

COVID IMPACT SURVEY

Better Understanding Libraries' Approach to Navigating the Pandemic & Its Impact on Support for Open Initiatives

September 2021 © 2021 SPARC, subject to a Creative Commons Attribution 4.0 International License

SPARC COVID IMPACT SURVEY

Better Understanding Libraries' Approach to Navigating the Pandemic & Its Impact on Support for Open Initiatives

Report Authors:

Nancy Maron, Juan Pablo Alperin, Nick Shockey

PRODUCED BY:



IN COLLABORATION WITH:





September 2021 © 2021 SPARC, subject to a Creative Commons Attribution 4.0 International License

Table of Contents

Executive Summary	4
Introduction and Background	6
Summary of Findings	8
Budgetary Impact	9
Strategies for Dealing with Budget Cuts	13
Impact of Budget Cuts on the Big Deal & Open Initiatives	17
Current & Anticipated Future Support for Open Initiatives	19
Pressing Concerns	26
Conclusion	30
Appendix A—Data Tables and Charts	33
Appendix B—Methodology	51

EXECUTIVE SUMMARY

In 2020, as the COVID pandemic continued to spread, colleges and universities took action to protect staff, faculty, and students, while continuing to teach and conduct research to assess the impact on academic libraries as all learning rapidly moved online.

The SPARC study on the impact of COVID was intended to address academic libraries' budgetary challenges and approaches, with a focus on understanding how they affected attitudes towards content, collections, and open initiatives.

The study included a survey, sent to all 242 current SPARC member institutions in January 2021. Responses were received from institutions in the United States, Canada, and Australia. The responses included multiple submissions from the same library, partial responses, and a small number of responses from non-member institutions. Once blank entries and duplicates were removed, the final dataset included 117 complete responses and 20 partial responses. Several responses were followed up with phone interviews to gain further insight into the choices made and strategies implemented.

While this survey was conducted during the last academic year and is being released as the new year begins to unfold, this report can serve to reflect the realities of libraries over the past year in a way that can be helpful in informing the decisions and actions taken moving forward.

The study underscored the extremely difficult circumstances faced by most academic libraries as a result of the pandemic—and libraries' continuing support for open initiatives despite these challenges. This moment has encouraged rapid change, permitting libraries to attempt changes they had considered in the past and accelerating changes already underway. Among these trends were questioning Big Deal agreements, renegotiating prices with major publishers, and continuing support for open initiatives.

Among the findings of the study:

- Nearly 80% of libraries had to contend with budget cuts as a result of COVID; over 20% reported having experienced a cut of 10% or more; the vast majority of those who experienced cuts anticipate that these reductions will likely be permanent.
- Many libraries reported renegotiating publisher agreements or unbundling a Big Deal, or were strongly considering doing so. That said, in some cases, the need to act quickly and efficiently served to protect major long-term contracts (including some Big Deals), while leaving smaller publishers and one-time purchases (like monographs) exposed as easier to cut with fewer immediate repercussions.
- Across the board, respondents reported investing in open initiatives in a range of ways; most felt these investments were either likely to continue at current levels (50%) or grow (35%) in the year to come.
- For many libraries, COVID-related shutdowns have reinforced the importance of the library as a source for provisioning digital content and for supporting online pedagogy, as demand from faculty and students for online content grew. Many librari-ans addressed this by shifting resources to providing further support for teaching, whether through digitization of course materials, working with instructors to create or manage online courses, or supporting adoption or creation of OERs.
- Among the concerns raised by library leaders were the long-lasting impact of having run libraries absent their physical spaces, the impact on staff morale, and an inability to move ahead with new plans.

Overall, responses indicated a very intentional spirit of experimentation, born of necessity, resulting in creative problem solving concerning spaces, personnel, and collections. This report will help to inform the SPARC agenda in the months ahead as library leaders adjust to campus life post-pandemic. While the more dramatic budgetary and space restrictions of the past year will hopefully disappear, the value of having openly available materials for research and teaching has never been more clear.

Report Authors:

Nancy Maron Juan Pablo Alperin Nick Shockey

INTRODUCTION & BACKGROUND

The impact of the COVID pandemic in 2020 had a rapid and severe impact on institutions of higher learning. In March 2020, many campuses acted quickly to send students home as the extent of the health risk became clear and schools rapidly developed plans for remote and hybrid learning which were to last throughout the academic year. With no clear solutions on the horizon and much uncertainty about Fall 2020, many students were required to stay away from campuses, or chose to do so. And for many of those who chose to continue during the academic year 2020-2021, course work was often done partly or entirely remotely, via online platforms.

How did academic libraries respond to the crisis?

The SPARC survey on the impact of COVID was intended to address academic libraries' budgetary challenges and approaches, with a focus on understanding how they affected attitudes towards content, collections, and open initiatives. The survey and follow-up interviews aimed to answer a series of interconnected questions, including: How steep were the cuts libraries faced, and how did librarians determine how to manage them while delivering service to the campuses they serve? With most courses moving quickly online, what impact did this have on the materials required by students and faculty and how did this change the work of librarians in supporting them? With digital resources becoming more important, how did this affect librarians anticipate are likely to be long-lasting? Did the COVID era require one-time fixes that will quickly fade, or was it simply an accelerant to permanent changes already underway?

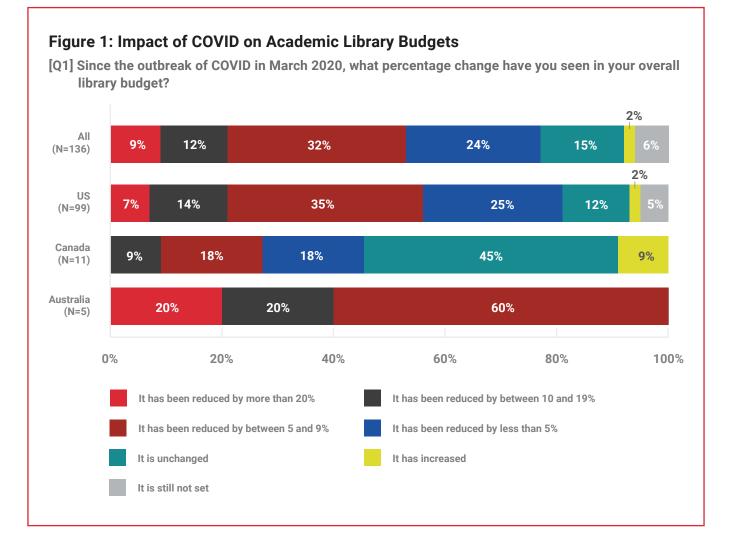
These questions stemmed from a desire to understand how universities confronted an unprecedented combination of challenges that required a series of rapid responses. This survey permitted us to understand the depth of the challenges libraries have faced, how they addressed them, and what it might mean for openness initiatives, both in the short and long term. The SPARC survey was administered to SPARC members, approximately 242 institutions in the United States, Canada, and Australia. The survey remained open from January 19 through February 26, 2021. After data was deduped and cleaned, 117 complete responses and 20 partial responses were retained. In addition, five survey respondents were interviewed to offer further detail concerning strategies they have pursued in the wake of budget cuts. A summary of survey results is included in Appendix A and the detailed description of the study methodology is included in Appendix B.

SUMMARY OF FINDINGS

In March 2020, as institutions of all types began to shut down in response to the COVID pandemic, colleges and universities quickly modified their operations to be able to continue teaching and research activities. At over 80% of the institutions represented in the survey, some form of hybrid learning model was in place, with courses offered both in-person and online during the 2020-2021 academic year, though often the in-person courses met for very specific reasons—clinical education, labs, art classes. Only 5% reported that classes were "remote only, in real time."

Most libraries continued to offer services in some way, with over a third reporting that the main campus library was "physically open, with most services operational" and another third reporting being physically open, with limited services. Less than 10% reported being "physically closed" while still offering online services. Over 15% stated some "other" modality, often illustrating the careful thinking involved in providing services to those who needed them. (For example, "Mostly physically closed except one study space to provide those with exceptional needs access to internet, computers, and for staff to provide curbside pickup and digitization services.") One librarian's response characterized the unpredictability of the year, describing their status as "It depends, we keep moving in and out of lockdown."

This rapid shift to an online environment underlined the importance of having materials available online. Over 85% of respondents reported that by Fall 2020 faculty demand for e-resources, whether subscription or OA, was either much greater (45%) or somewhat greater (43%) than in other years. By contrast, librarian perceptions were that faculty demand for "open and free (open access articles, open educational resources, other freely available learning materials)" had not increased as dramatically, with only around 60% reporting increased demand, and the majority of these stating that it was only somewhat greater than in other years.



Budgetary Impact

Nearly 80% of the academic libraries responding to the survey noted some reduction in their budget. Among US-based institutions, 21% noted a reduction of 10% or more. Six of the eleven Canadian respondents, on the other hand, noted no decrease at all, and of those with cuts, none were greater than 19%. All 5 of the respondents from Australian institutions experienced some decrease, ranging from 5% to more than 20% (**Figure 1**).

Differences among US institutions emerged based on institution type: while a similar proportion of doctoral and non-doctoral institutions noted a budget decrease (over 80% of each), the changes at non-doctoral institutions were more more pronounced: 35% noted a decrease of 10% or more, while only 17% of doctoral institutions had cuts that severe.

When asked how the collections and serials budgets were affected, a smaller proportion of respondents noted some decrease when compared to those who saw cuts in the overall budget. In the US and Australia, around 60% of institutions noted reductions to collections budget and serials budgets, whereas in Canada, less than 20% saw reductions in these. About one third of respondents overall noted that their collections budget remained unchanged and over a third overall noted that the serials budget was unchanged, with Canadian institutions bucking the trend, with a large majority seeing collections and serials budgets unchanged.

In addition to specific cuts to collections and serials, respondents offered further detail on the type and severity of cuts. Among the common themes that emerged:

- Staff reductions were common, as were hiring freezes
- Even in cases where budgets were not cut, some were unable to make use of those funds, due to "freezes" put in place by administration
- Several libraries were subject to across-the board cuts for the university/college
- Cuts to materials budgets were sometimes held at bay due to cuts in other areas, due to the pandemic including travel budgets, office supplies, and hiring freezes

Some respondents noted that perhaps more significant than any budget reduction were the re-allocations within the budgets—namely those from print to e-resources. Even those institutions that did not experience budget cuts might experience a resource squeeze, due to increased costs, whether from publisher increases or the amplified need for digital content and platforms.

"We have had budget cuts to the collection budget for years, but the combination of chronic budget shortages with the governor's withholding of funding to cover COVID-related state budget shortfalls have resulted in the largest single year collections budget cut ever." (71) —Public doctoral institution

"¹/₅ of library positions are vacant and under a hiring freeze. Student employee funding was reduced by 10% and our operating budget, including library software and systems, by 30%." (173) —Private doctoral institution

"While our budget remains unchanged, our expenses for digital assets went up due to COVID. Our COVID related collections materials costs for Fall semester were \$50,000 and we anticipate continued pressure for the Spring 2021 semester. That has meant a reduction in other collections purchases." (158) —Non-doctoral institution

CONCERN FOR FUTURE REDUCTIONS

Most reporting institutions felt it was unlikely that they would see additional cuts before the end of this academic year, with 32% reporting it was extremely unlikely and the same percentage that it was somewhat unlikely. Only 12% reported feeling it was "extremely likely" that there would be additional cuts. For those who felt additional cuts were either "likely" or "extremely likely," half predicted that the cuts would be between 5 and 9% and another 6 predicted they would be between 10 and 19%.

In the US, more doctoral institutions reported being either "somewhat likely" or "extremely likely" to face additional cuts (24%), as compared to non-doctoral institutions (15%). Among those doctoral institutions, private institutions were more likely to feel further cuts would be "extremely unlikely" (43%) compared with public institutions, where only 29% felt this way, and 14% felt rather that it was "extremely likely" they would see them (**Figure 2**).

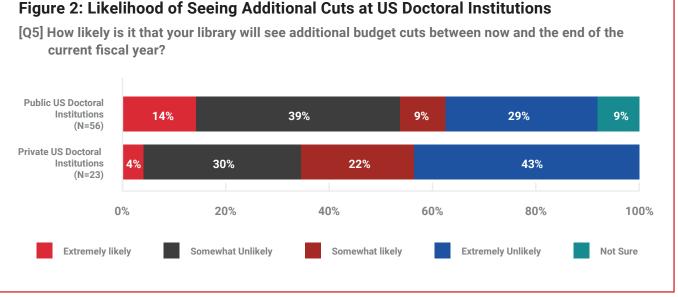


Figure 2: Likelihood of Seeing Additional Cuts at US Doctoral Institutions

When asked if budget cuts would be permanent, nearly 75% of all respondents felt it was "extremely likely" (30%) or "somewhat likely" (45%). Most US respondents felt that it was "extremely likely" (28%) or "somewhat likely" (50%) that this would be the case.

IMPACTS WERE NOT THE SAME ACROSS THE BOARD

Collections and Serials

While cuts to the collections budget of over 20% were not common among US doctoral institutions, 16% of non-doctoral institutions who participated did report cuts of 20% or more. (That said, 42% of non-doctoral institutions reported "unchanged" budgets, compared with 27% of reporting doctoral institutions.) Similarly, when it comes to the serials budget, non-doctoral institutions appear to have had the most extreme cuts (by percentage reduction) of existing budget levels; 11% reported losing over 20% of their serials budget; while only 4% of doctoral institutions reported cuts this severe.

The landscape in Canada for academic libraries is significantly different from that in the United States. The eleven Canadian institutions that reported were much less likely to have experienced severe budget cuts than their American counterparts; five of the respondents noted no change at all and one noted an increase! 64% of Canadian respondents noted that the collections budget was unchanged and 18% of Canadian respondents noted an increase to the collections budget.) Four of the 8 Canadian institutions to respond to this question felt the current cuts were not likely to be permanent) and most respondents (73%) felt further cuts would be "extremely unlikely."

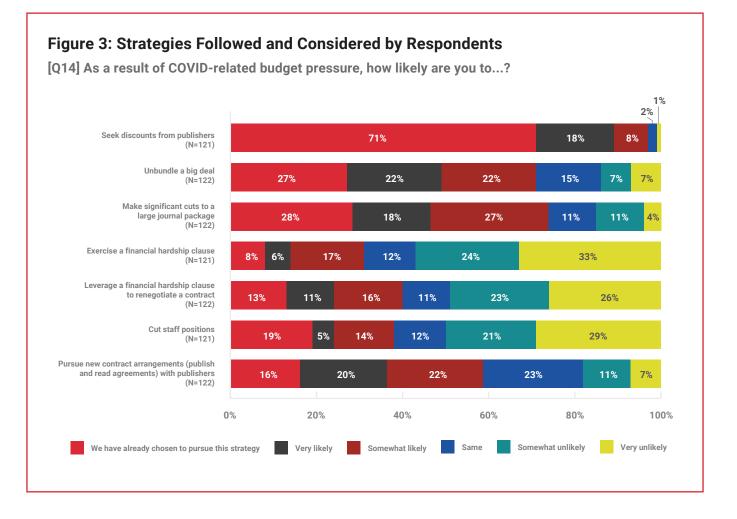
Strategies for Dealing with Budget Cuts

As a result of COVID-related budget pressure, librarians, especially those in the US, where budgets were most negatively affected, had to make many adjustments with very little time and a great deal of uncertainty. As one senior administrator noted, "information from the university came quickly, and was oftentimes rapidly changing." A Director of Academic Library Services at a public university emphasized the challenges inherent in rapid decision-making: "a real frustration for us was a really short turnaround from the

time that funds (were) available to the deadline to submitting a request to get them... We could have been more strategic, but deadlines [and] administration made it hard to assess the options, get the pricing [and] negotiate the prices."

Survey participants were asked, "as a result of COVID-related budget pressure, how likely" they were to undertake certain actions. Many reported that they had already begun pursuing certain strategies. Over 70% of respondents noted that they had "We could have been more strategic, but deadlines [and] administration made it hard to assess the options, get the pricing [and] negotiate the prices."

already chosen to "seek discounts from publishers" at the time of the survey and an additional 26% said they were likely to do so in the future as a result of COVID-related budget pressures. Over a quarter (27%) had already unbundled a Big Deal, with an additional 44% likely to do so in the future. A similar number of institutions reported having made, or being likely to make, significant cuts to large journal packages. Unfortunately, nearly a fifth of institutions (19%) had already cut staff positions as a result of the pandemic, and another 19% were at least "somewhat likely" to do so in the future (**Figure 3**).



Unsurprisingly, libraries that experienced budget cuts of 10% or more were more likely to have already implemented one of the strategies described above than those which reported lesser cuts. Beyond those, a similar proportion of institutions, regardless of the size of their budget cut, indicated they were likely to employ additional strategies in the future. For example, those with both large and small cuts were equally likely to consider unbundling a big deal or making significant cuts to a large journal package.

Survey respondents were asked how their institution's strategies had changed as a result of COVID-related issues. [Q15] In Canada, where budgets were generally less affected, respondents largely increased attention and resources to almost all areas. This was not the case among US institutions, where library respondents demonstrated stronger support for some activities than for others. While 78% of US respondents reported increased attention or resources for licensed digital materials and 61% increased support for internal digitization efforts, only 24% noted increased support for investments in open infrastructure projects and 17% noted increased support for library publishing (**Table 1**).

Understanding which actions have had the greatest impact may be easier to do with some distance, but respondents shared their thoughts about the "one action your library has taken that has had the greatest impact." [Q16] The responses suggested just how quickly libraries have had to pivot to provision of content for faculty and students, and how creatively they have had to consider working within the restricted budgets they have.

		D ATTENTION R RESOURCES	NO CHANGE I OR RESOURC	N ATTENTION ES
	US	CANADA	US	CANADA
Licensed Digital Materials	78%	91%	18%	9%
Internal Digitization Efforts	61%	82%	35%	9%
Supporting OER Adoption	56%	82%	38%	18%
Expanding Use of Controlled Digital Lending	57%	64%	43%	36%
Supporting OER Creation	44%	73%	48%	27%
Supporting Open Access Publication	40%	64%	50%	27%
Investment in Open Infrastructure Projects	24%	73%	71%	27%
Library Publishing	17%	36%	81%	64%

 Table 1: Strategies Given More or Equal Attention as a Result of COVID-related Issues

 [Q15] As a result of COVID-related issues, how has your strategy changed in relation to...?

Respondents cited many different ways to access licensed digital content as being most impactful, whether provisioning more material in digital formats, paying less for content they already have access to, or finding new ways to access materials, through:

- Supporting the use and creation of OER
- Increased licensing of digital materials, including for streaming video
- Internal digitization efforts "because they directly impact faculty's ability to teach successfully"
- Seeking perpetual access and/or unlimited usage
- Renegotiating to obtain either publisher discounts/lower increases
- Expanding use of controlled digital lending, including use of HathiTrust's emergency temporary access service
- Increasing contributions to campus Open Access publishing funds

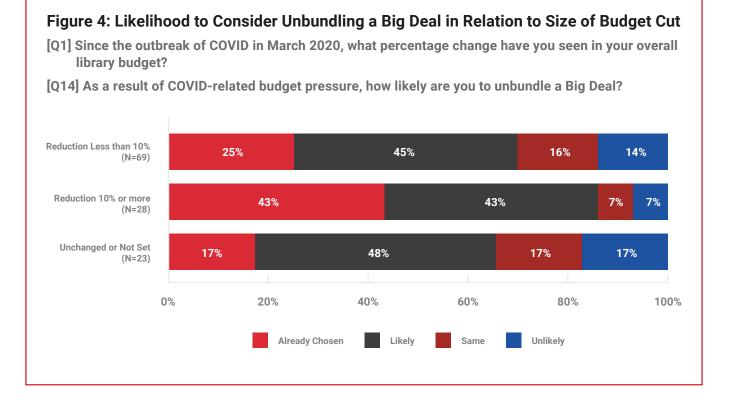
While these actions were cited as impactful, some respondents pointed out that they were not necessarily "new." As one Library Director at a public doctoral-granting institution noted, "Actually, our strategy has not changed due to COVID. We are using this situation as a way to advocate for more open information and the move to more OER. We have been pushing on these initiatives for years so we are taking advantage of people's openness to digital and online courses... to adapt to a new online environment."

In some cases, the enthusiasm for creating and promoting the use of Open Educational Resources was somewhat tempered by the constraints of the pandemic. A senior administrator at a private masters-degree granting institution highlighted the challenge of implementing open efforts in a year with a long list of other challenges at hand: "[Our] publishing output has decreased this year as our faculty struggle to pivot to online teaching, therefore, advocating for open access took a back seat. Our Special Collections librarian has upped her digitization efforts to support online teaching."

Impact of Budget Cuts on the Big Deal & Open Initiatives

Librarians took a wide range of approaches to dealing with budget cuts, from renegotiating contracts, to cancelling subscriptions, to shifting funds to internal digitization work. Of those libraries who experienced "small" budget reductions (defined here as 9% or less), 45% were likely to seek to unbundle a Big Deal—and a quarter of respondents had already chosen to do so (**Figure 4**). Those whose institutions experienced major budget cuts (defined here as over 9%), were even more supportive of this option: 43% were likely to explore unbundling a Big Deal, and another 43% reported already having done so.

For some librarians, the fiscal urgency ushered in by COVID-related budget cuts permitted them to take actions that had already long been in the works. In one case, "this gave us the extra justification we needed" to initiate a re-negotiation with Elsevier. One public research university used the pandemic as an opportunity to revisit their Elsevier contract a year early, looking to either renegotiate the cost of the existing bundle or unbundle



altogether. A private university library chose to re-negotiate with all major vendors with whom they had an annual spend of \$150K or more.

A liberal arts college undertook a renegotiation with Elsevier, which they felt was successful because they were able to make clear that "we were ready to walk."

We were ready to walk.

-Liberal Arts college on why they were successful in renegotiation of their Big Deal.

In a similar vein, while unbundling Big Deals or pulling back on other publisher packages was of interest to many and possible for some institutions, several respondents noted that—ironically—the reasons for needing to unbundle were also acting to keep them in place, not least of which was the inability, due to lack of staff capacity, to take on the work of preparing for an unbundling project or to manage the potential additional ILL workload it could create. "We did look, using Unsub, to see if we should be breaking things up," noted one. "But we had lost positions in the access services area—ILL and circ—and if we cut these things we needed to have enough people in the ILL to do the work to get those materials. It seemed like a bad time to increase the work, with fewer people there."

For some institutions, COVID may have highlighted the need for more digital content; however, the ability to take transformative action, in the form of new content creation or new models was, for some, simply not practical in the short term.

At some institutions, the complexity and importance of Big Deals may have served to insulate them from these cuts. More than once, a librarian described the process of looking for what to cull from the collection, in search of budgetary savings: The easiest items to cancel were collections (rather than reducing staff); and within collections, one-time purchases, including monographs and independent journal titles. The challenge of unraveling the Big Deal was seen by some as expensive and time consuming, and some librarians noted that it was the wrong time to undertake a major shift that would require additional staff time to locate titles for faculty as needed, since there were fewer staff on hand to help.

Current and Anticipated Future Support for Open Initiatives

The changes brought on by the COVID pandemic made clear how important access to online content and workspaces are for faculty and students, among others. Suddenly, the only materials available to students were those available digitally; the only workspaces safe for teachers and classes were online spaces such as Zoom meeting rooms. With the entire workforce working from home, the strength and robustness of the digital content and infrastructure were put to the test.

College and university campuses have long been making the "transition" from print to digital collections. In recent years, not only investing in e-content and databases, but in a growing movement to invest in the infrastructure, platforms used to create, store and share content. With the higher education community now having been forced to move entirely online due to the pandemic restrictions, SPARC wondered if this bolstered the case for supporting academy-led open access initiatives.

Survey respondents were asked to report if and how they support different "open" initiatives, and to consider how these might change in the future. The four types included:

- **Open Infrastructure**: Platforms, tools, and other software to support publication of open communication of research results, such as PKP, Fedora, or OpenCitations.
- **Open Content Initiatives**: creating or providing scholarly materials for free to those who use them, such as Open Libraries of Humanities or Knowledge Unlatched.
- **Supporting Organizations**: offering guidance, training, or advocacy to support the open research ecosystem (e.g. LPC, SPARC, DOAJ)
- **Open Access Agreements** with subscription publishers, such as publish & read agreements

Even before the pandemic, many libraries had already begun to support some of these efforts financially. Ninety-two percent (92%) of respondents reported offering financial support to supporting organizations; 70% for Open Content initiatives, 59% for open

infrastructure, and 58% for open access agreements with publishers (**Table 2**). Nearly a third of respondents indicated that they donate developer time or other in-kind contributions to open infrastructure platforms, and several reported that "we are building our own" open infrastructure (19%) or open content initiative (15%).

Faced with the COVID-related budget cuts, would libraries choose to maintain these levels of support? Perhaps decrease them, due to lack of funds? Or increase them, as a way to protect against future rising costs from commercial alternatives?

Across the board, respondents saw their investments in open initiatives as likely to stay the same or grow in the year to come (**Table 3**). While over 50% of respondents noted that their levels of support for open infrastructure platforms would stay the same, 31% noted that they were likely to increase somewhat and another 4% noted they would increase significantly. Similar patterns noted for open content initiatives and supporting

	FINANCIAL SUPPORT	IN-KIND SUPPORT	WE DO NOT CONTRIBUTE	WE ARE BUILDING/ LEADING OUR OWN	Ν
Open Infrastructure	59%	32%	29%	19%	117
Open Content Initiatives	70%	14%	18%	15%	113
Open Access Agreements	58%	5%	30%	9%	110
Supporting Organization	92 %	9%	5%	4%	117

[Q17] What investments does your library make to support open access-related initiatives? Please check all that apply.

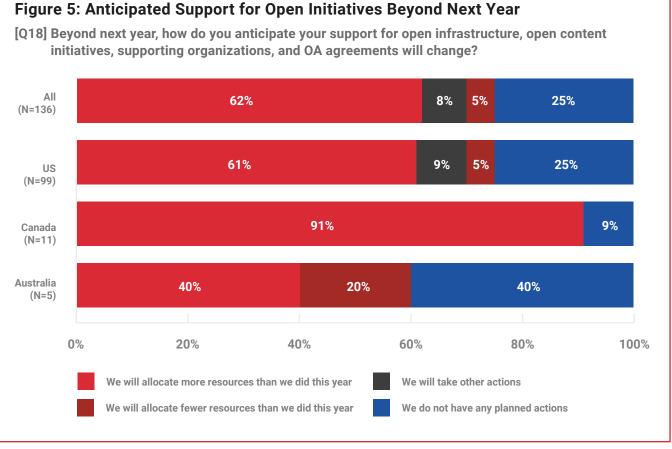
Table 2: Type of Investments in Various Open Access-Related Initiatives

ear, how do you	ı anticipate yo				ted initiatives	s will
LIKELY WILL NOT CONTRIBUTE	DECREASE SIGNIFICANTLY	DECREASE SOMEWHAT	STAY THE SAME	INCREASE SOMEWHAT	INCREASE SIGNIFICANTLY	Ν
10%	0%	2%	53%	31%	4%	116
4%	2%	4%	47%	35%	8%	115
8%	0%	2%	27%	54%	9%	114
3%	0%	5%	62%	26%	4%	116
	ear, how do you ase check all the LIKELY WILL NOT CONTRIBUTE 10% 4% 8%	ear, how do you anticipate you ase check all that apply. LIKELY WILL NOT CONTRIBUTE DECREASE SIGNIFICANTLY 10% 0% 4% 2% 8% 0%	ar, how do you anticipate your investmer sise check all that apply.LIKELY WILL NOT CONTRIBUTEDECREASE SIGNIFICANTLYDECREASE SOMEWHAT10%0%2%4%2%4%8%0%2%	ar, how do you anticipate your investments in open se check all that apply.Likely WILL NOT CONTRIBUTEDECREASE SIGNIFICANTLYDECREASE SOMEWHATSTAY THE SAME10%0%2%53%4%2%4%47%8%0%2%27%	Interse check all that apply.LIKELY WILL NOT CONTRIBUTEDECREASE SIGNIFICANTLYDECREASE SOMEWHATSTAY THE SAMEINCREASE SOMEWHAT10%0%2%53%31%4%2%4%47%35%8%0%2%27%54%	Arrow do you anticipate your investments in open access-related initiatives significantlyLIKELY WILL NOT CONTRIBUTEDECREASE SIGNIFICANTLYSTAY THE SOMEWHATINCREASE SOMEWHATINCREASE SIGNIFICANTLY10%0%2%53%31%4%4%2%4%47%35%8%8%0%2%27%54%9%

organizations. For Open access agreements with subscription publishers, a majority of respondents noted that their investments would increase somewhat (54%) or significantly (9%). Notably, none of the eleven Canadian respondents expected to decrease their investments in these areas.

In other words, in the face of large budget cuts and a good deal of uncertainty concerning future potential risks, the vast majority of libraries maintained or even expanded their support for open initiatives (**Figure 5**). This is a trend that seems likely to continue. When asked to consider how investments might change "beyond next year," 62% of all respondents (and 91% of reporting Canadian institutions) reported that "we will allocate more resources than we did this year." [Q19]

In addition to investments in open initiatives, respondents also shared a wide range of strategies used, including building support with faculty and partners, investment in local and consortial transformative agreements, and increased outreach to faculty to "garner support for library actions."



One highlighted the importance of consortial investments and another underlined their commitment to maintaining existing investments, even in difficult financial times. ("We will continue our historic investments as well (which is saying a lot when the budget is shrinking)." Several noted that they were still not sure, and planned to "keep evaluating and determining what works best for our organization."

Respondents were asked to consider "what effect will the changes being put in place today have on the library landscape in the next 5 years?" Most felt that while the changes put in place may have been in response to very specific conditions, they were likely to last beyond the pandemic. Among those changes respondents felt were most likely to last

were: increased demand for online resources (97%) and freely available online resources (91%) from faculty and students and a push for libraries to re-negotiate contracts with vendors to reduce costs (84%) in light of budgetary constraints (**Table 4**).

There were, however, a few choices that did not elicit as strong a consensus. While 53% of respondents felt library publishing investments would continue beyond the pandemic, 38% felt it would "not happen at all." Similarly, 56% felt that "we will observe a significant

Table 4: Effect of Changes Being Put in Place Today on the Library Landscape in theNext Five Years

years?	THIS WILL NOT HAPPEN AT ALL	SHORT-TERM CHANGE; WILL NOT LAST	WILL CONTINUE BEYOND THE PANDEMIC	N
Library budget for licensed materials will be significantly lower than in the past	15%	32%	54%	114
Increased demand for online resources from faculty & students	1%	2%	97%	115
Increased demand for freely available online resources from faculty & students	4%	4%	91%	112
The library will invest significantly more than today in library publishing	38%	10%	53%	112
We will observe a significant reallocation of funds from paid subscription products to investment in open infrastructure	30%	14%	56%	104
Libraries will re-negotiate contracts with vendors to reduce costs, in light of budgetary constraints	1%	15%	84%	115
Libraries will re-negotiate contracts with vendors to create more alignment with library values	4%	11%	85%	114
We will observe a significant reallocation of funds from paid subscription products to investment in open access publishing agreements	19%	10%	70%	108
The library will invest significantly more than today in Open Content Initiatives	12%	9%	79%	107

[Q22] What effect will the changes being put in place today have on the library landscape in the next 5 years?

reallocation of funds from paid subscription products to investment in open infrastructure," while 30% disagreed.

Among US institutions, there were some notable differences between doctoral and nondoctoral institutions. While neither felt investments in library publishing or open infrastructure would be increased post pandemic, a greater proportion of non-doctoral institutions were more pessimistic than their doctortal counterparts. Only 40% of US non-doctoral institutions felt that "the library will invest significantly more than today in library publishing," while 57% of doctoral institutions felt the same.

Similarly, there was a large gap between the proportion of US doctoral and non-doc-toral institutions that felt that "a significant re-allocation of funds for paid subscription products to invest in open access publishing agreements" would be seen beyond the pandemic. While 71% of doctoral institutions saw this strategy persisting, while only 55% of non-doctoral institutions felt the same way, with a full 25% of those institutions feeling it would not happen at all (in contrast to 16% of doctoral institutions that felt the same way).

Even if most respondents felt certain changes were likely to take place—somewhere whether or not they thought it was likely to happen at their own institutions was a different story. In thinking about the longer-range impacts of these COVID-related changes, respondents were asked to consider the same list of changes, but this time to indicate whether they wanted to see the change take place at their institution; whether they thought it would take place at their institution; and whether they thought it would take place at many other institutions.

While many felt library budgets for materials will be "significantly lower than in the past" at many other US institutions (88%); virtually nobody wanted to see it happen, but none-theless almost half felt it was likely to happen at their own intuition (**Table 5**).

Among all US institutions reporting, 65% felt "a significant reallocation of funds from paid subscription products to investment in open infrastructure" was likely to occur at many

Table 5: Trends US Respondents Wanted or Thought Likely to Be Seen

[Q23] Which of the following changes would you like to see, or think you will see? Please check all that apply.

	WANT TO SEE AT MY INSTITUTION	THINK I WILL SEE AT MY INSTITUTION	THINK I WILL SEE AT OTHER INSTITUTIONS
Library budget for license materials will be significantly lower than in the past	1%	48%	88%
Increased demand for online resources from faculty & students	33%	85%	79%
Increased demand for freely available online resources from faculty & students	61%	66%	63%
The library will invest significantly more than today in library publishing	63%	49%	59%
We will observe a significant reallocation of funds from paid subscription products to investment in open infrastructure	56%	40%	51%
Libraries will re-negotiate contracts with vendors to reduce costs, in light of budgetary constraints	58%	78%	78%
Libraries will re-negotiate contracts with vendors to create more alignment with library values	64%	68%	68%
We will observe a significant reallocation of funds from paid subscription products to investment in open access publishing agreements	58%	40%	65%
The library will invest significantly more than today in Open Content Initiatives	63%	49%	59%

institutions and 58% described it as something they'd want to see at their own institution, though only 40% felt it was likely to happen at their own institution (**Table 5**). Similarly, 63% wanted to see the library "invest significantly more than today in library publishing," but only 36% thought it was likely to happen at their institution (while 59% felt it was likely to happen elsewhere).

Pressing Concerns

While the focus of this SPARC survey was specifically to assess the impact of COVIDrelated budgetary constraints on academic libraries, respondents made clear that the impact went far beyond questions concerning collections, touching all parts of their operations.

Respondents were asked to rank their "most pressing concerns—beyond the health and safety of staff and library users—about the impact of COVID on your library." Loss of staff and cuts to licensed content were ranked first and second, far ahead of the other options offered, including inability to circulate print, reductions in support for open initiatives and loss of staff due to furloughs. But there were some interesting differences among respondents from different types of institutions.

Q12] What are your most pressing concerns—beyond the health and safety of staff and library users—about the impact of COVID on your library?				
	US DOCTORAL	US NON-DOCTORAL	CANADIAN	
Loss of Staff Due to Personnel Reductions	1	1	2	
Cuts to Licensed Content	2	2	4	
Inability to Circulate Print Collections	3	6	3	
Reductions in Support for Open Initiatives	4	4	5	
Loss of Staff Due to Furloughs	5	5	6	
Other	6	3	1	

infrastructure.sparcopen.org | 26

While libraries at US doctoral institutions were more likely to be concerned about their inability to circulate print collections, non-doctoral institutions and Canadian institutions ranked "other" much higher (third and first place respectively). Among the things they described as concerns were the impact of community-wide decreases on the purchasing power of their consortium; re-prioritizing the collections budget to meet demand for pedagogical tools and content, including streaming video and audio resources; and keeping pace with quickly changing teaching practices.

In addition, respondents were asked to offer further detail outlining their concerns. These responses offer a more nuanced story.

Staffing issues related not just to present personnel levels, but to the impact of policies put in place during the pandemic on current and future colleagues were of concern. At several institutions, even when no one was furloughed or fired, positions were often frozen, so no new hires were possible and open positions remained open. Some noted that the COVID-era atmosphere has been terrible for morale, which is likely to have longer-range impacts as well. "We're losing some of our dynamic younger people" as those close to retirement "have too much invested in the community to leave on the spur of the moment." (95) For those who remain, respondents noted concerns of low morale due to "persistent cuts to salary, benefits and travel budgets" (159) and more generally a "weakened library culture" due to "Loss of face-to-face contact with other library employees and hallway-type interactions. Not getting to know new employees as well." (176) (178)

For those facing cuts to collections, print and special collections were called out as at risk. (205)

Some noted the need to re-prioritize the collections budget "to fulfill demand for streaming video/audio resources. We have cut our spending on serials to focus more on streaming content. Monograph budgets are flat." (225)

Even those institutions not facing direct or severe cuts themselves noted a range of ways in which they were also feeling the impact of COVID-related cutbacks in their

organizations and throughout the community. In some cases, funding was not cut, but "frozen," stalling long-planned capital projects or key hires. As one noted, "I have the money but am not allowed to spend it. I have had plans for moving the library forward in the area of digital scholarship and open access through new hires (positions are frozen) and a library renovation to create a digital scholarship center." (65)

Where libraries are part of consortia, the impacts are felt for all. "If our consortium members' budgets decrease, it has an impact on how much new material (archival databases, for instance) we can purchase. In other words, there is more power in working with a group than having to purchase direct, alone—so even if our budget isn't impacted directly, our pricing will reflect an increase if we have to buy on our own, and thus our budget will be squeezed more than anticipated/expected in prior years." (39)

One librarian noted the difficult position the library can be placed in, when seen as the key provider of content, without having the ability to deliver. The respondent noted a "loss of campus support because we're unable to provide the resources expected in the online environment. The library/librarians are being held accountable for situations created by faculty authors & publishers with restrictive copyright licensing. This [is] significantly true for eBook availability." (91)

Beyond library collections, many respondents underlined the significance of the services and physical spaces of the library, noting that while being able to offer services virtually is a sign of the strength of the institution ("the Libraires is being seen as the answer to equitable access to technology" (60), the de-emphasizing of the physical space could pose a long-term risk.

In a sense, the need to rapidly convert the library into a mostly virtual, contact-free space—and libraries' success in doing this so quickly and effectively—may now somewhat undermine future perceptions of the value of those spaces.

• "What will happen to library spaces now that we have proven that we can do 80-90% of our jobs remotely and that students and faculty have gotten used to teaching and learning online," asked one. (129)

- "We are open but with adjustments, including limiting hours and building capacity as well as prioritizing online resources and services. This is serving our students' needs from an information perspective, but I worry about the social and communal perspective. Our library, like many others, was a space for collaboration and exploration. We host art exhibits, poetry readings, scholarly debates, and other events. All of that has changed to one degree or another. My worry is how students are coping with this loss and how we restore the image of the library as a place for ingenuity and collaboration once we have a few years of changed atmosphere." (150)
- "The library as space is pretty important on our campus. If our space use decreases over the long term, I worry about what that means for the library generally." (247)

CONCLUSION

The global COVID pandemic has had major, immediate, and lasting impacts on academic libraries, and we may not know their full influence for years to come. The rapid shutdown of in-person services and nearly overnight transition to virtual-only operations, were perhaps only the most obvious changes in business-as-usual. Quickly afterwards, on most campuses, senior administrators began implementing budget cuts and cost-saving measures throughout their institutions, including the library. These changes, while varying in degree from institution to institution, often thrust the libraries into a very peculiar spot: with all or most educational activities needing to be delivered online, libraries became all-virtual overnight, experiencing increased demand for digital content and support, while also being required to find immediate cost savings.

This moment forced library leaders to act fast and think creatively and pragmatically about how best to deliver services, while choosing where to allocate increasingly reduced funds, often based on information that might be changing day to day.

The libraries whose leaders responded to the survey offer a snapshot of a range of approaches to what was by all accounts a very unusual set of circumstances. Most—but not all—had to contend with significant budget cuts. Often without as much time as would be ideal, library leaders had to rapidly make decisions about where and what to cut, and how to redeploy people and funds. Print and one-time purchases were easier to cut, but for most institutions, no category was off limits.

The survey of library responses to COVID-related budget cuts illustrates a wide range of responses to this particular moment, from renegotiating contracts, to cancelling subscriptions, to shifting funds to internal digitization work. Over 40% of those institutions experiencing budget cuts of any size reported being likely to seek to unbundle a big deal; and nearly as many reportedly they already had.

Some campuses very intentionally chose not to undertake complex re-negotiation or unbundling—lack of bandwidth to deal with the analysis, negotiation, faculty outreach

and finding alternative sources for content made this a difficult time. But many libraries described this moment as a useful way to put into action changes that had been in the works.

Looking ahead, many library leaders predict that the budget squeeze felt today will not disappear once the pandemic recedes. Even though the budget landscape is uncertain, they will continue to support open access initiatives, whether open infrastructure, open content, open access agreements, or the organizations which support the work of the open community in various ways, at levels comparable or higher than they do today. They will continue to renegotiate contracts that better align both with mission values and with the budgets they have available.

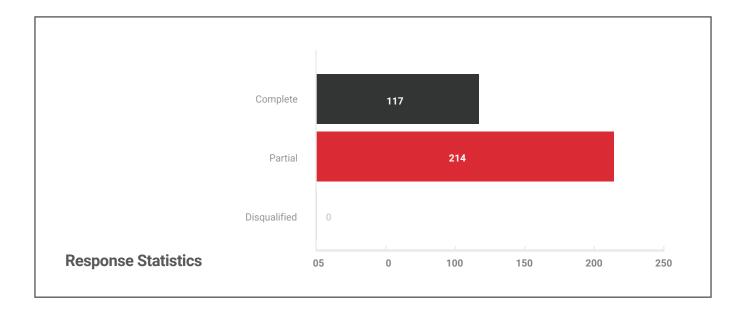
The actions captured in this study reflect difficult decisions made during a once-in-alifetime global crisis. This crisis put into stark relief the urgency of making digital scholarly content accessible for research and learning as well as most libraries' continuing commitment to open initiatives, even in the face of financial challenges posed by the pandemic.

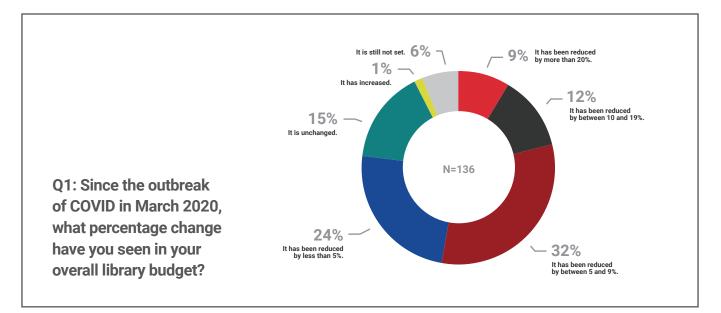
Acknowledgments

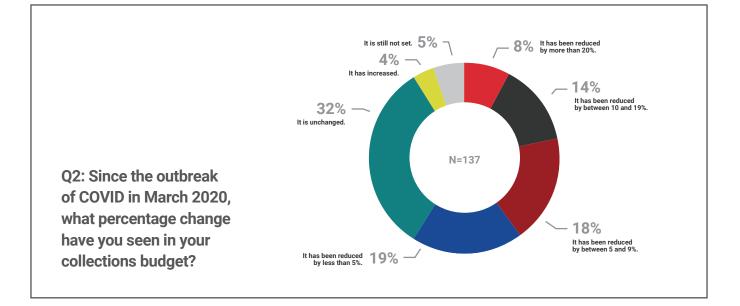
This report would not have been possible without all those who generously volunteered their time to answer our questions. We are grateful for each survey response and would especially like to acknowledge the contributions of those who agreed to be interviewed during a busy and challenging time, including: Janice S. Lewis and Mark M. Sanders (East Carolina University), Kevin Engel (Grinnell College), Elizabeth Mengel (Johns Hopkins University), Rebecca Richardson (Purdue University), and Frances Maloy (Union College). Similarly, this project would not have been possible without the support of the SPARC Steering Committee and financial support of the Open Society Foundations. Finally, we would like to thank early readers for their edits and corrections that have contributed to the accuracy and clarity of this report.

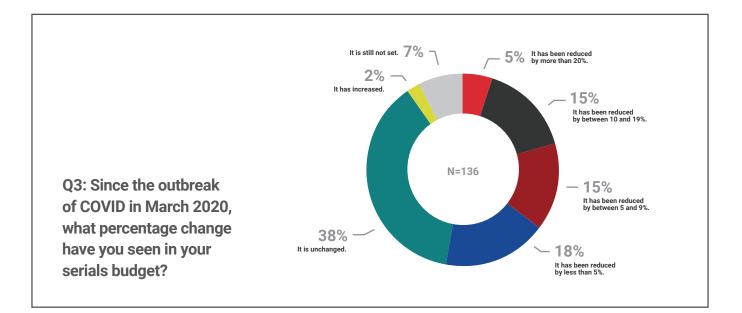
APPENDIX A Data Tables and Charts

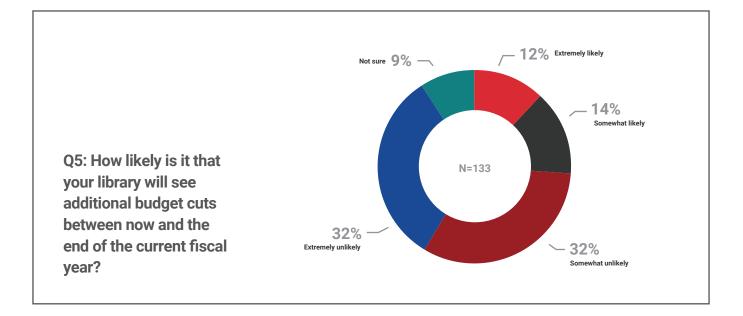
Note: This appendix only includes survey questions where responses can be aggregated and do not include personally identifiable data. Open text responses have been omitted.

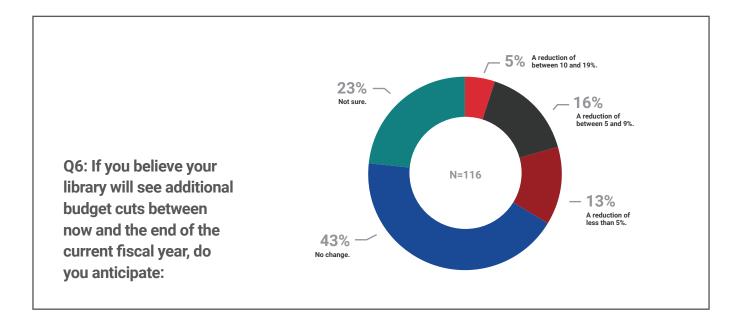


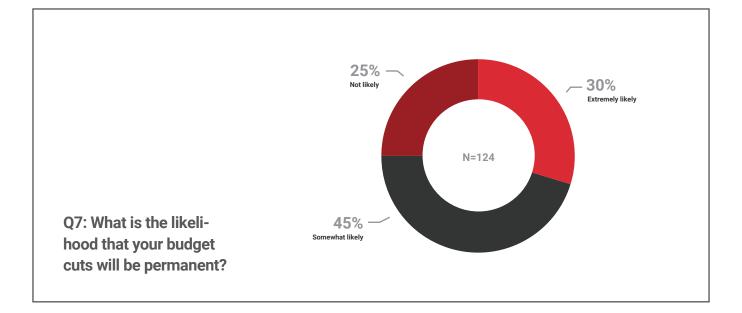


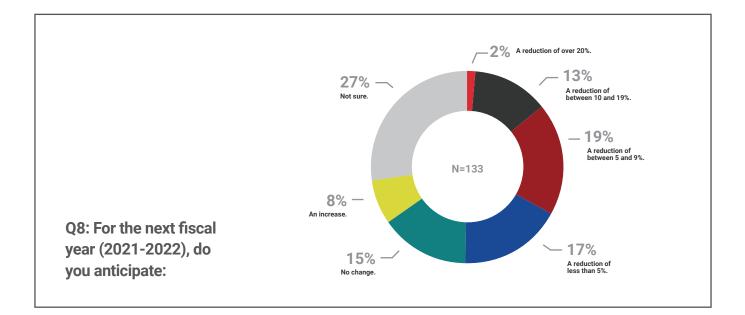


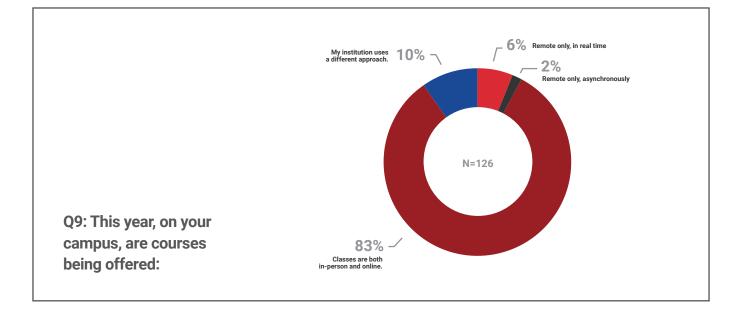


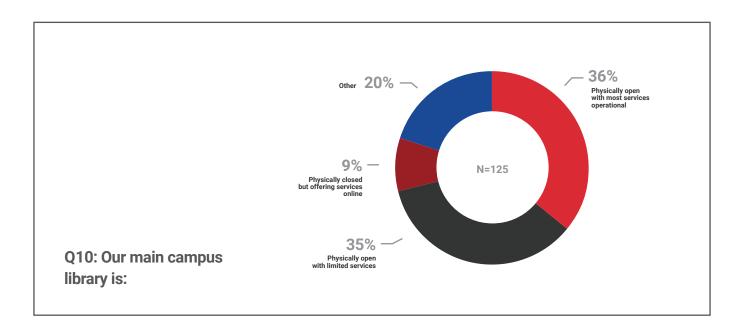












Q12: What are your most pressing concerns—beyond the health and safety of staff and library users—about the impact of COVID on your library? Please rank each of the following choices.

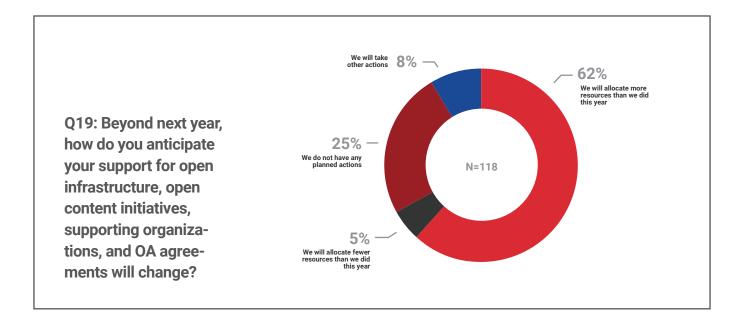
	OVERALL RANK	SCORE	TOTAL RESPONDENTS
Loss of Staff Due to Personnel Reductions	1	503	102
Cuts to Licensed Content	2	475	102
Inability to Circulate Print Collections	3	310	89
Reductions in Support for Open Initiatives	4	280	86
Other	5	253	61
Loss of Staff Due to Furloughs	6	247	74

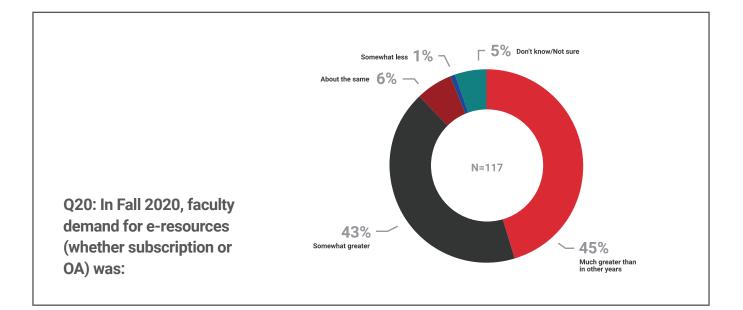
	VERY UNLIKELY	SOMEWHAT UNLIKELY	SAME	SOMEWHAT LIKELY	VERY LIKELY	WE HAVE ALREADY CHOSEN TO PURSUE THIS STRATEGY	TOTAL RESPONSES
Seek Discounts from Publishers	1	0	2	10	22	86	121
Unbundle a Big Deal	9	8	18	27	27	33	122
Make Significant Cuts to a Large Journal Package	5	14	14	33	22	34	122
Exercise a Financial Hardship Clause	40	29	15	20	7	10	121
Leverage a Financial Hardship Clause to Renegotiate a Contract	32	28	14	19	13	16	122
Cut Staff Positions	35	26	14	17	6	23	121
Pursue New Contract Arrangements (Publish & Read Agreements) with Publishers	9	14	28	27	25	19	122

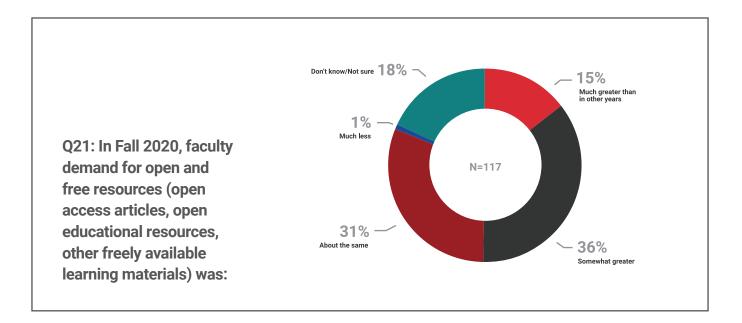
	INCREASED ATTENTION OR RESOURCES	DECREASED ATTENTION OR RESOURCES	NO CHANGE	TOTAL RESPONSES
Licensed digital materials	93	5	24	122
Supporting Open Access publication	53	12	57	122
Expanding use of controlled digital lending	67	1	53	121
Investment in open infrastructure projects	34	4	84	122
Internal digitization efforts	75	5	42	122
Supporting OER creation	55	9	58	122
Supporting OER adoption	69	7	46	122
Library publishing	22	3	97	122

	FINANCIAL SUPPORT (E.G. MEMBERSHIP)	IN-KIND SUPPORT (E.G. DEVELOPER TIME)	WE DO NOT CONTRIBUTE	WE ARE BUILDING/ LEADING OUR OWN INITIATIVE	TOTAL
Open Infrastructure: Platforms, tools, and other software to support publication of open communication of research results, such as PKP, Fedora, or OpenCitations	69	38	34	22	163
Open Content Initiatives: creating or providing scholarly materials for free to those who use them, such as Open Libraries of Humanities or Knowledge Unlatched	79	16	20	17	132
Supporting Organizations: offering guidance, training, or advocacy to support the open research ecosys- tem (e.g. LPC, SPARC, DOAJ)	108	11	6	5	130
Open access agree- ments with subscrip- tion publishers, such as publish & read agreements	64	5	33	10	112
Total Checks	320	70	93	54	537
Percent of Total Checks	59.6%	13%	17.3%	10.1%	100%

	INCREASE SIGNFICANTLY	INCREASE SOMEWHAT	STAY THE SAME	DECREASE SOMEWHAT	DECREASE SIGNFICANTLY	LIKELY WILL NOT CONTRIBUTE	TOTAL
Open Infrastructure: Platforms, tools, and other software to support publication of open communication of research results, such as PKP, Fedora, or OpenCitations	5	36	61	2	0	12	116
Open Content Initiatives: creating or providing scholarly materials for free to those who use them, such as Open Libraries of Humanities or Knowledge Unlatched	9	40	54	5	2	5	115
Supporting Organizations: offering guidance, training, or advocacy to support the open research ecosys- tem (e.g. LPC, SPARC, DOAJ)	5	30	72	6	0	3	116
Open access agree- ments with subscrip- tion publishers, such as publish & read agreements	10	62	31	2	0	9	114



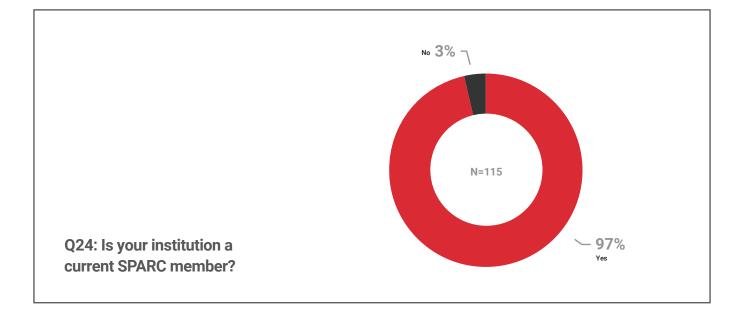


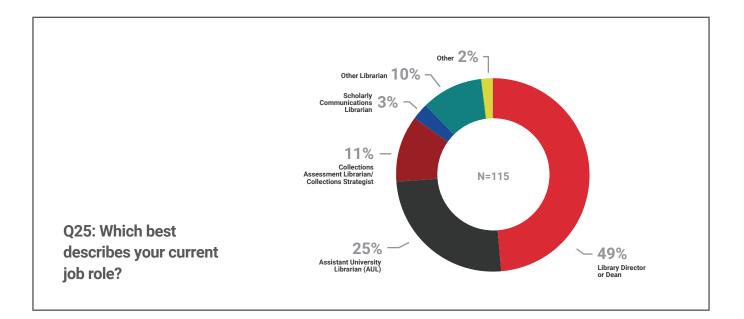


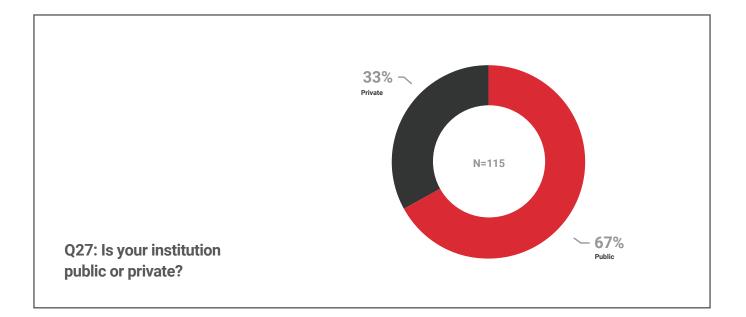
Q22: What effect will the changes being put in place today have on the library landscape in the next 5 years?

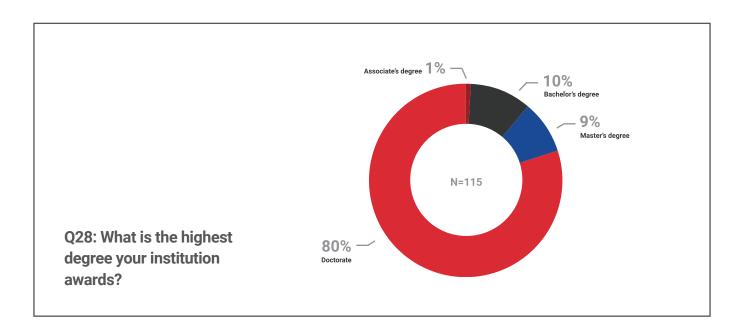
	THIS WILL NOT HAPPEN AT ALL	SHORT-TERM CHANGE; WILL NOT LAST	WILL CONTINUE BEYOND THE PANDEMIC	TOTAL RESPONSES
Library budget for licensed materials will be significantly lower than in the past	17	36	61	114
Increased demand for online resources from faculty and students	1	2	112	115
Increased demand for freely available online resources from faculty and students	5	5	102	112
The library will invest signifi- cantly more than today in library publishing	42	11	59	112
We will observe a significant reallocation of funds from paid subscription products to invest- ment in open infrastructure	31	15	58	104
Libraries will re-negotiate contracts with vendors to reduce costs, in light of budgetary constraints	1	17	97	115
Libraries will re-negotiate contracts with vendors to create more alignment with library values	5	12	97	114
We will observe a significant reallocation of funds from paid subscription products to invest- ment in open access publishing agreements	21	11	76	108
The library will invest signifi- cantly more than today in Open Content Initiatives	13	10	84	107

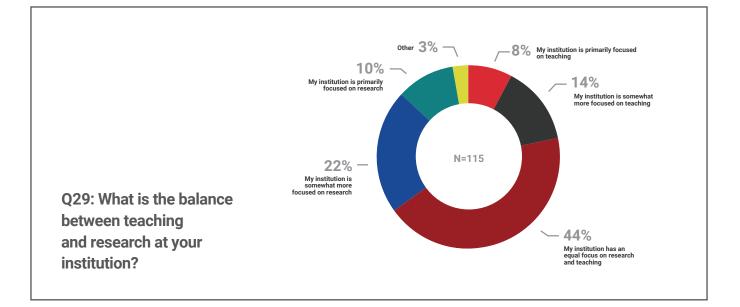
ck all that apply.	WANT TO SEE THIS AT MY INSTITUTION	THINK WE WILL SEE THIS AT MY INSTITUTION	THINK WE WILL SEE THIS AT MANY OTHER INSTITUTIONS	TOTAL CHECKS
Library budget for licensed materials will be significantly lower than in the past	1	51	95	147
Increased demand for online resources from faculty and students	35	97	89	221
Increased demand for freely available online resources from faculty and students	64	73	70	207
The library will invest signifi- cantly more than today in library publishing	58	37	57	152
We will observe a significant reallocation of funds from paid subscription products to invest- ment in open infrastructure	55	40	50	145
Libraries will re-negotiate contracts with vendors to reduce costs, in light of budgetary constraints	65	87	86	238
Libraries will re-negotiate contracts with vendors to create more alignment with library values	71	73	72	216
We will observe a significant reallocation of funds from paid subscription products to invest- ment in open access publishing agreements	58	40	63	161
The library will invest signifi- cantly more than today in Open Content Initiatives	64	51	60	175
Total Checks	471	549	642	1,662
Percent of Total Checks	28.3%	33%	38.6%	100%

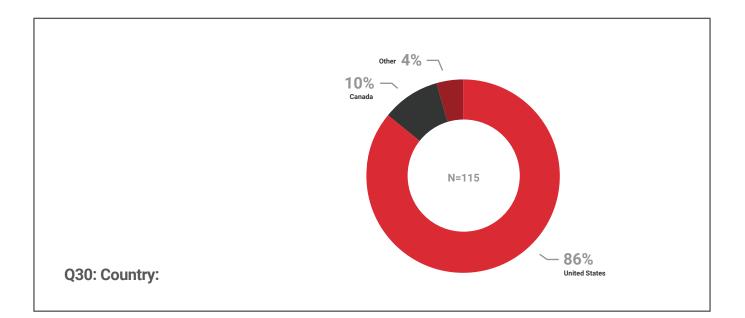


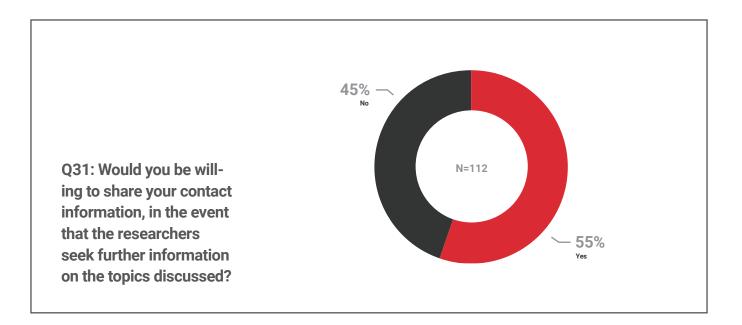












APPENDIX B Methodology

The SPARC COVID-Impact survey instrument was reviewed by members of SPARC's Journal Negotiation Community of Practice and implemented via the Alchemer platform (formerly SurveyGizmo). The survey opened on January 19 and closed on February 26, 2021.

The data was reviewed and cleaned to remove duplicate responses from institutions. The original dataset included 125 "complete" responses, as defined by the survey platform. Of these, three were entirely blank and five were duplicate responses from institutions, so were deleted. Where more than one respondent from an institution completed the survey, the senior administrator response was kept.

Of 117 complete responses, only 115 reached and responded to question 30, with country demographics. Earlier questions will have higher responses in the aggregate The survey platform considered any response not "submitted" to be partial; the survey team also reviewed the partial responses, deduped responses where a complete response had already been submitted by that institution, and determined that another 20 responses those having completed at least the first budget questions—would be included in the analysis.

The study includes some subgroup analysis, by Country and by Institution Type. Because these questions were found later in the survey, not all respondents offered answers here. For that reason, the total number of respondents for some questions adds up to greater than the total of the Country-specific sub groups.

The subgroup analyses included: Country (US, 99; Canada, 11; and Australia, 5). In addition, of the 99 US-based complete responses, we also examined subgroups by institution type:

- US, Doctoral institutions
- US, Non-Doctoral institutions, where the highest degree conferred is an Associate's, Bachelor's, or Master's Degree

Within the group of US-based doctoral institutions, we examined responses of public versus private institutions.

Five interviews were conducted with librarians or teams at libraries at different types of institutions, including public and private research universities, and a liberal arts college. Interviewees were chosen based on open-text responses which suggested they could help provide further detail about specific tactics taken, whether re-negotiating a contract, unbundling a big deal, or undertaking in-house digitization. The interviews are included throughout the report to add further context to survey findings, where appropriate.

 \bigcirc September 2021 @ 2021 SPARC, subject to a Creative Commons Attribution 4.0 International License