difference by role: 15% of lecturers — and less than 10% of other ladder faculty and less than 5% of full professors — reported producing art. (See Figure 17.)

Figure 17. Percent of respondents who indicated that they produce works of art (e.g., visual art, music, theater, and dance) as part of their professional responsibilities, by job rank.
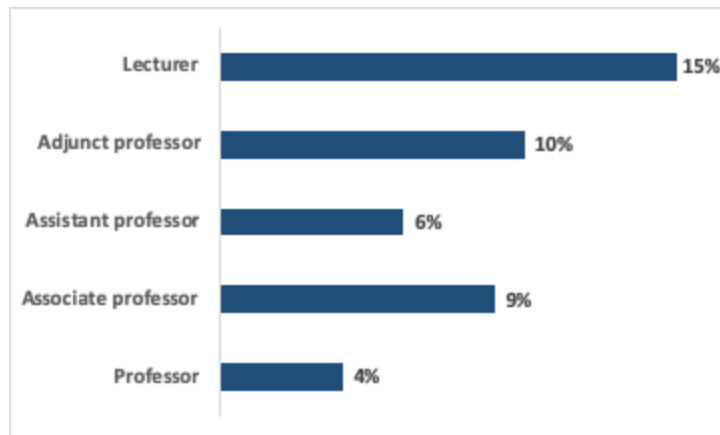
Research methods vary greatly by discipline. For faculty-produced data, **quantitative analysis is extremely important to the sciences and Social Sciences** but of much less importance in the Arts & Humanities. One commonality is that analysis of faculty-generated **qualitative data is important across all disciplines**. (See Figure 18.)

Figure 18. Percent of respondents who view the following digital research activities and methodologies as important, by four broad disciplines.
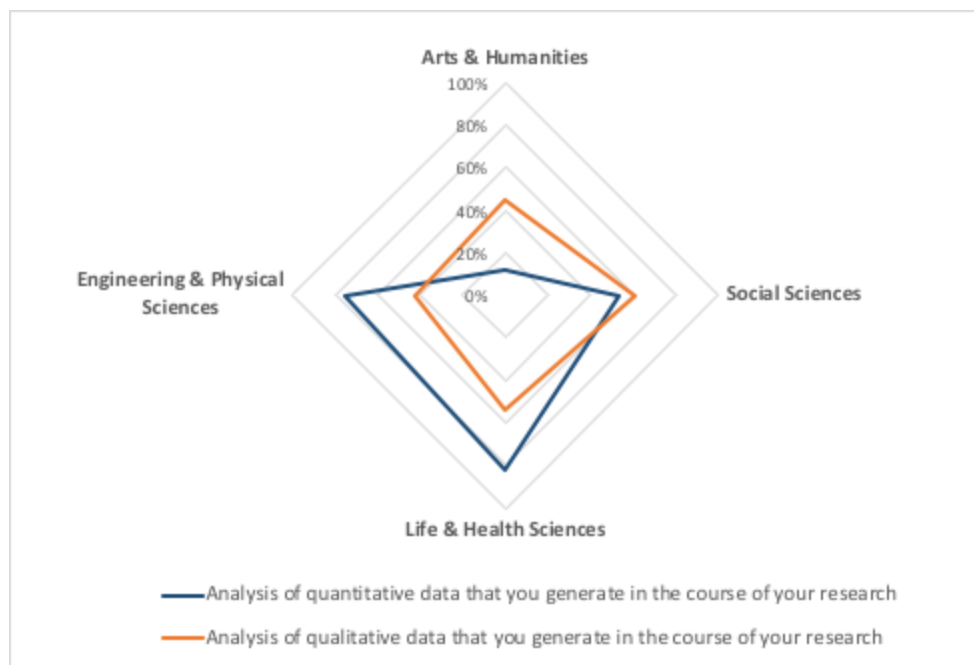
Models or simulations are very important in the sciences, as is writing software or code. Computational text analysis is strongest in the Social Sciences; GIS is about the same in Life & Health Sciences and Social Sciences. (See Figure 19.)

Figure 19. Percent of respondents who view the following digital research activities and methodologies as important, by four broad disciplines.
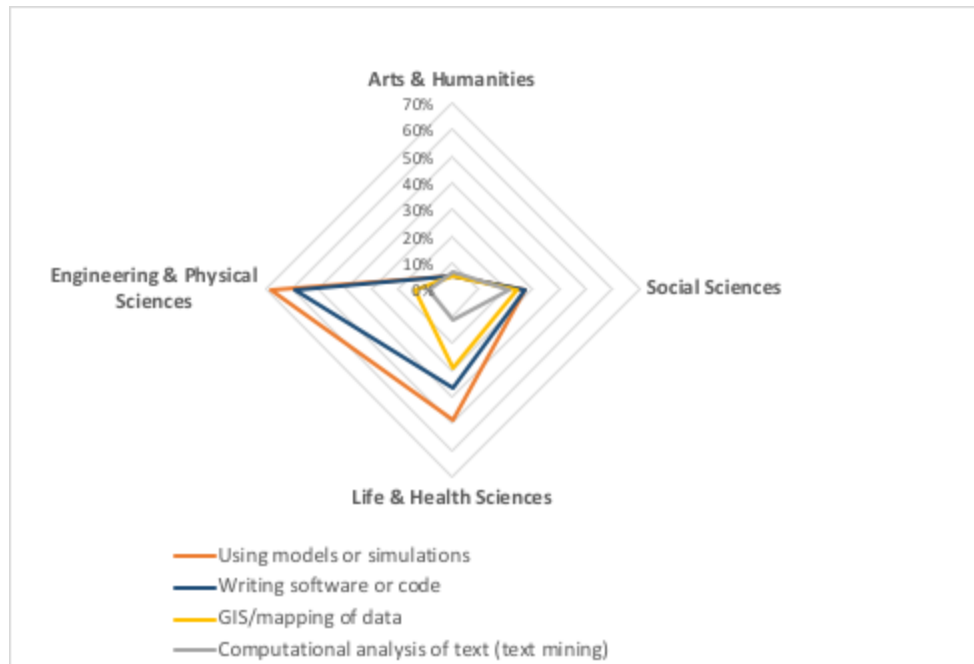
The number of faculty who receive external funding for research varies widely by discipline. Eighty-six percent of faculty in the sciences reported receiving funding in the past five years, compared with 45% in the Social Sciences and 22% in the Arts & Humanities. (See Figure 20.)

Figure 20. Percent of respondents who indicated that they have received or are currently receiving external funding for their scholarly research from a public or government grant-making organization (such as the NSF, NIH, NEH, etc.), by four broad disciplines.

Ars & Humanities	22%
Social Sciences	45%
Life & Health Sciences	86%
Engineering & Physical Sciences	86%
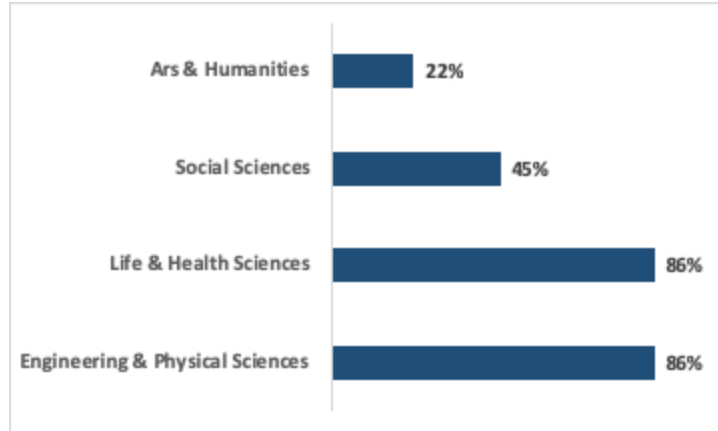
There is much less variation by age or number of years in the field than by discipline. There is variation in grant funding based on rank: Lecturers are least likely to receive external funding, and adjunct professors are most likely.

Material Types

Faculty in **all divisions heavily rely on peer-reviewed journals**. Over half in all disciplines also find scholarly monographs very important, but there is variation by discipline. Scholarly monographs have the highest utility for Arts & Humanities and the lowest in Life & Health Sciences. (See Figure 21.)

Figure 21. Percent of respondents who view the following types of scholarly materials as important to their research, by four broad disciplines.

■ Peer-reviewed journals and journal articles
■ Scholarly monographs or edited volumes, published by an academic publisher

Discipline	Peer-reviewed journals	Scholarly monographs
Arts & Humanities	94%	95%
Social Sciences	91%	80%
Life & Health Sciences	96%	55%
Physical Sciences & Engineering	92%	68%
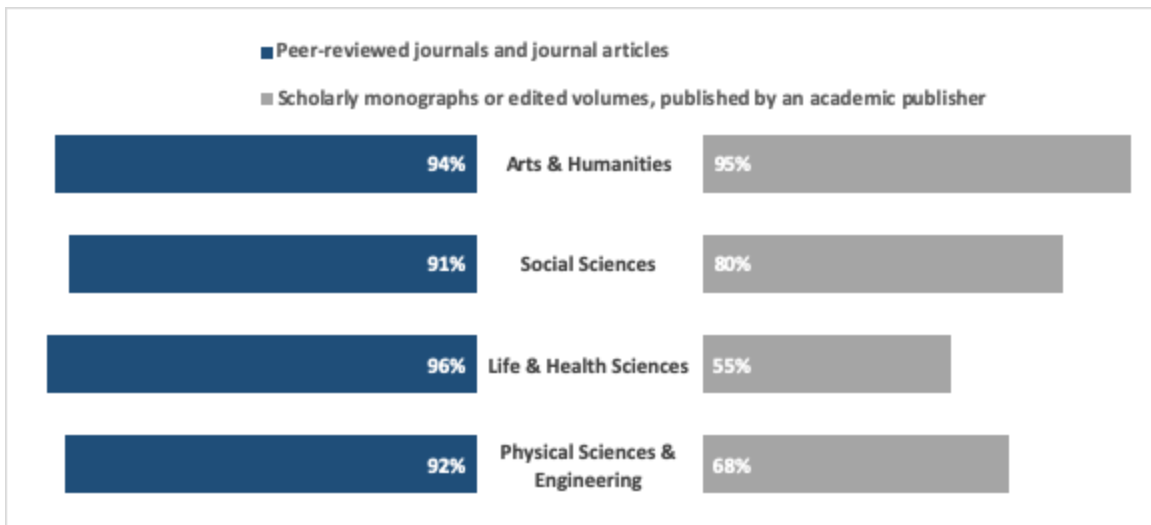
The importance of scholarly monographs may be trending down by age, with a high of 85% for those over 65, to a low of 60% for those under 35, though this could be skewed if certain disciplines have more young faculty than others.

The importance of film and images is relatively stable across all age groups (about 40% found them very important) but with wide variation by discipline: Arts & Humanities is the highest, at 66%; Engineering & Physical Sciences is the lowest, at 16%. (See Figure 22.)

Figure 22. Percent of respondents who view films, images, or other nontextual media as important to their research, by four broad disciplines.
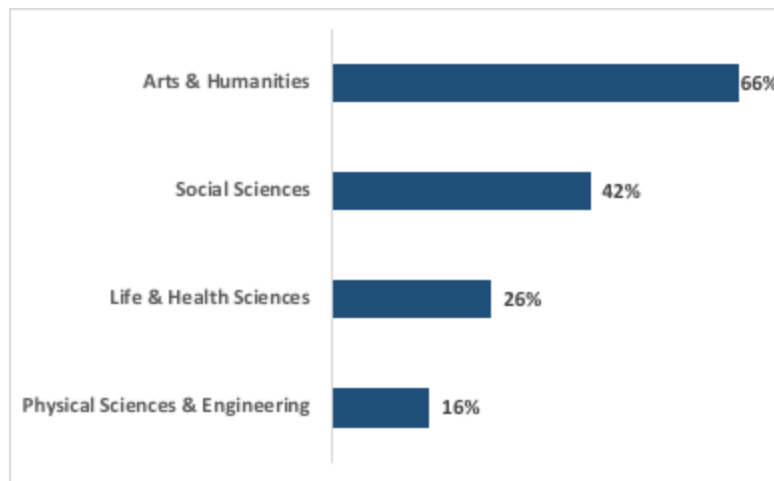
Less than 20% of faculty across all ages and disciplines identified blogs or social media as an important scholarly source. One interesting finding is that **published conference proceedings are most important for Arts & Humanities and Engineering & Physical Sciences** — two disciplinary groups whose answers rarely align. (See Figure 23.)

Figure 23. Percent of respondents who view published conference proceedings as important to their research, by four broad disciplines.

Figure data:
- Arts & Humanities: 59%
- Social Sciences: 38%
- Life & Health Sciences: 38%
- Engineering & Physical Sciences: 71%
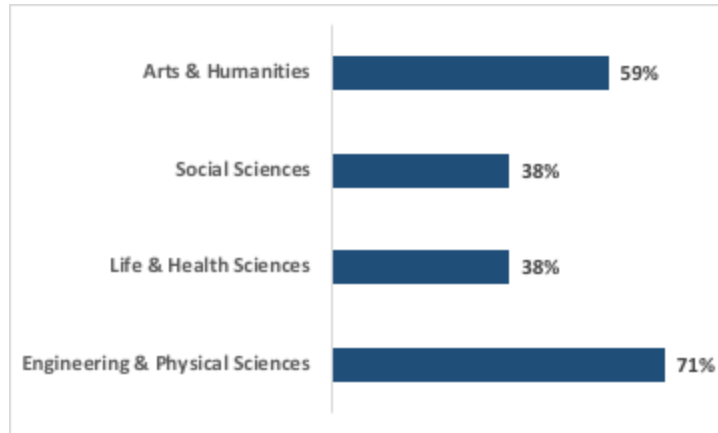
A majority of **faculty in all subject areas find digitized primary sources to be very important for their teaching and research**. Physical primary sources, even locally held, are used a bit less in the Arts & Humanities and Social Sciences — and markedly less in the sciences. (See Figure 24.)

Figure 24. Percent of respondents who view the following types of primary source collections as important to their teaching, by four broad disciplines.

Arts & Humanities

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Engineering & Physical Sciences

Social Sciences

Life & Health Sciences

——Digitized or born digital versions of primary source materials

——Physical collections of primary source materials held at my own college or university library, museum, visual resources collection, or archives

——Physical collections of primary source materials held at another institution's library, museum, visual resources collection, or archives

Most faculty, at least occasionally, read scholarly monographs in digital form. This is true across all age groups and disciplines. (See Figure 25.)

Figure 25. The frequency with which respondents used scholarly monographs in digital form in the past six months, by four broad disciplines.

Arts & Humanities: Often 47%, Occasionally 35%, Rarely, Never
Social Sciences: Often 37%, Occasionally 37%, Rarely, Never
Life & Health Sciences: Often 24%, Occasionally 38%, Rarely, Never
Physical Sciences & Engineering: Often 44%, Occasionally 33%, Rarely, Never

■ Often ■ Occasionally ■ Rarely ■ Never
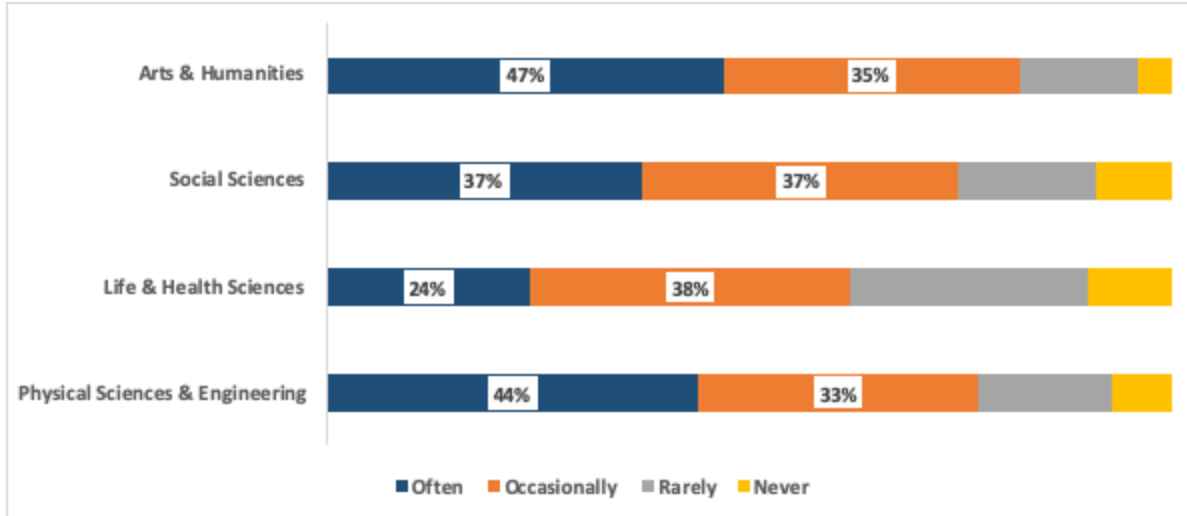
Most faculty, in all age groups and all disciplines, strongly agree that access to a wider range of scholarly e-books would be valuable to them. (See Figure 26 and Figure 27.)

Figure 26. Percent of respondents who value a wider range of scholarly e-books, by age group.

22-34: 64%
35-44: 70%
45-54: 72%
55-64: 77%
65+: 75%
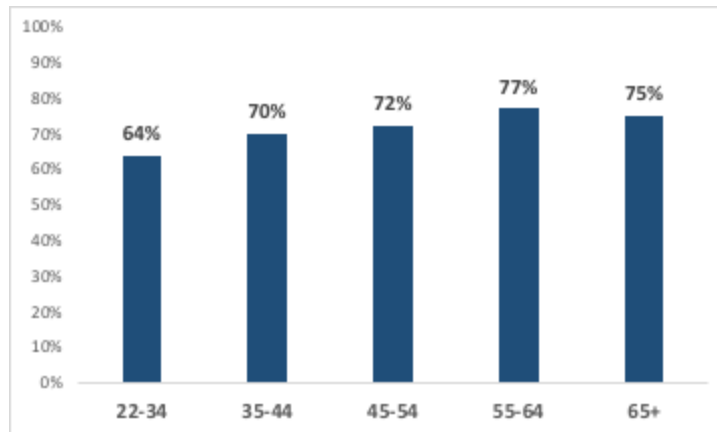
Figure 27. Percent of respondents who value a wider range of scholarly e-books, by four broad disciplines.
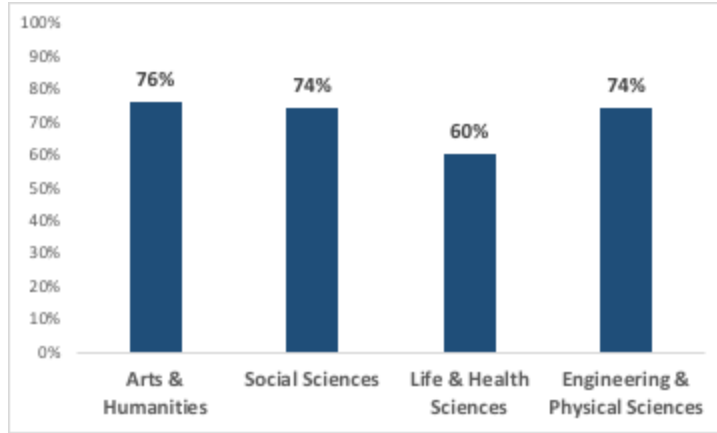
Faculty want enhanced functionality (highlighting, annotation, etc.) and readability. Faculty in the Social Sciences have the strongest interest (39%) in computational analysis across a corpus, but faculty in all disciplines are interested in this capacity. (See Figure 28.)

Figure 28. Percent of respondents who feel strongly about the value of the following features of digital books.
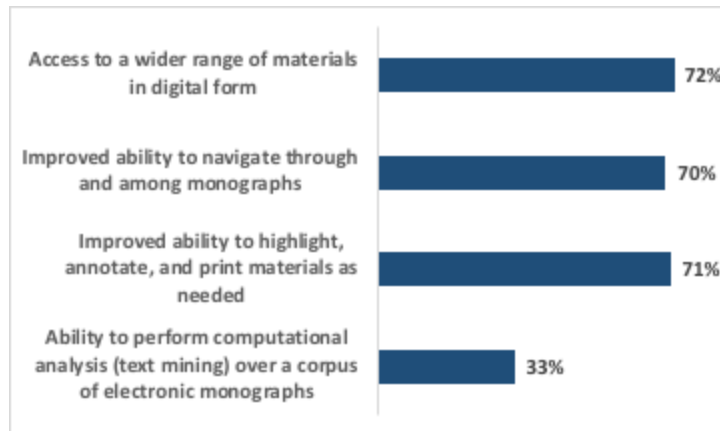
Research Dissemination and Publication

"Journal subscriptions are getting too expensive. I have published in several Elsevier journals for many years. I have heard UC is working to reduce Elsevier's cost or may leave their system. If they don't back down, I would leave and we will go even more towards open access. If we do this, more funds will be needed to cover pub costs."

Introduction

The next section explores faculty's research output formats, publication criteria and factors, their perspectives on open access, and institutional publication support services. The questions were limited to respondents who indicated in an earlier question that they conducted academic research.

Comparison With National Findings

There are lots of similarities between the findings at UC Berkeley and national findings on the types of publications faculty are producing and characteristics of those research products. Berkeley faculty indicated slightly stronger support for open access publishing and value a broader readership.

Research Output Formats

When Berkeley faculty were asked about their frequency of publishing in various research output formats, as expected, **peer-reviewed journals and monographs are the two major publication channels**. Eighty-two percent of faculty indicated they often published in peer-reviewed journals in the past five years, followed by 47% of faculty who indicated that they frequently published their research in scholarly monographs. (See Figure 29.)

Figure 29. Respondents' frequency in publishing their scholarly research in peer-reviewed journals and scholarly monographs in the past five years.
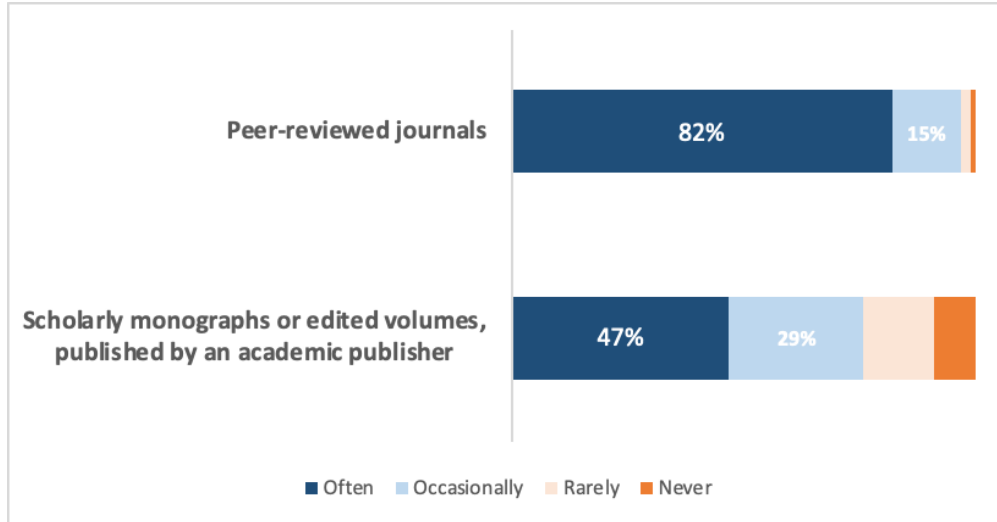
Arts & Humanities faculty published their research as much in journals as in monographs, while Life & Health Sciences faculty published their research three times more in journals than in monographs. (See Figure 30.)

Figure 30. Percent of respondents who indicated that they often published their scholarly research in peer-reviewed journals and in scholarly monographs in the past five years, by four broad disciplines.
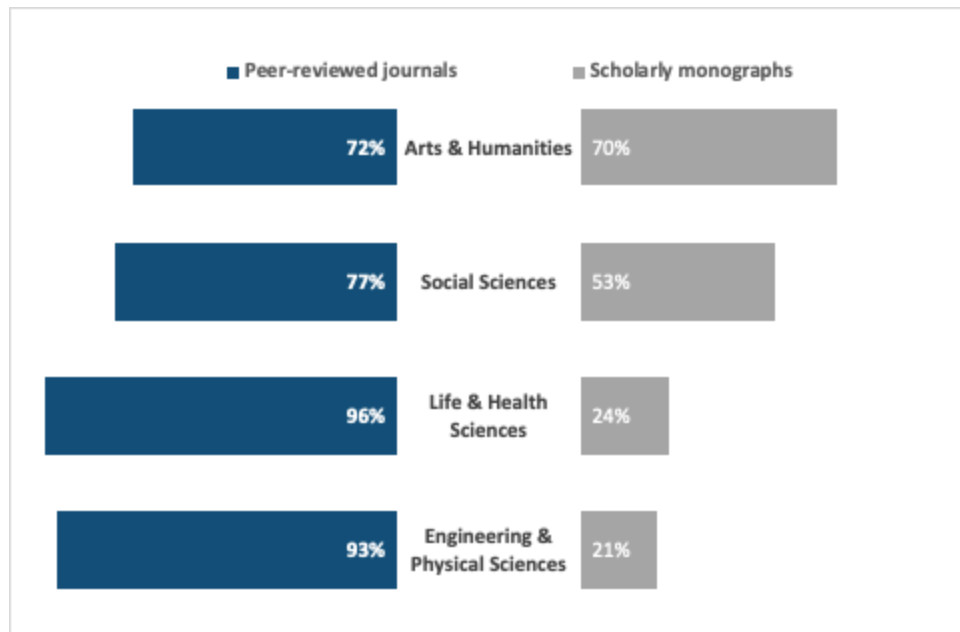
Compared with journals and monographs, **nontraditional publications such as working papers or preprints and blogs or social media are among the formats in which faculty published least frequently**. (See Figure 31.) Twenty-seven percent of respondents indicated

that they often published working papers or preprints, and only 9% of faculty often published in blogs or on social media.

Figure 31. Respondents' frequency in publishing their scholarly research in working papers or preprints and in blogs or on social media in the past five years.
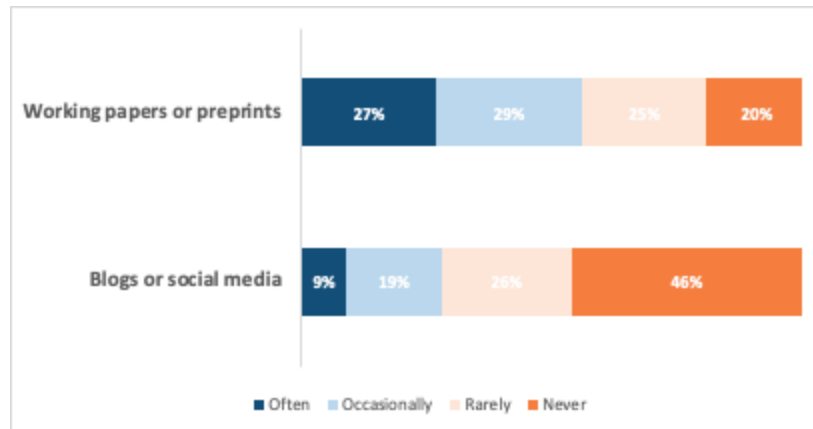
The sharing of preprints among scholars has grown and evolved as many preprint servers have been established. Some are multidisciplinary, and some are focused on a specific subject. However, faculty, especially across disciplines, have differing practices when it comes to preprint publishing. Engineering & Physical Sciences and Social Sciences faculty more frequently shared their findings in preprints than their colleagues. Forty-five percent of Engineering & Physical Sciences faculty and 33% of Social Sciences faculty indicated that they often published in working papers or preprints, compared with 14% of Arts & Humanities faculty and 20% of Life & Health Sciences faculty. (See Figure 32.)

Figure 32. Percent of respondents who indicated that they often published their scholarly research in working papers or preprints in the past five years, by four broad disciplines.
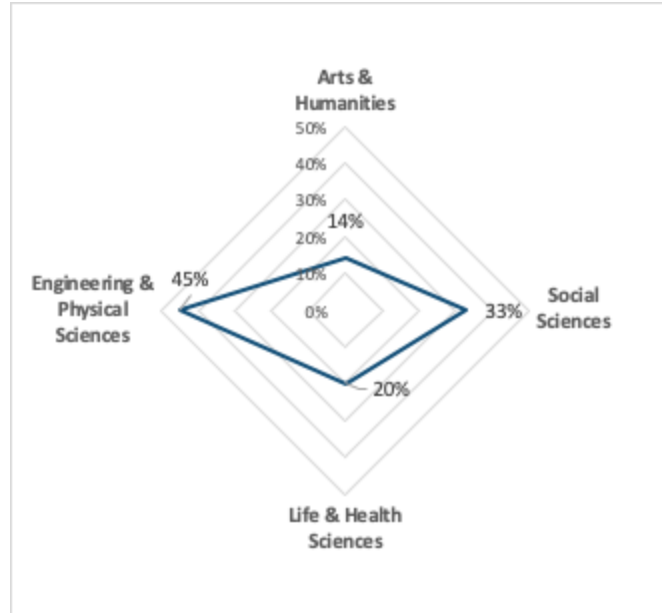
In addition, early career faculty reported publishing working papers or preprints more often than their peers. (See Figure 33.)

Figure 33. Percent of respondents who indicated that they often published their scholarly research in working papers or preprints, by years of experience in their field.
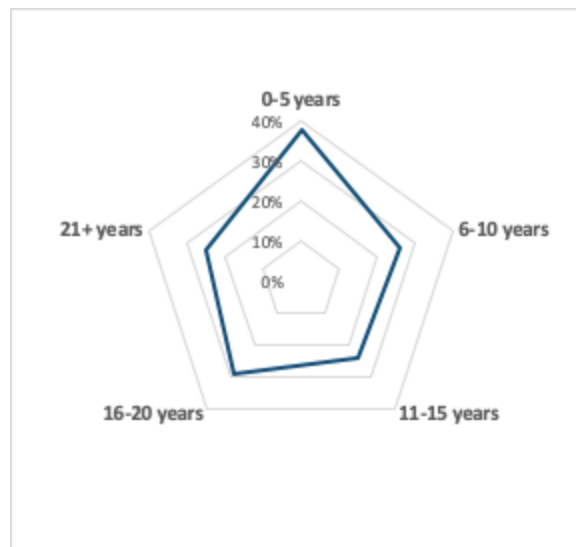
Responses to this question also reveal that **there is a lack of interest in academic blogging**. Blogs or social media are among the least frequently used publication channels. Although academic blogging has many characteristics that Berkeley faculty value, such as allowing scholars to disseminate their ideas quickly, broaden their reach, and actively engage the public, only 9% of faculty indicated that they often shared their findings via blogs or social media. (See

Figure 31.) Younger faculty seem to have slightly more experience publishing blog or social media posts. (See Figure 34.)

Figure 34. Respondents' frequency in publishing their scholarly research in blogs or on social media in the past five years, by age group.
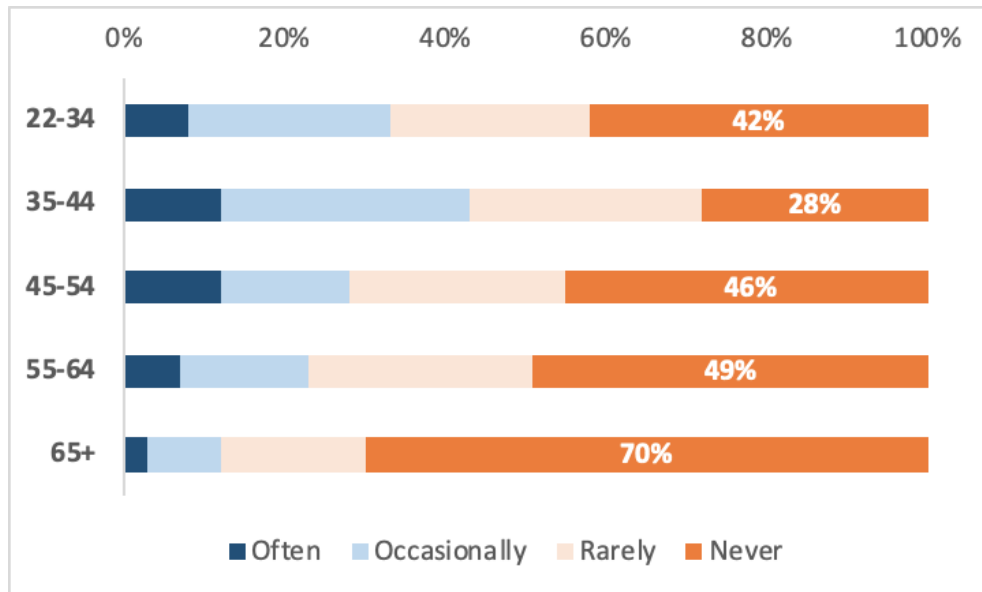
Publication Criteria and Factors

The top two criteria that influence faculty's publishing choices are a wide circulation and broad reach in their field and a high impact factor or an excellent academic reputation. Ninety-one percent of faculty feel strongly about a journal's impact factor or academic reputation when deciding which journal to publish in. (See Figure 35.)

Figure 35. The importance to respondents of a wide circulation and high impact factor or excellent reputation of an academic journal. (10 = extremely important; 1 = not at all important.)

The current issues of the journal are circulated widely, and are well-read by scholars in your field — 91%

The journal has a high impact factor or an excellent academic reputation — 91%

■ 8-10 ■ 4-7 ■ 1-3
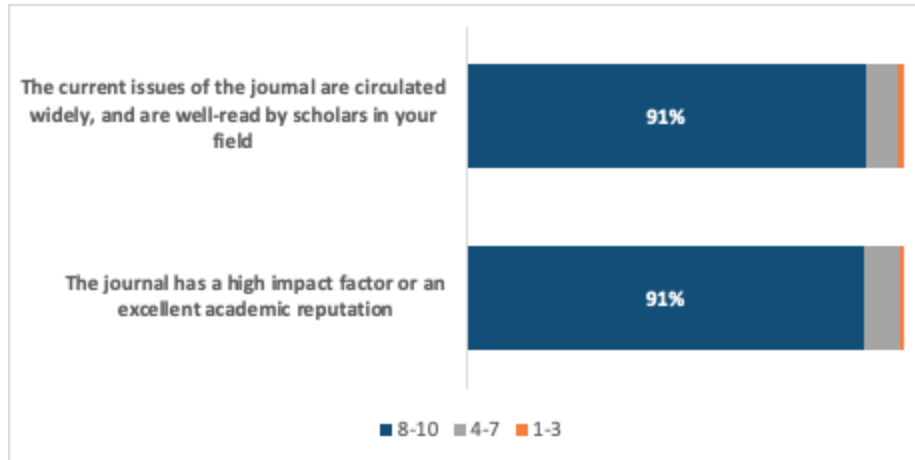
High selectivity and high publication speed are also considered important factors for journal publishing. The percentage of faculty who feel strongly about high selectivity (64%) is slightly higher than the percentage of faculty who feel strongly about publication speed (56%). (See Figure 36.)

Figure 36. The importance to respondents of the high selectivity and high publication speed of an academic journal. (10 = extremely important; 1 = not at all important.)

The journal is highly selective; only a small percentage of submitted articles are published — 64% | 27% | 10%

If accepted, the journal will publish my article quickly, with relatively little delay — 56% | 33% | 11%

■ 8-10 ■ 4-7 ■ 1-3
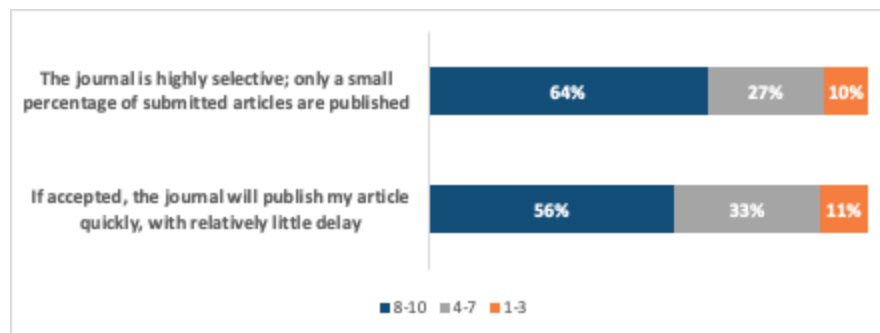
As the years of experience increase, the factors faculty value shift slightly from high selectivity toward high publication speed, although the majority of the most junior faculty (those with zero to five years of experience) highly value both. (See Figure 37.)

Figure 37. The percent of respondents who feel strongly about a journal's low acceptance rate and high publication speed, by years of experience in their field.

Legend:
- The journal is highly selective; only a small percentage of submitted articles are published
- If accepted, the journal will publish my article quickly, with relatively little delay

	Highly selective		No delay
0-5 years	79%		57%
6-10 years	67%		40%
11-15 years	72%		47%
16-20 years	65%		50%
21+ years	60%		64%
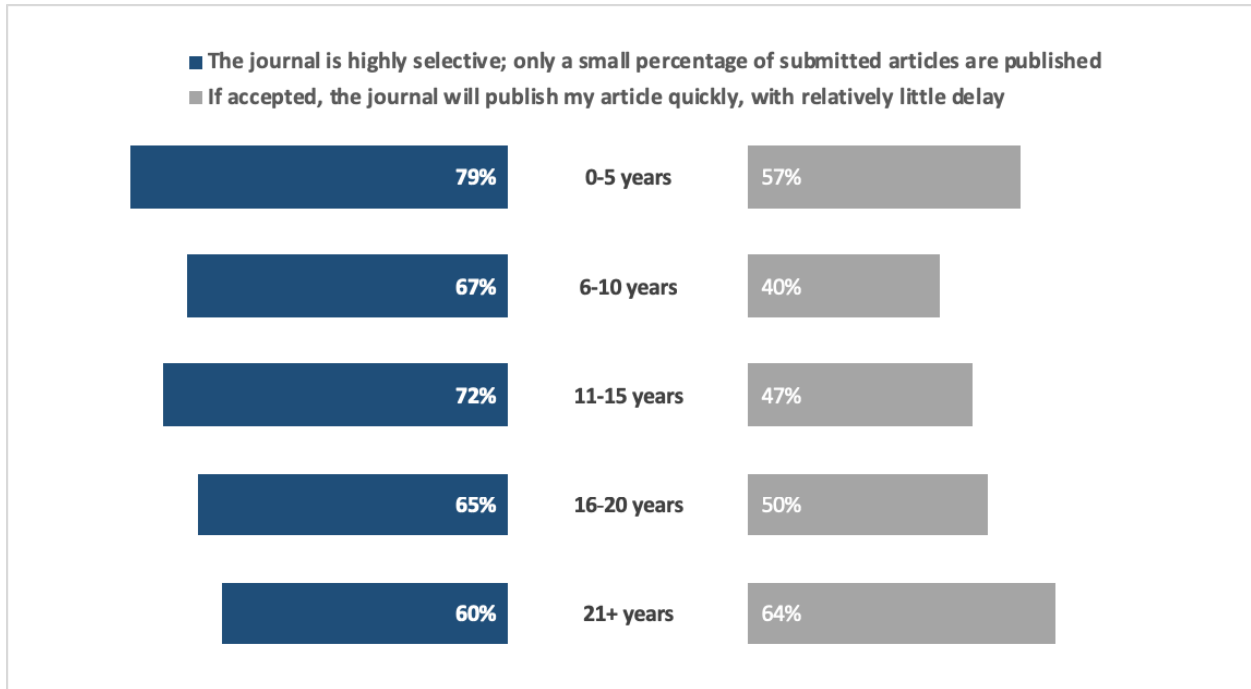
One of the open access models that many institutions are experimenting with is a pay-to-publish model (as opposed to a pay-to-read model), with the aim of enabling broader access. However, when faculty were asked which characteristics of journals are important when deciding where to publish their articles, **59% of respondents reported that no publication cost was important, while 41% indicated no reading cost was important**. (See Figure 38.)

Figure 38. The importance to respondents of an academic journal having no reading cost and no publication cost. (10 = extremely important; 1 = not at all important.)

	8-10	4-7	1-3
The journal makes its articles freely available on the internet, so there is no cost to purchase or read	41%	39%	20%
The journal permits scholars to publish articles for free, without paying page or article charges	59%	23%	18%
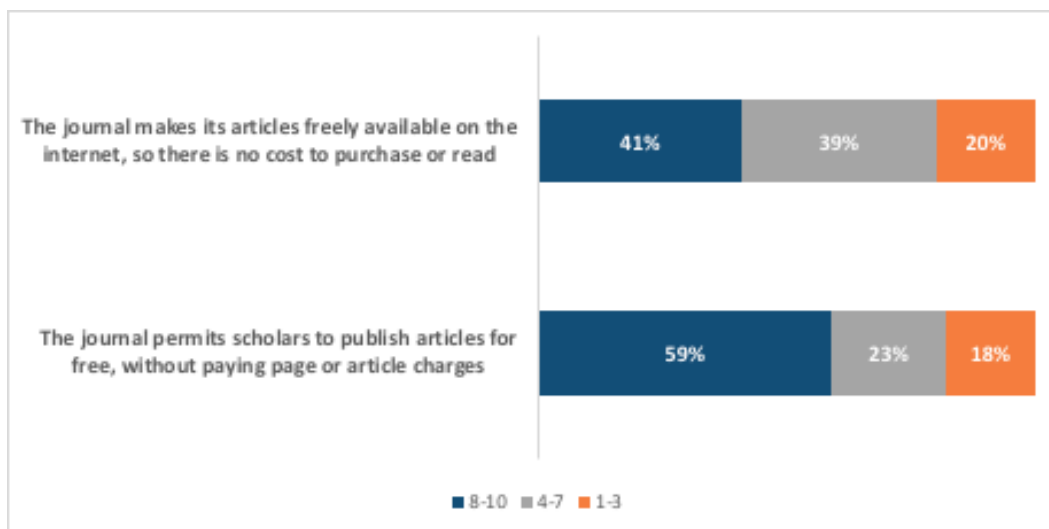
There are also variations by discipline between valuing no cost to read and no cost to publish. A higher percentage of Arts & Humanities faculty value no cost to publish, while a higher percentage of Life & Health Sciences faculty value no cost to read. (See Figure 39.)

Figure 39. The percent of respondents who feel strongly about journals having no cost to read and no cost to publish, by four broad disciplines.
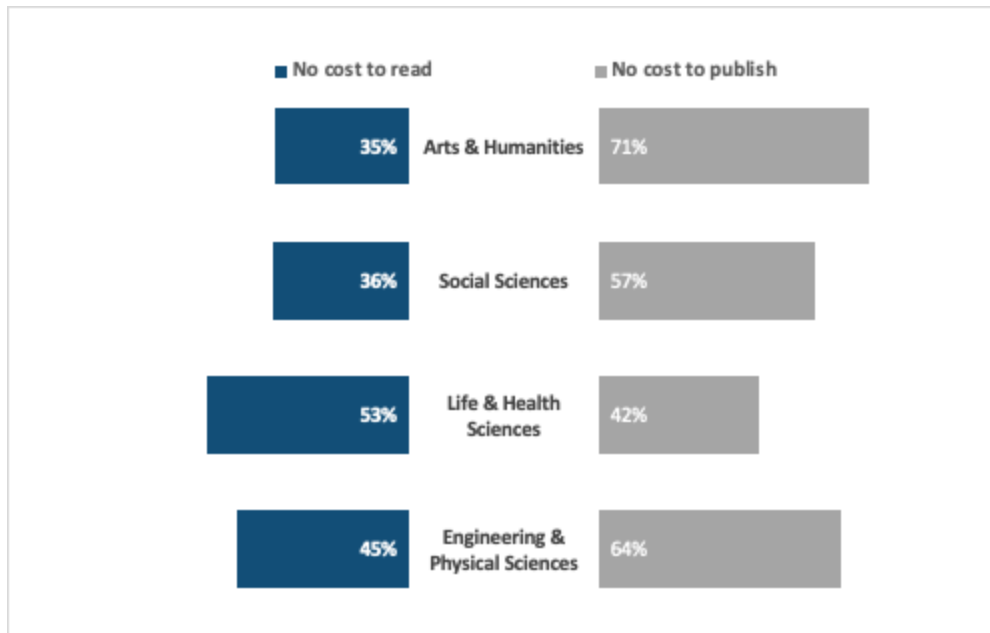
Opinions about the importance of no cost to publish seem to vary based on the availability of external funding. The following cross-tabulation explores the correlation between funding and faculty attitudes toward paying publication or reading costs. Faculty without grant funding feel strongly that there should be no article publishing charges. The percentage of respondents who feel strongly about a journal having no reading cost is about the same whether they have external funding or not. However, factors not mentioned in the survey, such as awareness of — and concerns over — various publishing models, might also affect faculty's perceptions. (See Figure 40.)

Figure 40. The percent of respondents who feel strongly about journals having no cost to read and no cost to publish, by the availability of external funding for their scholarly research from a public or government grant-making organization.

Legend: No cost to read ■ | No cost to publish ■

External funding — No cost to read: 41%, No cost to publish: 51%

No external funding — No cost to read: 40%, No cost to publish: 68%
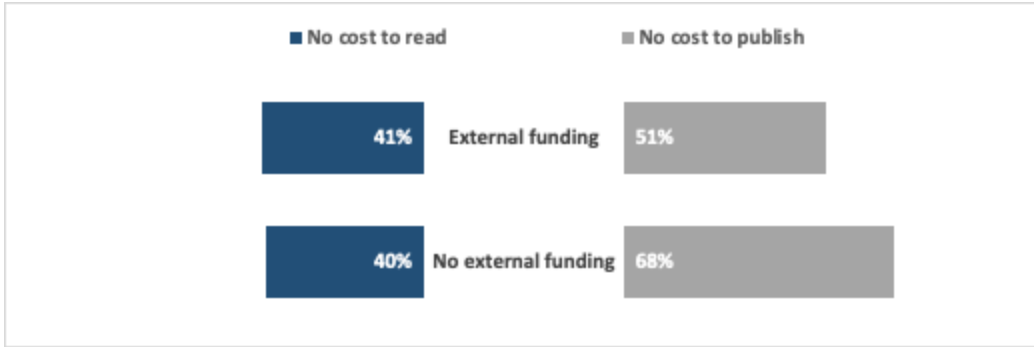
The survey also asked about the recognition that nontraditional publications should receive. **The majority of faculty indicated that nontraditional publications should receive less recognition than traditional research publications** (such as journals) when their work is assessed for tenure, promotion, research funding, continuing appointment, or contract renewal. (See Figure 41.)

Figure 41. The respondents' evaluation of the amount of recognition the following nontraditional research products should receive compared with traditional publications.

Software or code — Same or more recognition: 37%, Less recognition: 63%

Preprints or e-prints — Same or more recognition: 33%, Less recognition: 67%
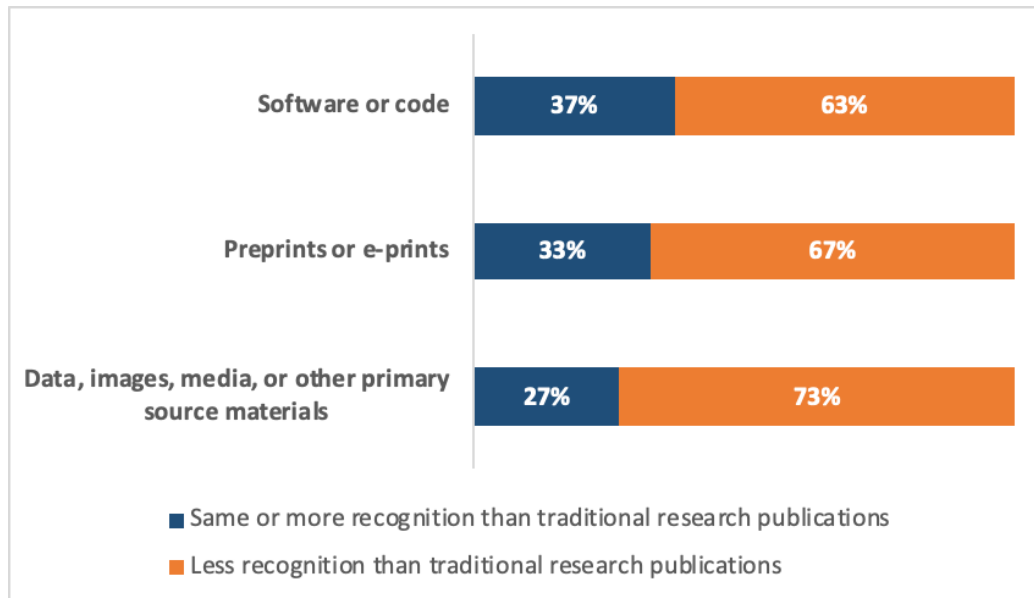
Data, images, media, or other primary source materials — Same or more recognition: 27%, Less recognition: 73%

Legend:
■ Same or more recognition than traditional research publications
■ Less recognition than traditional research publications

Societal impact is another factor that the survey included as a potential criteria for publication. A majority of respondents feel strongly that societal impact should be a key measure of research performance for tenure, promotion, or funding proposals. (See Figure 42.)

Figure 42. Respondents' level of agreement on whether societal impact should be a key measure of research performance.
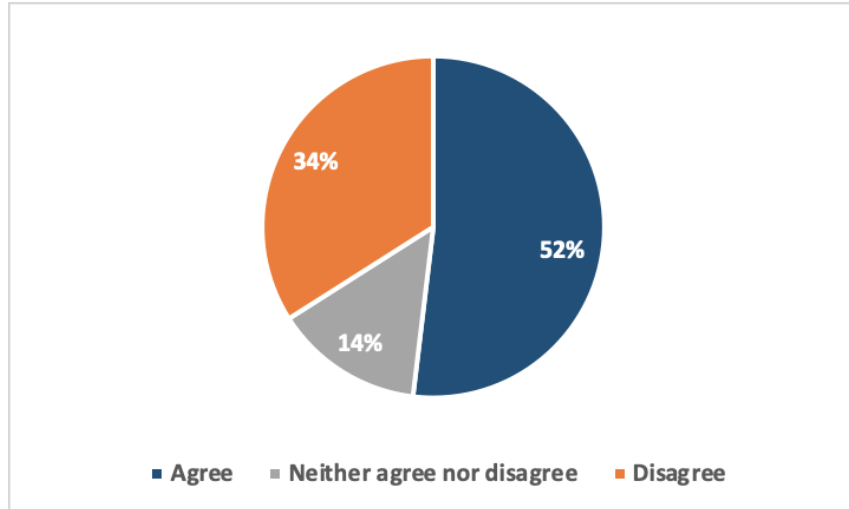
In addition, lecturers demonstrated that they value societal impact more than faculty in other job groups. (See Figure 43.)

Figure 43. Respondents' level of agreement on whether societal impact should be a key measure of research performance, by job group.
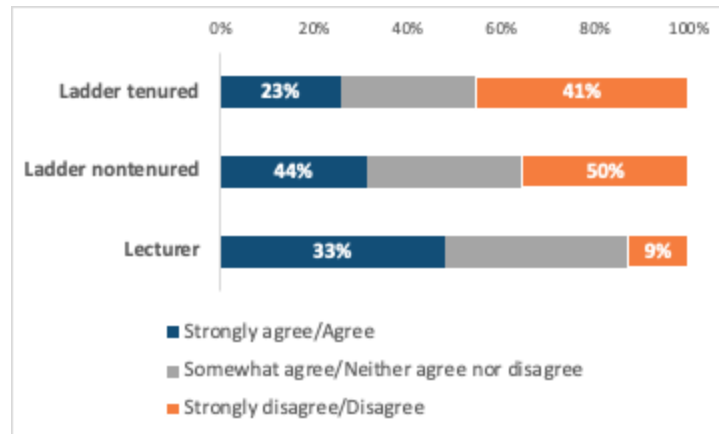
Support of Open Access

A **majority of faculty support open access publishing**. Seventy-one percent of faculty reported they feel strongly that they would be happy to see the traditional subscription-based publication model replaced entirely by an open access publication system in which all scholarly research outputs would be freely available to the public. Forty-two percent of faculty feel strongly about the importance of preprints in scholarly communication.

At the same time, faculty would like to have the same publishers stay involved in the open access model and don't think the roles of publishers have considerably diminished. (See Figure 44.)

Figure 44. Percent of respondents who feel strongly that the following statements describe their point of view.
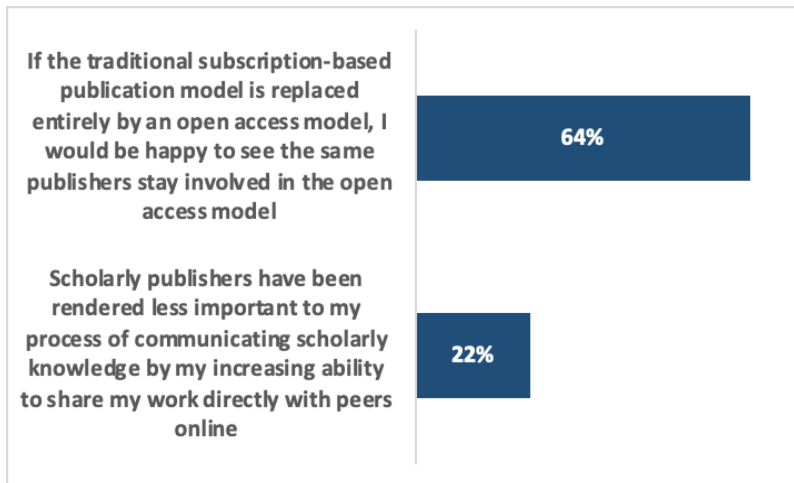
Publication Support Services

In the survey, faculty were asked whether publication support services are provided to them and how valuable they consider the services when provided by the Library. Among the four services listed in the survey, managing a public webpage where faculty's publications are linked and related teaching and research information is listed as the service most valued by faculty, followed by help assessing the impact of their publications. (See Figure 45.)

Figure 45. Faculty responses about whether the following publication support services are provided by their university library, scholarly society, university press, or another service provider and the perceived value of the Library providing those services.

Figure legend:
— % of respondents who indicated that the following services are provided by their library, scholarly society, university press, or another service provider
— % of respondents who considered the following services very valuable when provided by their library

Chart labels:
Helping me understand and negotiate favorable publication contracts — 29%, 7%
Helping me determine where to publish a given work to maximize its impact — 25%, 11%
Helping me to assess the impact of my work following its publication — 33%, 17%
Managing a public webpage for me that lists links to my recent scholarly outputs, provides information on my areas of research and teaching, and provides contact information for me — 32%, 36%

The level of perceived value is not the same across all disciplines. All of the four services that are or could be provided by the Library are least valued by Engineering & Physical Sciences faculty, especially the services to better understand the publication contracts and to decide publication channels. (See Figure 46.)

Figure 46. Percent of respondents who value or would value the following publication support services when provided by the Library, by four broad disciplines.

Figure 47 radar chart with legend: Arts & Humanities, Social Sciences, Life & Health Sciences, Physical Sciences & Engineering. Axes: Helping me understand and negotiate favorable publication contracts; Helping me determine where to publish a given work to maximize its impact; Helping me to assess the impact of my work following its publication; Managing a public webpage for me that lists links to my recent scholarly outputs, provides information on my areas of research and teaching, and provides contact information for me. Scale 0% to 50%.

Another interesting finding is that the respondents who indicated that publication support services are provided by their library, scholarly society, university press, or another service provider are more likely to consider the services valuable when provided by the Library. This might indicate that once faculty have received assistance in those areas, they realize the value of such services. (See Figure 47.)

Figure 47. Percent of respondents who consider the following publication support services valuable when provided by the Library, between the respondents who indicated that their university library, scholarly society, university press, or another service provider does provide the services and the respondents who indicated those organizations or institutions do not provide those services.

Research Data Management

Introduction

About 87% of the faculty who responded to the Ithaka survey indicated that conducting academic research is among their professional responsibilities. UC Berkeley faculty who indicated that they do research were asked a series of questions about their research data and related practices, including data management and preservation. The responses to these questions are presented in this section.

Comparison With National Findings

Results from questions about research data management agree with national results that showed that faculty value tools that allow them to maintain their own data themselves. One difference is that a somewhat greater proportion of UC Berkeley researchers utilize cloud storage than those at other institutions (58% at Berkeley vs. about half nationally).

Types of Data

The most common type of data that faculty reported collecting for their research is qualitative. Faculty from all divisions reported collecting qualitative data, particularly in the Social Sciences and Arts & Humanities. Quantitative is the next most common and is the most popular type of data collected by faculty in the sciences. Scientific data is collected primarily by faculty in the sciences. (See Figure 48.) Faculty also reported collecting other types of research data, including models, maps, and artifacts.

Figure 48. Percent of respondents who indicated that they build up or collect the following types of research data for their own research, by four broad disciplines.
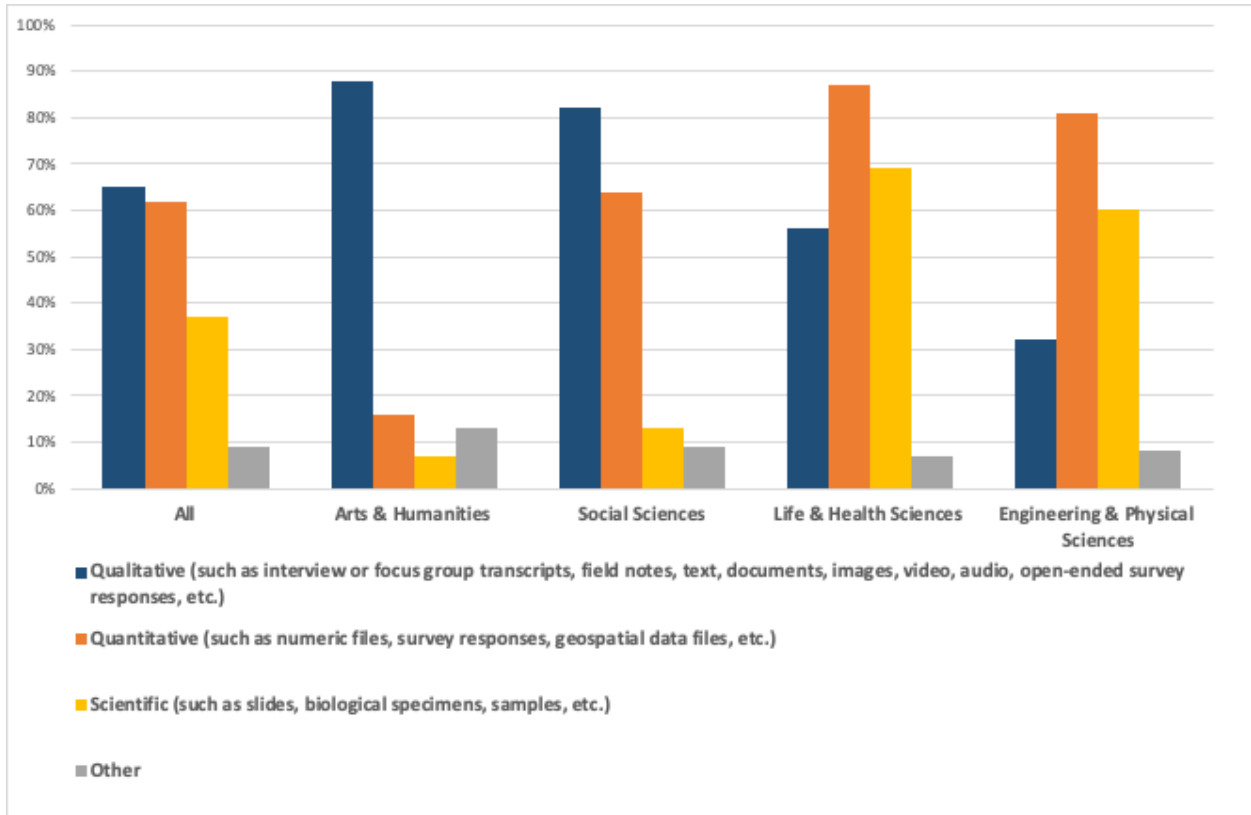
Data Management, Preservation, and Reuse

Across disciplines, **most faculty (87%) who collect research data organize it on their own computers**; **more than half (58%) use a cloud storage service** such as Google Drive or Dropbox. (See Figure 49.) Use of cloud storage is more common with younger faculty than older faculty. (See Figure 50.)

Figure 49. Percent of respondents who agree or strongly agree with the following statements.
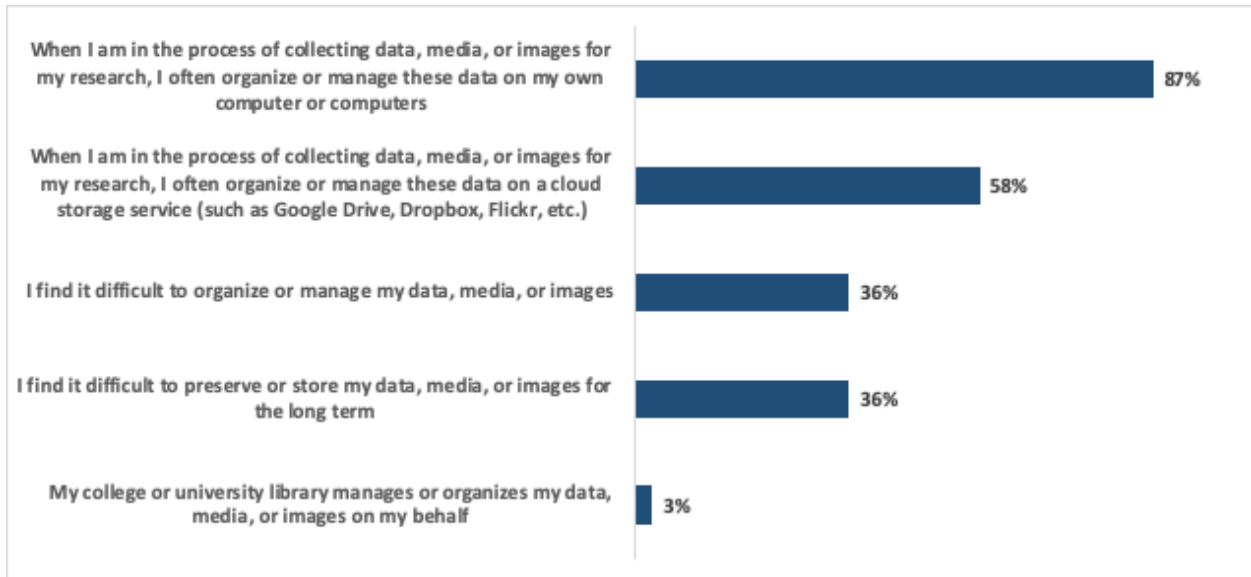
Figure 50. Percent of respondents who often organize or manage research data using a cloud storage service (such as Google Drive, Dropbox, Flickr, etc.), by age group.
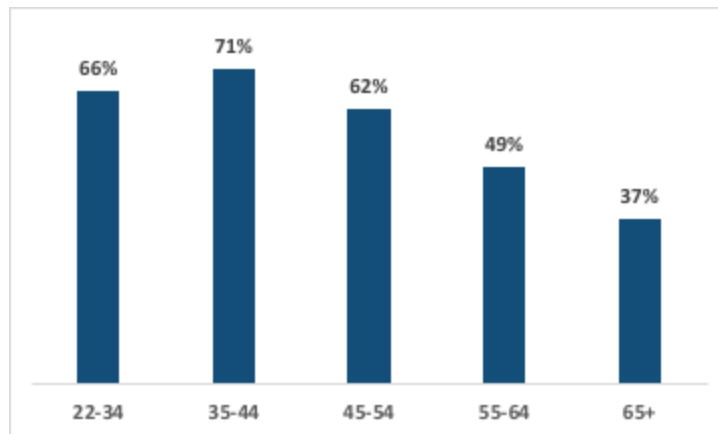
About a third of faculty (36%) agree that long-term storage or preservation of data is difficult. Long-term preservation of data can be complicated by factors such as large file sizes and lack of appropriate options for where to store the data. The same proportion of faculty find organizing and managing their data to be challenging. Very few faculty (3%) reported that the Library manages or organizes their data for them. (See Figure 49.)

When faculty were asked what sources of support for managing or preserving their research data, media, or images they would or do find valuable, their top choice was a file-hosting service such as Box or Dropbox. The Library and freely available software also rated highly. (See Figure 51.) Researchers in the sciences rated support from the Library a bit lower than colleagues in other disciplines did (43% vs. 54%-60%).

Figure 51. Top three most valuable sources of support for managing or preserving data selected by respondents.
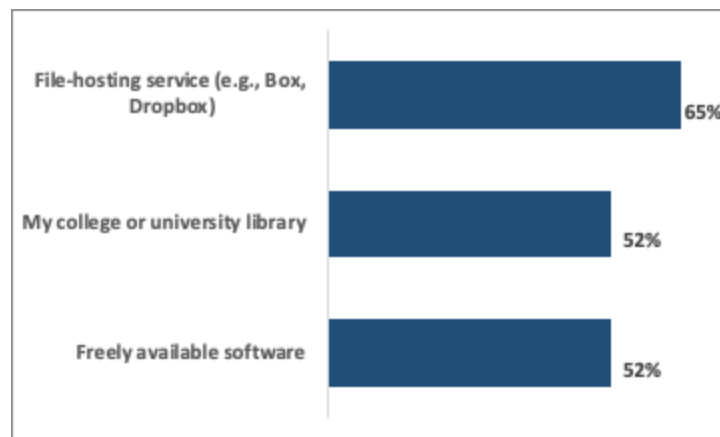
Nearly 40% of researchers value or would value support from a repository at UC Berkeley; this choice was more popular with faculty in Arts & Humanities and Social Sciences than with faculty in the sciences. Fewer faculty value third-party repositories (25%) or repositories at another institution (19%). Researchers in the Social Sciences and the Life & Health Sciences value third-party repositories more than colleagues in other disciplines did. (See Figure 52.) This could, at least in part, be because one example of a third-party repository the survey provided was ICPSR, which would have name recognition for social scientists. Another example was Figshare, which would be familiar to life scientists, as would other third-party repositories such as Dryad and those associated with NCBI.

Figure 52. Percent of respondents who indicated that the following sources of support for managing or preserving data are or would be valuable, by four broad disciplines.
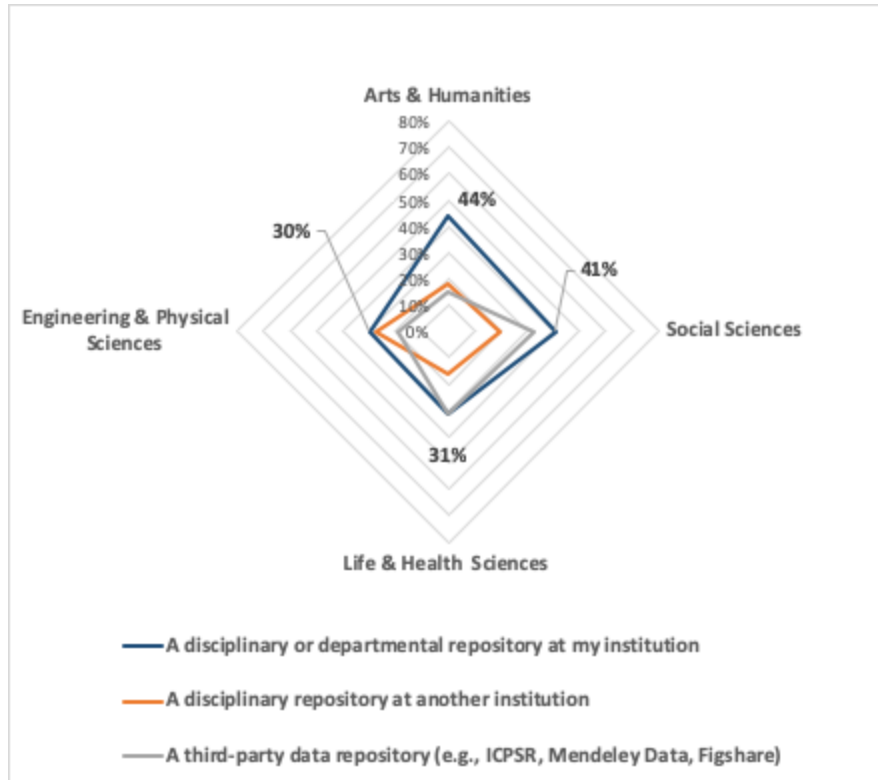
When asked about their research data preservation practices, **three-quarters (74%) of faculty reported preserving their data by themselves using "commercially or freely available software or services."** No examples were given with this choice, and how faculty interpreted "preserve" may vary. Online repositories are used by 34% of faculty to preserve their data. Fewer (20%) rely on a publisher to preserve the data, and even fewer (5%) rely on the Library. Fifteen percent of faculty report that their data is not preserved upon the conclusion of a project. (See Figure 53.)

Figure 53. Percent of respondents who indicated using the following methods to preserve their research data.
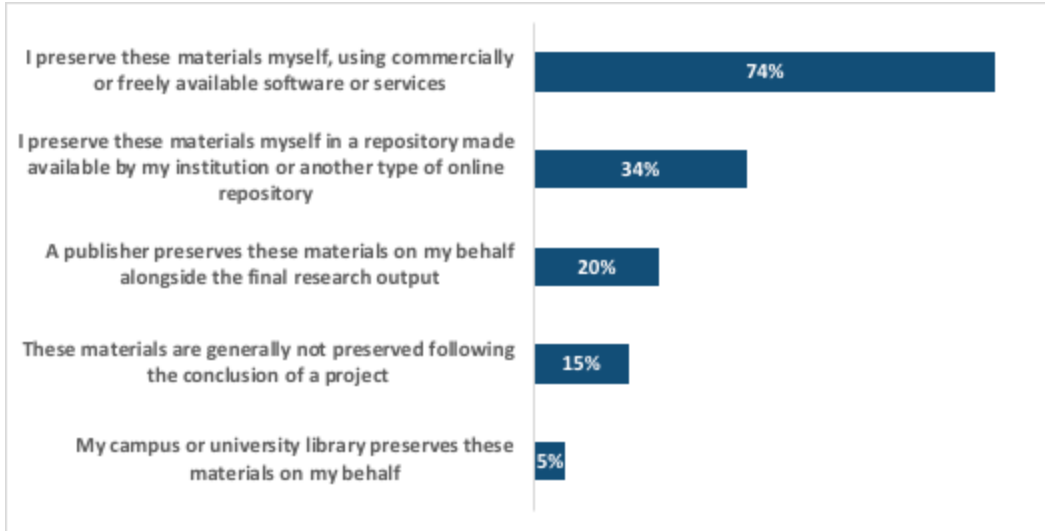
Faculty in the sciences are more likely to use online repositories or rely on publishers than faculty in other disciplines. Data publishing mandates from funders, subject repositories, and publisher-provided data publishing may have evolved more quickly in the sciences. (See Figure 54.)

Figure 54. Percent of respondents who preserve research data in an online repository and/or rely on publishers to preserve research data, by four broad disciplines.
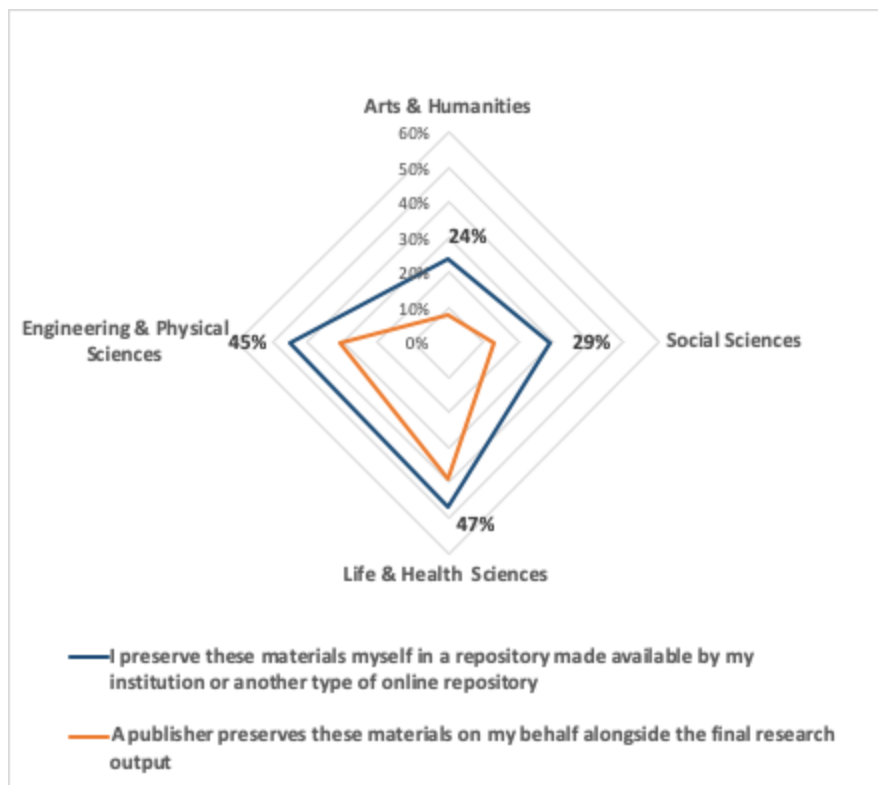
Faculty who collect quantitative data were asked about issues of data reuse and reproducibility. Most (76%) agree that it is important for reproducibility for researchers to organize and deposit their datasets. However, as to whether they would do it, 29% feel strongly that the time it would take to organize and document their data for potential reuse is not worth it, and only 35% feel strongly that it is worth it. There are some disciplinary differences, with 37% of Social Sciences faculty feeling that it is not worth the time, compared with 31% from Engineering & Physical Sciences and 22% from Life & Health Sciences. (Not many faculty from Arts & Humanities received this question.)

Scholarly Research Fraud

Faculty researchers tend to be ambivalent about whether they think data fabrication, data falsification, or related fraud are becoming more prevalent. However, 47% expressed concern about such fraud, and only 14% agree that there are sufficient practices and protocols in place to minimize it. More than half (58%) of faculty agree that defining research questions and a plan for analysis before conducting research improves the credibility of the findings. (See Figure 55.)

Figure 55. Respondents' level of agreement regarding the following statements related to data fabrication, falsification, and other types of scholarly research fraud.
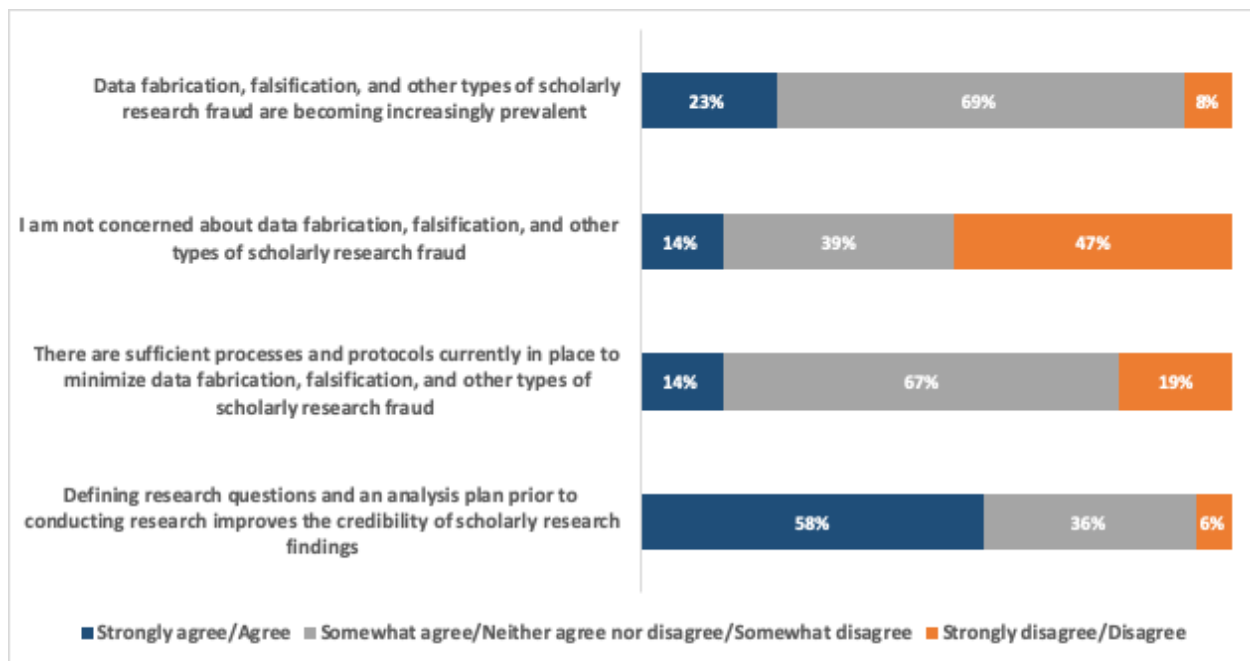
Teaching and Learning

"The questions about the role of librarians in undergraduate teaching (were) hard to answer, because their services are fantastic and available and important, but severely underused in my opinion."

Introduction

Nearly all faculty (>99%) responding to the Ithaka survey indicated that teaching students is among their professional responsibilities. More than three-quarters of these faculty have taught upper-level undergraduate (75%) and/or graduate (78%) courses in the past two years, while about half (51%) have taught lower-level undergraduate courses. Faculty who indicated that they have taught in the past two years were asked a series of questions related to teaching and learning, the responses of which are presented in this section.

Comparison With National Findings

Faculty at UC Berkeley are generally comparable to faculty elsewhere in the nation when it comes to attitudes and practices regarding teaching and learning. This includes their opinions of students' research skills, course material costs, and open educational resources. However, when asked about learning analytics tools, fewer Berkeley faculty reported using them (24% vs. 39% nationally), and more Berkeley faculty expressed concern about their use.

Students' Research Skills

Faculty were asked for their perception of students' research skills and the contribution of librarians in developing these skills. In the Arts & Humanities and Social Sciences, more than half of faculty who teach undergraduate courses feel that their students lack good skills related to locating and evaluating scholarly information. Faculty in the sciences appear to have more confidence in undergraduates' research skills. Overall, most faculty agree that improving undergraduate students' research skills is an important goal of their courses, although faculty in Engineering & Physical Sciences are less likely to see that as a goal. (See Figure 56.)

Figure 56. Percent of respondents whose opinion matches each of the statements below, by four broad disciplines.

■ My undergraduate students have poor skills related to locating and evaluating scholarly information

■ Improving my undergraduate students' research skills related to locating and evaluating scholarly information is an important educational goal for the courses I teach

	Dark blue		Gray
Arts & Humanities	58%		75%
Social Sciences	61%		77%
Life & Health Sciences	39%		79%
Engineering & Physical Sciences	26%		39%

Close to 60% of faculty view librarians as "contributing significantly" to students' learning by helping them find and access information and develop research skills. Responses vary by discipline: Most Arts & Humanities and Social Sciences faculty see librarians as contributing, but most Engineering & Physical Sciences faculty do not strongly agree that librarians contribute. Across disciplines, fewer faculty see librarians as helping students with media literacy and identifying disinformation. (See Figure 57.)

Figure 57. Percent of respondents who feel that librarians contribute to student learning in the following areas, by four broad disciplines.

Figure. Radar chart titled with axes Arts & Humanities (top), Social Sciences (right), Life & Health Sciences (bottom), Engineering & Physical Sciences (left). Values labeled: Arts & Humanities 68%, Social Sciences 65%, Life & Health Sciences 50%, Engineering & Physical Sciences 28%. Axis scale from 0% to 80%.

Legend:
— Librarians at my college or university library contribute significantly to my students' learning by helping them to find, access, and make use of a range of secondary and primary sources in their coursework

— Librarians at my college or university library contribute significantly to my students' learning by helping them to develop their research skills

— Librarians at my college or university contribute significantly to helping students develop skills to identify media manipulation and disinformation

Lecturers are more likely to view librarians as contributing significantly to students' learning than ladder faculty, and nontenured faculty are least likely. (See Figure 58.)

Figure 58. Percent of respondents who feel that librarians contribute to student learning in the following areas, by job group.

- ■ Librarians at my college or university library contribute significantly to my students' learning by helping them to find, access, and make use of a range of secondary and primary sources in their coursework
- ■ Librarians at my college or university library contribute significantly to my students' learning by helping them to develop their research skills
- ■ Librarians at my college or university contribute significantly to helping students develop skills to identify media manipulation and disinformation

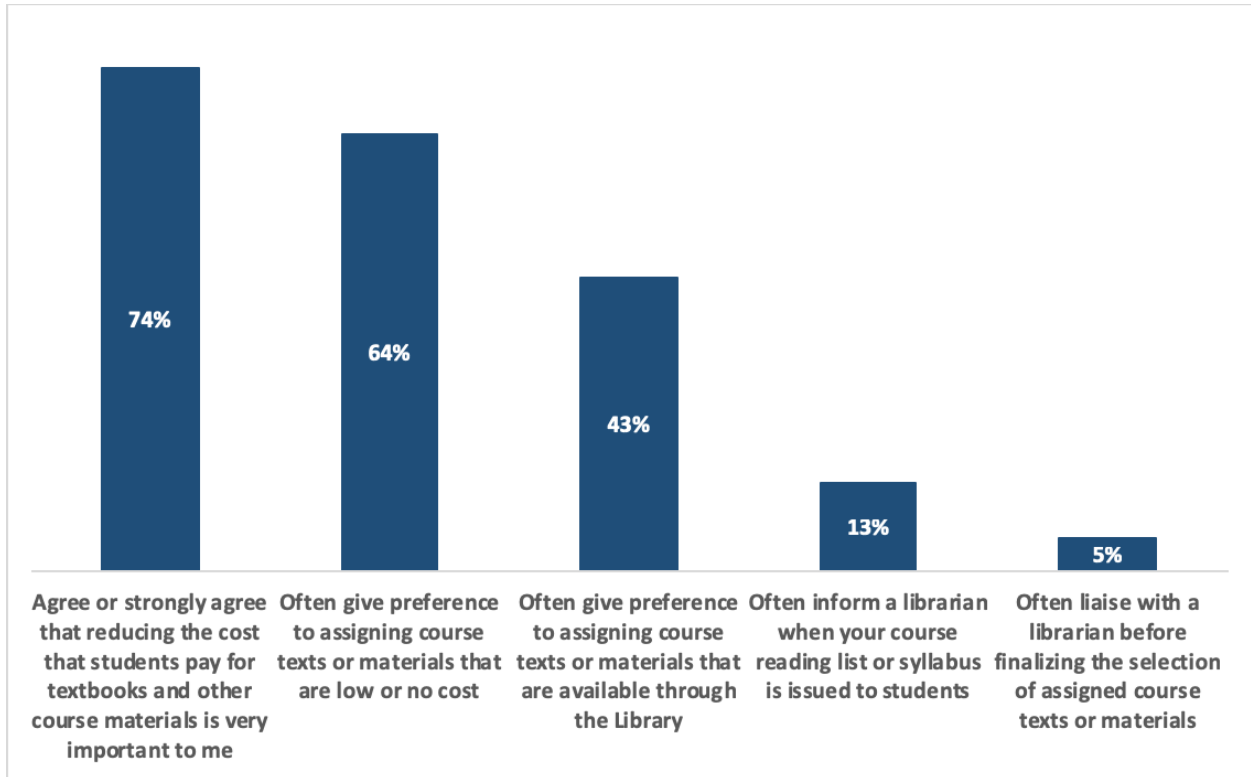Several faculty felt strongly enough about the value of librarians in contributing to student learning to add comments at the end of the survey. One faculty member said: "More faculty need to invite (a) reference librarian to address their classes for 15-20 min to describe what they can do and the resources they have access to." Another said, "questions about the role of librarians in undergraduate teaching (were) hard to answer, because their services are fantastic and available and important, but severely underused in my opinion."

Course Materials Cost and Open Educational Resources

Faculty were asked several questions related to the cost of course materials and to open educational resources (OER), the use of which can reduce what students spend on course materials. **Seventy-four percent agree or strongly agree that reducing the amount that students pay for texts and other course materials is important**. Most (64%) reported that they often give preference to assigning course texts or materials that are low or no cost, and 43% give preference to materials available through the Library. However, most faculty never or rarely consult with a librarian before finalizing their text selections, nor do they inform a librarian when their reading list is finalized. (See Figure 59.)

Figure 59. Percent of respondents whose responses match these statements related to course material affordability and collaboration with librarians.

74%	64%	43%	13%	5%
Agree or strongly agree that reducing the cost that students pay for textbooks and other course materials is very important to me	Often give preference to assigning course texts or materials that are low or no cost	Often give preference to assigning course texts or materials that are available through the Library	Often inform a librarian when your course reading list or syllabus is issued to students	Often liaise with a librarian before finalizing the selection of assigned course texts or materials

Fifty-nine percent of faculty are interested in using OER in their teaching, and 49% would like to adopt new instructional approaches that take advantage of opportunities offered by OER. Only a third of faculty expressed interest in creating or publishing OER, and few feel that they would be recognized or rewarded for doing so (10%) or that UC Berkeley has good training or support for using OER (11%). (See Figure 60.)

Figure 60. Percent of respondents who agree or strongly agree with the following statements.
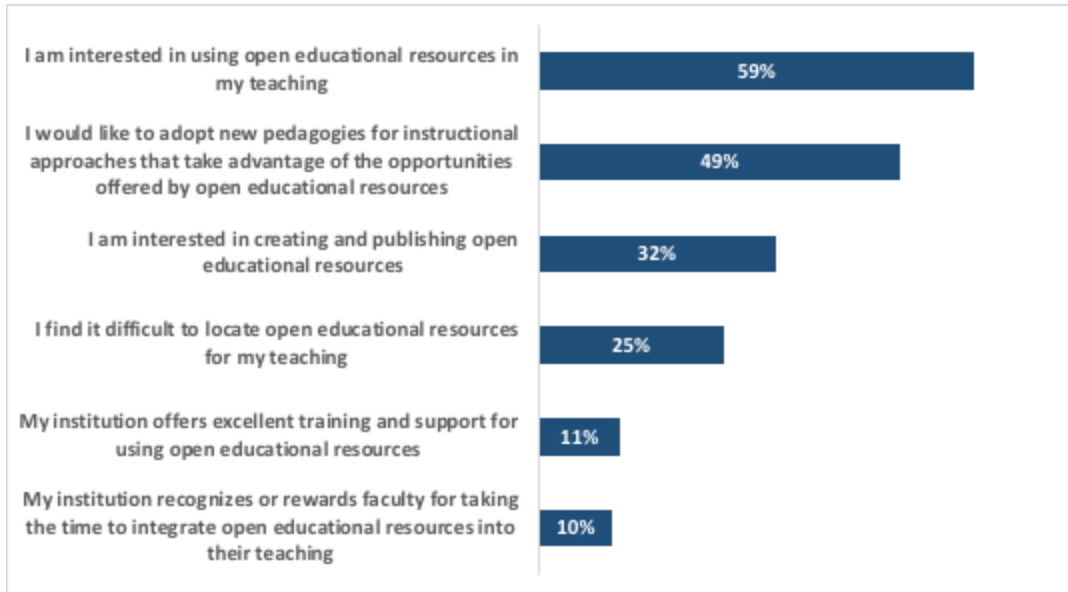
Younger faculty expressed somewhat stronger interest in using and creating OER and in adopting new pedagogies that take advantage of OER than older faculty. (See Figure 61.)

Figure 61. Percent of respondents who agree or strongly agree with statements about OER, by age group.
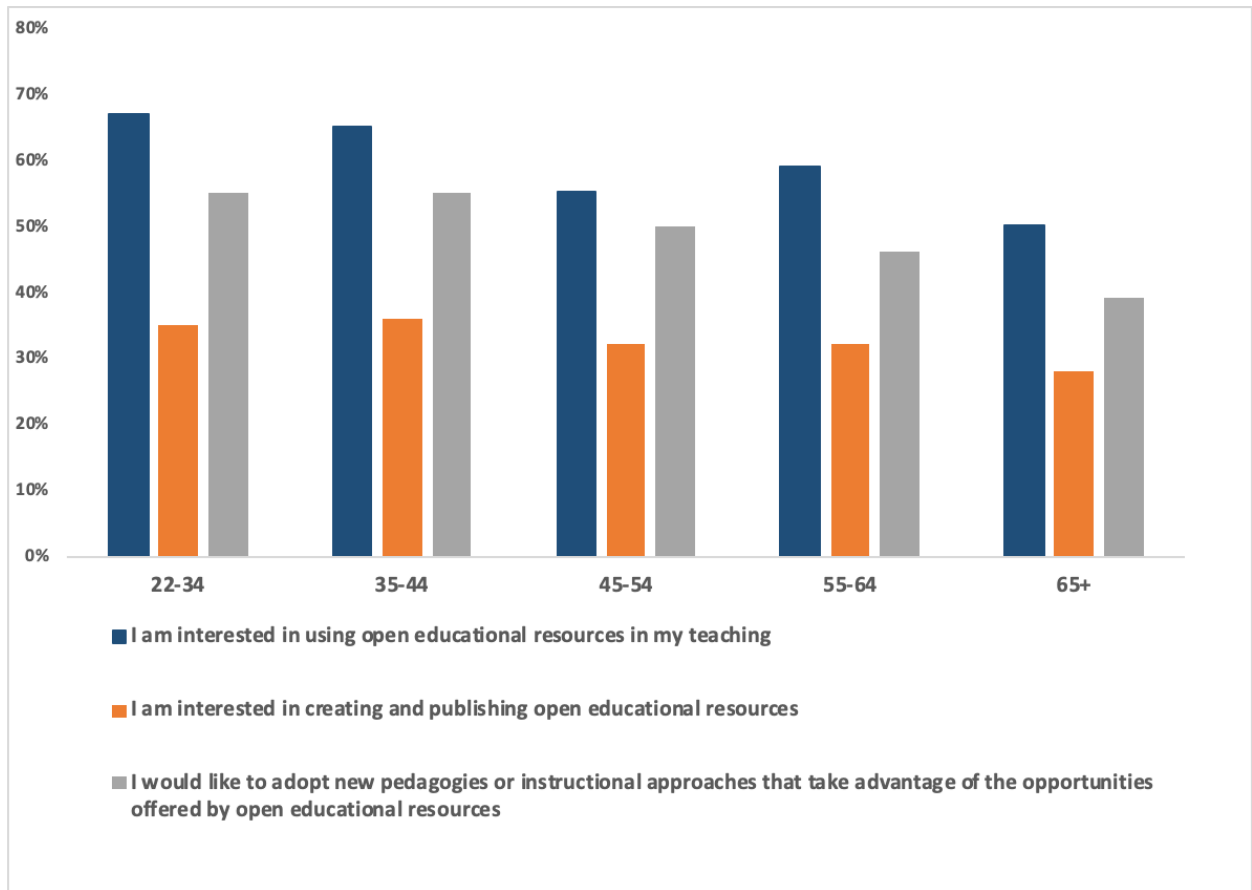
Lecturers tend to be more interested in creating OER and adopting new pedagogies, while tenured faculty tend to be less interested in using OER and adopting new pedagogies. (See Figure 62.)

Figure 62. Percent of respondents who agree or strongly agree with statements about OER, by job group.
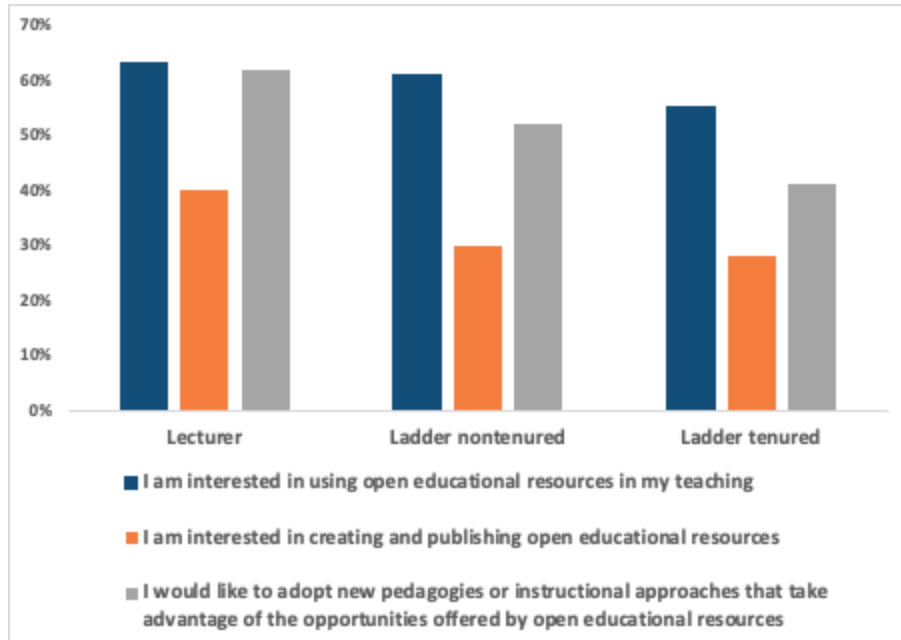
Despite the interest in OER, in practice only between a quarter and a third of faculty have created and/or used open textbooks, open video lectures, or open course modules. Thus, it appears that there are barriers to more widespread implementation of OER.

Learning Analytics

Most faculty at do not use learning analytics tools (see Figure 63), and of those who do not use them or are unsure if they do, only 16% agree or strongly agree that they are interested in using the tools. The faculty who do use them are more positive about the tools' benefits than those who do not use them or are unsure if they do. Of the 24% of faculty who do use learning analytics tools, 34% agree that the tools help them improve their teaching, and 42% agree that they help intervene with students who might be struggling. (See Figure 64.)

Figure 63. Percent of respondents who do or do not use learning analytics tools through their course management or other courseware system.

Figure 64. Percent of respondents who agree or strongly agree with the following statements about learning analytics tools.

Regardless of whether they use the tools, faculty expressed some concern about issues such as student data privacy and the use of algorithms in learning analytics, and they lack confidence in the availability of training and support. (See Figure 65.) However, the majority neither agree nor disagree with most statements about learning analytics, perhaps at least partly due to their lack of experience with them.
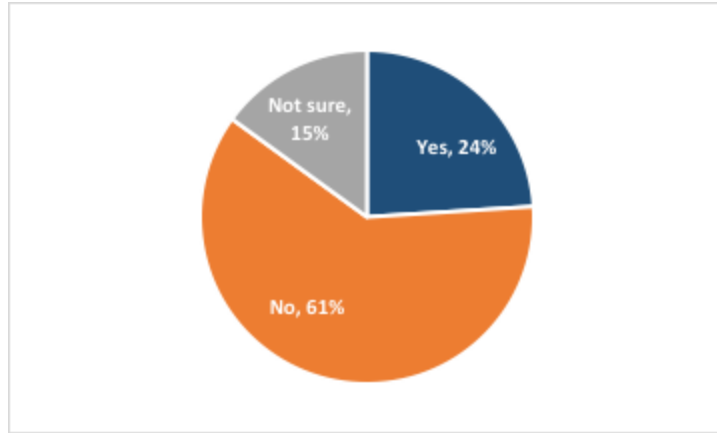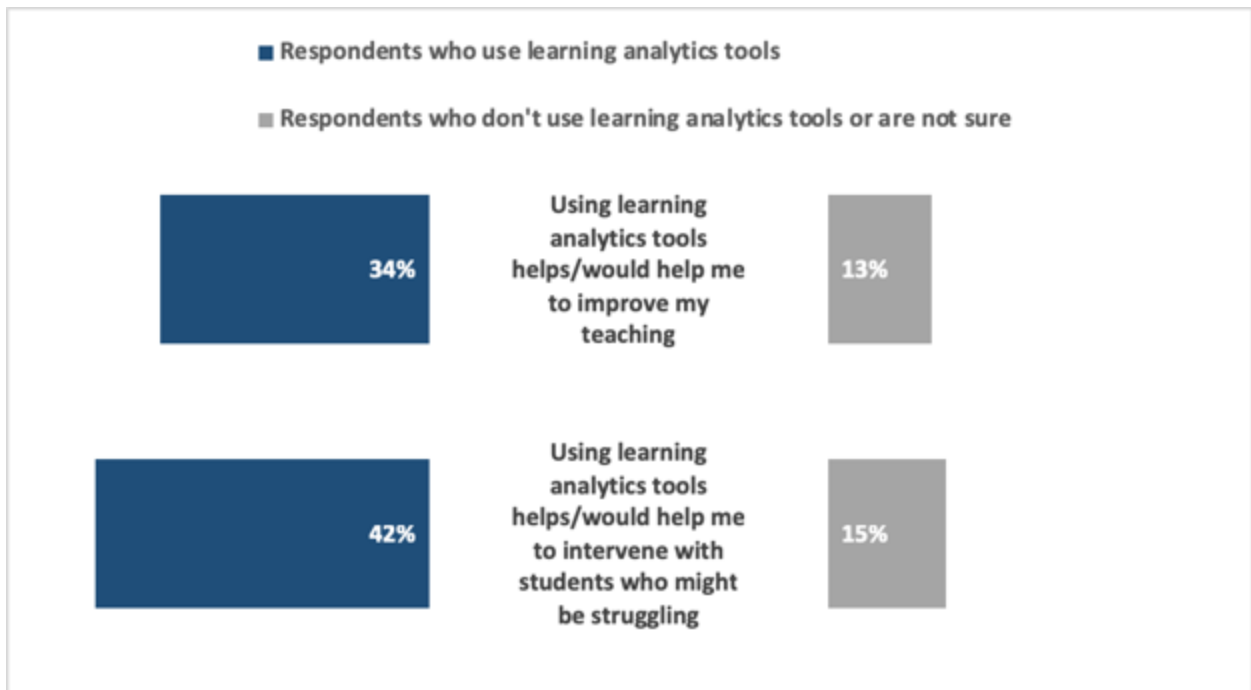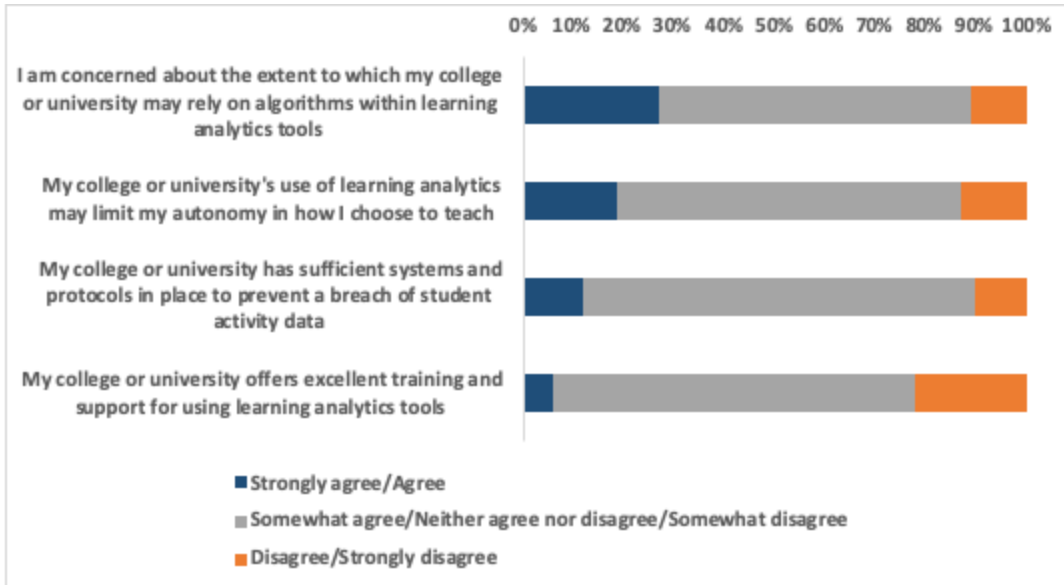
Figure 65. Percent of respondents who agree or strongly agree with the following statements on learning analytics tools.

Chart header axis: 0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

Categories (top to bottom):
- I am concerned about the extent to which my college or university may rely on algorithms within learning analytics tools
- My college or university's use of learning analytics may limit my autonomy in how I choose to teach
- My college or university has sufficient systems and protocols in place to prevent a breach of student activity data
- My college or university offers excellent training and support for using learning analytics tools

Legend:
- Strongly agree/Agree
- Somewhat agree/Neither agree nor disagree/Somewhat disagree
- Disagree/Strongly disagree

When compared with colleagues in other disciplines, faculty in Arts & Humanities who do not use learning analytics tools are less likely to want to use the tools or to think that using them would be helpful, particularly compared with faculty in Life & Health Sciences. (See Figure 66.) Arts & Humanities faculty are overrepresented among survey respondents, which may explain why Berkeley's faculty overall seem less positive toward learning analytics than faculty nationally.

Figure 66. Percent of respondents not using learning analytics tools who expressed interest in using learning analytics tools, by four broad disciplines.

Arts & Humanities

30%
25%
20%
15%
10%
5%
0%

10%

16% Social Sciences

14%

Engineering & Physical Sciences

28%

Life & Health Sciences

— I am interested in using learning analytics tools

— Using learning analytics tools would help me to improve my teaching

— Using learning analytics tools would help me to intervene with students who might be struggling
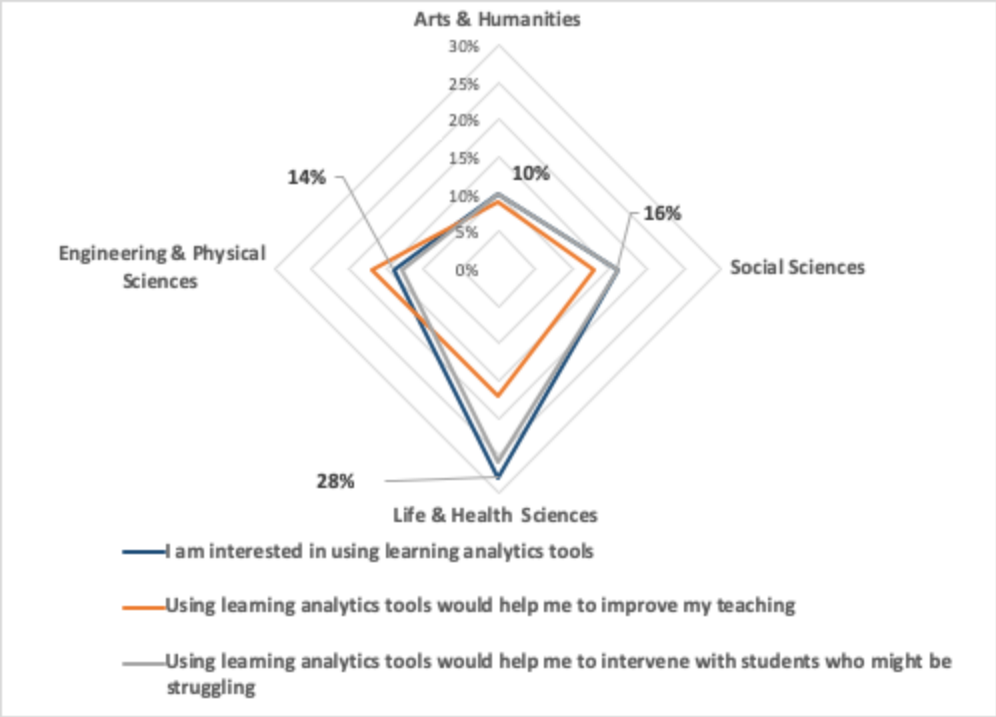
Role of the Library

"The library is the soul of the university. Please protect it."

Introduction

In this section of the survey, all UC Berkeley faculty respondents were asked questions related to the role of the Library, including how they value various Library functions. Responses to these questions are presented below.

Comparison With National Findings

Berkeley and national findings regarding the role of the Library are similar, with only slight differences. For example, when asked about the relative importance of specific groups in contributing to students' success, both Berkeley faculty and faculty nationwide see faculty as being most important. At Berkeley, faculty is followed by teaching assistants, then peers (i.e., other students), while nationwide, peers come in second, followed by academic advisers, then teaching assistants.

Student Success

When faculty were asked to select the groups that they consider important in contributing to student success, their top choices were faculty members themselves, teaching assistants/graduate assistants, and peers. **Library staff are considered very important or important by 61% of the faculty**. (See Figure 67.)

Figure 67. Percent of respondents who consider the following groups very important or important in contributing to student success.
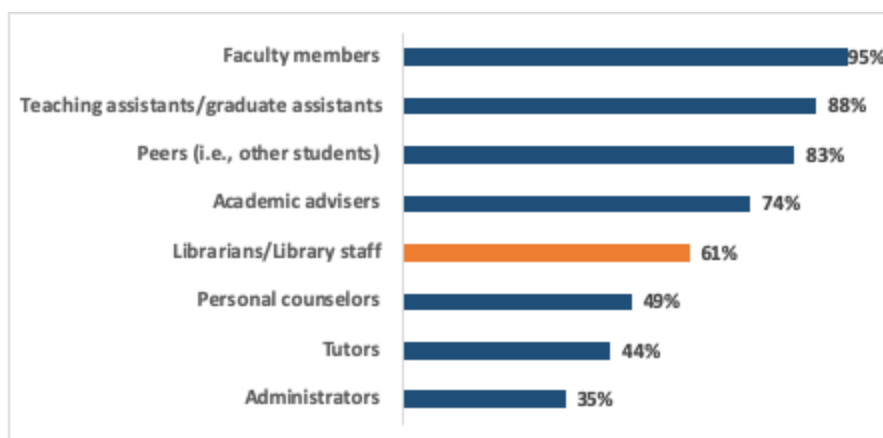
Compared with ladder nontenured and ladder tenured faculty, a slightly higher percentage of lecturers consider librarians/Library staff important to student success. (See Figure 68.)

Figure 68. Percent of respondents who consider librarians/Library staff very important or important in contributing to student success, by job group.

Lecturer	72%
Ladder nontenured	61%
Ladder tenured	56%
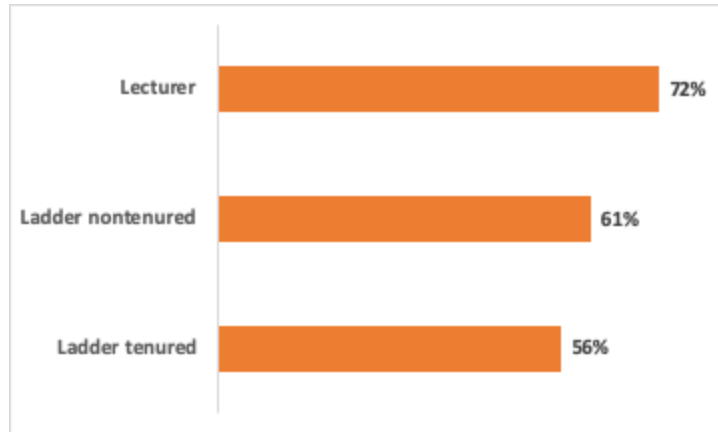
There are wide disciplinary differences in how important faculty consider librarians and Library staff to student success. Three-quarters of Arts & Humanities faculty consider Library staff to be very important or important in contributing to student success. By contrast, only a quarter of Engineering & Physical Sciences faculty consider Library staff very important or important. Social Sciences and Life & Health Sciences faculty fall in between, with the majority of faculty from these disciplines considering Library staff very important or important in contributing to student success. (See Figure 69.)

Figure 69. Percent of respondents who consider librarians/Library staff very important or important in contributing to student success, by four broad disciplines.

Arts & Humanities	76%
Social Sciences	65%
Life & Health Sciences	56%
Engineering & Physical Sciences	25%
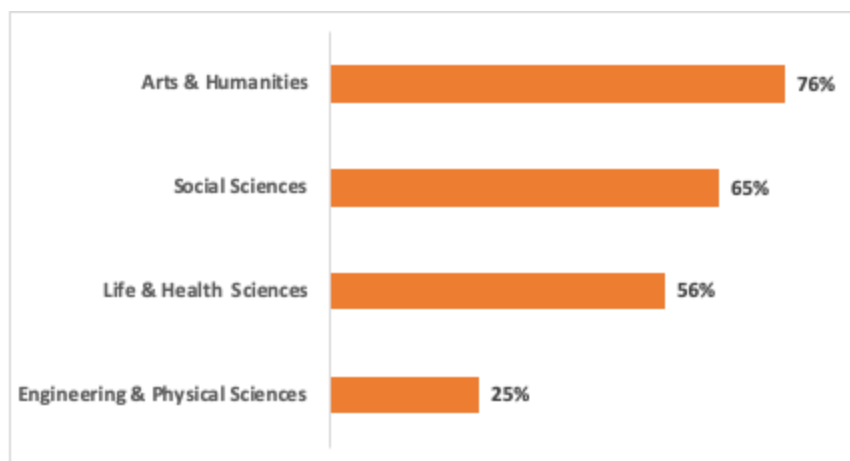
Value and Support of the Library

When asked how important it was to them that the Library provides particular functions or services, **faculty feel strongly about the value of all of the Library functions listed in the survey**. Almost all the faculty (93%) value that the Library pays for resources, and 86% value that the Library serves as a repository of resources. Also, about 80% of the faculty consider it important for the Library to support both graduate and undergraduate students' research. (See Figure 70.)

Figure 70. Percent of respondents who consider the following functions of the Library important.
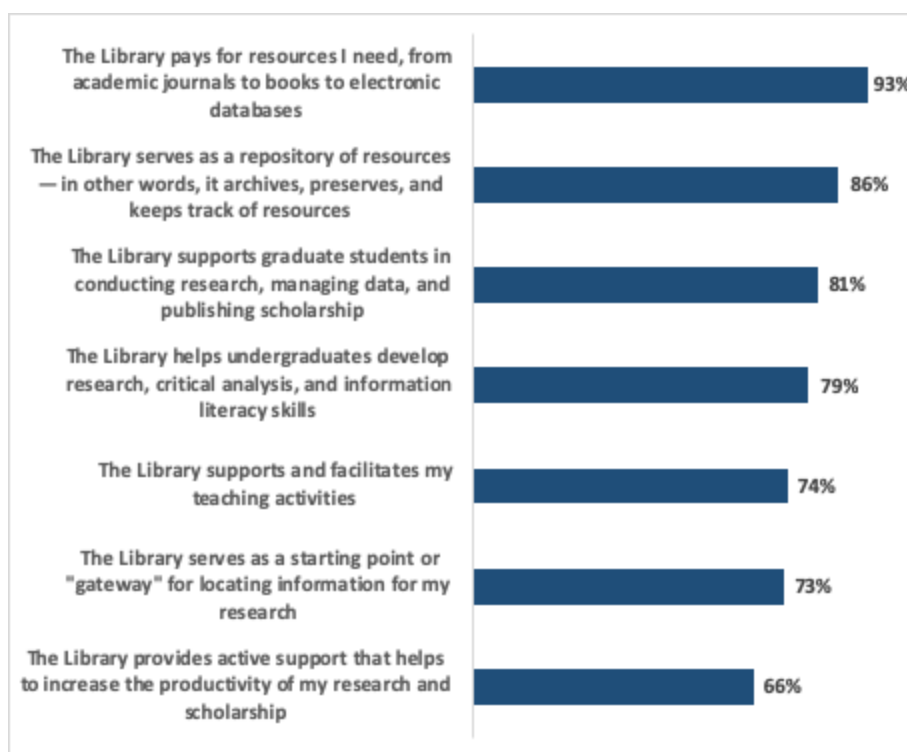
In general, compared with faculty in the sciences, Arts & Humanities and Social Sciences faculty feel more strongly about the importance of most of the listed functions of the Library.

The majority of faculty (86%) believe that universities and colleges should support library budgets to ensure continued access to collections when faced with rising journal costs. Also, the majority of the faculty disagree that universities and colleges should redirect the money spent on library buildings and staff to other needs when scholarly materials are available electronically. More than half of the faculty disagree with the statement that the role of librarians is becoming much less important because faculty have easy access to online content. (See Figure 71.)

Figure 71. Respondents' indication of how well each statement describes their point of view. (10 = extremely well; 1 = not at all well.)

When the prices of scholarly journals rise, colleges and universities should adequately support library budgets to ensure continued access to collections

Because scholarly material is available electronically, colleges and universities should redirect the money spent on library buildings and staff to other needs

Because faculty have easy access to academic content online, the role librarians play at this institution is becoming much less important

■ 8-10 ■ 4-7 ■ 1-3

Numerous faculty wrote comments related to this topic, and the majority were positive. Faculty referred to the Library as "the soul of the university" and "a critical resource" and praised librarians for being "knowledgeable," "effective," and "superlative."

One commenter said, "In my view, it's crucial for the university to continue to invest in the libraries, in terms of physical collections, digital collections, space, and especially, staff. Today there are many wonderful digital resources — and the librarians make them usable. They know the resources and how to use them. The library should be a top priority for Berkeley."

Appendix A: Mapping Between Departments and Disciplines

Department	Discipline
African Am Studies	Social Sciences
Agricultural Res Econ Pol	Social Sciences
Anthropology	Social Sciences
Art History	Arts & Humanities
Art Practice	Arts & Humanities
Astronomy	Engineering & Physical Sciences
Bioengineering	Engineering & Physical Sciences
Buddhist Studies	Arts & Humanities
CASMA	Arts & Humanities
City & Regional Planning	Social Sciences
Civil & Environ Engineer	Engineering & Physical Sciences
Classics	Arts & Humanities
CNR Office of the Dean	Life & Health Sciences
COENG Engineering Research	Engineering & Physical Sciences
Comparative Literature	Arts & Humanities
Ctrl Ops General Accounting	Others
Demography	Social Sciences
Dept of Architecture	Social Sciences
Dept of Chemical E	Engineering & Physical Sciences
Dept Of Chemistry	Engineering & Physical Sciences
Dept of Social Welfare	Social Sciences
Earth & Planetary Science	Engineering & Physical Sciences
East Asian Languages & Cult	Arts & Humanities
Economics	Social Sciences
Elec Engr & Computer Sc	Engineering & Physical Sciences
Energy & Resources Group ERG	Life & Health Sciences

Eng Dean's Office	Engineering & Physical Sciences
English	Arts & Humanities
Envir Design Dean's Off	Social Sciences
Environ Sci, Policy & Mgmt	Life & Health Sciences
Ethnic Studies	Social Sciences
Film and Media	Arts & Humanities
French	Arts & Humanities
Gender and Women's Studies	Social Sciences
Geography	Social Sciences
German	Arts & Humanities
Graduate Division Ops	Others
GSPP Department Ops	Social Sciences
Haas Core Programs	Social Sciences
Helen Wills Neuroscience Inst	Life & Health Sciences
History	Social Sciences
Industrial Eng & Ops Res	Engineering & Physical Sciences
Integrative Biology	Life & Health Sciences
Interdiscipl SocSci Pgm	Social Sciences
Italian Studies	Arts & Humanities
Landscape Arch & Envir Plng	Social Sciences
Law	Social Sciences
Linguistics	Arts & Humanities
Material Sci & Engineering	Engineering & Physical Sciences
Mathematics	Engineering & Physical Sciences
Mechanical Engineering	Engineering & Physical Sciences
Molecular & Cell Biology	Life & Health Sciences
MPS Centers and Programs	Engineering & Physical Sciences
Music	Arts & Humanities
Near Eastern Studies	Arts & Humanities

Nuclear Engineering	Engineering & Physical Sciences
Nutritional Sci & Tox Dept	Life & Health Sciences
Optometry Clinic	Life & Health Sciences
Philosophy	Arts & Humanities
Phys Ed Program	Life & Health Sciences
Physics	Engineering & Physical Sciences
Plant & Microbial Biology	Life & Health Sciences
Political Science	Social Sciences
Psychology	Social Sciences
Rhetoric	Arts & Humanities
ROTC Military Affairs	Others
Scandinavian Languages	Arts & Humanities
School of Education	Social Sciences
School of Info Operations	Social Sciences
School of Journalism Dept	Social Sciences
School of Optometry Dean	Life & Health Sciences
Slavic Languages & Literature	Arts & Humanities
Sociology	Social Sciences
South & Southeast Asian Std	Arts & Humanities
Spanish & Portuguese	Arts & Humanities
SPH Administration	Life & Health Sciences
Statistics	Engineering & Physical Sciences
Summer Sessions & Study Abroad	Others
Theater, Dance & Perf Studies	Arts & Humanities
Undergrad Interdisc Studies	Others
College Writing Programs	Others

Appendix B: Survey Questions

Q1
When you explore the scholarly literature to find new journal articles and monographs relevant to your research interests, how do you most often begin your process? Select one of the following:

Q2
You may employ a variety of different tactics to "keep up" with current scholarship in your field on a regular basis. Please use the scales below to rate from 10 to 1 how important each of the following methods is for staying current with new scholarship in your field. [10 = extremely important; 1 = not at all important]

Q3
Please use the 10 to 1 scales below to indicate how well each statement describes your point of view – a 10 equals "Extremely well" and a 1 equals "Not at all well." You may pick any number on the scale. The higher the number, the better you think the statement describes your point of view. The lower the number, the less you think the statement describes your point of view. Please note: The phrase "scholarly monograph," which appears in this question and in other questions throughout this survey, refers to a single volume book published by a scholar for an academic audience.

Q4
Below is a list of ways you may use a scholarly monograph. Please think about doing each of these things with a scholarly monograph in print format or in digital format, and use the scales below to indicate how much easier or harder is it to perform each activity in print or digital format. Please select one answer for each item.

Q5
When you think about the journal articles and scholarly monographs that you routinely use - for research as well as for teaching - how important are each of the following sources? [10 = extremely important; 1 = not at all important]

Q6
When you want a scholarly monograph or journal article that you do not have immediate access to through your college or university library's physical or digital collections, how often do you use each of the following methods to seek access to that material?

Q7
Please indicate which, if any, of the following are among your professional responsibilities.

Q8 **[Contingent on R conducting academic research]**
How important to your research is each of the following digital research activities and methodologies today? [10 = extremely important; 1 = not at all important]

Q9 **[Contingent on R conducting academic research]**
You may have the opportunity to share the findings of your scholarly research in a variety of different formats. Please use the scales below to indicate how often you have shared the findings of your scholarly research in each of the following ways in the past five years.

Q10 **[Contingent on R conducting academic research]**
When it comes to influencing your decisions about journals in which to publish an article of yours, how important to you is each of the following characteristics of an academic journal? [10 = extremely important; 1 = not at all important]

Q11 **[Contingent on R conducting academic research]**
Please use the 10 to 1 scales below to indicate how well each statement below describes your point of view. [10 = extremely well; 1 = not at all well]

Q12 **[Contingent on R conducting academic research]**
Does your college or university library, scholarly society, university press, or another service provider assist you with any of the following aspects of the publication process?

Q13 **[Contingent on R conducting academic research]**
How valuable do you find support from your **college or university library** for each of the following aspects of the publication process, or how valuable would you find it if this support was offered to you? [10 = extremely valuable; 1 = not at all valuable]

Q14 **[Contingent on R conducting academic research]**
How important is it to you that your research reaches each of the following possible audiences? [10 = extremely important; 1 = not at all important]

Q15 **[Contingent on R conducting academic research] [Multiple selections possible]**
Which of the following types of research data do you build up or collect for your own research? Please select all that apply:

Q16 **[Contingent on R conducting academic research] [Multiple selections possible]**
Which of the following types of research publications and products do you produce? Please select all that apply.

Q17 **[Contingent – if R answers "yes" to any options in the previous question, those options are pulled forward to this question]**
Are your research publications and/or products freely available online through your institution's repository, **[eScholarship],** a disciplinary repository (such as arXiv, SSRN, etc.), or available elsewhere online (such as your personal webpage)? For each of the type(s) of scholarly work(s) listed below, please select all hosting sources that apply.

Q18 **[Contingent on R conducting academic research]**
In the past five years, have you received or are you currently receiving external funding for your scholarly research from a public or government grant-making organization (such as the NSF, NIH, NEH, etc.)?

Q19 **[Contingent on selections of "yes" to Q16 – only options that R selects as "yes" will be pulled into this question]**
When you think about how your work is assessed, such as for tenure, promotion, research funding, continuing appointment, or contract renewal, how much recognition should you receive for your research products compared to traditional research publications such as journal articles and scholarly books?

Please read the following statement and tell us whether you strongly agree with the statement, agree, somewhat agree, neither agree nor disagree, somewhat disagree, disagree, or strongly disagree.

Q20
Societal impact, or the benefit of scholarly work and research products to society, should be a key measure of research performance for tenure, promotion, or funding proposals.

Q21 **[Contingent on R selecting at least one option from Q15]**
Please use the 10 to 1 scales below to indicate how well each statement below describes your point of view. [10 = extremely well; 1 = not at all well]

Q22 **[Contingent on R selecting at least one option from Q15]**
Please use the scale below to rate from 10 to 1 how valuable you would or do find each of the following possible sources of support for managing or preserving research data, media, or images. [10 = extremely valuable; 1 = not at all valuable]

Q23 **[Contingent on R selecting at least one option from Q15] [Multiple selections possible]**
If your collections or sets of research data are preserved following the conclusion of your projects, what methods are used to preserve them? Please select each method by which they are preserved or indicate that they are not preserved.

Q24 [Contingent on R selecting at least one option from Q15]

Please read the following statements and indicate the degree to which you agree or disagree with each. [7 = strongly agree; 1 = strongly disagree]

Q25
How important or unimportant are each of the following in contributing to student success at your college or university? [7 = very important; 1 = very unimportant]

Q26
How important is it to you that your college or university library provides each of the functions below or serves in the capacity listed below? [6 = extremely important; 1 = not at all important]

Q27
Please use the 10 to 1 scales below to indicate how well each statement describes your point of view. [10 = extremely well; 1 = not at all well]

Q28 [Teaching is among R's professional responsibilities] [Multiple selections possible]
Please select which types of courses you have taught in the last 2 years:

Q29 [Contingent on R selecting "lower division" or "upper division" in previous Q]
In general, how often do you conduct each of the following activities when designing or structuring your undergraduate courses?

Q30 [R has taught any type of course in past 2 years]
Please use the 10 to 1 scales below to indicate how well each statement below describes your point of view. [10 = extremely well; 1 = not at all well]

Q31 [R has taught any type of course in past 2 years]
Which of the following statements best describes your role in deciding what textbooks and other course materials will be used in the courses you teach?

Q32 [R has taught any type of course in past 2 years]
Open educational resources are teaching, learning, and research materials used for educational purposes that reside in the public domain or have been released under an open license, such as Creative Commons, that permits no-cost access, use, adaptation, and redistribution by others with no or limited restrictions. Please read the following statements and indicate the degree to which you agree or disagree with each. [7 = strongly agree; 1 = strongly disagree]

Q33 [R has taught any type of course in past 2 years]
Which, if any, of the following open educational resources have you created and/or used in your courses? Please check all that apply.

Q34 [R has taught any type of course in past 2 years]

Do you use learning analytics tools (e.g. tools that summarize and/or analyze student activities, learning, or performance, and produce for you a dashboard, early alert emails, etc.) through your course management system or other courseware system(s)?

Q35 [R has taught any type of course in past 2 years]

Please read the following statements and indicate the degree to which you agree or disagree with each. [7 = strongly agree; 1 = strongly disagree]

MT1

Scholars draw on a variety of different types of scholarly materials in their research. How important to your research is each of the following types of materials? [10 = extremely important; 1 = not at all important]

MT2

Some scholars use primary source materials, such as archival materials, historical newspapers, manuscripts, or images, in their teaching and research. Do you use these types of primary source materials in your teaching or research? Please select one answer.

MT3 [Contingent on respondent teaching an undergraduate and/or graduate course] [Contingent on respondent using primary source materials in teaching or research]

Some scholars use primary source materials in their teaching and research, such as archival materials, historical newspapers, manuscripts, or images. How important to your teaching are each of the following types of primary source collections? [10 = extremely important; 1 = not at all important]

MT4 [Contingent on respondent using primary source materials in teaching or research]

How important to your research is each of the following types of primary source collections? [10 = extremely important; 1 = not at all important]

MT5

You may have the opportunity to read scholarly monographs in electronic format, either through a library subscription database or as standalone e-books. How often have you used scholarly monographs in digital form in the past six months - often, occasionally, rarely, or never?

MT6

You may have the opportunity to read scholarly monographs in electronic format, either through a library subscription database or as a standalone e-book. Certain changes in the future may make digital versions more valuable to you. Use the scales below to rate how much more valuable each of the following would make digital versions of scholarly monographs to you than they are today. [10 = much more valuable than they are today; 1 = not at all more valuable than they are today]