ASSOCIATION OF RESEARCH LIBRARIES

Library Impact Practice Brief

Supporting Library Spaces Research in the Iowa State University Library with Project Outcome

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Table of Contents

Issue

In the busy world of academic research library assessment work, **can simple and easy-to-use outcome-based assessment tools contribute in meaningful and actionable ways to library decision-making**? This was the question at the center of a project conducted by staff in the Iowa State University (ISU) Library's Assessment and Planning unit as part of the library's participation in the Association of Research Libraries (ARL) Research Library Impact Framework (RLIF) project. The ISU project was done in support of the ARL research question, "How do library spaces facilitate innovative research, creative thinking, and problem-solving?" The ISU research project was based on the use of the Association of College and Research Libraries (ACRL) Project Outcome for Academic Libraries[1] survey tool. In the ISU project, data was collected and analyzed using the Project Outcome spaces survey, once every semester, from the fall of 2018 through the fall of 2021.

The ISU project was designed to identify benefits of the Project Outcome survey through the hands-on use of the Project Outcome toolkit and to share those findings. This practice brief also provides information on how to use Project Outcome. A goal of the project was to support and encourage other ARL libraries in their own use of the Project Outcome resources.

Why It Matters to Research Libraries

Research related to library spaces was identified as one of five high priority areas in the ARL RLIF project.[2] Research related to library spaces is a priority at ISU, where the library recently developed a six-phase, $90 million renovation plan.[3] In support of this plan, the ISU Library conducts ongoing, continuous assessment to measure progress related to the renovation of library spaces. The Project Outcome survey is one simple and efficient tool used by the ISU Library for collecting information about library spaces.

As each phase of the ISU Library's renovation plan comes forward, current information about library space is required. It is important to show evidence of the impact of existing library spaces. It is also important to identify the limits, as well as the potential, of existing library spaces. The ISU Library collects this supporting data using tools like Project Outcome.

The Project Outcome initiative was developed to help academic libraries understand and share the impact of essential library programs and services by providing simple surveys and an easy-to-use process for measuring and analyzing outcomes. Participating libraries are also provided with the resources and training support needed to apply their findings and confidently advocate for their library's improvement. Academic libraries can use Project Outcome reports to see how the outcomes of their programs and services compare across their institution, Carnegie classification, and nation. Data collected using Project Outcome's standardized surveys also allow libraries to aggregate their outcome data and analyze trends by service topic and program type over time.

While many libraries, including the ISU Library, collect quantitative data about their programs and services, what is often lacking are outcomes data to indicate the benefits libraries provide to student success and other institutional goals. Measuring outcomes can provide libraries with new ways to demonstrate the benefits of library space beyond gate counts and other usage metrics. Project Outcome is designed to give libraries simple tools and supportive resources to help turn better data into better collections.[4]

Objectives

The ACRL Project Outcome for Academic Libraries toolkit provides surveys designed to help libraries measure outcomes and assess their impact in seven key service focus areas: digital and special collections, instruction, events/programs, teaching support, library technology, research, and spaces. Project Outcome helps libraries easily measure their patron outcomes as one part of a multipiece assessment strategy. Measuring outcomes helps libraries understand the benefits that result from their services or programs. They answer the question: "What good did we do?"

Prior to the start of the ARL RLIF project, the ISU Library had already begun the process of submitting data to the Project Outcome database for the "space" focus area. Throughout the RLIF project, the ISU project continued to collect, contribute, and analyze space related Project Outcome data.

The primary research question for the ISU project was:

- What outcome trends and findings can be observed over the course of the project's timeline related to library study rooms?

In addition to this primary research question, an overarching objective of the ISU study was to share information with other ARL libraries that may compel them to also consider the use of Project Outcome as part of their assessment plan strategy. As the ISU RLIF project was concluding in the fall of 2021, ACRL reported that 94 ARL libraries had registered to use the Project Outcome tools. But only 12 ARL libraries were actively submitting data to the Project Outcome database. And no other ARL library was submitting Project Outcome data related to library spaces. This level of Project Outcome usage limits the ability for ARL libraries to compare their outcome measurements with other libraries similar to them. Working to increase ARL library involvement in Project Outcome will benefit ARL library assessment efforts, as the relevance of the Project Outcome comparative data will grow as the base of contributing ARL libraries expands.

Key Performance Indicators

The Project Outcome survey used by Iowa State for this research project was by design simple and easy to use. While the quantitative information collected had value and interest, the research methods used in this project would not generally be described as rigorous. Data for this study was collected each semester from convenience population samples. Response rates were in the 15% range, and most likely came from patrons with either very positive library experiences or very negative library experiences. In the middle of the study (spring 2020), the COVID-19 pandemic started and continued, which no doubt impacted the use of ISU Library spaces by students and their opinions about library spaces in general.

The main quantitative metric generated from the Project Outcome survey is the average score calculated based on the responses to the Likert scale-based survey questions. Scores could range from 1 (strong negative) to 5 (strong positive).

In the ISU project, additional demographic data (respondent's college, rank, type, and gender) was merged with the Project Outcome data. This allowed ISU researchers to desegregate the Project Outcome average score metric in various ways. For example, average scores for engineering students could be compared with average scores for business students. Or average scores for freshmen could be compared with average scores for seniors.

There may be data analysis methods available that would attempt to identify statistically significant differences in the average scores across the range of demographics. But for this project, the ISU research team decided the Project Outcome data collection methods were not rigorous enough to reliably support those types of analysis. The ISU research team did believe there was value in the anecdotal

review of the average score data across the various demographics calculated and reported in the study.

It is worth noting the Iowa State study did add a research component in 2021 designed to examine the use of a monetary incentive as a way to boost response rate. In the data section that follows, readers will see that the use of the award resulted in an increased response rate. But the study did not attempt to determine if the increased response rate generated noticeable differences in the overall average scores from non-incentivized and incentivized responses.

Data

For the purposes of the Iowa State RLIF project, data were collected using the Project Outcome library space survey. The Project Outcome survey was sent once each semester starting in the fall of 2018 through the fall of 2021 to students that had reserved library study rooms. The survey was based on the four core outcome measures (knowledge, application, confidence, awareness) defined for all Project Outcome surveys. In addition to these four core questions, a question related to library welcomeness and a question related to the efficiency of the room reservation process were added.

The format of the Project Outcome questions was similar. For example, for the knowledge question, the survey prompt was: "The space contributed to my ability to learn something new." The survey provided a Likert scale of "Strongly Agree" = 5 to "Strongly Disagree" = 1. See Appendix I for a copy of the survey instrument.

The RLIF study's master data set was created by combining data exports from each Qualtrics survey into an Excel spreadsheet. Initially the respondent's ID was included in the dataset as a key field to allow for the survey data to be matched with the following demographic information from the library's management system:

- Respondent's college
- Respondent's rank (freshman, sophomore, junior, senior, graduate)
- Respondent's type (undergraduate, graduate, veterinary medicine)
- Respondent's gender (binary)

The data collection method used at Iowa State was designed to maintain the confidentiality of respondents while providing anonymized data sets supporting the ability to desegregate the Project Outcome data in various ways. Once the survey data

was merged with the demographic data, the respondent's identifying key field was removed from the master Excel dataset to create an anonymized version of the dataset to be used in all subsequent data analysis. This final anonymized version of the ISU RLIF project's master dataset is available on the ISU library's assessment website.[5]

The ISU project used Qualtrics for the development and administration of the survey because it was a tool already in use by the library's assessment and planning unit. However, the data collection process could also have been accomplished using the built-in Project Outcome survey tool. The survey process was simple and easy to replicate from one semester to the next. It included the following steps:

1) Midway through the semester, identify students who had reserved a library study room since the start of that semester.
2) Create a Qualtrics survey based on the Project Outcome survey template. Use the information collected in step 1 to create a Qualtrics email distribution list.
3) Distribute the Qualtrics survey using the university's email system. Provide a two-week window for responses to be submitted. One reminder message was issued.
4) Once the survey window closed, export the Qualtrics data into an Excel spreadsheet and upload the new data into the ACRL Project Outcome database.
5) Using the exported Excel file, merge in demographic information from the library's management system, matching on the respondent's email address as the key field.
6) Anonymize the dataset by removing the email address from the dataset.
7) Add the new anonymized data into the study's master Excel spreadsheet data set to be used in all of the study's data analysis at the conclusion of the study.

In support of an added incentive to increase survey response rates, additional funding from ARL, provided by a grant from the Institute of Museum and Library Services (IMLS),[6] was added to the project budget for the spring and fall 2021 surveys. The incentive supported the opportunity for respondents to be placed into a drawing to win a cash award that could be used in campus dining services facilities. Once the survey window was closed, respondents who had indicated they would like to be included in the drawing were selected at random for the award. A list of winners was provided to the university's accounting office, funds were transferred into the student's dining account, and winning students were notified of their award.

The ISU research team was able to create a variety of data visualizations based on the study's combined Project Outcome and ISU demographic dataset. Here are

descriptions of sixteen (16) figures that were generated for the study (chart images are shown in Appendix II):

- A benefit of loading data into the ACRL Project Outcome database was that the Project Outcome Data Dashboard could be used to easily track and compare ISU response frequency metrics. Figure 1 shows a screenshot from the dashboard showing the overall response frequencies for ISU data submitted through the fall 2021 semester.
- Figure 2 shows the overall average scores for data collected from 2018 through 2021. These overall average scores indicated students were experiencing positive outcomes related to their use of library study rooms.
- Figure 3 shows the average scores for each Project Outcome question for every semester from 2018 through 2021. The overall average score is shown for comparison. The library spaces "continue to use" scores were high through 2020 but dropped in the two 2021 surveys. The drop in the average score may be attributed in part to changes in student use of library spaces due to the COVID-19 pandemic.
- Figure 4 shows the average score data segregated by student type (undergraduate, graduate, veterinary medicine). The overall average score is shown for comparison. Undergraduates rated the library space high for "contributing to their confidence." Graduate students gave high scores for the library's efficiency and welcomeness.
- Figure 5 shows the average score data segregated by student rank (freshman, sophomore, junior, senior, graduate). The overall average score is shown for comparison. Sophomores rated the library space high for "contributing to their confidence." Graduate students gave high scores for the library's efficiency and welcomeness.
- Figure 6 shows the average score data segregated by ISU colleges. The overall average score is shown for comparison. Design College students consistently rated the library spaces lower than other college groups.
- Figure 7 shows the average score data segregated by gender (binary) as recorded in university records. The overall average score is shown for comparison. In general, responses from female students were slightly more positive than responses from male students.
- Figure 8 shows the average score data grouped by surveys conducted before the COVID-19 pandemic and during the COVID-19 pandemic. The overall average score is shown for comparison. Library spaces got higher scores for "continuing to use" for the pre-COVID group compared to the COVID-19 group.

- In Figure 9, responses are grouped by students that responded once, twice, or three or more times. For all questions except the Project Outcome awareness question, the average score for student responses increased for students responding to the survey multiple times.
- Figure 10 shows the response rate of the Project Outcome surveys conducted from 2018 to 2021. The overall response rate was 14.69%.
- Figure 11 shows the response counts and rates for each gender grouping. Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. Gender (binary male/female) information from the university's information management system was matched to survey responses. Gender was successfully matched to 7,632 responses. For those responses, female students had a 21% response rate as a group, and male students had a 13% response rate as a group. Female students were more likely to respond to the Project Outcome survey request.
- Figure 12 shows the response counts and rates for each college grouping. Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. College information from the university's information management system was matched to survey responses. The College of Engineering had the greatest number of responses (N=483), and the College of Agriculture had the highest percentage of responses within their group (19.34%).
- Figure 13 shows the response counts and rates for each student type grouping (undergraduate, graduate, veterinary medicine). Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. Student type information from the university's information management system was matched to survey responses. Graduate students had the highest response rate (20%) as a student type group.
- Figure 14 shows the response counts and rates for each undergraduate student rank grouping (freshman, sophomore, junior, senior). Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. Student rank information from the university's information management system was matched to survey responses. The senior class had the greatest number of responses (N=645), and the sophomore class had the highest percentage of responses within their group (24.82%).

- An incentive in the form of a gift card that could be used at campus dining locations was added to the research methods for the spring and fall 2021 surveys. Figure 15 shows the overall response rate increased from 12.85% to 19.41% for the surveys that offered the incentive.
- Figure 16 compares the overall average scores for surveys conducted with an incentive to surveys conducted without an incentive. Other factors, including the COVID-19 pandemic, most likely influenced differences in these overall average scores.

Project Outcome data can also be analyzed using data visualization tools such as Tableau in addition to the built-in Project Outcome dashboard. At Iowa State, Tableau-based visualizations were used to assist with the Project Outcome data analysis. The study's chart collection of Figures 1–16 is also available in storyboard format online in Tableau Public.

Resources Required

The Project Outcome surveys are easy and straightforward to create and administer. Libraries interested in replicating the work reported in this practice brief would start by navigating to the ACRL Project Outcome for Academic Libraries home page and clicking on the "Academic Library Sign Up" button. Once signed up and signed in to the Project Outcome website's home page, a wide range of getting started information including tutorials can be found by clicking on the "Resources" heading in the top right corner.

Project Outcome users have the option of using the Project Outcome built-in survey tool or using their own survey tools to collect the data. If the Project Outcome survey tool is used, the data collected is automatically added to the Project Outcome database. If local tools are used (as in the Iowa State project), the data can be uploaded into the Project Outcome database and results can be compared with others.

Over the course of the ISU project, the project's research team collaborated on the creation and dissemination of the Project Outcome survey. Each member of the team had a basic understanding of Qualtrics and a basic understanding of Project Outcome. Overall, it is estimated that it took less than 10 work hours of staff time to administer the Project Outcome survey each semester.

Lessons Learned

As expected, the Project Outcome survey was easy to administer. By using the Qualtrics survey tool to conduct the survey process, the ISU project gained both agility (for example, the ability to issue reminder messages to survey respondents) and flexibility (the ability to add our own questions to the survey as needed).

There were recognized limitations with the study's methods. The research population used for the study was a convenience sample based on students who reserved an ISU study room. There were most likely many other students who used a library study room as part of a study team but didn't receive a Project Outcome survey because they didn't reserve the room. Also, students who reserved a room may not have actually followed through and used the room. These students would have still received the Project Outcome survey and potentially provided responses not based on actual study room usage.

Even with these limits, the ISU research team found the information gathered was useful to support library decision-making. For example, at the time we completed our first field test related to the use of library group study rooms, the library was also developing a request for funding to support a renovation project. The renovation project included adding additional group study rooms to our library space. Data obtained from the Project Outcome survey provided evidence showing the value of group study rooms, and provided support for the need to add more group study rooms to the library. The Project Outcome data was used to support the library's renovation funding request. The renovation request was approved and additional group study rooms were in place at the start of the 2019 fall semester as part of the renovation project.

ISU library leaders and decision-makers have come to recognize the value of the data collected from the Project Outcome surveys. This has also contributed to a greater awareness and buy-in to overall assessment activities in the library.

Value

For the ISU RLIF project team, the four core Project Outcome questions are fundamental questions every ARL library should be asking their patrons. The four core questions are: (1) This space contributed to my ability to learn something new, (2) Having access to this space makes me feel more confident about my ability to achieve

my goals, (3) I am likely to use this space again, and (4) After using this space I am more aware of the library resources and services available to me. In fact, it would not surprise us to find that many ARL libraries are currently collecting information connected to these fundamental questions, even if they aren't using the Project Outcome survey tool per se. If other ARL libraries begin to collect and contribute outcomes data related to library spaces, the resulting easy-to-access comparison data set will add overall value to the Project Outcome system.

While Project Outcome data may be limited by its simplicity in its ability to contribute to sophisticated and rigorous library assessment processes, it is also this simplicity that makes it easy for library decision-makers to understand and leverage. As a stand-alone tool, the Iowa State assessment project team found the Project Outcome surveys provide data we can easily publish and promote in our work, and share with other library leaders and decision-makers.

Recommendations for the Future

The ISU Library plans to continue to administer the Project Outcome library space surveys every semester. Data collected will be loaded into the ACRL Project Outcome database. Internally, results of the survey will be shared with the library's management team and included in the library's annual assessment report. We expect our Project Outcome work will inform library decision-making.

This study was limited somewhat by the data collection method used. The following two limits were identified:

1. Surveys were only sent to students who reserved study rooms. There may have been students who were members of groups that used study rooms who didn't reserve the room.
2. The surveys were sent out at the midpoint of the semester. Students who used study rooms early in the semester may not have their experience fresh in their mind. And students using the rooms at the end of the semester, which can be an intense time for study, were not surveyed.

To help mitigate these limitations going forward, the ISU Library plans to automate the survey process and send the survey requests closer to the time the student reserved the room. The ISU Library will also begin to collect information about the number of students using the room for each reservation.

The Iowa State Library will continue to look for opportunities to advocate for the use of Project Outcome surveys by other ARL libraries. Our hope is to see the submission of data from other ARL libraries into the Project Outcome database so that comparisons of Iowa State response averages with those of other ARL libraries may be made more reliably in the future.

Suggested References

Note: Access to the suggested references listed below requires a login to the ACRL Project Outcome website. There is no cost to set up a user account on the site. For more information, see this link: https://acrl.projectoutcome.org/about

Arnold, Jennifer. "Measuring Spaces, Technology, and Events: Improving the Student Experience using Project Outcome for Academic Libraries." April 2019. https://acrl.projectoutcome.org/modyules/160.

Davis, Greg. "Assessing and Improving Library Technology and Spaces." April 2019. https://acrl.projectoutcome.org/modyules/162.

Garrett, Tiffany. "Assessing the Impact of Study Rooms." April 2020. https://acrl.projectoutcome.org/modyules/172.

Manwiller, Katie. "Closing the Loop: Using Project Outcome to Assess and Improve a First-Year English Composition Information Literacy Program." November 2020. https://acrl.projectoutcome.org/modyules/175.

Appendix I. Iowa State University Project Outcome Study Room Survey

Introduction

Our records show you reserved a library study room this semester. Please help us improve these rooms by responding to our short feedback survey. Participants can opt in for a $25 gift card drawing at the end of the survey. Note: There is no obligation to complete this survey. All responses will be treated confidentially.

Quantitative Questions

Related to the library study rooms, please indicate your level of agreement with the following statements.

	Strongly Disagree (1)	Disagree (2)	Neither (3)	Agree (4)	Strongly Agree (5)
This space contributed to my ability to learn something new.	○	○	○	○	○
Having access to this space makes me feel more confident about my ability to achieve my goals.	○	○	○	○	○
I am likely to use this space again.	○	○	○	○	○
After using this space, I am more aware of the library resources and services available to me.	○	○	○	○	○
The room reservation process was efficient.	○	○	○	○	○
The room reservation staff were welcoming.	○	○	○	○	○

Qualitative Questions

What did you like most about the library study rooms?

_____

_____

_____

_____

_____

What would you recommend to improve library study rooms?

_____

_____

_____

_____

_____

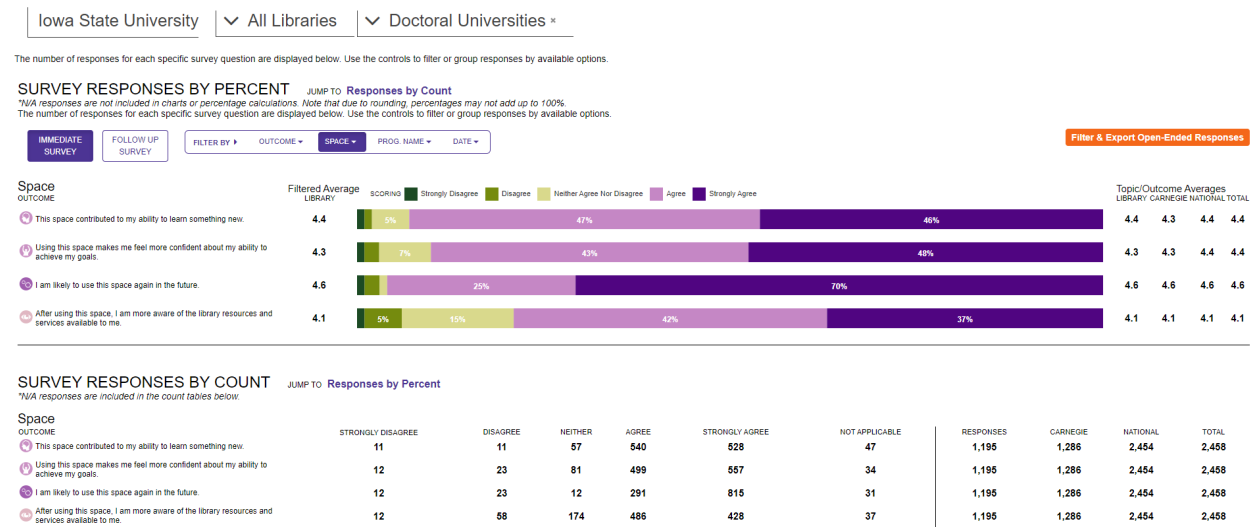**Incentive Question (added in calendar year 2021)**

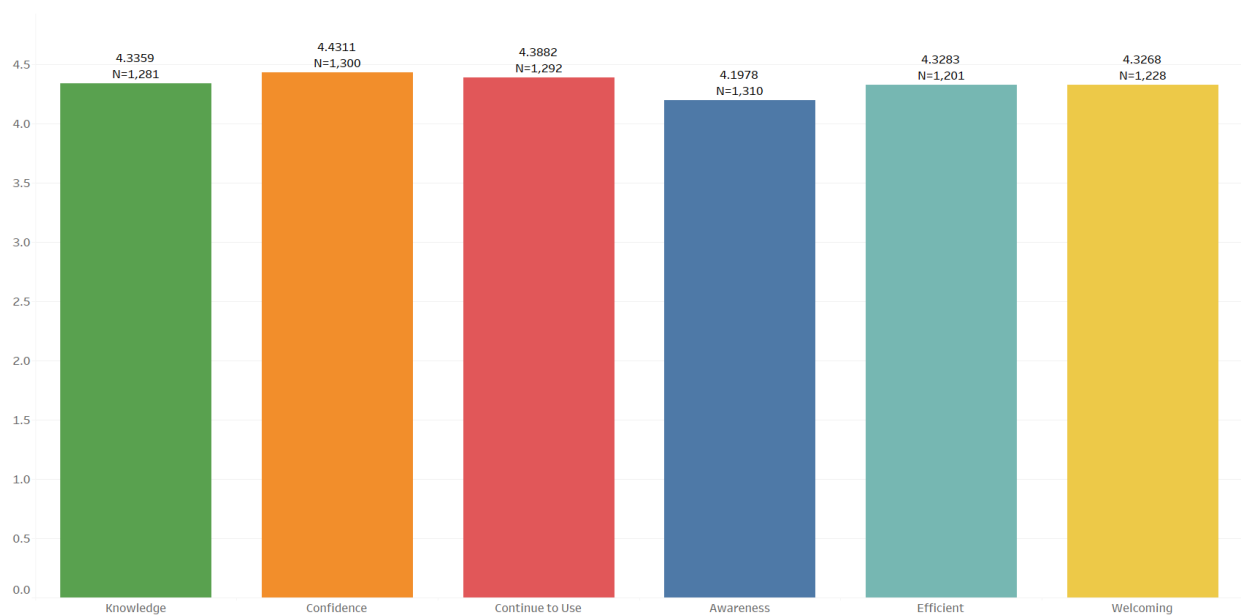Would you like to be entered in the drawing to receive a $25 ISU Dining gift card?

○ Yes

○ No

Appendix II. Chart Collection

Figure 1. Project Outcome Data Dashboard

SURVEY RESPONSES BY PERCENT   JUMP TO **Responses by Count**
N/A responses are not included in charts or percentage calculations. Note that due to rounding, percentages may not add up to 100%.
The number of responses for each specific survey question are displayed below. Use the controls to filter or group responses by available options.

| IMMEDIATE SURVEY | FOLLOW UP SURVEY | | FILTER BY ▸ | OUTCOME ▾ | SPACE ▾ | PROG. NAME ▾ | DATE ▾ | | | Filter & Export Open-Ended Responses |

Space
OUTCOME

SCORING ■ Strongly Disagree ■ Disagree ■ Neither Agree Nor Disagree ■ Agree ■ Strongly Agree

Outcome	Filtered Average LIBRARY	Chart	Topic/Outcome Averages LIBRARY	CARNEGIE	NATIONAL	TOTAL
This space contributed to my ability to learn something new.	4.4	5% ... 47% ... 46%	4.4	4.3	4.4	4.4
Using this space makes me feel more confident about my ability to achieve my goals.	4.3	7% ... 43% ... 48%	4.3	4.3	4.4	4.4
I am likely to use this space again in the future.	4.6	25% ... 70%	4.6	4.6	4.6	4.6
After using this space, I am more aware of the library resources and services available to me.	4.1	5% 15% ... 42% ... 37%	4.1	4.1	4.1	4.1

SURVEY RESPONSES BY COUNT   JUMP TO **Responses by Percent**
N/A responses are included in the count tables below.

Space
OUTCOME

Outcome	STRONGLY DISAGREE	DISAGREE	NEITHER	AGREE	STRONGLY AGREE	NOT APPLICABLE	RESPONSES	CARNEGIE	NATIONAL	TOTAL
This space contributed to my ability to learn something new.	11	11	57	540	528	47	1,195	1,286	2,454	2,458
Using this space makes me feel more confident about my ability to achieve my goals.	12	23	81	499	557	34	1,195	1,286	2,454	2,458
I am likely to use this space again in the future.	12	23	12	291	815	31	1,195	1,286	2,454	2,458
After using this space, I am more aware of the library resources and services available to me.	12	58	174	486	428	37	1,195	1,286	2,454	2,458

The Project Outcome data dashboard table shows 1,195 responses submitted by Iowa State, contributing to a total of 1,286 responses from the ISU Carnegie classification (Doctoral Universities) and the overall total of 2,458 responses submitted by all participating libraries, as of December 2021.
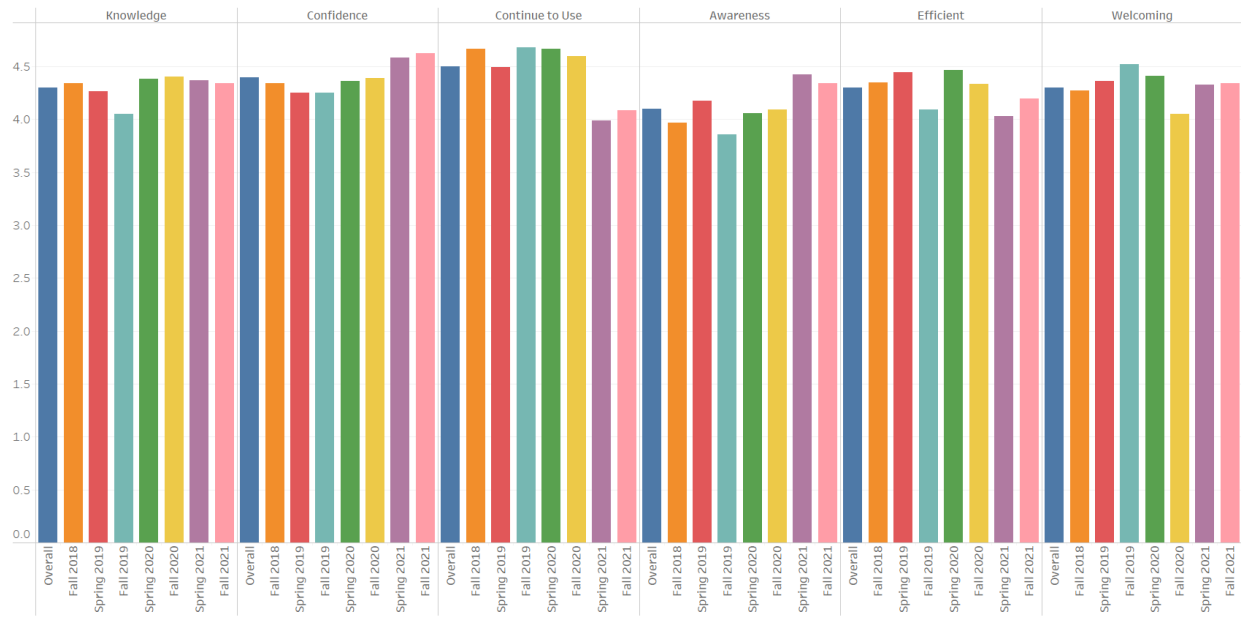
Figure 2. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey 2018–2021 9 (Max=5)

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

Figure 2 shows the overall average scores for data collected from 2018 through 2021. These overall average scores indicated students were experiencing positive outcomes related to their use of library study rooms.
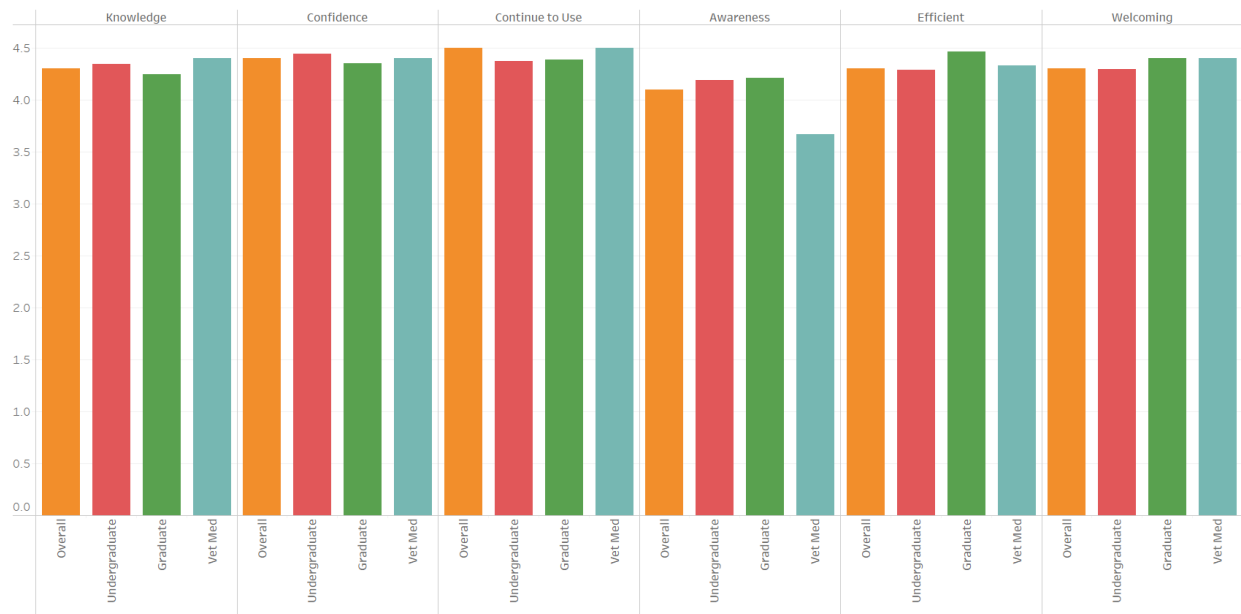
Figure 3. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey by Semester 2018–2021 (Max=5)

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

Figure 3 shows the average scores for each Project Outcome question for every semester from 2018 through 2021. The overall average score is shown for comparison. The library spaces "continue to use" scores were high through 2020 but dropped in the two 2021 surveys. The drop in the average score may be attributed in part to changes in student use of library spaces due to the COVID-19 pandemic.
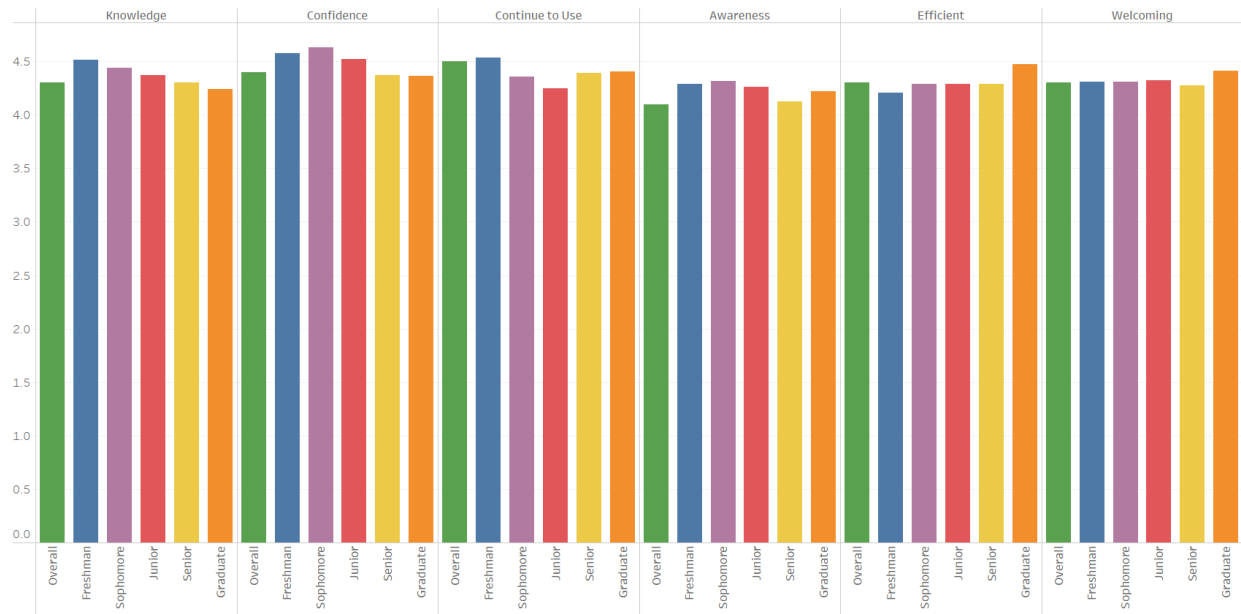
Figure 4. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey Desegregated by Student Type (Max=5)

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

Figure 4 shows the average score data segregated by student type (undergraduate, graduate, veterinary medicine). The overall average score is shown for comparison. Undergraduates rated the library space high for "contributing to their confidence." Graduate students gave high scores for the library's efficiency and welcomeness.
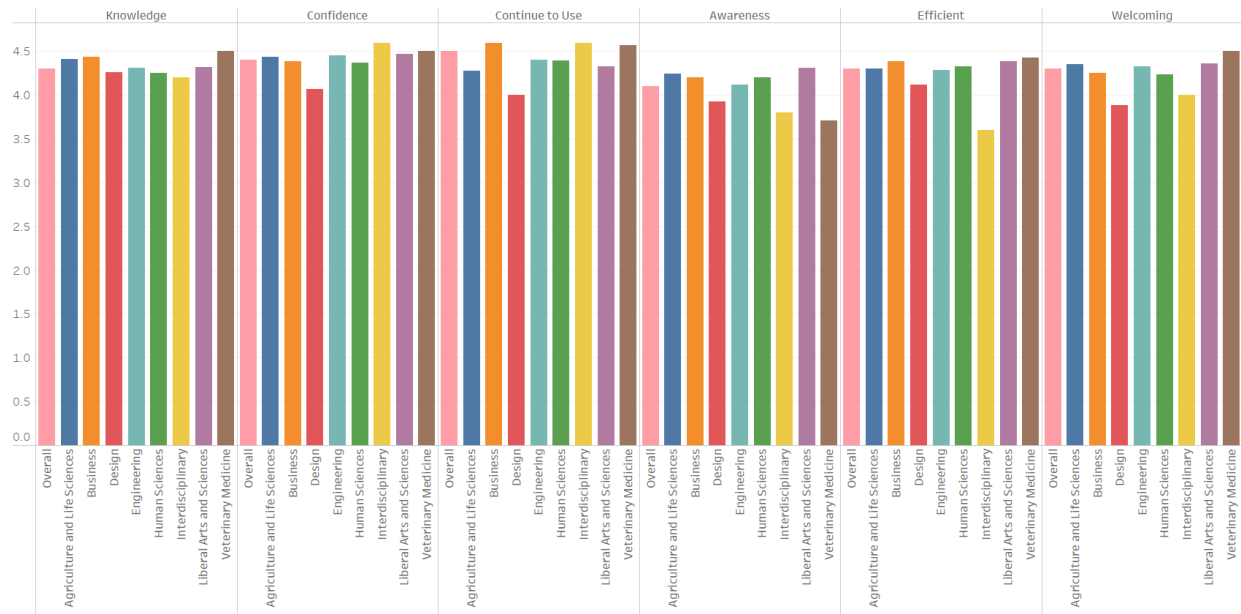
Figure 5. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey Desegregated by Class Rank (Max=5)

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

Figure 5 shows the average score data segregated by student rank (freshman, sophomore, junior, senior, graduate). The overall average score is shown for comparison. Sophomores rated the library space high for "contributing to their confidence." Graduate students gave high scores for the library's efficiency and welcomeness.

Figure 6. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey Desegregated by College (Max=5)

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

Figure 6 shows the average score data segregated by ISU colleges. The overall average score is shown for comparison. Design College students consistently rated the library spaces lower than other college groups.

Figure 7. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey Desegregated by Gender (Max=5)
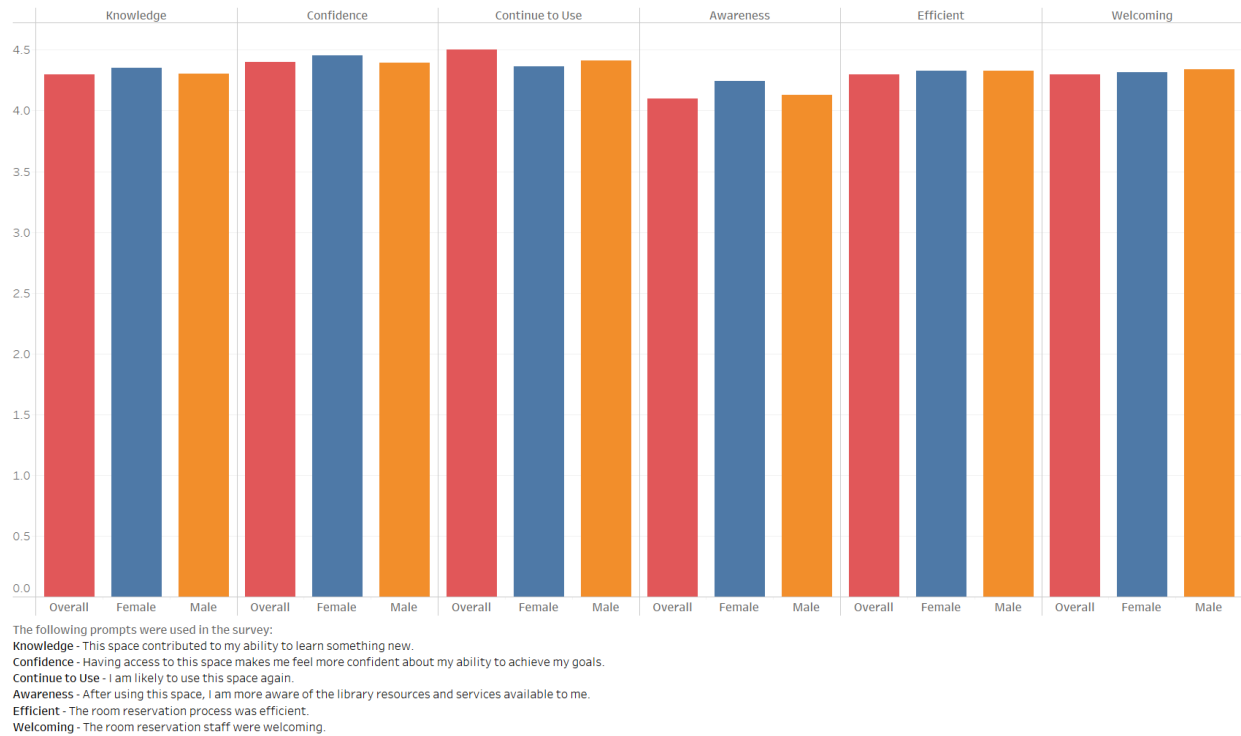

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

Figure 7 shows the average score data segregated by gender (binary) as recorded in university records. The overall average score is shown for comparison. In general, responses from female students were slightly more positive than responses from male students.

Figure 8. Iowa State Library Project Outcome Overall Average Scores for Space Survey Pre-COVID vs. COVID (Max=5)
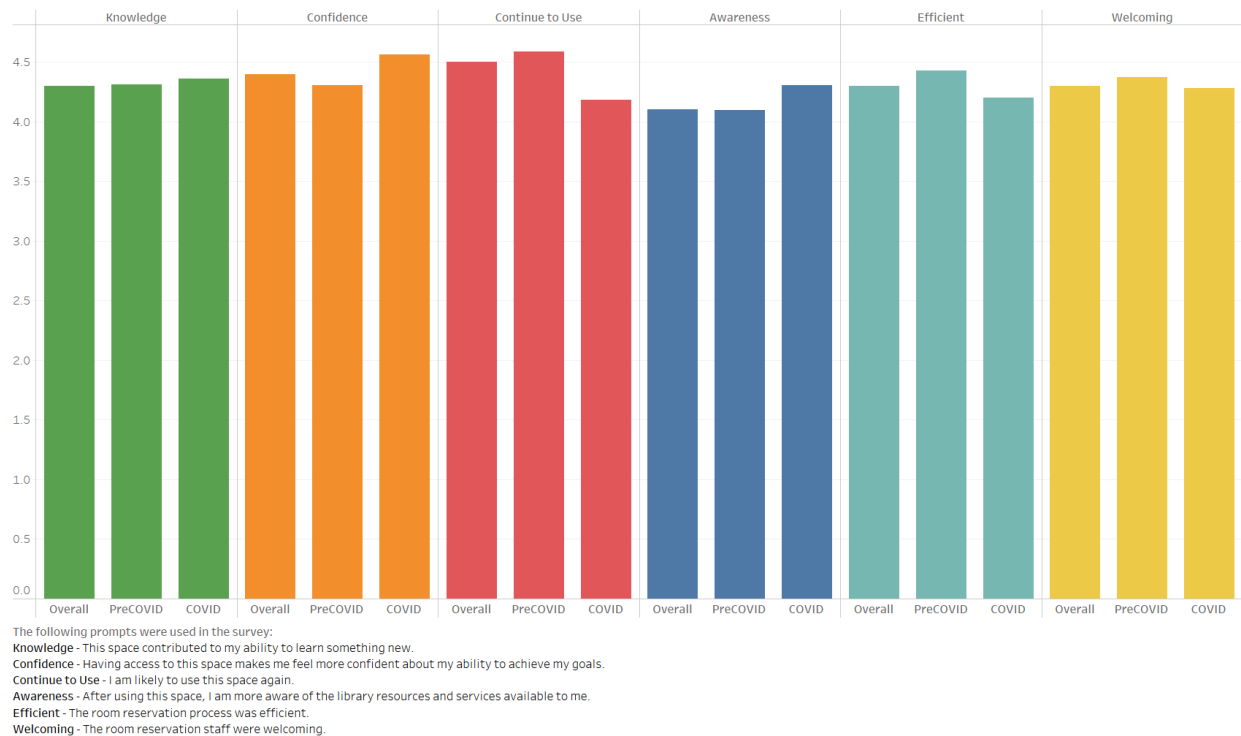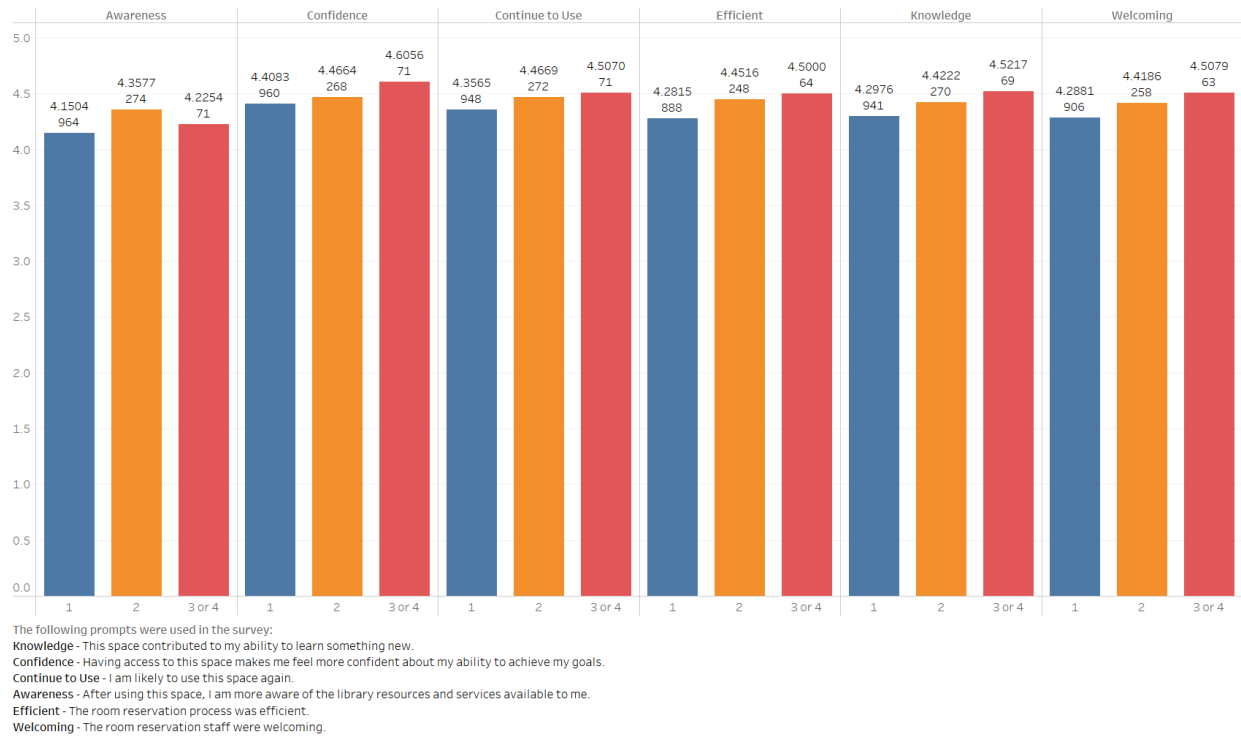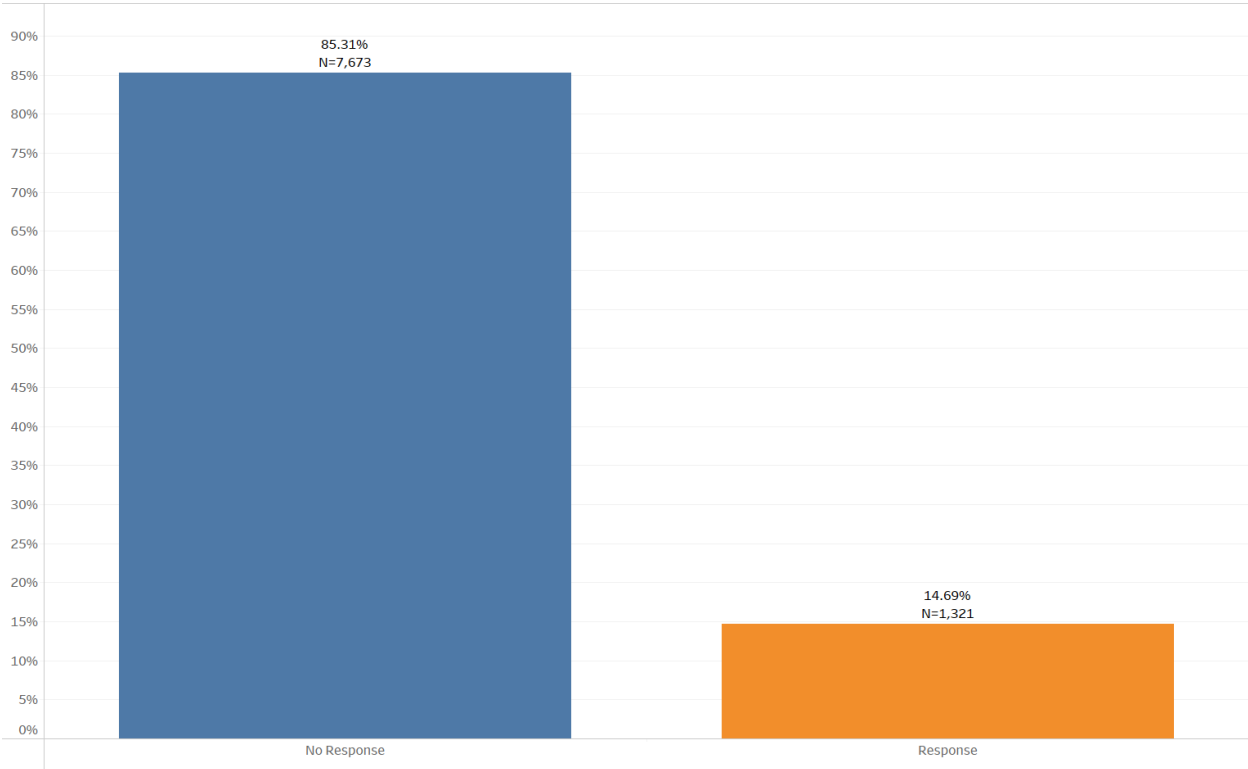

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

Figure 8 shows the average score data grouped by surveys conducted before the COVID-19 pandemic and during the COVID-19 pandemic. The overall average score is shown for comparison. Library spaces got higher scores for "continuing to use" for the Pre-COVID group compared to the COVID-19 group.

Figure 9. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey Response Reoccurrence Comparison (Max=5)
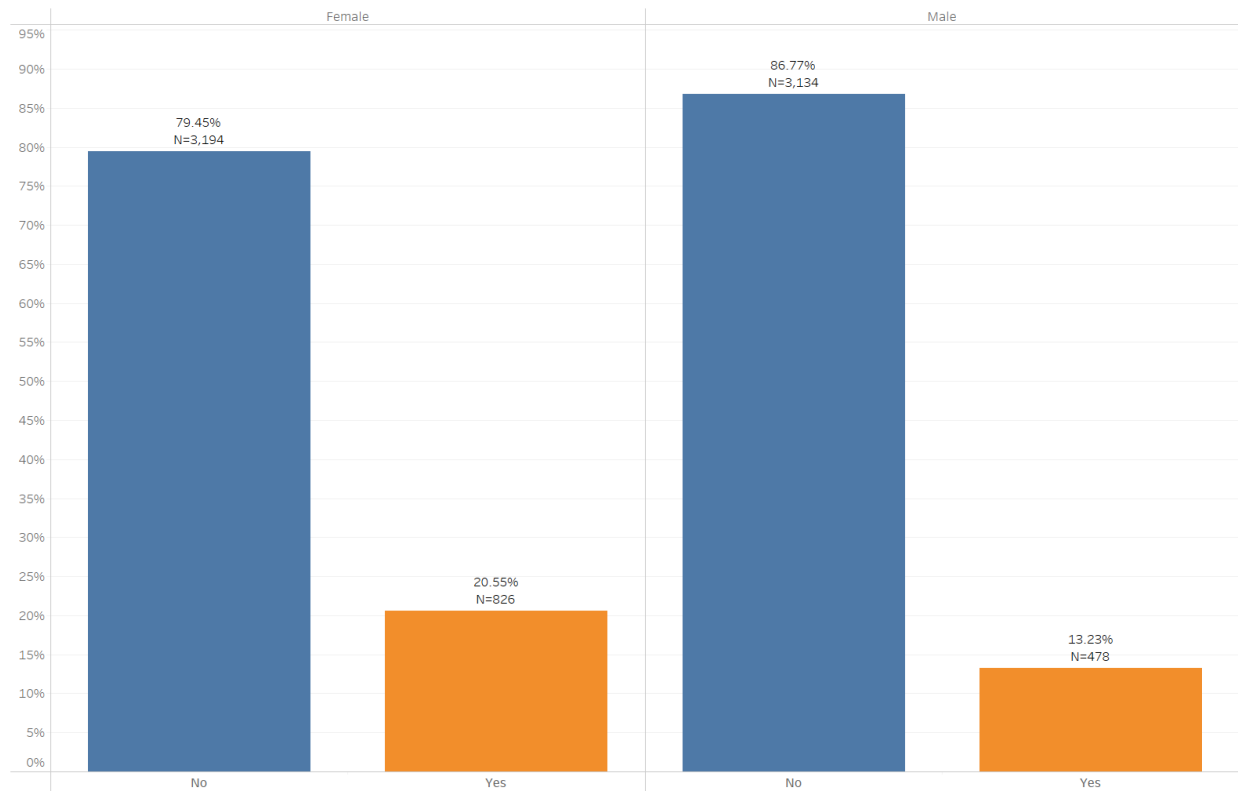

The following prompts were used in the survey:
Knowledge - This space contributed to my ability to learn something new.
Confidence - Having access to this space makes me feel more confident about my ability to achieve my goals.
Continue to Use - I am likely to use this space again.
Awareness - After using this space, I am more aware of the library resources and services available to me.
Efficient - The room reservation process was efficient.
Welcoming - The room reservation staff were welcoming.

In this chart, responses are grouped by students that responded once, twice, or three or more times. For all questions except the Project Outcome awareness question, the average score for student responses increased for students responding to the survey multiple times.

Figure 10. Iowa State Library Project Outcome Overall Response Rate 2018–2021
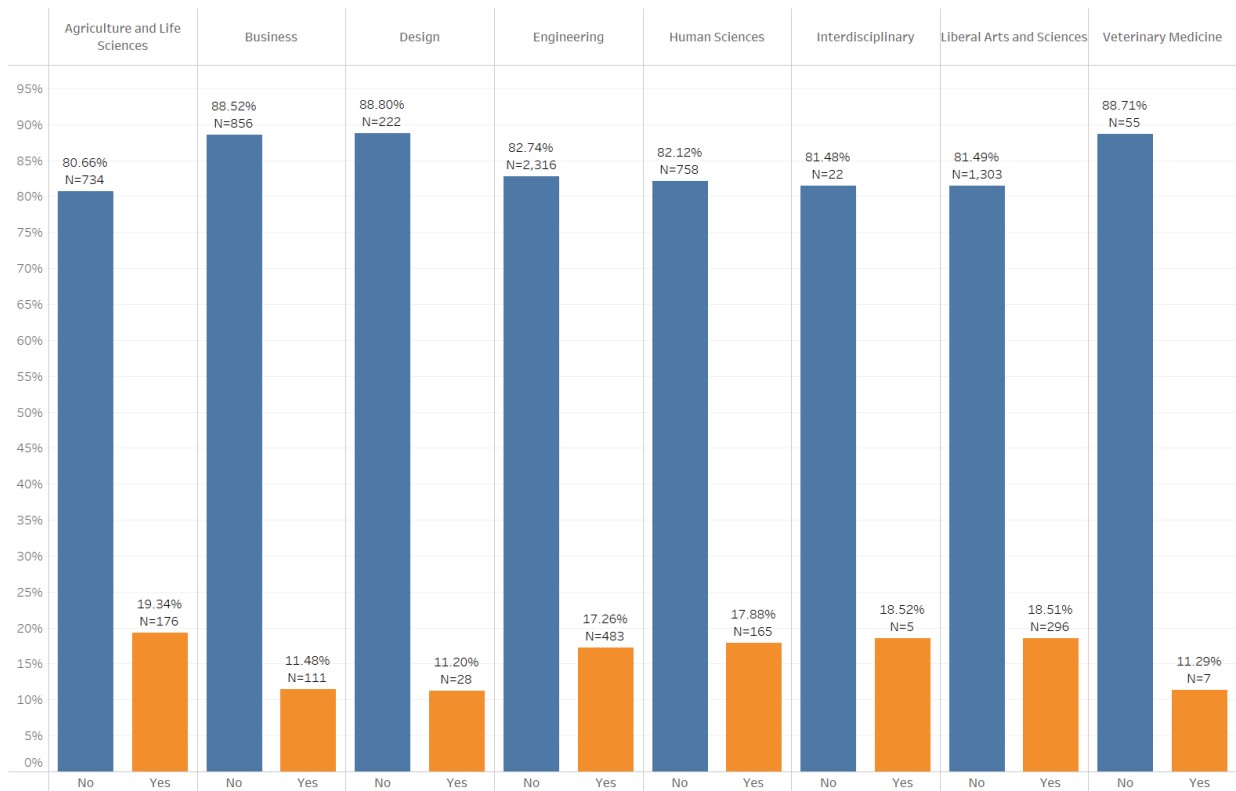

This chart shows the combined average response rate of the Project Outcome surveys conducted from 2018–2021. The overall response rate was 14.69%.

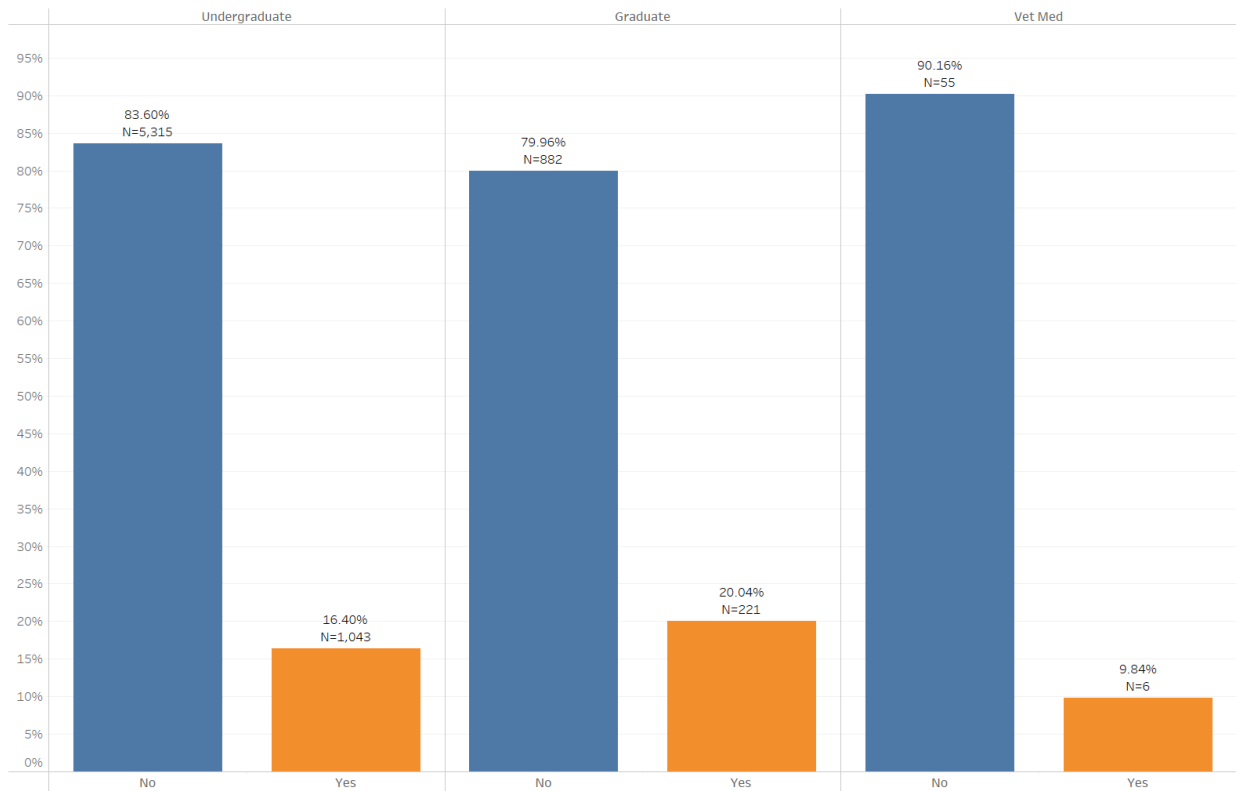Figure 11. Response Rates—Gender

This chart shows the response counts and rates for each gender grouping. Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. Gender (binary male/female) information from the university's information management system was matched to survey responses. Gender was successfully matched to 7,632 responses. For those responses, female students had a 21% response rate as a group, and male students had a 13% response rate as a group. Female students were more likely to respond to the Project Outcome survey request.
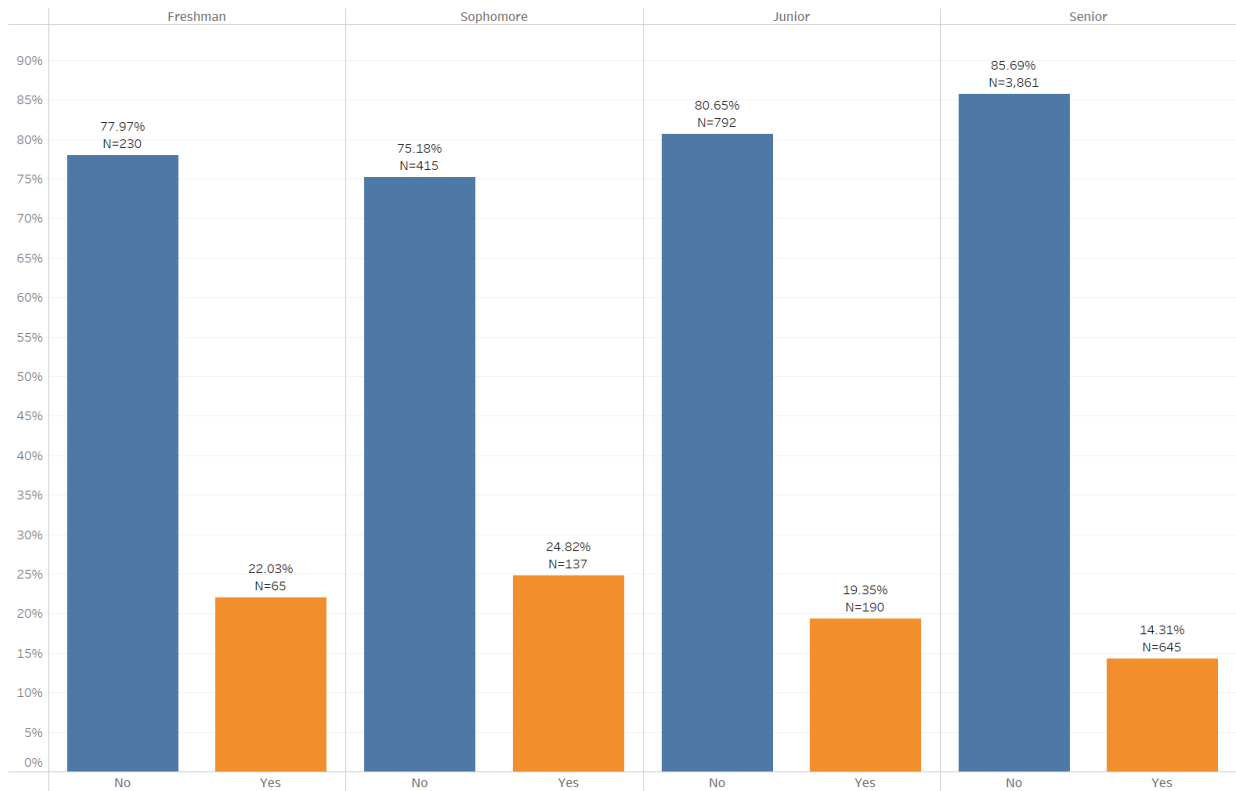
Figure 12. Response Rates—College

This chart shows the response counts and rates for each college grouping. Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. College information from the university's information management system was matched to survey responses. The College of Engineering had the greatest number of responses (N=483), and the College of Agriculture had the highest percentage of responses within their group (19.34%).

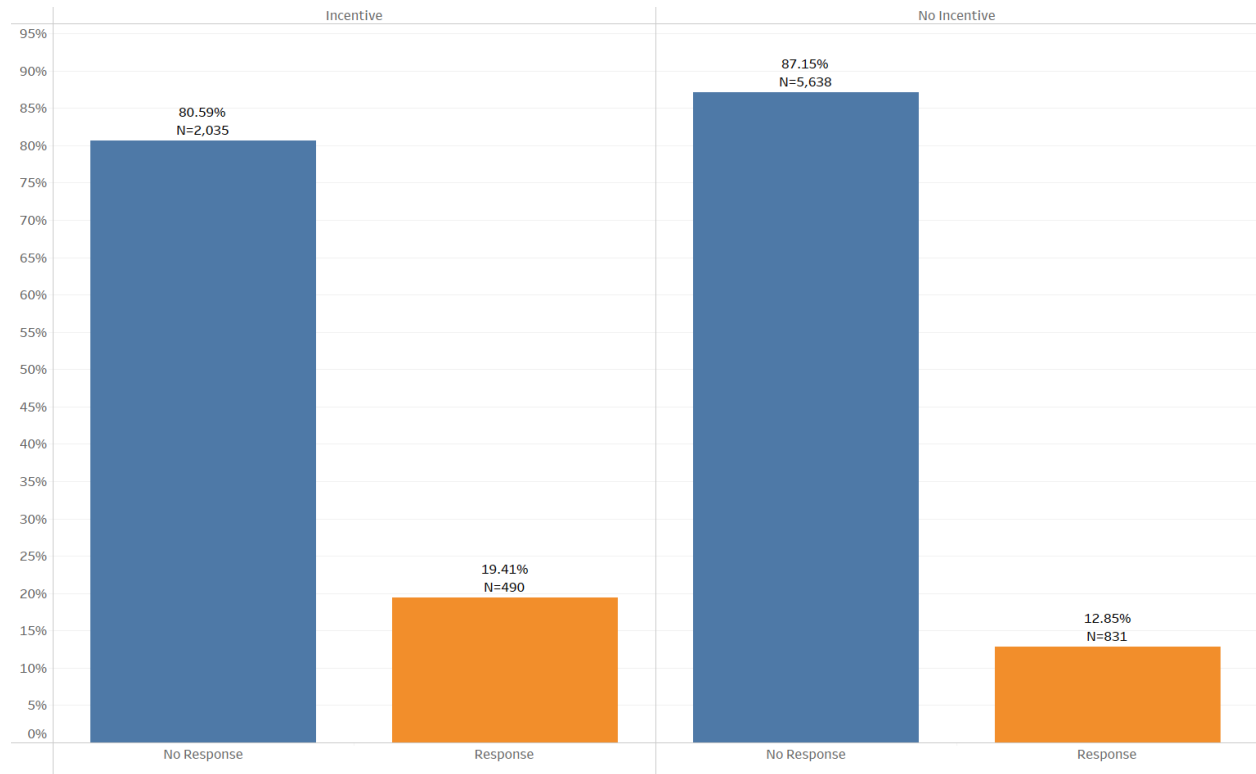## Figure 13. Response Rates—Student Type

This chart shows the response counts and rates for each student type grouping (undergraduate, graduate, veterinary medicine). Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. Student type information from the university's information management system was matched to survey responses. Graduate students had the highest response rate (20%) as a student type group.

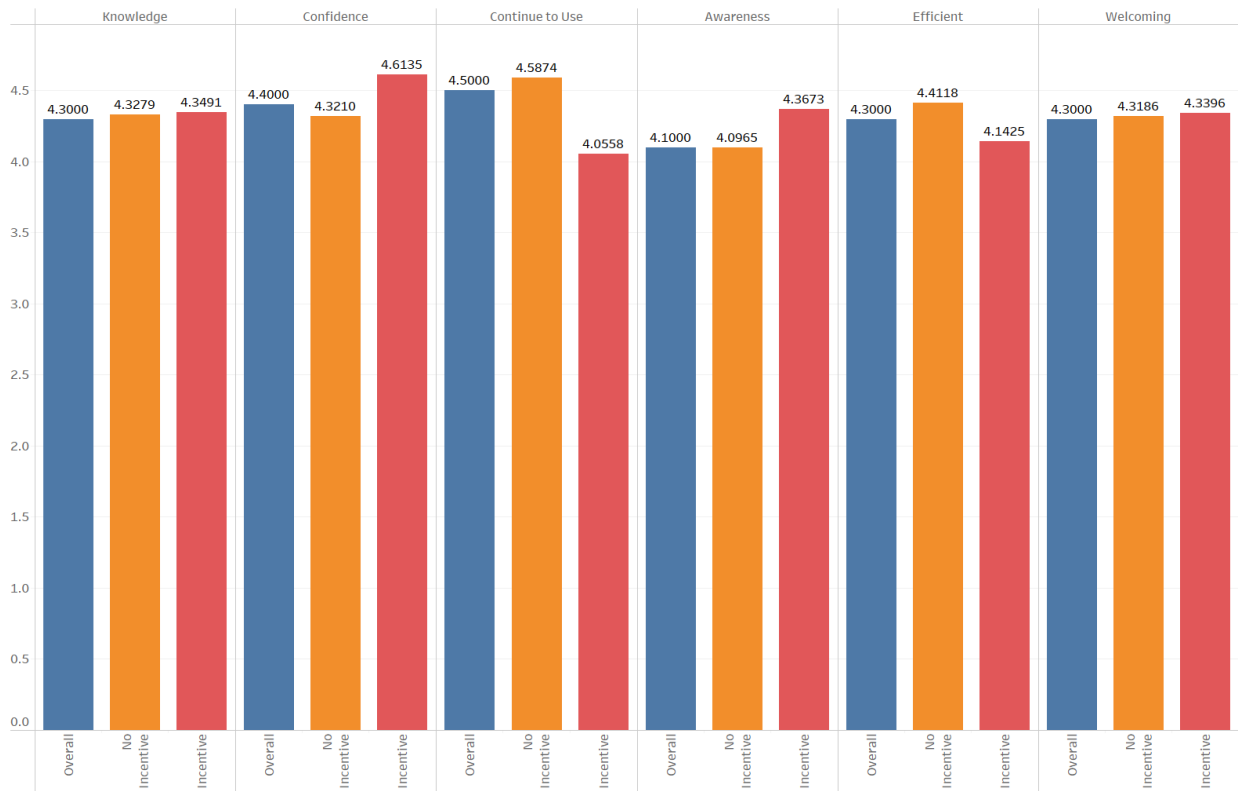## Figure 14. Response Rates—Student Rank

This chart shows the response counts and rates for each undergraduate student rank grouping (freshman, sophomore, junior, senior). Over the course of the study, the Project Outcome survey was sent to 8,994 students, and 1,321 responses were received for an overall response rate of 15%. Student rank information from the university's information management system was matched to survey responses. The senior class had the greatest number of responses (N=645), and the sophomore class had the highest percentage of responses within their group (24.82%).

Figure 15. Iowa State Library Project Outcome Response Rate Incentive vs. Non-Incentive

An incentive in the form of a gift card that could be used at campus dining locations was added to the research methods for the spring and fall 2021 surveys. Figure 15 shows the overall response rate increased from 12.85% to 19.41% for the surveys that offered the incentive.

Figure 16. Iowa State Library Project Outcome Overall Average Scores for Spaces Survey Incentive vs. Non-Incentive (Max=5)

This chart compares the overall average scores for surveys conducted with an incentive to surveys conducted without an incentive. Other factors, including the COVID-19 pandemic, most likely influenced differences in these overall average scores.

Endnotes

[1] "Outcome Measurement Made Easy for Academic Libraries—Resources and Tools to Create Surveys and Analyze Outcome Data," Association of College & Research Libraries, December 31, 2021, https://acrl.projectoutcome.org/.

[2] "Research Library Impact Framework Initiative and Pilots," Association of Research Libraries, December 31, 2021, https://www.arl.org/research-library-impact-framework-initiative-and-pilots/.

[3] "Parks Library Space Feasibility Study," Iowa State University Library, December 31, 2021, https://assess.lib.iastate.edu/sites/default/files/Reports/P%2BWlibstaff%20July%202021.pptx.

[4] "Performance Measurement," Public Library Association, December 31, 2021, https://www.ala.org/pla/data/performancemeasurement.

[5] "Iowa State University RLIF Data Set," Iowa State University Library, December 28, 2021, https://assess.lib.iastate.edu/sites/default/files/Project Outcome/ARL RLIF Master Data File.xlsx.

[6] "ARL Awarded IMLS Grant to support Research Library Impact Framework Initiative," Association of Research Libraries, July 16, 2021, https://www.arl.org/news/arl-awarded-imls-grant-to-support-research-library-impact-framework-initiative/.