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Oklahoma Louis Stokes Alliance for Minority Participation

Annual Evaluation Report

Summer 2020 through Spring 2021

Contents

Introduction

Oklahoma was awarded funding from the National Science Foundation for a five-year continuation of the Oklahoma Louis Stokes Alliance for Minority Participation (OK-LSAMP) program. Oklahoma State University serves as the lead institution for the alliance of 12 universities within the state, and the funding cycle covers August 1, 2019 through July 31, 2024. The participating institutions are Cameron University (CU), East Central University (ECU), Langston University (LU), Northeastern State University (NEOSU), Northwestern Oklahoma State University (NWOSU), Oklahoma Panhandle State University (OPSU), Oklahoma State University (OSU), Southeastern Oklahoma State University (SEOSU), Southwestern Oklahoma State University (SWOSU), University of Central Oklahoma (UCO), University of Oklahoma (OU), and University of Tulsa (TU). This report includes results from the second year of the five-year phase, Summer 2020 through Spring 2021.

This period of funding represents Oklahoma's 27th year of participation in the national LSAMP efforts to increase participation and graduation among underrepresented minority (URM) students in STEM disciplines (Science, Technology, Engineering, and Mathematics). For the purposes of the OK-LSAMP program and this evaluation, underrepresented minority students include Black or African American, Hispanic/Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander undergraduates.

Purpose of the Evaluation

The OK-LSAMP program has specific goals and objectives that serve as the framework for their activities and efforts throughout the year. The Center for Institutional Data Exchange and Analysis (C-IDEA) at the University of Oklahoma has prepared this annual report to assess the progress of the program toward meeting its goals and objectives. This formative evaluation is an important component of the program as it offers timely feedback about program progress toward meeting its goals, which then allows time for future adjustments to activities, processes, and procedures if needed. The annual evaluation provides information on the activities and accomplishments of OK-LSAMP scholars participating in the program and offers insights into areas of success, as well as others that may need to be improved.

Evaluation Process

This evaluation includes both quantitative and qualitative components using three key sources of data. The results are described in four sections of the report.

- **Section 1:** Data on the activities and accomplishments of students participating in the program were provided by OK-LSAMP Director, Brenda Morales, and Grant Coordinator, Darlene Croci. It includes data provided by each participating alliance institution.

- **Section 2:** The Center for Institutional Data Exchange and Analysis prepared two Qualtrics surveys that were emailed to OK-LSAMP scholars using lists provided by the OK-LSAMP program office. This section includes quantitative and qualitative results.

- **Section 3:** National STEM data were provided by the Consortium for Student Retention Data Exchange (CSRDE) at the Center for Institutional Data Exchange and Analysis

- **Section 4:** Overall Report Summary and Recommendations

Section 1: OK-LSAMP Results Based on Data from Program Office

Introduction

The primary goal for this five-year phase of the OK-LSAMP program is as follows:

to increase the recruitment, retention, and graduation of URMs in STEM fields from Oklahoma alliance institutions.

This goal refers to all STEM students at alliance institutions in Oklahoma; however, increased participation of students in the OK-LSAMP program results in more STEM students statewide, thus helping to meet this overall goal. This report addresses the progress of OK-LSAMP students specifically.

The Alliance experienced success in previous years in obtaining its goals of graduating URM STEM students who are prepared to enter graduate studies or industry. This five-year phase is dedicated to continuing these achievements. This section of the evaluation uses data on alliance scholars as provided by the OK-LSAMP program office. We address the four objectives of the program.

- Objective 1: *Recruit, retain, and graduate 25% more URMs in STEM fields from 750 in 2017 as the baseline*

- Objective 2: *Understand and implement key success factors for recruitment, retention, and graduation of transferring URMs in STEM fields to increase the quality and quantity of students transferring from 2-year to 4-year institutions in Oklahoma*

- Objective 3: *Increase the number of scholars gaining international experiences by 30% with an emphasis on partnerships with international centers and international research opportunities*

- Objective 4: *Increase the graduate school participation of URMs in STEM (OK-LSAMP scholars) by 25% above 2017-2018 total of 24 graduate students per year as the benchmark.*

Objective 1

The baseline of 750 noted in Objective 1 refers to all STEM graduates within the OK-LSAMP institutions. This report looks exclusively at the students who participate in the OK-LSAMP program at the alliance institutions. We will report recruitment, retention, and graduation data separately to measure the success of this objective.

Based on reporting results during the previous five-year cycle, recruiting efforts from Summer 2018 through Spring 2019 resulted in 63 new scholars joining the program that academic year. To reach the 25% increase using 63 as the baseline, the Alliance must recruit an average of 79 new scholars to the program each year, for a total of 395 during the five-year period.

Rather than look at a 25% increase for retention, we will instead report the retention rate based on the number of students still in the program at the end of the spring semester each year and expect to see an increase. During the 2018-2019 academic year, there were 267 scholars in the program. Of those, 68 students graduated leaving 199 students eligible to continue past Spring 2019. The program

lost 14 students during that academic year, resulting in a 93.0% retention rate (185 of 199 students remained in the OK-LSAMP program at the end of the Spring 2020 semester). If the Alliance increases this rate over the five-year cycle, this part of the objective will be met.

During the previous five-year cycle, 352 OK-LSAMP scholars graduated with a STEM degree. Using this as the baseline, the Alliance must graduate 440 students during this five-year project to meet the goal of a 25% increase. An average of 88 graduates per year—20 percent of the total needed—will keep the Alliance on target to meet this objective.

Objective 2

Success of students transferring from two- or four-year institutions into the Alliance institutions is the focus of Objective 2. The Alliance began collecting transfer student status for the first time during academic year 2019-2020. Because there was no prior data, we are using results from the 2019-2020 academic year as the baseline to determine how the Alliance is meeting this objective. As with Objective 1, we will report recruitment, retention, and graduation data separately to measure the success of this objective.

In our 2019-2020 evaluation report, we inadvertently reported data for all transfer students rather than only those from two-year institutions when determining the baseline. We are updating our baseline data here to remove students who transferred from four-year institutions.

The Alliance added 15 transfer students from two-year institutions during the 2019-2020 academic year. If the OK-LSAMP program recruits more than 15 transfer students in subsequent years, they will have met the objective to increase the number of scholars who transfer from a two-year institution.

To determine an increase in retention and graduation, we will report on the progress of all OK-LSAMP scholars who are transfer students from two-year institutions, not only those who transferred to an Alliance institution during the academic year for each evaluation report. For retention, we will look at the percentage of transfer students still in the program at the end of the spring semester each year and expect to see an increase. For graduation, we will report how many transfer students graduated each academic year and anticipate an increase throughout the five-year period.

The Alliance included 31 scholars during the 2019-2020 academic year who had transferred from a two-year institution. During this time, 13 of these 31 scholars graduated, leaving 18 transfer students eligible to continue past Spring 2020. The program lost three of these 18 transfer students during the academic year, resulting in an 83.3% retention rate (15 of 18 transfer students who did not graduate remained in the OK-LSAMP program at the end of the Spring 2020 semester). If the Alliance increases this rate over the five-year cycle, this part of the objective will be met.

Of the 31 transfer students, 13 graduated during the 2019-2020 academic year, resulting in a 41.9% graduation rate. To meet this part of Objective 2, the Alliance needs to increase this percentage during the five-year funding period.

Objective 3

The Alliance plans to increase the number of students who gain international experience by 30%. During the previous five-year funding period, 62 scholars participated in international experiences. Sixty-nine total experiences in 25 countries were reported during that time. To meet this objective, 81 OK-LSAMP scholars during this five-year funding period must have travelled abroad for international internships, study abroad, international research, or international conference presentations during college.

Objective 4

The final objective for this phase of the OK-LSAMP program is to increase the number of scholars entering graduate school by 25%. The benchmark, based on the 2017-2018 data, is 24 graduate students per year. To achieve the desired increase, the Alliance must see an average of 30 graduates per year enter a STEM discipline in graduate school, for a total of 150 during the five-year period.

Alliance-Wide Actions

To maximize the success of students through their undergraduate degree, and to help ensure their success in applying to graduate school, the Alliance determined that it would strive to assist students in many ways. Scholars are paired with faculty mentors to conduct research; the program provides an online GRE prep course and offers help with applying to graduate school; and scholars are provided with financial assistance, workshops, and guidance in obtaining domestic and international internships. In addition, scholars are required to:

- Maintain a minimum cumulative GPA of 3.0

- Attend regular group meetings at Alliance institutions

- Participate in at least one internship experience

- Submit a minimum of three graduate school applications

- Present their research at the annual Research Symposium, hosted by the OK-LSAMP program office, and other professional meetings

Participants

The OK-LSAMP program provides academic, personal, and professional support for its students to help them excel in STEM fields. This report examines the ability of the Alliance to achieve its goals during the period of Summer 2020 through Spring 2021. As previously noted, the program is specifically focused on recruiting underrepresented minority (URM) students: Black or African American, Hispanic/Latino, American Indian or Alaska Native, and Native Hawaiian or Other Pacific Islander undergraduates.

In the program year under review, the Alliance supported 243 students. Table 1 displays participating students by class standing and institution.

Table 1: *Participants by Partner Institution – Summer 2020 through Spring 2021*

Institution	Freshman	Sophomore	Junior	Senior		Total Scholars	% of Total Scholars
Cameron University	0	1	1	7		9	3.7%
East Central University	0	0	3	6		9	3.7%
Langston University	0	5	6	20		31	12.8%
Northeastern OK State	0	2	0	9		11	4.5%
Northwestern OK State Univ	0	0	2	1		3	1.2%
OK Panhandle State University	0	0	0	2		2	0.8%
Oklahoma State University	1	8	18	74		101	41.6%
Southeastern OK State Univ	0	3	5	4		12	4.9%
Southwestern OK State Univ	0	1	2	10		13	5.3%
University of Central OK	0	1	1	6		8	3.3%
University of Oklahoma	1	6	7	21		35	14.4%
University of Tulsa	0	0	6	3		9	3.7%
TOTAL	**2**	**27**	**51**	**163**		**243**	
Percentage of Total Scholars	**0.8%**	**11.1%**	**21.0%**	**67.1%**			**100%**

Percentages may not total 100% due to rounding

Although most students in the program are juniors or seniors, the Alliance also supports freshmen and sophomores to encourage these students to move forward with a STEM degree. Unless otherwise noted, the data in this report includes all students participating in the OK-LSAMP program during Summer 2020 through Spring 2021 regardless of classification.

Results – Graduates

From Summer 2020 through Spring 2021, a total of 70 OK-LSAMP scholars graduated with STEM degrees. The Alliance's goal to have an average of 88 scholars obtain a bachelor's degree each year was not met during this reporting period. Figure 1 shows the cumulative results of graduates thus far in this five-year funding period.

Seven scholars who participated during the past academic year—Fall 2019 through Spring 2020—were not included in the graduation counts in last year's evaluation results due to unreported data. They are not included in this year's report since they graduated before Summer 2020; however, we have updated Figure 1 to add them to last year's counts, so our data reflect the actual graduation results. The count has been updated from 84 to 91 graduates during the 2019-2020 academic year; the cumulative thus far, after adding the 70 graduates from this year, is 161.
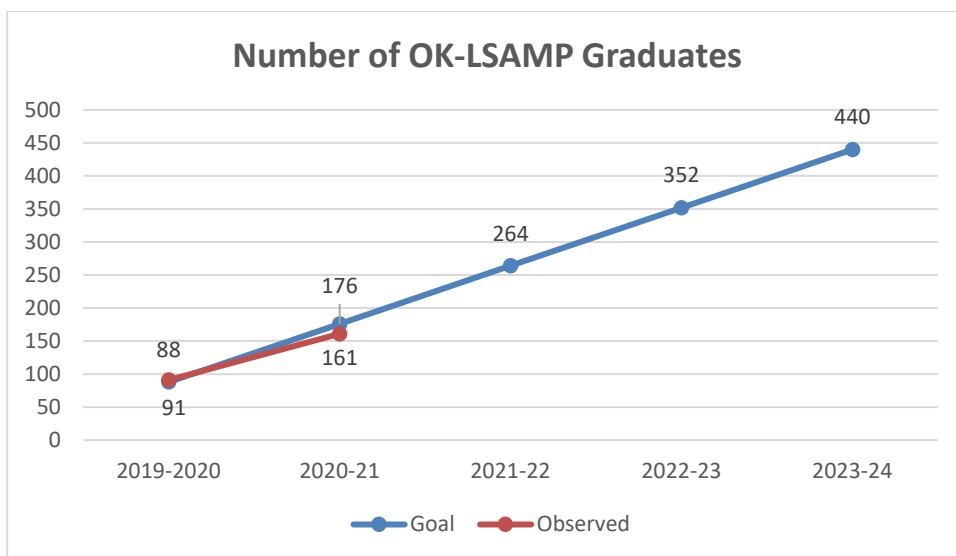
Figure 1: Graduation Counts (Cumulative) – Goal vs Observed

The OK-LSAMP graduates accomplished the following during academic year 2020-2021:

- 42.9% of the OK-LSAMP seniors (70 of 163) graduated during this period and 91.4% of the remaining seniors (85 of 93) were still in the program at the end of Spring 2021

- 14.3% (10 of 70) took the GRE

- 32.9% (23 of 70) applied to graduate school

- 78.3% (18 of 23) who applied to graduate school were accepted

- 25.7% of all graduates (18 of 70) were accepted into graduate school

- 87.1% (61 of 70) had a GPA of 3.0 or higher

- 82.9% (58 of 70) had a research mentor

- 65.7% (46 of 70) conducted research

- 65.7% (46 of 70) had at least one summer internship during college

- No graduates had an international experience during the 2020-2021 academic year due to Covid-19

Based on the GPAs and number of scholars who participated in research and internships, there were many graduates who had the potential to move on to graduate work, but either elected not to do so or were not accepted into graduate programs. Of the 52 graduates who did not apply to graduate school—or were not accepted—44 (84.6%) had a GPA of 3.0 or greater, 31 (59.6%) had participated in research opportunities during the 2020-2021 academic year, and 32 (61.5%) participated in at least one summer internship during college. Two additional students had been accepted for an internship, but they were cancelled due to Covid-19. Twenty-two of the 52 OK-LSAMP scholars (42.3%) took advantage of both research—during Summer 2020, Fall 2020 and/or Spring 2021—and internships during college. Of these 52 students who did not advance to graduate school in a STEM degree, three were accepted to graduate school in another discipline and six were hired in industry positions.

Results – All Scholars

Objective 1

The Alliance plans to recruit, retain, and graduate 25% more OK-LSAMP scholars during the five-year funding period. To do this, they must average 79 new scholars each year. During the 2020-2021 academic year, 74 new students joined the OK-LSAMP program. Although the Alliance is on track to meet their five-year goal, they did not meet the annual goal during this reporting period. Figure 2 provides the cumulative count of new scholars compared to the goal.
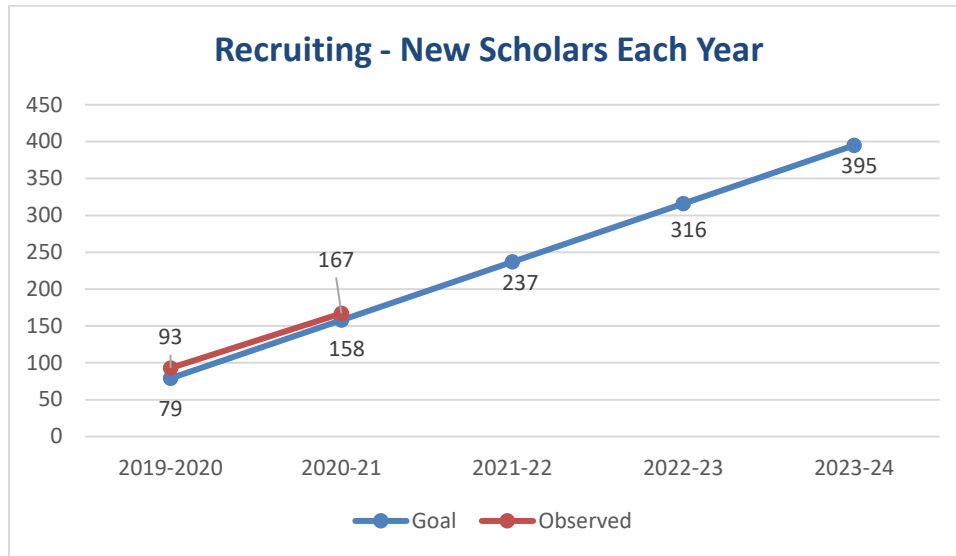
Figure 2: New OK-LSAMP Scholars by Year (Cumulative) – Goal vs Observed

There were 243 scholars in the program during Summer 2020, Fall 2020, and Spring 2021. Of those, 70 students graduated, leaving 173 who could continue past the Spring semester. Sixteen students left the program, resulting in a 90.8% retention rate (157 of 173) for students who remained in the OK-LSAMP program at the end of the Spring 2021 semester. The Alliance fell short of successfully retaining its students at a higher rate than the baseline of 93.0% from academic year 2018-2019. Figure 3 shows the baseline, plus annual retention rates thus far during this funding period.

Figure 3: Percentage of Scholars Retained – Baseline vs Observed

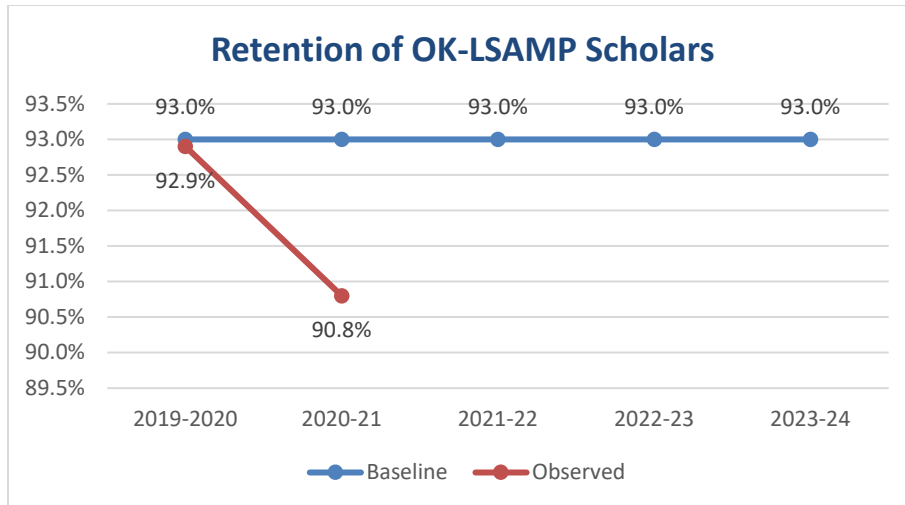To meet the increase of 25% in the number of graduates, the OK-LSAMP program must see an average of 88 graduates per year. <u>During the 2020-2021 academic year, 70 students graduated, which is 18 students fewer than the goal for this year</u>. See Figure 1.

Objective 2

The success of transfer students is the focus of Objective 2. OK-LSAMP would need to add more than 15 transfers during the 2020-2021 academic year to realize an increase in recruiting scholars from two-year institutions. As noted earlier in the report, the Alliance began collecting transfer student status during the 2019-20 academic year, so we are using last year's data as the benchmark. Ten scholars joined the program during this period, so <u>this goal was not met</u>. See Figure 4 for annual counts compared to the benchmark.
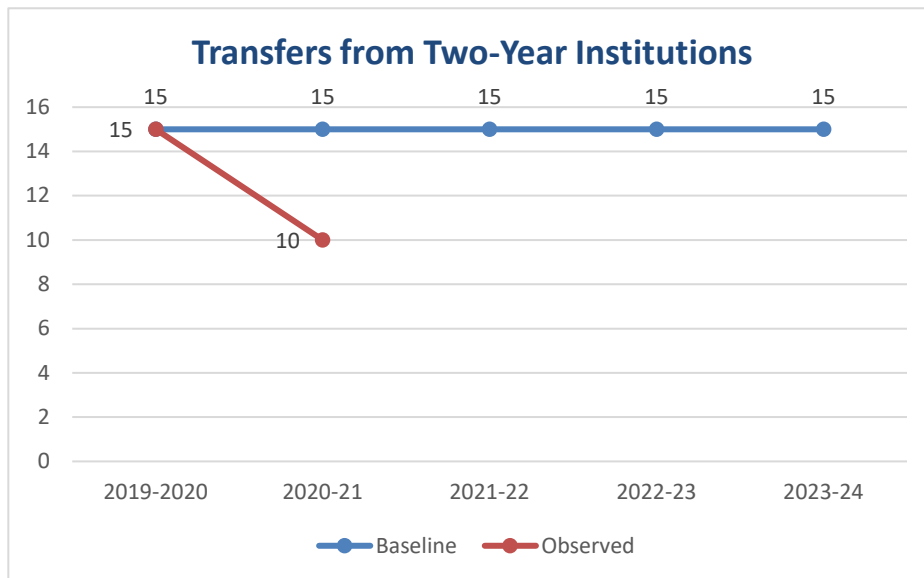

Figure 4: Number of Transfers from Two-Year Institutions– Baseline vs Observed

For retention data, we are looking at the percentage of transfer students from two-year institutions who are still in the program at the end of the spring semester each year and expect to see an increase from the baseline of 83.3%. Twenty-four of the 2020-2021 scholars had transferred from a two-year institution. During this time, seven of these 24 scholars graduated, leaving 17 transfer students eligible to continue past Spring 2021. The program lost two of these 17 transfer students during the academic year, resulting in an 88.2% retention rate (15 of 17 transfer students who did not graduate remained in the OK-LSAMP program at the end of the Spring 2021 semester). The Alliance has increased its retention rate of transfer students this year. See Figure 5.
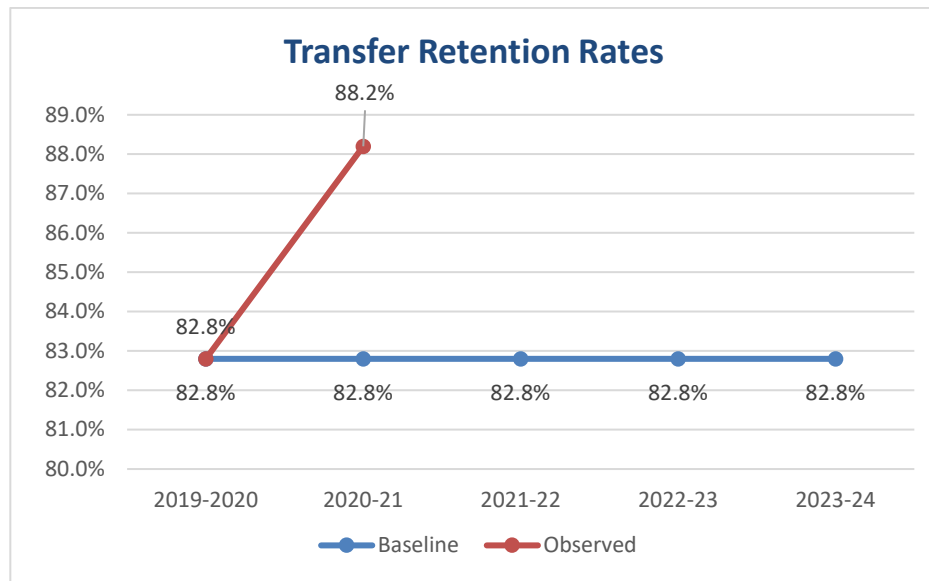

Figure 5: Retention Rates of Transfers from Two-Year Institutions– Baseline vs Observed

Seven of the 24 transfer students graduated during the 2020-2021 academic year, resulting in a 29.2% graduation rate. The Alliance did not increase its graduation rate of transfer students this year. Figure 6 shows the annual graduation rates of transfers compared to the baseline.
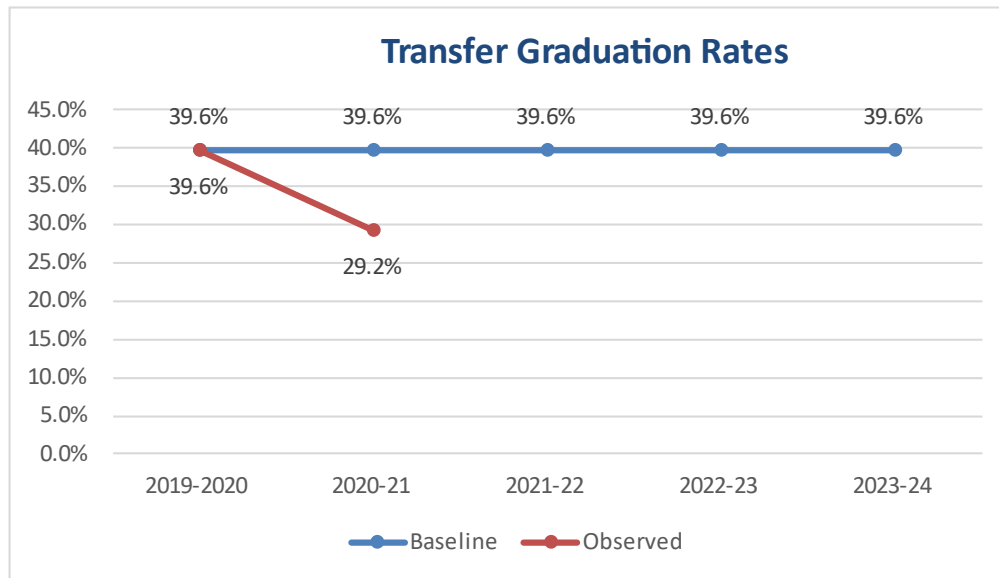
Figure 6: Graduation Rates of Transfers from Two-Year Institutions – Baseline vs Observed

Objective 3

Increasing by 30% the number of scholars who participate in an international experience is the goal for Objective 3. To succeed in this goal, 81 students enrolled in the OK-LSAMP program during the five-year period must have travelled abroad for study, international internships, international research, or international conference presentations. To reach 81 students, we have set an annual goal of 16 students, 20% of the five-year goal.

Since 2019-2020 was the first year of this funding cycle, Figure 7 shows 26 students had an international experience that year. This data represents the total number of students in the program that year who had an international experience at some point in their academic career; it does not indicate that 26 students traveled during the last academic year. Each year we will add any new students who join the program to the graph if they have traveled abroad for international internships, study abroad, international research, or international conference presentations during their college career. One scholar who was new to the program this year has had an international experience during their time in college. The Alliance did not meet this goal.
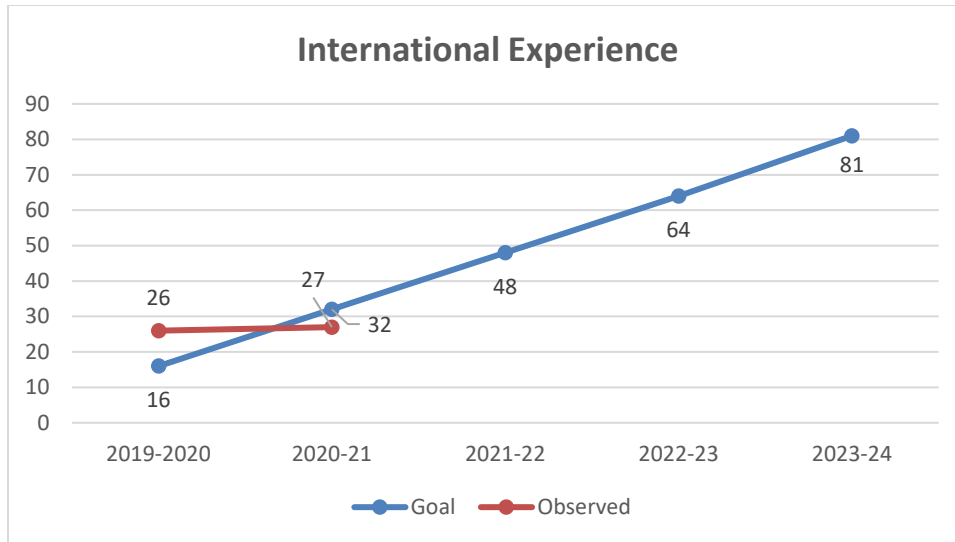
Figure 7: Scholars with International Experience (Cumulative) – Goal vs Observed

Objective 4

The Alliance hopes to increase the number of students who enter graduate school by 25%. To meet this goal, an average of 30 scholars must enter graduate school each year. During the 2020-2021 academic year, 18 scholars who graduated in the OK-LSAMP program were accepted into graduate school in a STEM discipline. <u>The Alliance did not meet this objective for this reporting period.</u> Figure 8 provides the cumulative count of scholars who have been accepted into graduate school in a STEM discipline comparted to the annual goal.
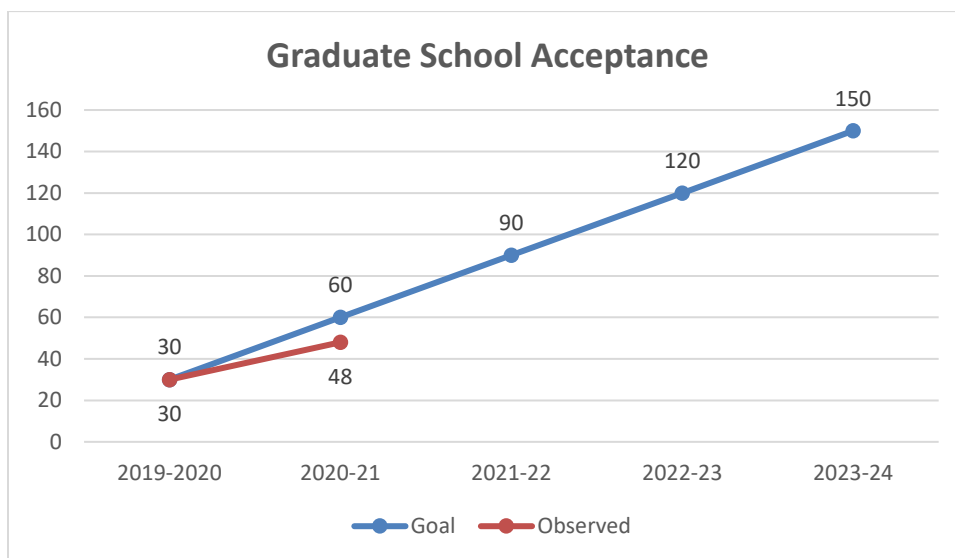
Figure 8: Scholars Accepted into Graduate School (Cumulative)– Goal vs Observed

Graduate School Preparation

Research is a significant component of the OK-LSAMP program that provides an opportunity to develop research skills and build relationships with faculty members. The OK-LSAMP program office regularly sends emails to scholars on the listserv informing them of research opportunities and

summer internships, including international experiences. OK-LSAMP participants are encouraged to apply to graduate school and are offered support during the process.

There were 243 scholars in the program during the 2020-2021 academic year. Below are the results of the Alliance-wide efforts in providing opportunities for the participants to be successful in their graduate school applications.

- 7.4% of the senior scholars (12 of 163) took the GRE

- 47.1% of the students who had not left the program before Fall 2020 (112 of 238) conducted research that semester

- 41.7% of the scholars who were still in the program during Spring 2021 (91 of 218) conducted research that semester

- 35.4% of the students (86 of 243) participated in at least one internship during college. Nine additional students lost an internship opportunity due to Covid-19

- 6.2% of students (15 of 243) have participated in at least one international experience during college

- 22.7% of students who were in the program in Fall 2020 (49 of 216) attended the OK-LSAMP Research Symposium

- 38.8% of students who attended the OK-LSAMP Research Symposium (19 of 49) presented

Summaries on how each individual Alliance partner contributed to the OK-LSAMP goals can be found in Appendix 1.

Section 2: OK-LSAMP Online Student Survey

The Center for Institutional Data Exchange and Analysis at the University of Oklahoma created two online surveys using Qualtrics and sent an email invitation to all OK-LSAMP scholars with a link to the survey. We obtained the email addresses from Darlene Croci in the OK-LSAMP program office. The addresses contained the names from their listserv, which included scholars currently in the program. The Fall 2020 list included 218 email addresses, and the Spring 2021 list included 212 names. The OK-LSAMP program office sent each student an email notification about the survey beforehand. The evaluator also informed the Campus Program Managers about the survey and asked them to encourage their students to participate. The invitations were emailed to scholars on November 23, 2020 and April 5, 2021. Each group of students received two follow-up emails before the surveys closed on December 4, 2020, and April 13, 2021, respectively.

One-hundred thirty-seven students responded to the survey in Fall 2020. Seven of these students did not complete the survey, and five were not in the program during the Fall semester, so their responses are not included in these results. The response rate of useable data from the survey was 57.3% (125 out of 218). At least one student from each of the 12 institutions that were in the program during Fall 2020 responded to the survey. The largest response to the survey (33.6%) came from Oklahoma State University, which has the largest representation of OK-LSAMP scholars in the program. The second largest number of survey respondents came from Langston University with the responses comprising 16.0% of the total. Fifty percent or more of the scholars at all but one Alliance institution participated in the survey.

Ninety-nine students responded to the Spring 2021 survey. Fourteen of these students did not complete the survey, so their responses are not included in these results. The response rate of useable data from the survey was 40.1% (85 out of 212).

At least one student from each of the 12 alliance institutions responded to the survey in Spring 2021. As in the Fall survey, the largest response to the survey came from Oklahoma State University (18.8% in spring), and the second-largest number of survey respondents came from Langston University with the responses comprising 17.6% of the total in the spring survey. Fifty percent or more of scholars at 9 of the 12 Alliance institutions responded to the survey.

Tables 2a and 2b provide the number of students who responded to the fall and spring surveys from each institution. They also include data showing the percentage representation of each institution within the program, as well as the survey participation.

Table 2a: *Student Affiliation of Survey,*
Fall 2020 Survey Respondents

Institution	Total Scholars Who Received Survey	% of Total Scholars	# of Survey Respondents	% of Scholars who Responded to Survey	Distribution of Survey Responses	% of Total Scholars who Responded to Survey
CU	10	4.6%	5	50.0%	4.0%	2.3%
ECU	7	3.2%	6	85.7%	4.8%	2.8%
LU	35	16.1%	20	57.1%	16.0%	9.2%
NEOSU	9	4.1%	7	77.8%	5.6%	3.2%
NWOSU	3	1.4%	3	100.0%	2.4%	1.4%
OPSU	2	0.9%	2	100.0%	1.6%	0.9%
OSU	84	38.5%	42	50.0%	33.6%	19.3%
OU	28	12.8%	13	42.9%	10.4%	6.0%
SEOSU	13	6.0%	8	61.5%	6.4%	3.7%
SWOSU	10	4.6%	6	60.0%	4.8%	2.8%
TU	8	3.7%	7	88.9%	5.6%	3.2%
UCO	9	4.1%	6	66.7%	4.8%	2.8%
Grand Total	**218**	**100.0%**	**125**		**100.0%**	**57.3%**

Percentages may not total 100% due to rounding.

Table 2b: *Student Affiliation of Survey*
Spring 2021 Survey Respondents

Institution	Total Scholars Who Received Survey	% of Total Scholars	# of Survey Respondents	% of Scholars who Responded to Survey	Distribution of Survey Responses	% of Total Scholars who Responded to Survey
CU	8	3.8%	5	62.5%	5.9%	2.4%
ECU	8	3.8%	6	75.0%	7.1%	2.8%
LU	29	13.7%	15	51.7%	17.6%	7.1%
NEOSU	10	4.7%	2	20.0%	2.4%	0.9%
NWOSU	3	1.4%	3	100.0%	3.5%	1.4%
OPSU	2	0.9%	1	50.0%	1.2%	0.5%
OSU	85	40.1%	16	18.8%	18.8%	7.5%
OU	32	15.1%	8	25.0%	9.4%	3.8%
SEOSU	11	5.2%	10	90.9%	11.8%	4.7%
SWOSU	7	3.3%	7	100.0%	8.2%	3.3%
TU	9	4.2%	7	77.8%	8.2%	3.3%
UCO	8	3.8%	5	62.5%	5.9%	2.4%
Grand Total	**212**	**100.0%**	**85**		**100.0%**	**40.1%**

Percentages may not total 100% due to rounding.

In the Fall 2020 survey, 19 students reported transferring from these institutions: Beloit College (WI), Cameron University (OK), Connors State College (OK), Harding University (AR), Morehouse College (GA), Murray State College (OK), Northern Oklahoma College, Oklahoma State University Institute of Technology, Oklahoma State University, Oklahoma State University-Oklahoma City, Orange County Community College (NY), Rogers State University (OK), Tulsa Community College (OK), University of Arkansas, University of Oklahoma, and University of Science and Arts of Oklahoma.

In the Spring 2021 survey, 13 students reported transferring from these institutions: Cameron

University (OK), Morehouse College (GA), Murray State College (OK), Oklahoma State University-Oklahoma City, Orange County Community College (NY), Southwestern Christian University (OK), Stetson University (FL), Tulsa Community College (OK), and University of Arkansas (AR).

Recruitment is essential to the growth of the OK-LSAMP program. Students reported the top sources for learning about the OK-LSAMP program were professors, campus recruitment, friends or family, and current participants. The specific programs mentioned were McNair Scholars Program, First 2 Go Program, Center for Sovereign Nations, Summer Bridge, Freshman Orientation, TU-STEM-UP, TRIO, Diversity and Inclusion Engineering class, Pete's Pet Posse, RISE program, and the AISES national conference.

Survey Results & Discussion

The OK-LSAMP program has several strategies in place to help ensure that objectives are met, and the scholars receive the support needed to be successful. The questions on the survey were related to the scholars' experiences with the following aspects of the program: 1) group meetings, 2) research mentor support, 3) the Fall 2020 OK-LSAMP Research Symposium and other professional meetings, 4) internship participation, 5) graduate school preparation, and 6) PHD camp. Below are the findings, grouped by category. See Appendix 7 for a complete list of survey questions for both surveys.

Group Meetings

OK-LSAMP scholars are required to attend meetings with program staff. These meetings are organized by each Alliance institution's OK-LSAMP Campus Program Manager. Topics in these meetings typically include time management, presentation ideas, graduate school preparation tips, and other matters related to helping the students succeed in their STEM studies and pursue graduate degrees. Guest speakers are also a common feature of these meetings.

Of the 125 students who answered the question on the Fall 2020 survey related to attendance at meetings, 72.8% (91 students) attended at least one meeting and 7.2% (9 students) attended five or more meetings. In the Spring semester, 54.1% (46 of 85 students) attended one or more group meetings and 7.1% (6 of 85 students) attended five or more meetings. For students who did not attend meetings, the main reasons given were the lack of meetings, schedule conflicts, or not interested in topics.

Students were asked about the helpfulness of the group meetings. Responses ranged from 1 to 5 with 5 being the most helpful. Figure 9 shows the scholars' responses to how helpful they felt the meetings were for them. Overall, most respondents found the group meetings to be helpful. The data do not include 34 students (27.2%) who did not attend meetings in Fall 2020 nor the 39 students (45.9%) who did not attend meetings in the Spring 2021. Appendix 2 provides a list of survey responses related to group meetings.
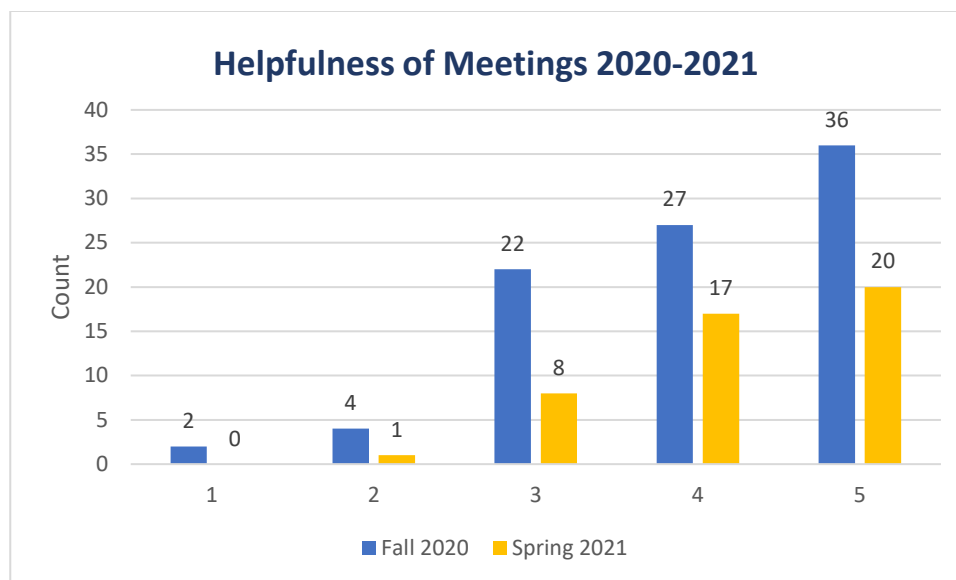
Helpfulness of Meetings 2020-2021

Count

	1	2	3	4	5
Fall 2020	2	4	22	27	36
Spring 2021	0	1	8	17	20

■ Fall 2020   ■ Spring 2021

Figure 9: Helpfulness of the Meetings
1=Least Helpful; 5=Most Helpful

Nearly three-quarters of the Fall 2020 survey respondents indicated they participated in at least one meeting during the semester, while just over half of the Spring respondents did so. The Fall and Spring meetings may have been held in-person and/or virtual because of campus closures due to Covid-19. The evaluators do not have data concerning how many of these required meetings were held at each Affiliate institution; however, this response rate is positive and shows that the meetings are being held and the students are attending.

In addition to simply attending the meetings, the majority of students indicated that the meetings were helpful for them. Based on the open-ended questions related to the meetings (see Appendix 2), the students appreciated hearing about other students' experiences with online research presentations, talking about research symposiums, opportunity to network with research mentors and scholars, guidance with graduate school applications and preparation, the wealth of information, lots of excitement and enthusiasm, learning about internship opportunities, and gaining knowledge about presenting projects. Both semesters, about 60% of scholars who did not attend meetings indicated there were no meetings on their campus. Since this is a required component of the OK-LSAMP program, the evaluator recommends that each Alliance institution hold regular group meetings for their students as they are shown to be helpful to the scholars. In addition, communicating the schedule for the meetings is critical as several scholars noted they did not receive notification of meetings.

Research Mentor Support

One important component of support is providing mentoring for the students. Faculty mentors are key in helping OK-LSAMP students succeed. They work with the students on research projects, encourage them to participate in summer internships, and help them with graduate school decisions.

Of the 125 students who participated in the Fall 2020 survey, 74.4% (93 students) indicated they had a mentor. Of the 85 spring students who responded to the survey, 77.6% (66 students) indicated they had a mentor in Spring 2021.

Scholars were asked to rate their mentors on how helpful they were, based on an A-F scale. Out of 93 students who had a mentor in Fall 2020 and responded to this question, 86.0% (80 out of 93)

gave their mentor an "A" rating, 12.9% (12 out of 93) gave their mentor a "B" rating, 1.1% (1 out of 93) gave their mentor a "C" rating.

Out of 66 students who had a mentor in Spring 2021 and responded to this question, 81.8% (54 out of 66) gave their mentor an "A" rating, 15.2% (10 out of 66) gave their mentor a "B" rating, and 3.0% (2 out of 66) gave their mentor a "C" rating. There were no responses in either survey below a "C" rating. Student responses to this question can be seen in Figure 10.
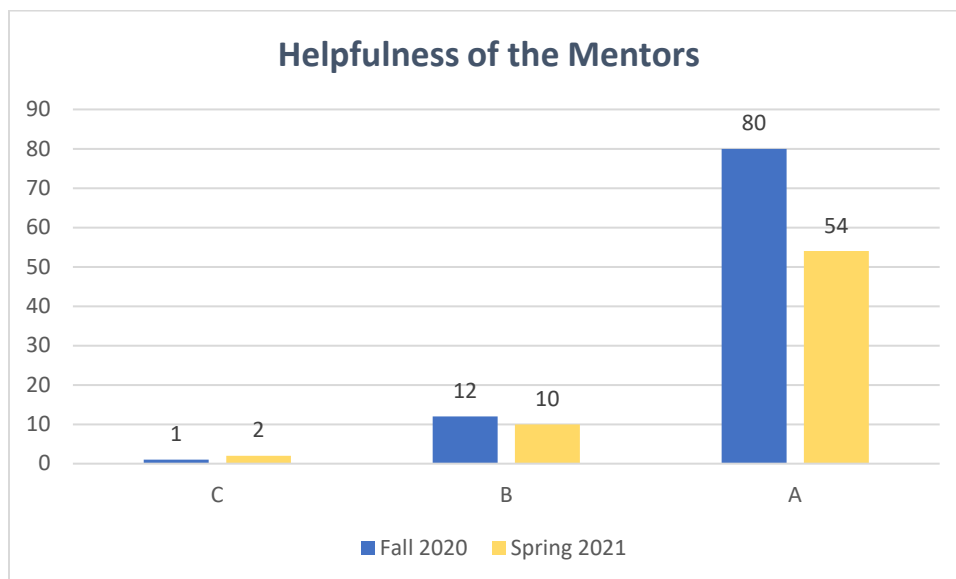

Helpfulness of the Mentors

Figure 10: Helpfulness of the Mentors
Fall 2020 & Spring 2021 Survey

Appendix 3 provides students' comments related to their research, as well as experiences with their mentors, including how they were helpful and how they could improve.

Approximately 75% of the students stated they had a research mentor in both surveys. The coronavirus outbreak continued to shutter research in the 2020-2021 academic year and posed numerous technical and organizational challenges. Of the 80 scholars who were conducting research in Fall 2020, 33.8% (27 out of 80) were in-person, 27.5% (22 out 80) working remotely, and 38.8% (31 out 80) were working both in-person and remotely. Of the 45 scholars who indicated they were not conducting research, 26.7% (12 students) had to cancel their research in Fall 2020 due to Covid-19.

Fifty-three students (62.3%) conducted research in Spring 2021; 24.5% (13 out of 53) of these scholars did their research remotely and in-person; 54.7% (29 out 53) worked exclusively in-person, and 20.8% (11 out 53) conducted their research remotely.

Most scholars who had a mentor reported that these faculty members were helpful. They mentioned receiving help with, and constructive feedback on, research projects, advice about graduate school, preparation for presentations, and information about internship opportunities, resources, and grants. When asked how their mentors could improve, most indicated they were great, and no changes were needed; a few students mentioned the desire for their mentor to be more available and to communicate more often. Based on the positive results seen by scholars with mentors, the evaluator recommends that Campus Program Managers work to provide mentors for more students.

Research Symposium and Other Professional Meetings
Participation in professional meetings is another way that the OK-LSAMP program supports its

scholars. Students receive financial support for travel to present at conferences, when they are held in person, which offers them experience in a professional setting and opportunities for networking with other STEM students.

The OK-LSAMP Research Symposium is a full-day, statewide symposium held each fall to provide an opportunity for scholars to participate in a professional meeting. The Research Symposium was held virtually in Fall 2020. Students who had conducted research were required to present either an oral or poster presentation highlighting their research. Scholars could also serve as moderators or volunteers at the event. Attendance at the symposium is required for all scholars, regardless of whether they are presenting. In the Fall 2020 survey, 51.2% (64 of 125) of the students who responded to the question attended, and 39.1% (25 of 64) of these students presented. The reasons the 61 students gave for not attending included: schedule conflict (29 students), lack of research (13 students), not being in the program at the time (9 students), I didn't know about (8 students), and not interested (3 students).

Fifty-seven percent (71 of 125) of the Fall 2020 respondents attended other professional meetings during the semester. Of those 71 scholars, 45.1% (32 students) attended three or more professional meetings, 25.4% (18 students) reported they received financial assistance from OK-LSAMP to attend the meetings, and 52.1% (37 students) presented at the meetings.

The timing of our Fall survey allowed us to gather data related to the impact of Covid-19 on the OK-LSAMP scholars. In addition to asking students how many professional meetings they attended in the Fall semester, we also asked how many meetings were cancelled due to Covid-19. Sixty students were planning to attend meetings that were cancelled, and twenty-one of these scholars were scheduled to present at these meetings.

Forty-nine students (57.6%) reported attending professional meetings during Spring 2021. Of those 49 students, 16 (32.7%) reported receiving financial assistance to attend the professional meetings, and 30 students (61.2%) presented at the professional meetings.

Seventy-one students reported attending professional meetings other than the OK-LSAMP Research Symposium in Fall 2020, and 52.1% of those participants indicated that they presented at other meetings. Forty-six scholars who planned to attend a professional meeting in Fall 2020 had to cancel due to Covid-19, and 21 of those students were scheduled to present. Forty-nine students reported in Spring 2021 attending professional meetings other than the OK-LSAMP Research Symposium, and 61.2% of those participants indicated that they presented at other meetings.

This is a positive indicator of the success of the OK-LSAMP program in encouraging its students to do research and present, in preparation for graduate study. More than 50% of scholars who responded to the question about the OK-LSAMP Research Symposium attended. This is a requirement of all students, not only scholars presenting their research. Understanding that there are always going to be conflicts and that some of the students may not have been in the program at the time, this is an acceptable representation at the Symposium. Alliance institutions are doing a good job of encouraging their scholars to attend and present, not only at the OK-LSAMP Symposium, but also other venues.

Internship Participation

Another aspect of the OK-LSAMP program that prepares students for future graduate school or industry employment is the opportunity to participate in summer internships. The program requires students to participate in at least one internship experience before graduating.

When asked about their internship experiences, 80.8% of Fall 2020 and 89.4% of Spring 2021 respondents reported being encouraged to participate in summer internships. When asked how they found out about these opportunities, the majority reported that they received this information from a

mentor or their Campus Program Manager or the OK-LSAMP program office emails. Other sources included websites, departments and schools, internet searches, conferences, professors and past employers, and career fairs. Students could choose more than one response if applicable. The results are seen in Figure 11.

Thirty-four percent (42 of 125) of the Fall 2020 respondents reported that they had participated in an internship that summer, and 20.0% (25 of 125) percent of scholars had to cancel their internship due to Covid-19. Of the 85 Spring respondents, 47 scholars (55.3%) planned to participate in an internship in Summer 2021.
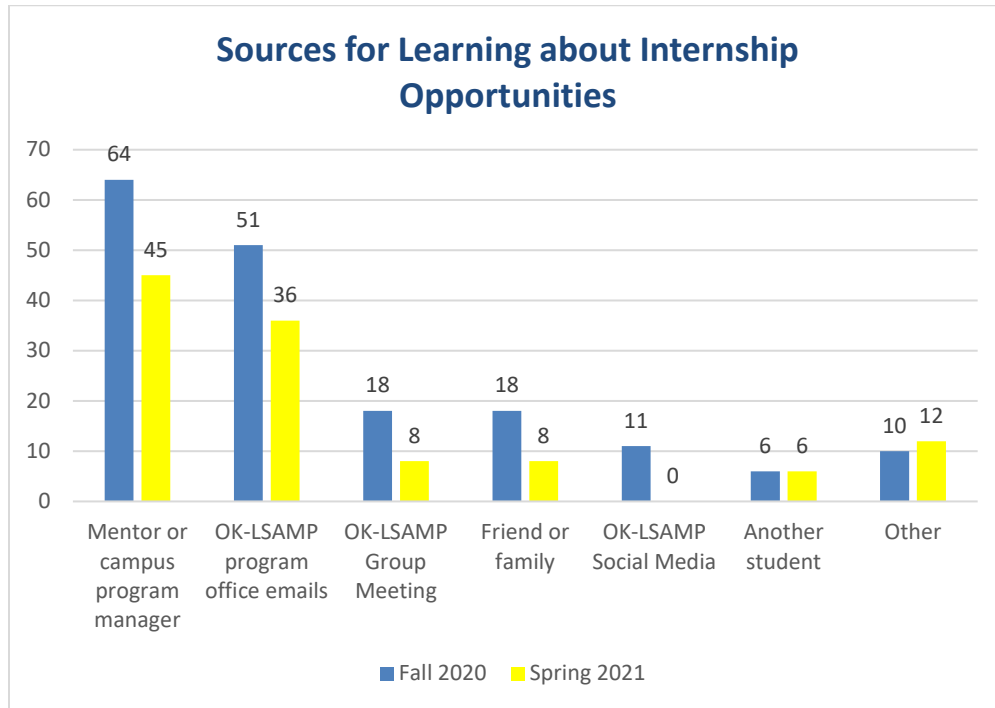

Sources for Learning about Internship Opportunities

	Mentor or campus program manager	OK-LSAMP program office emails	OK-LSAMP Group Meeting	Friend or family	OK-LSAMP Social Media	Another student	Other
Fall 2020	64	51	18	18	11	6	10
Spring 2021	45	36	8	8	0	6	12

Figure 11: Sources for Learning About Internship Opportunities

Although many internships were cancelled in Summer 2020, one-third of the Fall respondents were able to participate. These results are very encouraging and show the importance that the OK-LSAMP program is placing on these internships.

Graduate School Preparation

If scholars indicated on the survey that they were a senior, we asked them a few questions related to the GRE. In the Fall 2020 survey, 60.9% (14 of 23) seniors reported that they were encouraged to take the GRE; 39.1% (9 of 23) received help from the OK-LSAMP program in preparing for the GRE; and 26.1% (6 of 23) of the scholars had already taken the GRE at the time of the survey.

Of the seniors who responded to these questions in Spring 2021, 68.8% (22 out of 32) reported they were encouraged to take the GRE, 43.8% (14 out of 32) received help from the OK-LSAMP program in preparing for the GRE, and 9.4% (3 out of 32) of the scholars had already taken the GRE at the time of the survey. Some examples of how students indicated that the program was helpful with GRE preparation include funding, Magoosh GRE test prep through OK-LSAMP and other programs, study materials, and workshops. Appendix 4 provides a full account of student responses to the survey questions related to graduate school preparation.

Scholars are required to submit a minimum of three graduate program applications, according to the project plan. Of the seniors who responded to the survey, 7 students (30.4%) in Fall 2020 and 11 students (34.4%) in Spring 2021 had applied to at least one graduate school. Three (13.0%) in Fall 2020 and seven students (21.9%) in Spring 2021 had applied to at least three graduate schools.

About two-thirds of the seniors in both fall and spring reported that they had been encouraged to take the GRE. However, only about a quarter of the Fall 2020 students had taken the GRE at the time of the survey, while less than 10% of the Spring 2021 students had taken it. The evaluator recommends continued encouragement, GRE preparation, and financial support to the OK-LSAMP scholars to help increase the number of students who attend graduate school as stated in one of the objectives for this funding period.

PHD Camp

The OK-LSAMP program office hosted the Preparing for Higher Degrees (PHD) Camp was held virtually on March 27, 2021. The camp was an opportunity to help scholars develop skills for graduate school applications, interviews, GRE preparation, cover letter/letters of intent, and many other areas. The purpose was to provide scholars information to strengthen their competitiveness as candidates for graduate school. Seven of the 85 scholars (8.2%) who responded to the Spring 2021 survey attended the camp, and 100.0% (7 out of 7 students) found the camp to be beneficial. Six of the students felt the timing was good, and five students noted that the length of the camp was appropriate. One-third of the students who did not attend the camp indicated that they did not know about it, 37.2% had a schedule conflict, and 23.1% were not interested. Based on the positive scores from the students, the evaluator recommends that the Alliance continue to host the camp but communicate more with the scholars about the opportunity. See Appendix 5 for student responses concerning the camp.

Overall Satisfaction

The scholars were asked to evaluate their experiences with the OK-LSAMP program in several specific areas, each of which are important components of the program. The score ranking was from 1 to 5 (1=Poor and 5=Excellent). In all areas, the "Excellent" ranking was reported by the highest number of students followed by the "Good" ranking.

In the Fall 2020 survey, staff availability and professional development support received the highest scores, with 95.2% and 91.2% of scholars, respectively, selecting either "Excellent" or "Good". The two questions with the lowest scores were related to interactions with other students (within the program and in other undergraduate research programs). Although these questions received the lowest scores—77.6% of respondents for both questions marked "Excellent" or "Good"—it still represents more than three-quarters of the students who were pleased with support in these two areas, despite Covid-19 restrictions.

In the Spring 2021 survey, more than 81.2% of respondents selected "Excellent" or "Good" in all categories except "Interactions with other students in the program", which received these positive scores from 76.5% of the scholars. The category with the best scores was Professional Development Support, with 89.4% of students rating it as "Excellent" or "Good".

Based on these responses, the OK-LSAMP scholars are pleased overall with their support from the program. Figures 12a and 12b provide the counts of responses in each category.

Overall Satisfaction with OK-LSAMP Program
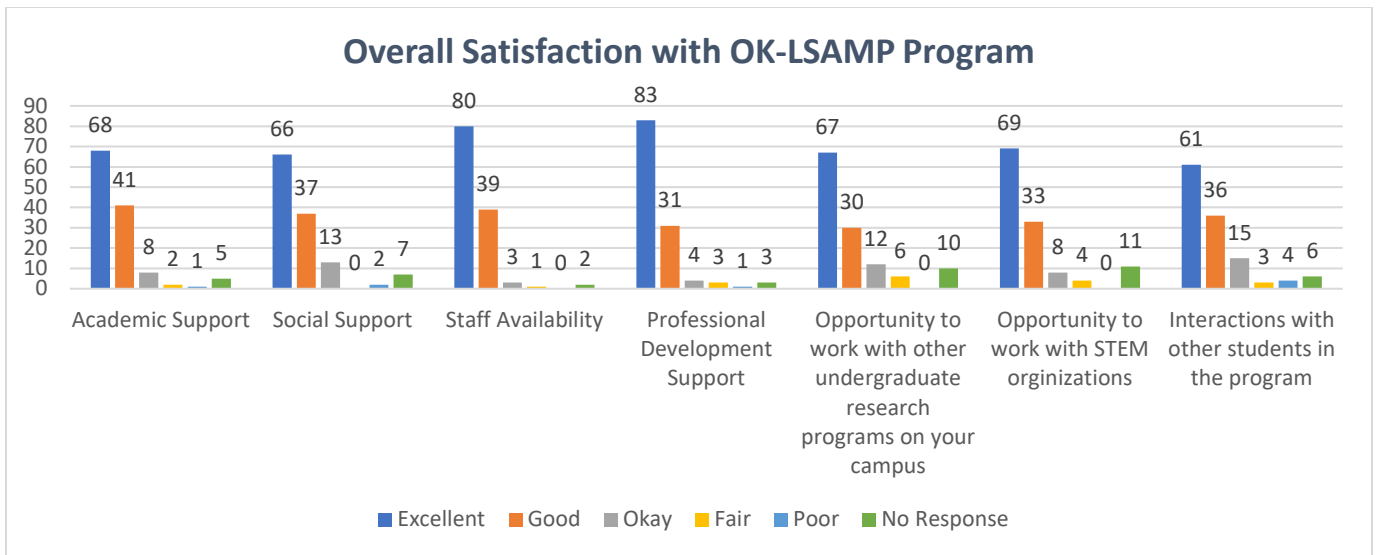
Figure 12a: Number of Student Responses for OK-LSAMP Experiences (Fall 2020)

Overall Satisfaction with OK-LSAMP Program
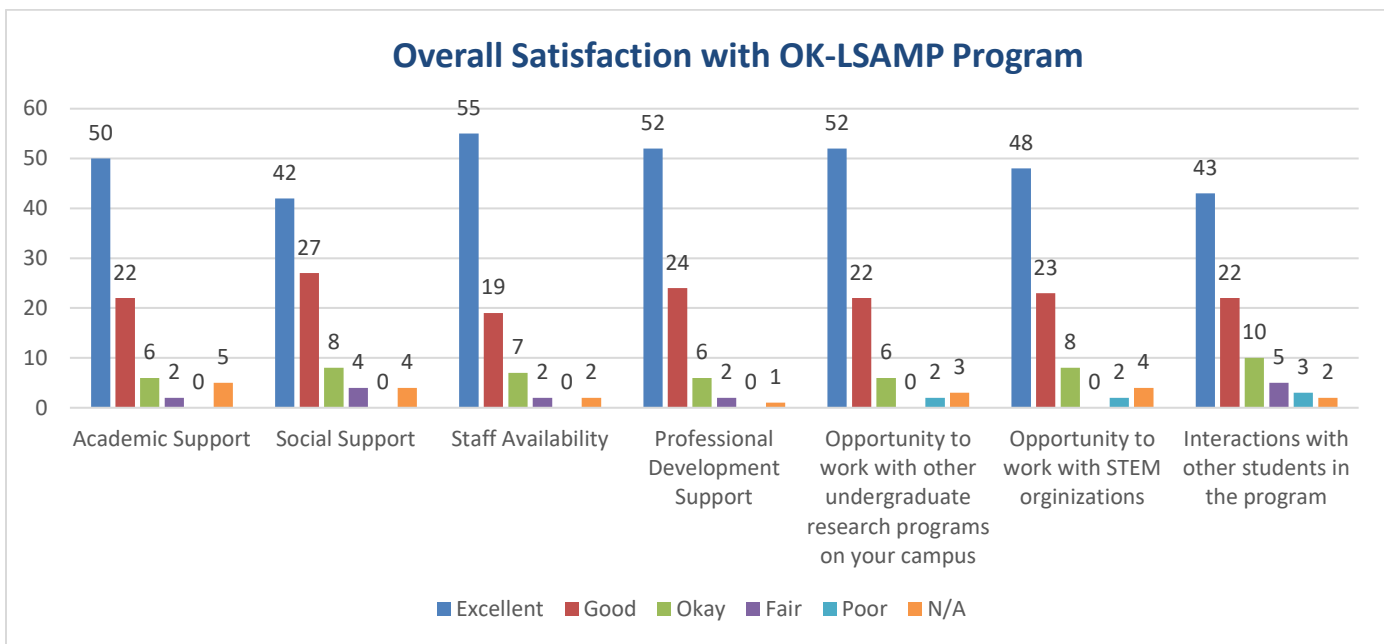
Figure 12b: Number of Student Responses for OK-LSAMP Experiences (Spring 2021)

In addition to the specific areas noted above, the students rated their overall satisfaction with all areas of the OK-LSAMP program on a scale of 1 to 5, with 5 being the most satisfied. More than half of the scholars—65 out of 125 students (52.0%)—who completed the Fall 2020 survey reported the highest satisfaction level. In the Spring 2021 survey, 58.5% (50 of 85) of the students gave a score of 5. There were no ratings of 1 or 2 in either survey.

Using the same 1-5 scale, students were also asked to rate how the program helped their academic career. Sixty-two students (49.6%) in the Fall 2020 survey reported a score of 5, and 44 out of 85 students (51.8%) gave a score of 5 in the Spring 2021 survey. See Tables 3 and 4 for the responses.

Table 3: *Overall Satisfaction with the OK-LSAMP Program*

Fall 2020 Survey

Score	Count	%
1	0	0.0%
2	0	0.0%
3	9	7.2%
4	51	40.8%
5	65	52.0%
Total	125	100.0%

Score: 1= Not Satisfied; 5=Very Satisfied

Spring 2021 Survey

Score	Count	%
1	0	0.0%
2	0	0.0%
3	5	5.9%
4	30	35.3%
5	50	58.8%
Total	85	100.0%

Score: 1= Not Satisfied; 5=Very Satisfied

Table 4: *Helpfulness of OK-LSAMP Program on Academic Career*

Fall 2020 Survey

Score	Count	%
1	0	0.0%
2	7	5.6%
3	16	12.8%
4	40	32.0%
5	62	49.6%
Total	125	100.0%

Score: 1= Not Helpful; 5=Very Helpful

Spring 2021 Survey

Score	Count	%
1	1	1.2%
2	2	2.4%
3	10	11.8%
4	28	32.9%
5	44	51.8%
Total	85	100.0%

Score: 1= Not Helpful; 5=Very Helpful

Overall Satisfaction

The overall response from the scholars showed that the OK-LSAMP program is succeeding in supporting its students in many areas: academic support, social support, staff availability, graduate school preparation, internships, working with campus support programs, working with community organizations, interacting with other students in the program, and more. These are all crucial components that can help lead to successful graduation of the scholars, and eventual graduate school attendance. The students are pleased with their mentors, feel supported by the program, attend meetings for support and guidance, and are doing research and presentations. Appendix 6 lists open-ended responses from scholars relating to overall success of the program.

Limitation of Online Student Survey

Two student surveys were conducted this academic year; the response rates were 57.3% and 40.1%, respectively. Although more participation is always preferable, this response rate was very good. The students who participated in the survey were representative of the OK-LSAMP population from their respective Alliance institutions, with at least one survey response from each institution. Seven students who participated in the program in Spring 2021 and responded to the survey they were not in the program that semester.

The survey response rate may have been negatively influenced by the length of the survey. Scholars were asked to complete two surveys when the invitations were emailed on November 23, 2020, and April 5, 2021. The OK-LSAMP evaluation survey consisted mostly of multiple-choice items

and took approximately 10-15 minutes to complete. After finishing the survey, respondents were asked if they wanted to also complete the OK-LSAMP Research survey, which took about 15 minutes to complete.

Section 3: The National STEM Retention and Graduation Data

In April 2021, the Consortium for Student Retention Data Exchange (CSRDE) published the annual national STEM retention study, *2019-20 CSRDE STEM Retention Report*. The CSRDE is coordinated by the Center for Institutional Data Exchange and Analysis at the University of Oklahoma. This report is based on survey data collected from 165 colleges and universities in the U.S. and Canada. In past years, data for each of the Oklahoma public institutions were provided for the annual STEM report by the Oklahoma State Regents for Higher Education. The Regents did not submit the data for this reporting period; however, data from Cameron University (CU), Oklahoma State University (OSU), and The University of Oklahoma (OU) were submitted directly from the institutions and are included in the national report.

The survey data were collected on first-time, full-time, baccalaureate degree-seeking freshman cohorts of 2009 through 2018 who indicated intent to major in a STEM field. The Classification of Instructional Programs (CIP) codes used to identify the majors were selected in cooperation with the National Science Foundation when this survey was developed in the late 1990s and have been updated periodically over the past two decades.

In capturing the retention and graduation rates of these STEM students, we used the following approach. First, we collected the retention and graduation rates of these STEM cohorts in any major at their institution. If students initially indicated an interest in majoring in a STEM discipline, but later changed their major to a non-STEM field, they were included in this section of the survey, along with those students who remained in a STEM major. Next, the survey captured the rates at which the cohorts continued and graduated within STEM fields at their institution. This dual tracking allows us to see within a campus the migration of STEM majors out of STEM fields and into other majors. It also allows us to see the general departure rate of students.

The CSRDE also publishes an annual national retention report that provides data on all first-time, full-time, baccalaureate degree-seeking students, regardless of major. The following summary provides the status of STEM retention and graduation data as well as retention and graduation data of all first-time students at the 165 institutions observed in the 2019-20 CSRDE retention reports, regardless of major. These reports include data from Cameron University, Oklahoma State University, and The University of Oklahoma.

Graduation Rates

In the following discussion, three types of graduation rates are provided for the Total cohorts and the underrepresented minority (URM) cohorts:

- **All Majors:** All Majors identifies the percent of first-time, full-time students who began and graduated within six years in **all majors** at their institution.

- **Any Major:** Any Major identifies the percent of students who began as freshman STEM majors and graduated within six years in **any major** at their institution.

- **STEM Major:** STEM Major identifies the percent of students who began as freshman STEM majors (the same cohort of students as the Any Major category) and graduated within six years **specifically within a STEM field** at their institution.

In Table 5, the six-year graduation rates are provided for the 2013 cohorts of all students in the national study, as well as CU, OU, and OSU. The data for URM students are shown as well. In the CSRDE STEM report, underrepresented minority students include Black or African American, Hispanic/Latino, and American Indian or Alaska Native students.

Table 5: *Six-year Graduation Rates – 2013 Total and URM Cohorts*

Category	Total	URM
All Majors		
National	**65.8%**	**55.5%**
OU	70.3%	68.0%
OSU	64.7%	47.9%
CU	26.1%	19.2%
Any Major		
National	**68.2%**	**56.5%**
OU	68.9%	67.0%
OSU	69.1%	49.7%
CU	33.1%	25.0%
STEM Major		
National	**49.7%**	**35.1%**
OU	49.0%	43.6%
OSU	55.2%	36.3%
CU	28.2%	16.7%

As seen in Table 5, the overall graduation rates for all students—both the Total and URM cohorts—who began college with an intent to graduate in a STEM major (Any Major category) were higher than those who began college in any major (All Majors category).

To better understand how the three Oklahoma institutions are doing compared to similar institutions nationally, Table 6 provides data based on institutional selectivity. The table shows the six-year graduation rates for the following 2013 URM cohorts by selectivity: 1) students in all majors, 2) students who begin as a STEM major and graduate within any major at the institution, and 3) students who begin as a STEM major and graduate within STEM majors. Selectivity as defined in the CSRDE research is a categorization of institutions based on the average ACT or SAT admission test scores of incoming students. OU and OSU are included in the Highly Selective category. Cameron University is included in the Less Selective category.

- *Highly Selective institutions:*
  ACT scores above 24.0 or SAT scores above 1180

- *Selective institutions:*
  ACT scores from 22.5-24.0 or SAT scores from 1125-1180

- *Moderately Selective institutions:*
  ACT scores from 21.0-22.4 or SAT scores from 1080-1124

- *Less Selective institutions:*
  ACT scores below 21.0 or SAT scores below 1080

Table 6: *Six-year Graduation Rates by Selectivity – 2013 URM Cohort*

Category	Highly Selective	Selective	Moderately Selective	Less Selective	All URM
All Majors					
National	**68.5%**	**53.8%**	**43.7%**	**45.0%**	**55.5%**
OU	68.0%				
OSU	47.9%				
CU				19.2%	
Any Major					
National	**68.8%**	**52.4%**	**42.8%**	**40.6%**	**56.5%**
OU	67.0%				
OSU	49.7%				
CU				25.0%	
STEM Major					
National	**46.4%**	**30.1%**	**23.8%**	**21.1%**	**35.1%**
OU	43.6%				
OSU	36.3%				
CU				16.7%	

Table 6 indicates that the graduation rates for underrepresented minority students are positively related to the selectivity of the institution for the cohort in all three categories, with one exception. Students attending Less Selective institutions graduated at a higher rate than those at Moderately Selective institutions in the All Majors category. We also see that more than half (56.5%) of URM students who began as a STEM major graduated within any major in their institutions, STEM or non-STEM.

The University of Oklahoma's six-year graduation rates are above the average for all URM students in all three categories. Oklahoma State University's six-year graduation rates are above the average of all URM students in one of the three categories (STEM Major). However, when compared to other institutions within the Highly Selective group, the graduation rates of both OU and OSU's URM students are below the national average in all three categories (All Majors, Any Major, and STEM Major). Cameron University's six-year graduation rates were below the average for all URM students in each category as well as when compared to other Less Selective institutions.

Table 7 provides the six-year graduation rates for all majors, within any major, and within STEM majors for the Total 2013 cohort by selectivity.

Table 7: *Six-year Graduation Rates by Selectivity – 2013 Total Cohort*

Category	Highly Selective	Selective	Moderately Selective	Less Selective	Total
All Majors					
National	**75.8%**	**58.4%**	**54.4%**	**49.7%**	**65.8%**
OU	70.3%				
OSU	64.7%				
CU				26.1%	
Any Major					
National	**76.6%**	**58.0%**	**53.7%**	**46.3%**	**68.2%**
OU	68.9%				
OSU	69.1%				
CU				33.1%	
STEM Major					
National	**58.4%**	**37.6%**	**36.2%**	**27.7%**	**49.7%**
OU	49.0%				
OSU	55.2%				
CU				28.2%	

In Figures 13-15, the national data for the 2013 URM cohort and the Total cohort are provided for comparison, based on the percentages listed in Tables 6 and 7. Figure 13 shows the graduation rates for all students, regardless of their major when they began college. Figure 14 shows the data for students who began as a STEM major at the institution and graduated in any major at the institution. Figure 15 provides the rates for students who began as a STEM major at the institution and graduated within a STEM discipline.
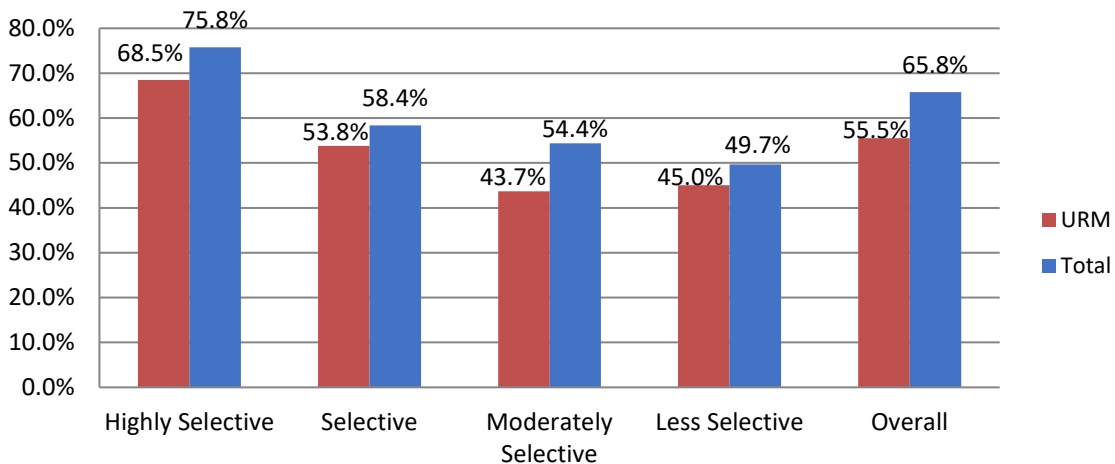

Figure 13: Six-year Graduation Rates for 2013 Total and URM Cohorts by Selectivity – All Majors
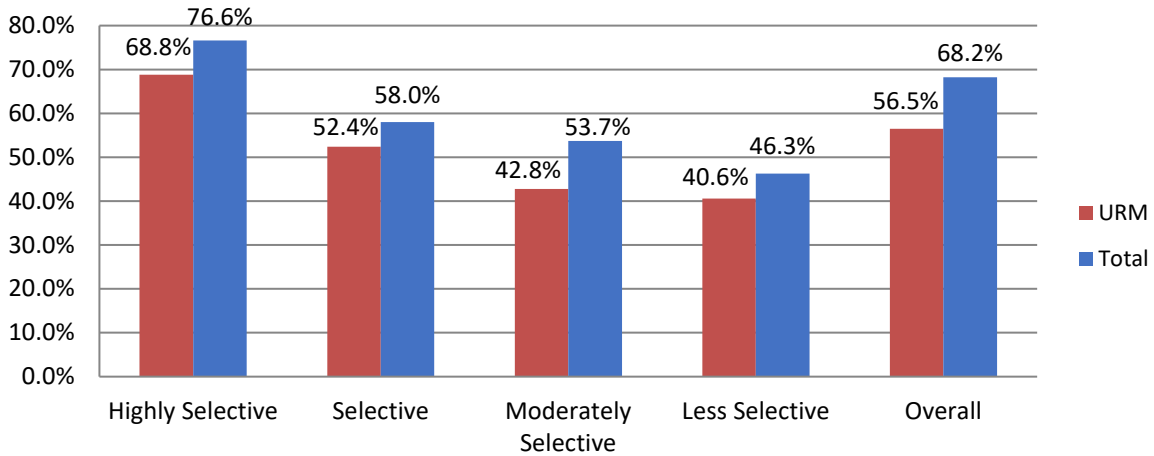
Figure 14: Six-year Graduation Rates for 2013 Total and URM Cohorts by Selectivity – Any Major
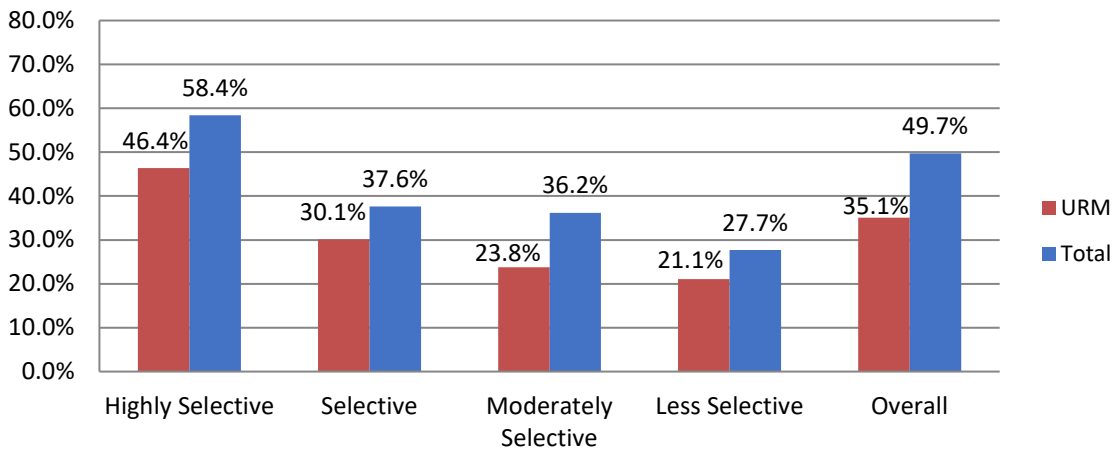

Figure 15: Six-year Graduation Rates for 2013 Total and URM Cohorts by Selectivity – STEM Major

As seen in Tables 6 and 7 and Figures 13-15, the graduation rates of the Total cohort of students decreases as the selectivity of the institution decreases. URM students in Less Selective institutions graduate at a higher rate than the URM students at Moderately Selective institutions in the All Majors category. The gap between the graduation rates for URM students and the Total cohort of students is considerable in all institutions.

Retention Rates

Retention is defined as the rate at which the first-time, full-time fall cohort of students return to the institution the following fall. The first year is a critical period in the success of students, and typically this is the point at which departures occur most frequently at many institutions across the country.

In the following discussion using the CSRDE national STEM data, as with the graduation tables, there are three types of retention rates provided for the Total cohorts and the URM cohorts:

- **All Majors** – All Majors identifies the percent of first-time students who began in all majors and continued to the second academic year at their institution.

- **Any Major** - Any Major identifies the percent of students who began as freshman STEM majors and continued to the second academic year in **any major** at their institution.

- **STEM Major** - STEM Major identifies the percent of students who began as freshman STEM majors (the same cohort of students as the Any Major category) and remained **specifically within a STEM field** at their institution as they moved into their second academic year.

In Table 8, the first-year retention rates are provided for the 2018 cohorts of all students in the national study as well as for CU, OU, and OSU. The data for underrepresented minority students are shown as well.

As with the graduation rates, to gain a better understanding of how the three Oklahoma institutions are doing compared to similar institutions nationally, Table 9 provides the retention data based on institutional selectivity. The table shows the first-year retention rates for all majors, within any major, and within STEM majors for 2018 URM cohorts by selectivity.

Table 9 indicates that the retention rates for underrepresented minority students are generally positively related to the selectivity of the institution for all cohorts of students, except for the Less Selective institutions. The retention rates for URM students are higher in Less Selective institutions than Moderately Selective institutions in all three categories.

The University of Oklahoma's first-year retention rates are above the average for URM students within the highly selective group except for the STEM Major category where it is lower. Conversely, Oklahoma State University's first-year retention rates were below the average for URM students within the highly selective group in all categories. OU's first-year retention rates were greater than the average for all URM students except in the STEM Major category; OSU's first-year retention rates were below the average for all URM students in all categories. Cameron University's first-year retention rates for URM students were below the average in all categories. Table 10 provides the first-year retention rates of the Total 2018 cohort by selectivity for the national data as well as the three Oklahoma institutions that participated in the study.

Table 8: *First-year Retention Rates – 2018 Total and URM Cohorts*

Category	Total	URM
All Majors		
National	**84.1%**	**80.0%**
OU	88.2%	85.8%
OSU	83.2%	78.7%
CU	63.8%	60.9%
Any Major		
National	**86.3%**	**81.9%**
OU	88.9%	86.0%
OSU	83.9%	76.0%
CU	63.8%	60.9%
STEM Major		
National	**74.0%**	**67.4%**
OU	67.1%	65.6%
OSU	67.5%	57.0%
CU	51.3%	47.8%

Table 9: *First-year Retention Rates by Selectivity – 2018 URM Cohort*

Category	Highly Selective	Selective	Moderately Selective	Less Selective	All URM
All Majors					
National	**86.9%**	**80.1%**	**72.1%**	**73.9%**	**80.0%**
OU	85.8%				
OSU	78.7%				
CU				60.9%	
Any Major					
National	**87.5%**	**81.3%**	**71.1%**	**74.8%**	**81.9%**
OU	86.0%				
OSU	76.0%				
CU				60.9%	
STEM Major					
National	**73.7%**	**63.9%**	**54.2%**	**62.1%**	**67.4%**
OU	65.6%				
OSU	57.0%				
CU				47.8%	

Table 10: *First-year Retention Rates by Selectivity – 2018 Total Cohort*

Category	Highly Selective	Selective	Moderately Selective	Less Selective	Total
All Majors					
National	**89.4%**	**80.5%**	**76.0%**	**75.0%**	**84.1%**
OU	88.2%				
OSU	83.2%				
CU				63.8%	
Any Major					
National	**90.3%**	**82.1%**	**75.6%**	**76.6%**	**86.3%**
OU	88.9%				
OSU	83.9%				
CU				63.8%	
STEM Major					
National	**79.1%**	**66.8%**	**60.6%**	**63.3%**	**74.0%**
OU	67.1%				
OSU	67.5%				
CU				51.3%	

Tables 8-10 show that, generally, both URM students and the Total cohort of students who started as a STEM major (Any Major category) are more likely to continue their education to the second year as compared to those students who start in any major (All Majors category) at the institution, regardless of selectivity. The retention rates of URM students are below the average rate among all races, ranging from 4.1 to 6.6 percentage points lower. However, the gap between the URM students and the total cohort of students is much smaller for the first-year retention rate than it is for the six-year graduation rate (see Tables 5-7and Tables 8-10). The gap between graduation rates of URM students and all students ranges from 11.7 to 18.3 percentage points, indicating that more URM students are leaving the STEM disciplines after their second year and before they graduate than the Total cohort of students.

In Figures 16-18, the national data for the 2018 URM cohort and the Total cohort are provided for comparison, based on the percentages listed in Tables 9 and 10. Figure 16 provides the first-year retention rates for all students, regardless of their major when they began college. Figure 17 shows the data for students who began as a STEM major at the institution and returned for their second year in any major at the institution. Figure 18 provides the rates for students who began as a STEM major at the institution and continued to their second year within a STEM discipline.
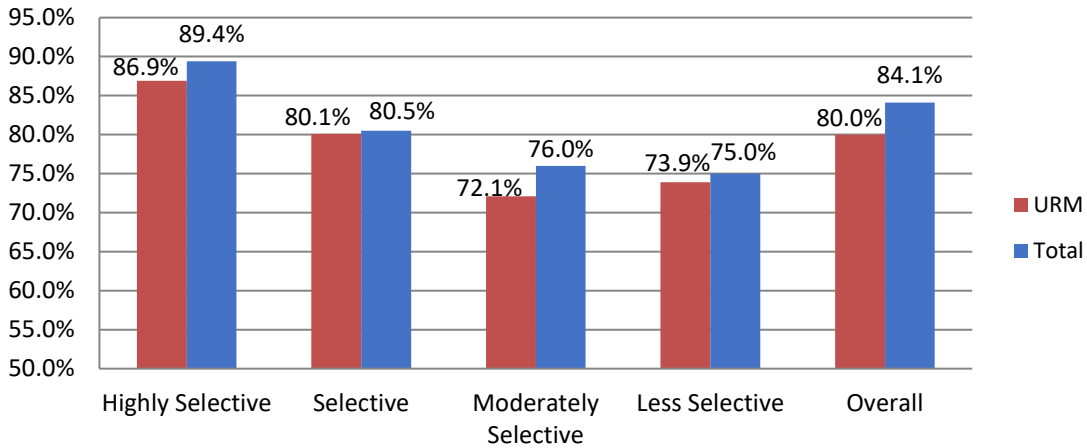
Figure 16: First-Year Retention Rates for 2018 Total and URM Cohorts by Selectivity – All Majors
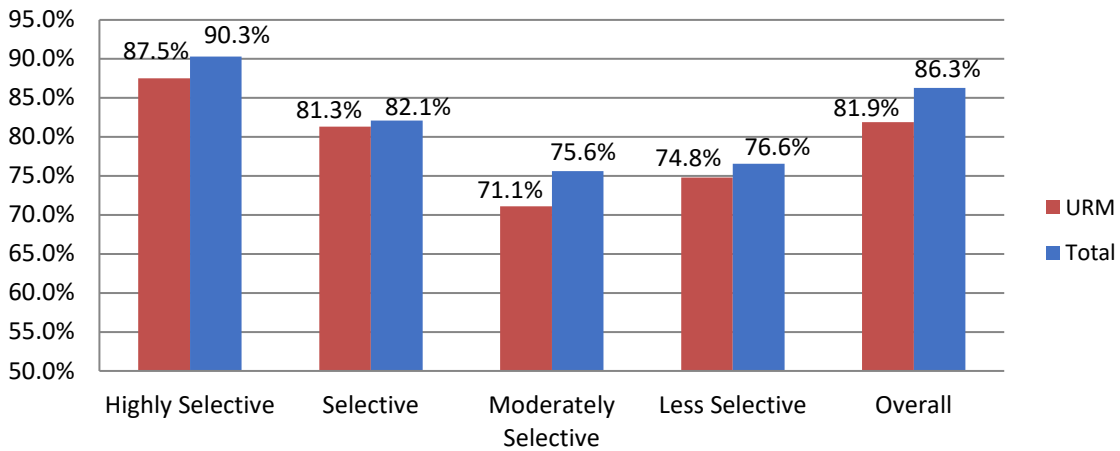

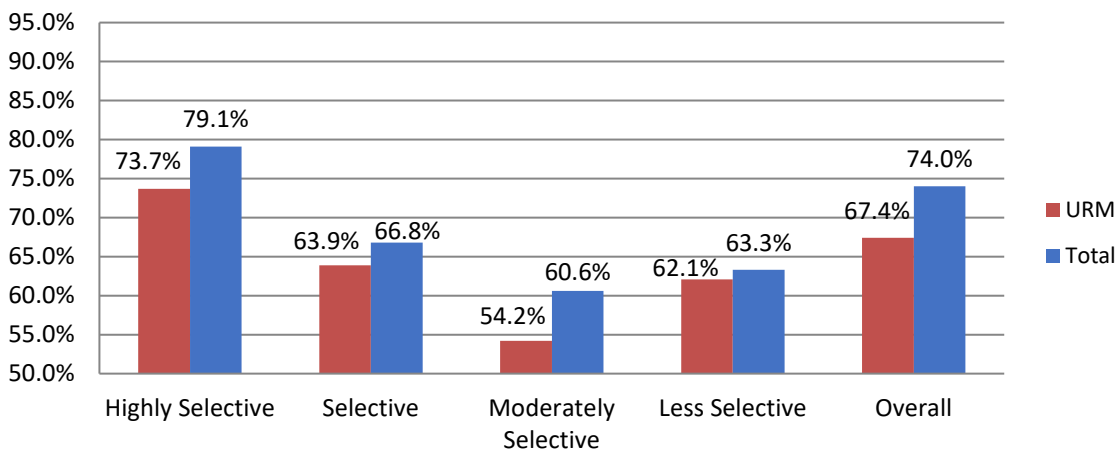*Figure 17:* First-Year Retention Rates for 2018 Total and URM Cohorts by Selectivity – Any Major

Figure 18: First-Year Retention Rates for 2018 Total and URM Cohorts by Selectivity – STEM Major

Summary

Providing a comparison between the retention rates of the national freshman cohorts and the retention of students in the OK-LSAMP program is difficult due to the focus on upperclassmen in this project. However, we can look at the retention of OK-LSAMP scholars within the evaluation period covered in this report.

Based on the data from the OK-LSAMP program office, a total of 221 students participated in Summer and Fall 2020. Of those 221 scholars, 16 graduated and nine students left the program before the beginning of the Spring 2021 semester. Twenty-two new students became OK-LSAMP scholars during the Spring 2021 semester, for a total of 218 scholars participating in the spring. As of the end of the Spring 2021 semester, 54 students graduated and seven were known to have left the program. It is anticipated that 72.0% of the Spring 2021 scholars will still be in the program for Fall 2021. The persistence rates for each semester (continuing students plus graduates) are excellent: 95.9% continued from the Summer and Fall 2020 to Spring 2021 semester or graduated; 96.8% of scholars in the program during the Spring semester either graduated or were still in the program at the end of the semester. Table 11 shows the retention and graduation data for OK-LSAMP scholars during the Summer/Fall 2020 and Spring 2021 semesters.

These rates are a strong indication that the OK-LSAMP program is succeeding in helping its students continue and graduate with STEM degrees. The support the OK-LSAMP program provides these students is proven to be effective.

Table 11: *OK-LSAMP Graduation and Retention Data, Summer/Fall 2020 and Spring 2021*

	Total Participating OK-LSAMP Scholars	Graduates Before Next Semester		Known Departures Before Next Semester		Continued to Following Semester (Fall 2020 to Spring 2021 Known; Spring 2021 to Fall 2021 Anticipated)		Graduates and Continuing Students	
	Count	Count	%	Count	%	Count	%	Count	%
Summer/ Fall 2020	221	16	7.2	9	4.1	196	88.7	212	95.9
Spring 2021	218	54	24.8	7	3.2	157	72.0	211	96.8

Section 4: Overall Report Summary

The 2020-2021 academic year was a difficult one for higher education due to Covid-19, and the goals for the OK-LSAMP program were affected as seen in the data reported above. The Alliance met fewer goals than in past years. Summer internships, international experiences, and conferences were cancelled. However, the program continued to offer research opportunities and other internship options for students, despite the circumstances. Although many goals were not met, the scholars persevered and continued their studies, many graduated, and some were accepted to graduate school, in both STEM and non-STEM disciplines, while others moved on to work in industry.

Over the course of the project, the OK-LSAMP institutions have attempted to support their underrepresented minority students as they move through their academic undergraduate careers as STEM majors. Review of the participation data from the OK-LSAMP Alliance coordinators shows that if students are in the program as upperclassmen, they most likely will graduate in a STEM discipline. This evaluation shows that 42.9% of the seniors (70 of 163) graduated during the evaluation period and 85 of the remaining seniors (all but eight) were still in the program at the end of the spring semester; however, the Alliance did not meet its goal to graduate at least 88 OK-LSAMP scholars during this evaluation period. Of the 70 students who graduated, 18 scholars were accepted into graduate school in a STEM discipline, falling short of the goal to have 30 students advance to graduate work during this reporting period.

The seniors who did not graduate during the 2020-2021 academic year appear to be on track for graduation and graduate-school readiness as well. Of the 93 seniors who participated in the program during this reporting period who did not graduate, 87.1% (81 of 93) had a GPA of 3.0 or greater, 60.2% (56 of 93) participated in research during this academic year, and 33.3% (31 of 93) had participated in at least one summer internship. In addition, five scholars were accepted for internships in Summer 2020, which were cancelled. Only eight were known to have left the program during the reporting period. Therefore, 85 senior scholars (91.4%) were expected to continue in the program in Fall 2021 to pursue their STEM degree. Given these numbers and the potential addition of new seniors joining the program in Summer and Fall 2021 and Spring 2022, OK-LSAMP is on target to continue increasing its underrepresented minority graduates in STEM majors.

Recruiting new scholars is critical to the success of the program. The Alliance added 74 new scholars during this reporting period, slightly short of its goal of 79 new scholars. The retention rate of its students (90.8%) fell below the baseline (93.0%).

The goal related to increasing international experiences has been affected most during Covid-19. The goal for the five-year funding period is to have 81 scholars participating in OK-LSAMP who have had an experience abroad, which includes study abroad, international internships, international research, or international conference presentations. The program added one student during the 2020-2021 academic year who had previously participated in an international experience.

Based on the results of our online student surveys conducted in Fall 2020 and Spring 2021, the scholars are pleased with their experiences in the program. They rated their mentoring experiences very high, they felt that the group meetings they attended were helpful in their STEM studies; they participated in summer internships; attended and presented at professional meetings, despite Covid-19; and were encouraged to take the GRE and apply to graduate school. The following section outlines several recommendations for continued success of the program.

Recommendations for Continued Success in the OK-LSAMP Program

1. Host a half- or full-day workshop for increasing international experience

One of the objectives of the OK-LSAMP program is to expand opportunities so at least 30% more scholars than the last funding period gain international experience. As noted above, at least 81 scholars over the five-year period must have an educational experience abroad to meet this goal. To meet this objective, the Alliance will need 54 more scholars over the next three years to have an international experience.

As in past years, we recommend that the program office host an Alliance-wide workshop to help scholars learn more about the advantages of international experiences and how to pursue one. This is especially important now that international programs are opening again after Covid-19 and OK-LSAMP needs an average of 18 new students to participate in an international experience over the next three years. A half or full day set aside to focus solely on this topic should help increase the number of scholars participating in international opportunities.

2. Increase research opportunities for scholars

Data from the OK-LSAMP program office indicate that 62.6% of the seniors (102 of 163) identified during this evaluation period participated in research during at least one semester, and 32.5% of these scholars participated in both Fall 2020 and Spring 2021. The numbers are similar for juniors: 52.9% (27 of 51) participated in research at some point during this funding period.

More than a third of the seniors and almost half of the juniors during the evaluation period did not conduct research. Since participation in research typically results in better participation at conferences, increasing the research opportunities for the OK-LSAMP scholars should help provide more opportunities for conference participation, which could eventually lead more students to graduate school to further their research and studies. We recommend that the program increase the number of mentors to provide more research opportunities for scholars.

3. Provide more opportunities for students to interact

Most students will be returning to campus this academic year, many after having worked remotely during Covid-19. Scholars who completed the two surveys during this reporting period indicated they understood it was difficult to get to know other students because of the pandemic. However, they expressed interest in developing social connections with their OK-LSAMP peers so they can encourage each other and learn from one another. Appendices 2-6 provide scholar responses from the surveys.

We suggest that the Alliance hold regular group meetings on their campuses, as scholars find the meetings to be helpful in general. Based on their responses to the surveys, they will be eager to get together with other scholars in-person in the 2021-2022 academic year. Many noted that the most helpful part of the group meetings was interacting with other scholars. They are interested in team building among the group. Although one-on-one meetings with their mentors may be preferred for receiving updates from students on their research, gathering as a group several times each semester has overwhelmingly been a positive experience for the students. Therefore, we suggest that each Alliance institution continue to hold group meetings and consider how students may participate in the planning and activities, even sharing their research.

4. More communication

Based on the responses in the scholar survey, a number of students asked for more communication about the program and guidance with issues such as finding a mentor. This has been a recurring response over the past few years and one that should be addressed. Several scholars also noted that others on campus are not aware of the OK-LSAMP program, and that recruitment could be stronger. Improvement in this area could result in more scholars, which could increase the number of graduates and scholars entering graduate school. For Alliance institutions that are not holding regular meetings, sending consistent communication to their scholars, and providing them with needed guidance, we recommend this.

Appendix 1: Institution-Specific Details

Below is a summary of activities for each of the OK-LSAMP institutions. For each institution, the number of participants is identified as well as a few data points related to scholar support. These results are based on data from the OK-LSAMP program office. Not included in this report is a list of the titles of the papers, presentations, and research projects that the participants completed. This data is available from the Alliance Office at Oklahoma State University.

Cameron University

Participants

- 9 students were included in this evaluation
- 1 was a sophomore, 1 was a junior, and 7 were seniors

Support

- 6 of the 9 students included in this evaluation (66.7%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 4 of 7 graduates (57.1%) participated in at least one summer internship during college

Graduate School Preparation

- 4 of 9 students (44.4%) conducted research in Fall 2020
- 5 of 9 students (55.6%) participated in Spring 2021 research
- 7 of 7 graduates (100%) had a minimum GPA of 3.0
- 1 of 7 seniors (14.3%) took the GRE
- 1 of 7 seniors (14.3%) completed at least one graduate school application

Results

- 7 of 7 seniors (100%) graduated
- 0 of 1 senior (0.0%) who applied to graduate school was accepted in a STEM discipline

East Central University

Participants

- 9 students were included in this evaluation
- 3 students were juniors and 6 were seniors

Support

- 9 of the 9 students included in this evaluation (100%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 3 of 4 graduates (75.0%) participated in at least one summer internship during college

Graduate School Preparation

- 4 of 9 students (44.4%) conducted research in Summer or Fall 2020
- 4 of 9 students (44.4%) conducted research in Spring 2021
- 4 of 4 graduates (100%) had a minimum GPA of 3.0
- 1 of 6 seniors (16.7%) took the GRE
- 1 of 6 seniors (16.7%) completed at least one graduate school application

Results

- 4 of 6 seniors (66.7%) graduated
- 1 of 1 senior (100%) who applied to graduate school was accepted in a STEM discipline

Langston University

Participants

- 31 students were included in this evaluation
- 5 students were sophomores, 6 were juniors, and 20 were seniors

Support

- 24 of the 31 students included in this evaluation (77.4%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 8 of 9 graduates (88.9%) participated in at least one summer internship during college.

Graduate School Preparation

- 23 of 31 students (74.2%) conducted research in Summer or Fall 2020
- 10 of 31 students (32.3%) conducted research in Spring 2021
- 9 of 9 graduates (100%) had a minimum GPA of 3.0
- 0 of 20 seniors (0.0%) took the GRE
- 0 of 20 seniors (0.0%) completed at least one graduate school application

Results

- 9 of 20 seniors (45%) graduated
- 0 of 0 seniors (0.0%) who applied to graduate school were accepted in a STEM discipline

Northeastern State University

Participants

- 11 students were included in this evaluation
- 2 students were sophomores and 9 were seniors

Support

- 9 of the 11 students included in this evaluation (81.8%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 1 of 3 graduates (33.3%) participated in at least one summer internship during college

Graduate School Preparation

- 8 of 11 students (72.7%) conducted research in Summer or Fall 2020
- 6 of 11 students (54.5%) conducted research in Spring 2021
- 2 of 3 graduates (66.7%) had a minimum GPA of 3.0
- 2 of 9 seniors (22.2%) took the GRE
- 2 of 9 seniors (22.2%) completed at least one graduate school application

Results

- 3 of 9 seniors (33.3%) graduated
- 2 of 2 seniors (100%) who applied to graduate school were accepted in a STEM discipline

Northwestern Oklahoma State University

Participants

- 3 students were included in this evaluation
- 2 students were juniors and 1 was a senior

Support

- 3 of the 3 students included in this evaluation (100%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 0 of 0 graduates (0.0%) participated in at least one summer internship during college

Graduate School Preparation

- 0 of 3 students (0.0%) conducted research in Summer or Fall 2020
- 0 of 3 students (0.0%) conducted research in Spring 2021
- 0 of 0 graduates (0.0%) had a minimum GPA of 3.0
- 0 of 1 senior (0.0%) took the GRE
- 0 of 1 senior (0.0%) completed at least one graduate school application

Results

- 0 of 1 senior (75.0%) graduated
- 0 of 0 seniors (0.0%) who applied to graduate school were accepted in a STEM discipline

Oklahoma Panhandle State University

Participants

- 2 students were included in this evaluation
- 2 students were seniors

Support

- 0 of the 2 students included in this evaluation (0.0%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 0 of 0 graduates (0.0%) participated in at least one summer internship during college

Graduate School Preparation

- 0 of 0 students (0.0%) conducted research in Summer or Fall 2020
- 0 of 2 students (0.0%) conducted research in Spring 2021
- 0 of 0 graduates (0.0%) had a minimum GPA of 3.0
- 0 of 2 seniors (0.0%) took the GRE
- 0 of 2 seniors (0.0%) completed at least one graduate school application

Results

- 0 of 0 seniors (100%) graduated
- 0 of 0 seniors (0.0%) who applied to graduate school were accepted in a STEM discipline

Oklahoma State University

Participants

- 101 students were included in this evaluation
- 1 student was a freshmen, 8 were sophomores, 18 were juniors, and 74 were seniors

Support

- 51 of the 101 students included in this evaluation (50.5%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 22 of 34 graduates (64.7%) participated in at least one summer internship during college

Graduate School Preparation

- 39 of 101 students (38.6%) conducted research in Summer or Fall 2020
- 18 of 101 students (17.8%) conducted research in Spring 2021
- 27 of 34 graduates (79.4%) had a minimum GPA of 3.0
- 7 of 74 seniors (9.5%) took the GRE
- 16 of 74 seniors (21.6%) completed at least one graduate school application

Results

- 34 of 74 seniors (45.9%) graduated
- 13 of 16 seniors (81.3%) who applied to graduate school were accepted in a STEM discipline

Southeastern Oklahoma State University

Participants

- 12 students were included in this evaluation
- 3 students were sophomores, 5 were juniors, and 4 were seniors

Support

- 11 of the 12 students included in this evaluation (91.7%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 0 of 2 graduates (0.0%) participated in at least one summer internship

Graduate School Preparation

- 2 of 12 students (16.7%) conducted research in Summer or Fall 2020
- 2 of 12 students (16.7%) conducted research in Spring 2021
- 2 of 2 graduates (100%) had a minimum GPA of 3.0
- 0 of 4 seniors (0.0%) took the GRE
- 0 of 4 seniors (0.0%) completed at least one graduate school application

Results

- 2 of 4 seniors (50.0%) graduated
- 0 of 0 seniors (100%) who applied to graduate school were accepted

Southwestern Oklahoma State University

Participants

- 13 students were included in this evaluation
- 1 student was a sophomore, 2 were juniors, and 10 were seniors

Support

- 9 of the 13 students included in this evaluation (69.2%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 1 of 1 graduate (100%) participated in at least one summer internship during college

Graduate School Preparation

- 8 of 13 students (61.5%) conducted research in Summer or Fall 2020
- 8 of 13 students (61.5%) conducted research in Spring 2021
- 1 of 1 graduate (100%) had a minimum GPA of 3.0
- 0 of 10 seniors (0.0%) took the GRE
- 1 of 10 seniors (10.0%) completed at least one graduate school application

Results

- 1 of 10 seniors (10.0%) graduated
- 0 of 1 graduate (0.0%) who applied to graduate school were accepted

University of Central Oklahoma

Participants

- 8 students were included in this evaluation
- 1 student was a sophomore, 1 was a junior, and 6 were seniors

Support

- 8 of the 8 students included in this evaluation (100%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 2 of 4 graduates (50.0%) participated in at least one summer internship in college

Graduate School Preparation

- 8 of 8 students (100%) conducted research in Summer or Fall 2020
- 6 of 8 students (75.0%) conducted research in Spring 2021
- 3 of 4 graduates (75.0%) had a minimum GPA of 3.0
- 0 of 6 seniors (0.0%) took the GRE
- 0 of 6 seniors (0.0%) completed at least one graduate school application

Results

- 4 of 6 seniors (66.7%) graduated
- 0 of 0 seniors (0.0%) who applied to graduate school were accepted

University of Oklahoma

Participants

- 35 students were included in this evaluation
- 1 student was a freshman, 6 were sophomores, 7 were juniors, and 21 were seniors

Support

- 27 of the 35 students included in this evaluation (77.1%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 4 of 4 graduates (66.7%) participated in at least one summer internship in college

Graduate School Preparation

- 29 of 35 students (82.9%) conducted research in Summer or Fall 2020
- 28 of 35 students (80.0%) conducted research in Spring 2021
- 4 of 4 graduates (100%) had a minimum GPA of 3.0
- 0 of 21 seniors (0.0%) took the GRE
- 4 of 21 seniors (19.0%) completed at least one graduate school application

Results

- 4 of 21 seniors (19.0%) graduated
- 4 of 4 seniors (100%) who applied to graduate school were accepted

University of Tulsa

Participants

- 9 students were included in this evaluation
- 6 students were juniors and 3 were seniors

Support

- 8 of the 9 students included in this evaluation (88.9%) received funding during Summer 2020, Fall 2020, and/or Spring 2021
- 2 of the 2 graduates (100%) participated in at least one summer internship in college

Graduate School Preparation

- 8 of 9 students (88.9%) conducted research in Summer or Fall 2020
- 4 of 9 students (44.4%) conducted research in Spring 2021
- 2 of 2 graduates (100%) had a minimum GPA of 3.0
- 1 of 3 seniors (33.3%) took the GRE
- 1 of 3 seniors (33.3%) completed at least one graduate school application

Results

- 2 of 3 seniors (66.7%) graduated
- 1 of 1 graduate (100%) who applied to graduate school was accepted

Appendices 2-7 include student responses to the Fall 2020 and Spring 2021 online surveys. Responses have not been edited. If there were more than three responses to the same question that were the same, we noted it once and included a count in parentheses.

Appendix 2: Scholar Responses About Group Meetings

What was most helpful about the group meetings that you attended? (Fall 2020)

A clear outline of what is needed and expected of me as an LSAMP scholar

Academic preparation

Advice for graduate school

All the group meetings were about furthering ourselves professionally.

Applicable and important subject material

Being able to ask specific questions to stay involved with the program

Being informed on presentation opportunities

Being kept up to date

chacking in on how we were doing mentally

Communication

Communication is clear

Connecting with other STEM majors

Everyone is pretty quick on responsiveness

fasfa info

Finding out about opportunities

Finding out about other LSAMP scholars

Gaining knowledge about presenting your projects

Gave insightful advice

getting to see other research and networking

Great information for the future

group meetings were extremely helpful in knowing what was going on with what events were going to be happening

I got to interact with students like me

I was able to learn about MD-PhD programs

Information and scholarships

Information provided

Information regarding research opportunities

It gave me insight to information that I didn't think I needed

It was nice to watch others present their research.

Knowing we were in this together

Learning about how other students navigate working with their research mentors and learning how to choose a mentor.

Learning about master programs around the U.S

Learning new opportunities I hadn't given thought to.

master programs

Meeting other scholars, learning about building relationships and connections with faculty members.

One of the topics covered was how to find a research mentor which brought two professors from [Name of Institution] to talk about their experience with students. One of the professors is not my research mentor

Possible opportunities for the future.

Promoting more resources available through the organization.

Received guidance.

See the other students in the program

Social media engagement, and things that I needed help with

Staying informed.

Talking to other members of the program

The ability to network with other scholars and research mentors was helpful.

The FAFSA workshop

The guidance from the leader

The meeting about LSAMP Programs around the country

The most helpful session was about graduate school options at [Name of Institution].

The opportunities

The program manager let us know of upcoming events we could present our research at.

They gave great insight for writing techniques

They let us know what was happening and coming up. They also asked how they can help us on any way.

they provide great information that is very useful

they were all good

They were very informational

Understanding post graduate life and how to address it

Very information about the MD-PhD program offered by OU. It gave me more insight to the program and what it entails.

We discussed resources, virtual events, and provided support in general.

We got to meet other scholars and alumni that went through the program

We had a lot of healthy discussion.

We were able to check in and get advice and updates.

What to look for when applying to grad schools.

What was most helpful about the group meetings that you attended (Spring 2021)

1st one.

A good place to showcase my work to a group of people.

Amazing information from panelists

Catching up with everyone, and seeing how they are doing on their research as well. It comforts me to know I am not the only one in the position I am in.

Communications

Feedback

Grad school prep. I would like to know more about ways to pay for grad school.

Hearing about other students' experiences with online research presentations was helpful, and hearing about bias in academia was helpful as well

I got to speak with other members of the program and explore future opportunities

I met everyone, as the only meeting I have attended was my first one.

I particularly liked the CV and resume section.

I thought the group meeting about graduate applications and programs was the most helpful because she gave us the idea of having an excel sheet of the schools/programs we are interested in, the recruiters of those institutions, deadlines, and other important info to keep track of everything. I thought that was brilliant and I have already started mine.

Information given was very helpful in graduate school preparation

It taught about professionalism.

Learned new tips

Learning about microaggressions

Learning more about different topics from people that are very involved in those areas.

moving forward towards a graduate program

Networking

Practical advice for scenarios we were about to encounter, not encounter in five years

Provided very helpful information and I enjoyed hearing from LSMAP allum

Reminders about any survey we needed to complete and opportunities available for us.

She informed us of upcoming events to register for

Talked about opportunities for summer and research symposiums.

The amount of info that was given

The possibilities of having a job in academia or the workplace. Let me learn more about my future possibilities.

The speakers and their input

There was always a wealth of information when we had our meetings, lots of excitement and enthusiasm

Tips for a virtual conference

What was least helpful about the group meetings you attended? (Fall 2020)

?

For me personally, I am not going to graduate school because I am attending medical school.

I feel I need a little more help on instructions of certain things

I wish we would get text messages saying we had meetings, email is not a good reminder

I'm old so I've heard most of the meetings

It is hard to focus and listen attentively during zoom calls

It was difficult to do over zoom. A lot of students got their plans ruined over the summer due to covid so there wasn't much to talk about.

Learning about opportunities that didn't really interest me.

Long introductions

low attendance

N/A (13 students had this response)

No clear information on how to get a mentor/start doing research

none

None

None

Not about my own major

Not all the meetings pertained to my post-graduate plans.

Not being able to see each other in person

Not sure.

Nothing (5 students had this response)

Some of the information was the same as the workshops from last year, so it was just a repeat

some of the thing are repeated from other meeting.

Some topics didn't apply to me, but with the broad majors in the program that makes sense.

Talking about resumes is applicable across the board for everyone

The general meetings felt more geared toward catering undergraduate students toward graduate school.

The least helpful was about online courses. That was only because I have attended several sessions about this.

The meetings were very long.

The timing

There's not a lot of information in regards to seeking out a higher degree in the medical field.

they were all great.

They were very long. We went over the scheduled meeting time.

Yes, also the networking

What was least helpful about the group meetings you attended? (Spring 2021)

Everything was helpful

Good advice.

Hard to meet other scholars virtually

I felt more like I was there simply to be there and that I had to be there. Rarely did I engage with any of the other students this semester.

I wish there were more opportunities available to meet.

It was least helpful not being able to fully interact with the speaker and other attendees

It's through Zoom so it's hard to interact with everyone.

Just a lot of info I already know

Least helpful was when we had professors come and talk to us about the available research projects they had and were recruiting students to join their teams

N/A (4 students had this response)

Over zoom, the times set I was not always available

Personally, I don't have to take the GRE for the medical schools I am pursuing.

the amount of info was sometimes not organized in ways to make it easy for me to decipher

There wasn't anything lest helpful

They were mostly targeted at new recruits

Very long sometimes

What would you change for future group meetings? (Fall 2020)

A bit more structured

A more solid agenda

A template of the minutes before the meeting to be held, so that everyone knows what is expected during the meetings, and when and where it is appropriate to direct any questions.

Be more inclusive. I know OK-LSAMP is based around Graduate school, but including more opportunities for non-graduate students would be more helpful.

Different times

Find a better way to conduct online meetings.

Have a set agenda. How will I benefit from attending

Have access to a recording of the meeting if we are unable to attend due to a scheduling conflict

Have an in-person option sometimes

Hopefully we can have some in person meetings soon

How we get notified of the meetings

I do not wish to change anything because what I find to not be informational but for others, they might it very useful.

I found it hard to attend them because there were limited meeting options each month and the time it was at. They did give options to attend other meetings but they were longer than 1 hr which is an issue for my time availability

I hope future group meetings can be more personal. I want to learn about other research conducted by LSAMP students.

I would like to have more of them.

I would love in person meetings and maybe later at night so students can attend more!

I would make the content of the meetings more engaging, do meetings focused around workshops or giving time to work together and ask questions about our stage in our research whether its finding a mentor or developing the presentation

I would shorten them.

If we become large enough to have some junior senior specific meetings for help with graduate school or summer programs.

It is hard to always attend the meetings because of the time, so maybe have the sessions recorded so we can go back and watch them.

Just to make sure people are prepared for all questions that could be asked

Longer time for questions

Make them later in the day

Making sure the information is relevant to all scholars

Maybe the time the meetings are at.

More in-person, with social distancing.

More personable and less traditional

More research topics

More structure in terms of what day and time we would meet.

more structure, and organization.

More things that will able to students not going to graduate school

N/A (6 students had this response)

No comment.

none

Not a lot, they were effecient

not much they have a good structure my biggest issue with them is the time they take place at

Not sure.

Nothing

nothing

Nothing

Nothing

Nothing. Meetings were very good in all aspedts.

Opening the discussion for applying to grad school for physical therapy.

Post the meeting recordings afterward for students who have to work or have other conflicting engagements.

send out an email telling us what we will be talking about to prepare more specific questions to ask

To send out the agendas prior to the meeting time.

Variety of people in various fields

What would you change for future group meetings? (Spring 2021)

COVID friendly, outside meetings rather than zoom.

Have them be recorded

I don't really know.

I wish I had a little more heads up on how everything goes, from the point system to how meetings are like.

I would like to learn more about all of the possible research opportunities on campus

I would make most future group meetings in-person

I would not change the format of the group meetings.

Maybe have meetings during the evening when we are out of class for the day.

More input from members on their experience

N/a

N/A

NA

Nothing

Offer different meetings times, after 5 O clock

Online recordings

There is not much that I would want to change about future meetings

There was a lot of information repeated, which wasted some time. Even though the information was very important, a seven hour zoom call is already plenty long.

Do you have any other comments regarding group meetings? (Fall 2020)

Everyone is doing the best they can for the difficulty of these times

Great!

I have struggled to get on the zoom meetings because of the time. I have had a lot of conflicts. I would be willing to watch the recorded sessions when I get a chance and send verification to my program manager to receive credit.

I liked the ice cream ice breaker

I think social distancing in person could have been an option for out big lecture halls.

I wish the schedule was easier to find for the meetings. I often did not know when a meeting was happening. There may have been emailing issues.

N/A (11 students had this response)

No (7 students had this response)

No I do not have anything to add.

none

nope.

NOT really

The ice breakers are usually really good

The icebreakers are always nice at the beginning of each meeting!

They were very informative and I think meeting once a month is a perfect amount of time to catch up on our events..

They're very helpful.

Do you have any other comments regarding group meetings? (Spring 2021)

great information

I would like to know more about ways to pay for grad school.

In/a

N/A (6 students had this response)

No

Not at this time.

There's a lack of inclusion when in comes to new members as I felt thrown into the situation. It's a learn as you go type system.

Appendix 3: Scholar Responses About Mentor Support

Do you have any comments regarding your Fall 2020 research experience?

Amazing. It is continuing to next semester.

Bioinformatics research was done through my computer during the whole semseter

Covid-19 has stopped a lot of research

Haven't finished yet

I am very happy to be able to complete research in my future field and I am glad my professor told me about this program.

It was a pleasurable experience, I just wish we had more in person activities/research opportunities rather than the digital version of it

It was different due to the virus.

It was hard to try and manage both the research and schooling with the pandemic. Far more difficult than the past few semesters I've been in LSAMP.

It was thorough and I was able to present the basis of my research projects.

IT was wonderful.

It wasn't a traditional internship but more of research class. We did 10 hours a week in person until the week of Thanksgiving. We present our posters via Zoom and submit them to a DropBox. My research mentor was [Mentor Name] at [Name of Institution]. It was an amazing experience even with the social distancing and groups of less than 5 people.

mainly a slow start

More difficult with COVID

My experience in 2020 was very fun, I felt that even though we were partially remote that my research mentor was never more than one meeting away. I greatly enjoyed all of the email contact I was able to have with the LSAMP staff as well. This semester while different was still good.

My work is primarily on a computer so I was not affected.

No

No

No

none

Research conducted this semester proceeded quite smoothly despite the necessity of distancing in the lab.

Research has been very educational and beneficial for the fields I am interested in pursuing.

Very different from typical semesters which impacted progress.

With the pandemic it was a little difficult to perform research, however my mentor did a great job adapting to the situation.

Do you have any comments regarding your Spring 2021 research experience?

All in all it was very good and I'm happy to have recieved OK-LSAMP's support.

Challenging with COVID 19

great experience

I am very happy I will be able to continue my research in the summer because we made significant progress on our protein purification and I'm excited to report on our improvements at future conferences.

I did work and research at the American Institute of Goat Research

I have really enjoyed it.

I work mainly independently, so the remote research didn't really affect my work.

It has been difficult with my load this semester to balance everything my PI needed and what i needed

It has been really rewarding. I have had two opportunities to present my research!

It is a little more difficult, but I am still able to be in the lab in order to conduct my experiments.

It was a research paper over teratogens and birth defects

It was amazing

Its been a great learning experience!

More bioinformatics

My research experience is very new and still in the beginning stages.

My senior design course required me to conduct research and participate in Oklahoma Research Day

My spring 2021 research experience has been used as a requirement for the honors college here at [Name of Institution]. It has been a great learning experience!

N/a

N/A

How did your research mentor help you? (Fall 2020)

Academic guidance, research assistance/guidance, general advisement

Advising

Allowed me to work on the grad students research project

Answered any questions took time to explain. Didn't make me feel underappreciated.

Assigned projects and tasks to be completed that helped me gain a deeper understanding of the feild.

Available to talk to when needed

By being available to answer my questions and guide me.

By encouraging me to seek out for more opportunities.

By guiding me to the right decisions with my research and my career decisions.

By teaching me about the project and how the experiment works.

Communicated with me frequently and was available for questions often.

Communication

Created new pathways to expand my research and skills opportunities.

Encouragement and continued information shared

Gave great advice on what to do for research and gave good direction in where to go with research.

Gave me the knowledge on how to start into a project and implement my ideas

General info

Getting samples to collaborators, directing future research

Gives me guidance on future and helps with experiments.

Graduate school application guidance, advice on research.

Guidance

He aided in the write up for the project and helped expand the project to a new direction.

He clearly explained to me the next step in the research and helped me anytime I had a problem. He allowed me to learn the research on my own as well and fix the problems by myself

He gives me access to databases to look for scientific journals that are relevant to my research. He keeps in contact on our progress.

He gives me resources and grants to apply for to help me.

He has given me many opportunities.

he helps me by providing me with experience of conducting research. they guide me and provide advise for me and the research.

He holds high standards which makes me want to exceed my potential!

He told me about the program and believed in me.

He was always available for questions and happy to help with anything I needed.

He was always available for questions and helped with problems i couldn't figure out

He was always available when needed.

He was always present to help me get through some of the reactions and procedures that we used. He also helped teach me how to run some of the equipment in the lab that I was unfamiliar with.

He was very flexible with my work and school schedule.

He was very understanding when it came to me being in the lab and doing research, as well as when I had to be quarantined because of a scare. Not only that, but he's been invaluable during this time in general.

He works with my crazy schedule as a student athlete and has taught me so much about the lab practices of Chemistry and the research world.

He would keep up with my progress on a weekly basis and answer any questions I had about my research or anything else I might need help with.

Helped improve my speaking/presentation skills and almost anything you can think of!

Helped me figure out how to use the computer to upload certain data points, as well as fully understand the data points.

Helped me to stay focus

He's a beast.

I assisted [Mentor Name] in conducting research data with other scientists.

Information, guidance, willingness to help.

Introduced me to exploration and the combination of science and computer science.

Made instructions clear and precise for a remote internship.

Motivated me when experiments failed or assisted me when procedures were unknown during the experimentation process.

My mentor has been and continues to be very accommodating and always has time for not just myself, but for every person who works in our lab. I've received an invaluable amount of support in growing my ability as a scientist and in my professional development.

My mentor helped me by for one providing a clear path of following I ternahios that I could apply for, as well keep me updated and provided me with any additional information and feedback to help mold me into being a successful LSAMP scholar.

My mentor is always very supportive and finds the best opportunities for me

My research mentor further educates me on the specific branch of microbiology we do research in!

My research mentor has given me advice for future classes and other things in to prepare for graduate school.

My research mentor has helped me stay motivated, focused, and adequate in my studies and research this semester.

My research mentor has invited me to virtual events/conferences along with setting me up for future opportunities.

My research mentor helped me develop new analysis skills and helped me find other scholarship opportunities.

My research mentor met with our lab every week in which we discussed literature together and gave us updates every week over the research in which we are working on.

My research mentor provides guidance.

My research mentor provides opportunities to help me grow as an undergraduate researcher. She constantly supports my endeavors and is always there for me in activities outside of the lab, such as research conferences and abstract writing.

N/A

Presented information to me

Provided a lot of support and understanding

Provided me with the knowledge to conduct field research.

Reviewed my paper

She couldn't due to covid regulations

She has helped prepare me for graduate school and research for when I complete my undergraduate in the spring. She has allowed me to explore my different interests in research.

She has kept me engaged and focused on my upcoming project for the spring since I cannot research this semester.

She helped me figure out a research project I could do and it worked out well for me as it was both educational and environmentally friendly.

She is such an amazing mentor that helps me learn so much in research. She also helps me on planning my future and keeping a balanced life

She is very supportive and helps with anything I had questions on

She keeps in contact with us and is always available to help and always giving out good information to help us with our next goals

She made sure we had everything we needed.

She was understanding of my availability and decided to really fit her schedule for meetings with me throughout the semester.

They allowed me to work independently while also giving me advice to succeed in me research.

They gave me advice on how to express and purify proteins

They help me formulate my ideas about my field.

They helped me by showing me research opportunities

They helped me gain a larger understanding of how to rework the plan when the research is not working out. We had a lot of difficulties in cloning a gene and had to start from scratch multiple times. It was nice to know that research doesn't always go as planned.

They still contacted me to see how I was doing and giving me campus updpates.

They were always available to answer questions and were great at guiding me through the process rather than just telling what to do.

Told me what to do on the application and how I could be more involved in the program

Very on top of things and reminders

Was extremely helpful and responsive to questions or personal issues that occurred this semester

We had weekly meetings and let us know what deliverables were needed and how she wanted them done.

Weekly meeting where required, but didn't feel super formal which game me a great opportunity to grow and learn.

With confidence in conducting research as a career choice.

How did your research mentor help you? (Spring 2021)

Academic advice, life advice, academic support

Accommodate me with advise and help on choosing graduate school

adequately prepared me to begin performing research and is helping me for life after graduation

Always available

Always there to answer questions and is flexible with my all the challenges in my personal life this last year.

answer any questions asked. Very enthusiastic and encouraged STEM.

Being there for me

By always keeping me motivated and on track. Helping me out with struggles and life decisions.

By giving me opportunities like internships, and GRE study tools

Experiment design

Formulating a research project and conducting it

Gave suggestions on research blocks and how to approach solving the issues. Also gave advice for applying to graduate schools and what to look for.

Guiding my lit review.

He has given me many opportunities to learn and grow in a lab setting.

He has guided me through working with his department

He has helped me in many ways but showing me how to design experiments and interpret the results has been the biggest takeaway.

He help explain any part of the research that I did not understand, and was eager to hear about my comments and results

He will always send me articles that could help me build my research. He would also check up on me to make sure that I am doing okay, and if I am needing any help with interpreting the research articles.

Helped me obtain a larger understanding of molecular biology lab techniques.

Helped me with my 3-minute thesis competition

Helping me stay safe within the lab, always accessible when I have questions, and has given me advice about my post graduate future.

He's always available to talk and truly wants the best for his students. I'm always comfortable around him, especially when I have to tell him that I'm confused or lost.

He's helping me get started although this has been a tough time.

I've learned so much more about graduate school and the application process. I've learned how to make a professional poster and conduct research in a more advanced setting than regular classes. I learned a lot of soft skills that can help me in graduate school and the actual techniques used in biochemistry research.

Keeps motivating me and understands what I'm going through

Lots of outside resources and advice

My mentor has been and continues to be a source of insight into professional and academic development. I feel I can go to them with with any questions or problems I may have.

My mentor let me know of ways to begin research such as reading specific research articles to understand more about the field. In addition, he has provided me hands-on experience in the Fears structural engineering lab. Also, he's encouraged me to apply to a few REU's that are related to our research.

My research mentor has done a great job with giving me room to work on my own and has also given me amazing opportunities.

My research mentor helped me predict specific reactions for my experiment and gave me advice about using charts to determine solvent effects like dielectric effect and NMR shift values.

Offer guidance with approaching graduate studies, as well as how to properly approach questions scientifically.

Opportunities available

Presented opportunities for future research

Professional verbiage and encouragement to assert interest/passion for interests and goals of MINE.

Provide supplementary information

Provide useful feedback for how my software would be much easier to read and use.

Provides opportunities for summer research

Providing resources for education assistance, internships, and advisement

Sending resources such as internships, symposiums, gre help, etc.

She constantly checks up on the students and bring awareness of the many different opportunities we can apply for.

She guided the completion of my senior thesis and publication writing. Also, helped me collect SEM images for my projects

She guides me on my project through weekly meetings, gives me beneficial feed back on presentations and data analysis and most importantly, she is my biggest supporter academically. She has also helped my mental state by having honest conversations surrounding imposter syndrome and self-doubt.

She helped me with opportunities to build for my future career, as well as things to help prepare me throughout my research.

She taught me everything I know!

She's very informative with internships and scholarships and different opportunities. She always keeps us up to date

support me, touch base biweekly, ask about other commitments

Taught lab protocols, explained and demonstrated research techniques, gave advice and encouragement, held weekly meetings.

Taught me a new programming and statistic software called MatLab

We had meetings where she designated teams for tasks on our project.

With guidance throughout the research.

How could your research mentor improve? (Fall 2020)

availability but its understandable that they are busy with other thing especialy during this pandemic.

Availability I suppose.

Be more engaged

Being more open with students.

Being more proactive in helping me find information about graduate programs outside our discipline

Better availability, busy schedule.

Better if not remote.

By being more constructive and participating in research more.

Can't really think of anything

Coney the overall purpose of the project better.

Develop more time for help.

Didn't understand it and too busy to catch up.

Everything is good!

EVERYTHING WAS GREAT!

He could ask more questions to make sure I understand the concepts.

He is doing a fine job.

He is perfect

He is very experienced and does well, no improvements to offer.

I believe he does great now.

I can't really say for sure. I'd have to think about that.

I currently can not think of anything.

I do not have any suggestions.

I don't believe there are any ways.

I don't think there's anything our mentor needs to change

I had a difficult time keeping up with my project this semester

I have no comments at this time.

I have no complaints

I prefer more in person meetings, but we do not have a choice with COVID-19.

I think my research mentor has done a great job this semester given the circumstances and is always there for me.

I think she is doing a great job

I think there was a lot of time constraints, but this was also due to the pandemic. Also I think giving more feedback on ongoing research whether it be on data or asking where I was at in the research process.

I've been blessed to have such incredible mentors and friends in this program

Introducing me to other members of the lab.

Keep doing what he's doing

Maybe just better communication with how the research is to be conducted. I am very happy with how it turned out though.

Maybe, not seeing like hes always in a hurry.

More communication

More direction on project.

More guidance

More hands on approach

My research mentor could improve by presenting more activities, however, I understand the limation due to COVID.

My research mentor was the best!

N/A (14 students had this response)

No comment.

No room for improvement, already perfect.

None

Not sure.

Nothing

Past examples

She doesn't, she's perfect!

There is no improvement for [Mentor Name].

There isn't much I can say besides having more meetings in person, and really getting to know my mentor outside of a work setting to help foster a deeper relationship and comparability with the program.

There's nothing to improve in, maybe just moral support and better communication.

They could be more clear in their communication

They could improve by having one on ones with us

They did a great job. I don't see anything else they need to improve in.

Time availability

Try to be more direct at the beginning.

How could your research mentor improve? (Spring 2021)

Be available more and stay better connected with where the project and research is going.

Better schedule

Bring snacks to eat outside of lab :)

Communicating with me more

He could check up on me more often, and be more detailed with his expectations

He could work on being a more hands on professor that works with students and listens to their input.

He did great.

He has done a great job at keeping in touch with me. We are still meeting through Zoom until I am feeling comfortable, but I feel like things will get better in the upcoming academic year.

I can't think of any constructive criticism because I am very happy to say I have an excellent mentor.

I do not know any ways she could improve.

I do not know what areas he could improve in.

I do not think my mentor can be any better than they already are.

I think sometimes she pushes her lab members a little too hard. However, even if I have a week where I don't have much to present to her, she doesn't get upset or anything, so I think she just wants what's best for us. I do think that collaboration internally in the group but also with other groups could be increased. (This applies to [Name of Institution] as an institution as well). I think collaboration is lacking.

Inform about research opportunities

Learning more technology skills when it comes to presenting new material

Maybe just by being more in touch, which like said, is hard in times like these. So if she could do more zoom calls just to check on everything it would be nice.

Maybe just to be a little more intentional.

More active in data component.

More clear and concise communication.

My mentor does not micro-manage me in the lab, which I truly appreciate. However, at times, I wish others in the lab would be more open to assisting me when I have questions.

My research mentor is doing a food job.

N/A (6 students had this response)

No further improvement is needed besides more funding.

Not much.

Nothing, shes always available and willing to answer all of my questions!

Provide opportunities with industry leaders. Encourage grant/funding proposal writing for independent research.

The research was beyond my technical skills and I did not feel like I had support to learn

understanding of my busy schedule

Appendix 4: Scholar Responses About Graduate School Preparation

What kind of help did you receive preparing for the GRE? (Fall 2020)

A course and funding

Financial support

GRE Prep course

Magoosh GRE Prep

Magoosh login

N/a

Prep opportunities

website link

workshops

What kind of help did you receive preparing for the GRE? (Spring 2021)

GRE prep through another program (4 students had this response)

Magoosh GRE prep through OK-LSAMP (10 students had this response)

Other

Other

Appendix 5: Scholar Responses About Preparing for Higher Education (PHD) Camp

Do you have any suggestions for the PHD Camp? (Spring 2021)

I want the Q&A panel to be longer.

N/a

NA

Any other comments about the PHD Camp? (Spring 2021)

I felt conflicted about attending the 7 hour Ph.D. camp because it was two days before a major anatomy exam!

I liked the breaks for networking or other

I think there is a huge focus on the specific fellowship but I would like to hear about different graduate assistance program.

Appendix 6: Scholar Responses About Program Strengths, Weaknesses, and Recommended Changes

What are the strengths of the OK-LSAMP program? (Fall 2020)

A lot of opportunities are provided that most would not know about

A pool of innovative thinkers and the ability to meet with others and explore internship opportunities.

A strength is meeting in which people come together to share testimonies on how to navigate their college journey in order to reach their career goals.

Access to more resources

Allows/encourages exposure to different areas of research

Amazing opportunities

Assisting students who are interested in research, sometime people can't conduct research purely because of affordability.

Close involvement in research

Communicating opportunities that are available for us.

Communication is very good. I stayed inform

Communication, teamwork, ability to encourage individuals who sometimes need to be reassured

Community outreach and academic guidance/opportunities available

community, scholarships, support

Comradery, research opportunities

Conferences, Networking, and Information about Internships.

Connecting students with faculty and campus resources

Connecting with other scholars and learning about new research opportunities

Connection and opportunity

Consistency, communication

Encourages professional development and helps you find opportunities that you may not know about otherwise

Finacial support during research

Good at making connections for students and listening to students.

Good Scholarships to those who deserve it

Great leaders and mentors

Great opportunities and motivation to succeed

group meetings, connections with other scholars and mentors, and communications

Guidance and help with goal setting

Helpfulness to connect students with resources

Helps build connections and life changing opportunities.

Helps find scholarships

How open they are to answer any of our questions.

I am able to learn about opportunities that I other wise did not know about and I can hear success stories from multiple people of similar circumstances to mine.

I am new so I don't really have much experience with the program.

I think the opportunity for networking and the constant access to opportunity are the greatest strengths of the OK-LSAMP program.

It helped me build confidence by presenting my research

It helped me get into research and it helps me know the importance of it for furthering my future.

It helps students get involved with research and pay for school.

It is fantastic.

It keeps me focused on my future plans.

It offers many opportunities to find internships, participate in conferences, and prepare for steps after undergrad

It provides resources

It provides students with great tools to be successful.

It pushed me to pursue research and think about graduate school more.

its a great program specially for first generation students. a lot of the thing that i didnt know about collage or the path to grad school i learned thru lsamp.

It's great for getting lab experience and making professional connections that could help me later on in my career.

Large conferences, faculty base, ability to find mentors for research.

Leadership.

Like-minded students

Make a better communication group for those really wanting to get into research.

Monetarily taken care of.

My professor who encouraged me to apply for the semester.

OK-LSAMP connects me with different students from various campuses. With the students, they can give advice that can be helpful in my own research. Also, they help me build my professional skills and expand my knowledge while preparing for graduate school.

OK-LSAMP provides student exposure to academic research and collaboration activities not typically offered to people of my demographics.

opportunities

Opportunities, and networking

Opportunities, support

possibility of mentorship

Provided me with opportunities that I may have never known about

providing great support in many aspects

Providing information on opportunities

Providing research opportunities and building connections that students can benefit from.

Providing students with awesome opportunities

Range

Research

Research and building work ethics

Research help

Strong programs and solid foundation

Support

the connections and networking, mentorship

The mentors and willingness to help students

The network the program possesses has facilitated the finding a research mentor

The Oklahoma L-SAMP programs was very good at keeping me up to date and giving me opportunities

The OK-LSAMP program pushes students to be proactive in research during their undergraduate years.

the opportunities it gives all the students and organizations and meetings they create

The opportunity to meet like minded people

The program provides financial assistance and informs of great internship and grad school opportunities. It notifies me of opportunities I may have never known about and also provides assistance to make sure I am able to apply and participate.

The program really helps clear the path to a doctoral program, explaining the process very well.

The research opportunities!!

The strengths are how involved the mentors are with the students and how much they actually care about you and your success.

The weekly emails

They are very informative and helpful with any situation

They connect you with people to broaden your fields.

They help connect you with great opportunities

They help provide financial assistance to minorities who want to succeed in academia no matter their background

They offer many learning experiences, and aide in a lot involving graduate schools and the GRE

They reach out to minority students who need help getting into graduate programs.

they're good

To have people that believe in you and also the opportunity

Unity and connection between people that are interested in research and come from underrepresented backgrounds

Very beneficial and helpful program. I love the coordinators and how helpful they are with me finding any resources I need on campus.

When things are all said and done, the OK-LSAMP program helps students conduct research and gain invaluable skills for later in their academic careers. Everyone is very kind and encouraging, and it's an enjoyable program.

What are the strengths of the OK-LSAMP program? (Spring 2021)

A community where other minorities are also trying and have the resources and info to succeed

A lot of information for students regarding opportunities for research or graduate school

All the information shared to us about internships and opportunities

Allows minority students more opportunities to participate in undergraduate research.

Always great opportunities

Availability of resources and opportunities

By allowing students to network easier.

Community, opportunity, academic advancement

Does well in preparing participants for research elsewhere.

email about information and scholarships

Encourage students to do things I would not otherwise such as research

Encourages students to work with professors to creatively tackle a problem or need using what they learned in college.

Financial support and resource availability.

Financial support. Supportive team.

Friendliness, helpfulness

Great opportunities and help with important test such as the GRE

great opportunity to students, networking

great resource for students wanting to get a PHD, learn great professional skills

help help students get connected with good opportunities

Help support minorities and let them explore research with help financially.

Help with research

Helping researchers get connected with mentors

Helping students get to and through graduate school

How they encourage and support minorties seeking higher education.

I have just joined the program and have not yet gotten the opportunity to experience all of the benefits available.

I love the chances to present my work and network.

It builds a community for students to excel and feel welcomed.

It encourages me to do things that I need to do anyway to further my career

It encourages minorities to participate in research, and gives them not only motivation to do so through financial support, but the ability to do research instead of maybe working if finances are a problem.

It helps me have access to more opportunities and funding for my future.

It is a great resource for under-privileged students to have access to research opportunities and grow as researchers in a world where they might feel it isnt meant for them

It provides research opportunities to students who otherwise may not have the chance

Making personal connections with students, providing opportunities

N/A

Notifies me about internship opportunities, helps with preparation for the GRE

Opportunities for professional development.

Personally, I believe the main strength of the program is the combination of financial and academic support.

Preparing students for graduate school

Research opportunities and mentoring

Resource Help

Resource info

Scholarship opportunities and support

Sending emails about all of the opportunities

That we get to be around like minded students

The academic support

The constant presentation of opportunities and the feelings of cohesiveness between undergraduate academics from different institutions are LSAMP's greatest strengths.

The information given to students about graduate school has been extremely helpful and the OK-LSAMP program does a phenomenal job of providing resources to students in order for them to become prepared in the graduate school and undergraduate research processes.

The LSAMP program helps scholars out with preparing for graduate school

The mentors

The OK-LSAMP program has done a wonderful job at pushing me to do my very best. Before joining lsamp I was a driven researcher, however now that I am in LSAMP i have been more productive and more successful.

The people and resources they offer

The strength of the program is the people. In my institution, the program manager is always checking up on me and another participant since we are the only two who are in the program as of now.

They have fantastic coordinators and help with every aspect of college as well as having the needed connections for students to prosper

They have good connections to other programs, and help prepare us for the next steps after undergrad.

To connect with students and promote them to achieve higher education research and forms of higher education past bachelors.

Tons of opportunities for students

We are a very close and connected community.

What are the weaknesses of the OK-LSAMP program? (Fall 2020)

A lot of emails, I often lose track of the ones I need for future reference.

Any weakness that may be had are due to the current circumstances in the world, rather than with the program itself.

At my institution, there aren't very many meetings to get connected with others in the program

Broad

Communication

Could be better explained may be because of covid

engagement

For new scholars, there's really no introduction to what OK-LSAMP can do for you.

For the most part, the students are the ones that have to reach out to the mentors and other people and I wish they tried to reach out to us more.

Hard with coronavirus but more help with the transition of new scholars.

Helping them navigate the research process

I am new so I don't really have much experience with the program.

I do not think there are any blatant weaknesses in the program.

I don't have any in mind

I don't know that I can fully answer this question.

I feel it's more centered around life sciences rather than physical. I'd like to see more involvement in the engineering side.

I have not seen any so far.

I have not seen anything that would be considered as a weakness.

I haven't been a scholar long enough to make a decision

I honestly do not know

I want to say its not very upperclassmen friendly in that it felt more geared towards underclassmen undergrads

I'm not sure because I am fairly new to the program and many things have shifted because of COVID so it is hard to judge.

it mostly covid but I miss seeing everyone

It still needs time to grow.

It would be nice if they checked up on us

It's not always easy to have something to present. Different research moves at different speeds.

Lack of communication and opportunities for internships emailed to us not for hard science majors

lack of in-person events.

Lack of knowledge on what is going on, I haven't heard from my OK-LSAMP advisor since the spring time.

Lacks some structure. Would be nice to get an outline of the things that are important to hit to prepare for grad school.

Maybe we could increase the meetings

N/A (13 students had this response)

no clear guidance for gaining a mentor

No comment.

No weaknesses

None (5 students had this response)

None immediately visible

None so far

None, I love [Campus Program Managers].

Not all around inclusive

not everything is geared towards my degree

Not well known

Nothing

Nothing

OK-LSAMP should work on building interpersonal relationships between scholars (big/little program?).

On my campus, I barely associate with the other ok-lsamp students

Personalized resources that our institution needs, like tutors or study materials.

Scheduling doesn't work for me but I'm awake it's impossible to accommodate for everyone.

sometimes communication is not the best, but I believe this issue has been resolved

Sometimes communication. I understand the lengthy emails but maybe finding another way to communicate to scholars

sometimes not applicable for me

Specifics

The impact of COVID on student participation

The lack of connectedness on a personal level. Outside of my school I do not know anyone in this program and there are few opportunities (I know it is a covid year so this is likely why).

The program director does not communicate with me well about how to get money or how the program really works.

The transperancy with the information

The weaknesses would be connecting with others. I only know scholars at my school. I wish the program could be more personal.

There's not really a weakness I can think of at the moment.

They do not connect you with other students, it is more on an individual level.

This was my first semester, so Covid messed with a lot of it.

Underrated

What are the weaknesses of the OK-LSAMP program? (Spring 2021)

bad outreach, not communication

COVID disjointedness

Emails get lost very fast.

honestly do not know

I am new, and a little uncertain about all of my requirements. I haven't done any research yet, but have talked with a professor and will start in the summer.

I can not think of any weaknesses of the OK-LSAMP program.

I have not been dissatisfied with my participation in the OK-LSAMP program, I do not think I can identify any weaknesses.

I personally wish I had a bit more guidance on how to choose a research mentor and what the expectations were a little bit ahead of time

i think having a texting program so that we not only get an email but a text reminding us about up coming events

I wish that there was a bit more guidance.

I wish that we more planned GRE prep sessions and check-ins about graduation and class progress.

I would love to see more opportunities for non-medical biology related majors

It feels disconnected from the actual research opportunities and things of the sort.

Knowing what is right or the best thing when it comes to internships etc.

Lack direction.

Maybe more meetings.

N/A (9 students had this response)

Needs more ways to promote itself.

Networking

No real connection

None

None

none in my opinion

Not a lot of internship information given right away

Not always much campus communication

Not as flexible meeting times

Not very many opportunities to meet together

only geared for graduate school and not medical

program manager keeping in touch

Some weakness that I feel LSAMP has is that they need to communicate with better with the professors so that they know just as well what going as the students.

That sometimes the group isn't as big as one would want because there aren't that many students that qualify

The financial assistance coordination. My stipends get processed heavily within the next semester which affects my finances for that period.

The funding is not always so great.

The program focuses too heavily on graduate school

The variety of the programs could be a little more different. What I mean by that is have more programs that are in different fields.

The weaknesses of the OK-LSAMP program is how there is not as much resources especially for institutions in the rural areas like [Institution Name].

There doesn't seem to be a high priority on finding new students to join the program. Many peers I know have just found out about the program through word of mouth or have stumbled upon the program.

There is no sense of community

Time lines to start/keep track of REU, Grad school applications, etc

If you could make any changes to the OK-LSAMP program, what would those changes be? (Fall 2020)

Add some templates for students to get an idea of what to expect going forward.

Be more inclusive.

clear options for mentors and research

Concrete opportunities

Contents in the emails

Give a little more emphasis on engineering.

Have more fun activities with the students.

Having a meeting for new students that shows us what we can do in this program and more.

I am new so I don't really have much experience with the program.

I cannot think of anything that could prompt significant changes.

I guess maybe have more meetings

I have not been in the program that long yet. With my little time I think it has been extremely helpful and the LSAMP program coordinator on my campus has done a great job.

I haven't been a scholar long enough to make a decision

I know that a lot of the students in our branch of the program are pre medical majors or looking into medical research so it would be nice to see more information about that field.

I would advertise more.

I would include more GRE prep, study materials, and workshops. Graduating Seniors should receive an accolade for completion (i.e. a graduation stole).

I would just like to be able to see when meetings are happening more easily. I always had to dig deep to find out but I think it was an emailing issue.

Just being able to make personal face to face connections with mentors other than my campus mentor.

Just how we get reminded of meetings. I prefer text because sometimes my school email won't let me log in

just not repeat the same workshops or presentations from a year before, or if they do then make it for new LSAMP scholars rather than returners, or maybe the returners could give that subject presentation for the new scholars

Maybe have more meetings per month

Maybe just to give more insight to newcomers the amount of benefits and opportunities that come with being an L-samp scholar, because a lot of it I didn't know about at first.

Maybe more opportunities to talk with other students rather then mentors

maybe office hours

More advertisement

More communication between scholars and the program leaders

more community

more direct

More frequent meetings

more information available for specific or not as popular degrees

More meetings between the different institutions

More members involved.

more opportunities for majors not in hard science

More opportunities to network with other OK-LSAMP scholars outside of research symposiums

N/A (14 students had this response)

no

no changes necessaryry

No changes.

None

none

None that I can think of involving your specifically... I might add slight concerns over the massive amounts of technical challenges I observed students in our program and school admins of OK-LSAMP have...

None that I could think of.

None. The GRE support really has been wonderful.

Not sure.

Nothing

Nothing

Nothing

Nothing, i can really suggest without the uncertain diminishing impact of COVID.

Overall I'm pleased with the program

Posting the meetings online, to view for later. Potentially sending out calendar links as well.

Probably keep providing more opportunities for meetings and conferences that are close by

The changes would be that they need to add conferences, webinars, etc that would be relating to physical therapy or medical school type of subjects.

The publicity to new LSAMP scholars would be worth while, a few freshman I have met just barely we're able to apply and become apart of LSAMP, we need to do better to ensure the greatest possible outcome of freshmen recruitment.

Weekly meetings with groups for full understanding of your tasks

If you could make changes to the OK-LSAMP program, what would those changes be? (Spring 2021)

Add some structure to meetings and program goals.

Availability

consistently monitor students and maintain communication. Have a check in procedure.

Funding for research would be lovely.

Have periodical socials with scholars among different colleges/universities

I do not know maybe have a zoom meeting once a month

I don't have any changes that could help this program more besides giving them more funding and additional needed help

I think it would be more helpful to inform scholars of opportunities outside of graduate school, on career opportunities away from post doc and professor positions

I think, right now, all the problems stem from having to do everything virtually and not getting the one-on-one student action that these sorts of scholarships bring.

What can be improved (Spring 2021, this question was not included in Fall 2020)

A better overall direction for meeting/ semester.

Better understanding of requirements and how to reach those requirements

Due to COVID restrictions much cannot be done right now but I would like to see more social interaction with peers in LSAMP.

Engage more in engineering.

Everything has been great all my years being apart.

Give students more information about all of the research opportunities on campus that they can participate in

Have an area where all resources are in one area. Maybe like a canvas page to also help out with the monthly survey pages and other information that may get lost in the emails.

Have not met another OK-LSAMP scholar from [Name of Institution]

I do not have any complaints, I am beyond satisfied with the assistance that OK LSAMP has provided me with

I think everything was excellent

In-person meetings

It is a little difficult to improve with times being the way that they are, because we can't have many social setting events

It would be great if there were maybe more ways to hear about the scholarship/internship opportunities. We receive everything from one email that just gets added to. It can be confusing to determine what is new information, and what had already expired.

More flexible meeting times

More Interaction between the other students in the program (could just be because of the pandemic that social activity is different.

more social events and opportunities to be involved with STEM programs

N/A (4 students had this response)

Networking

Nothing

Nothing. I'm a rookie in the OK-LSAMP program so it has been great so far.

One thing that could be improved is that my research professor has constantly told me the Bridge to Doctorate would work for any school i applied to, which is not the case. Therefore my suggestion for things to be improved is to make sure the research professors for OK-Lsamp student understand all the benefits and the way the benefits work.

Please have in person get togethers when Covid is over

Social events maybe? I feel like a lot of the students aren't comfortable around each other or know each other.

The availability of information. If I hadn't asked around about groups, research, and volunteer opportunities, I wouldn't have known about OK-LSAMP.

When the pandemic allows us, I would like to have more meetings with other LSAMP participants.

With COVID right now, I think the program is really helping us the best that they can but I would like to be able to present my research at more conferences in the future.

Any other final comments about your OK-LSAMP experience? (Fall 2020)

COVID was a large factor in my involvement or lack thereof. If I was able to talk to more people, the program would be much more fruitful

Ever since the leadership changed the program has vastly improved.

happy and very grateful to be here!

I am well satisfied with staff that has always supported my dreams of being a PhD student in a school

I appreciate my experience.

I genuinely enjoy being an OK-LSAMP scholar. I am, like many others, having a rough semester, and have been falling behind on my requirements for school and the program.

I have had an amazing OK-LSAMP experience!

I liked it

I love it as a new scholar.

i really like it

I think participation in the program has definitely enriched my undergraduate experience in science.

I was a bit distant this semester due to personal commitments but I look forward to next semester to be able to be more involved!

I'm a senior and joined towards the end of the Fall 2020 semester and I feel completely lost and behind.

I'm glad I am a part of this community

It has been a great experience

N/A (10 students had this response)

No

No

No comment

No thank you. Thank you for the opportunity to participate.

No!

No, I'm pleased with my experience so far.

none

None

None it is great

Nope :)

Provide great resources to students and committed to helping students find research oppurtunities.

Thank you guys so much!

THANK YOU SO MUCH

Any other final comments about your OK-LSAMP experience? (Spring 2021)

Amazing

Best undergraduate program ever done

Can you contact me about more OK-LSAMP opportunities. I would like to apply for OSU-Tulsa MSE program in Spring 2023. [Name] – [Email address]

Great

great for the most part!

I am grateful for the experience and resources. After my gap year, I look forward to applying for graduate school.

I am grateful for the opportunity I have had of being in this program for the years I have been here. Thank you for all that you have prepared me for the future in my career.

I have loved the opportunities I have had because of this program and the coordinators are lovely

It has been a great semester

It has been great thus far.

It has been very beneficial and I am grateful to be in this program.

It has truly been a blessing being apart of OK-LSAMP

Just wished i got to know the others members more

Love it!

N/A (8 students had this response)

No

No, overall OK-LSAMP is a good program

None

The research opportunities offered by LSAMP have definitely given me a great deal of fulfillment over the course of completion of my undergraduate degree. It has given me a comfort with my area of study that I do not think I would have achieved otherwise.

Appendix 7: List of Survey Questions

The Alliance added a research component to the program during this new funding period. Some of the research questions were included in the Fall 2020 and Spring 2021 surveys. They are also included below; however, the results are reported by the researcher, not in this evaluation.

Fall 2020

Did you participate as a student in the OK-LSAMP program in Fall 2020?
> Yes
> No

Where did you spend most of your life?
> Primarily rural
> Small town
> Suburban
> City
> Prefer not to answer

What is your marital status?
> Single
> Married or in a domestic partnership
> Widowed
> Divorced
> Separated
> Prefer not to answer

What is your current employment status?
> Employed full-time (40 or more hours per week)
> Employed part-time (up to 39 hours per week)
> Unemployed and currently looking for work
> Unemployed and not currently looking for work
> Prefer not to answer

Did you transfer from another institution?
> Yes
> No

What is the name of the institution you attended prior to transferring?

How did you find out about the OK-LSAMP program? (Choose all that apply)

> Campus recruitment
> State-wide STEM activity (Name the activity below)
> On-campus program, such as McNair Scholars, summer academy or camp (Name the program)
> OK-LSAMP Website
> OK-LSAMP Administrative Staff
> Social Media
> Friends or family
> Current OK-LSAMP participant
> Alumni/Past OK-LSAMP participant
> Professor(s)
> Other (Specify below)

You selected that you heard about the OK-LSAMP program from a professor. Where was the professor(s)?

At my previous school (If you transferred)
At my current school
Other (Specify below)

Please rate your OK-LSAMP experiences with the following?

	Excellent	Good	Okay	Fair	Poor	Not Applicable
Academic support	○	○	○	○	○	○
Social Support	○	○	○	○	○	○
Professional development support	○	○	○	○	○	○
Staff availability	○	○	○	○	○	○
Opportunity to work with other undergraduate research programs on your campus	○	○	○	○	○	○
Opportunity to work with STEM organizations	○	○	○	○	○	○
Interactions with other students in the program	○	○	○	○	○	○

Did you have an OK-LSAMP research mentor in Fall 2020? (Campus program manager is the OK-LSAMP person who runs the program at your home institution)

Yes, my research mentor is also the OK-LSAMP campus program manager
Yes, my research mentor is someone other than the OK-LSAMP program manager
No

Did you conduct research during Fall 2020?

Yes
No

How did you conduct your research in Fall 2020?

In-person
Remotely
Combination of In-person and remotely

Did you have to cancel your research due to COVID-19?

    Yes

    No

Do you have any comments regarding your Fall 2020 research experience?

Rate the helpfulness of your research mentor.

How did your research mentor help you?

How could your research mentor improve?

Have you met with your OK-LSAMP campus program manager in Fall 2020 (in person, via phone, or through Zoom or other online platform)?

    Yes

    No, but I know who the campus program manager is

    No, I do not know who the campus program manager is

Comments about campus program manager.

How many times did you attend OK-LSAMP group meetings at your institution in the Fall 2020 semester (in person or via Zoom or other online platform)?

    0

    1

    2

    3

    4

    5

    More than 5

Overall, how helpful were the Fall 2020 group meetings you attended? 1=Not at all Helpful; 5=Extremely Helpful

    1

    2

    3

    4

    5

What was most helpful about the group meetings that you attended?

What was least helpful about the group meetings that you attended?

What would you change for future group meetings?

Do you have any other comments regarding group meetings?

Reasons for not attending Fall 2020 group meetings (Choose all that apply)

    Not in the program at the time

    There were no meetings

    Schedule conflicts

    Not interested in topics

    Other (Specify below)

Did you attend the annual OK-LSAMP Research Symposium in Fall 2020?

       Yes

       No

Reasons for not attending the annual OK-LSAMP Research Symposium (Choose all that apply)

       Lack of research

       Not in the program at the time

       I did not know about it

       I was not interested

       Schedule conflict

       Other (Specify below)

Did you present at the Fall 2020 Symposium?

       Yes

       No

How many conferences/professional meetings did you attend in Fall 2020 (in person, via phone, or through Zoom or other online platform)? Do not include the OK-LSAMP Research Symposium in your count.

       0

       1

       2

       3

       4

       5

       More than 5

Reasons for not attending other conferences/professional meetings (Choose all that apply)

       Not in the program at the time

       I did not know about them

       It was too expensive

       I was not interested

       Schedule conflict

       Cancelled due to COVID-19

       Other (Specify below)

How many conferences/professional meetings were you planning to attend that were canceled due to COVID-19?

       0

       1

       2

       3

       4

       5

       More than 5

Were you scheduled to present at the conferences/professional meetings that were canceled due to COVID-19?

       Yes

       No

How many presentations did you make at the conferences/professional meetings you attended?

    0
    1
    2
    3
    4
    5
    More than 5

How many presentations were you planning to give at the canceled conferences/professional meetings?

    1
    2
    3
    4
    5
    More than 5

Did you receive financial assistance from OK-LSAMP to attend any of these meetings?

    Yes
    No

Are there any professional meetings you would recommend that all scholars attend?

Did you complete Responsible Conduct of Research (RCR) training in Fall 2020?

    Yes
    No
    Not sure

Were you encouraged to participate in a summer internship?

    Yes
    No

How did you find out about internship opportunities? (Choose all that apply)

    Mentor or campus program manager
    OK-LSAMP program emails
    OK-LSAMP Social Media
    OK-LSAMP group meeting
    Friend or family
    Current OK-LSAMP participant
    Alumni/Past OK-LSAMP participant
    Other (Specify below)

Did you participate in an internship in Summer 2020?

    Yes
    No, it was canceled due to COVID-19
    No

Were you a senior prior to beginning the Fall 2020 semester?

    Yes
    No

Did someone in the OK-LSAMP program encourage you to take the GRE?

    Yes

    No

Did someone in the OK-LSAMP program provide you with help in preparing for the GRE?

    Yes

    No

What kind of help did you receive?

Have you taken the GRE?

    Yes

    No

Have you applied to any graduate schools?

    Yes

    No

How many graduate school applications have you completed?

How many acceptances have you received?

Please rate your overall satisfaction with the OK-LSAMP program.

Please rate how the OK-LSAMP program has helped your academic career?

What are the strengths of the OK-LSAMP program?

What are the weaknesses of the OK-LSAMP program?

If you could make any changes to the OK-LSAMP program, what would those changes be?

Any other comments about your OK-LSAMP experience?

Spring 2021

Did you participate as a student in the OK-LSAMP program in Spring 2021?

    Yes

    No

Where did you spend most of your life?

    Primarily rural

    Small town

    Suburban

    City

    Prefer not to answer

What is your marital status?

    Single

    Married or in a domestic partnership

    Widowed

    Divorced

    Separated

    Prefer not to answer

What is your current employment status?

    Employed full-time (40 or more hours per week)

    Employed part-time (up to 39 hours per week)

    Unemployed and currently looking for work

    Unemployed and not currently looking for work

    Prefer not to answer

Did you transfer from another institution?

    Yes

    No

What is the name of the institution you attended prior to transferring?

How did you find out about the OK-LSAMP program? (Choose all that apply)

    Campus recruitmentState-wide STEM activity (Name the activity below)

    On-campus program, such as McNair Scholars, summer academy or camp (Name the program)

    OK-LSAMP Website

    OK-LSAMP Administrative Staff

    Social Media

    Friends or family

    Current OK-LSAMP participant

    Professor(s)

    Other (Specify below)

You selected that you heard about the OK-LSAMP program from a professor. Where was the professor(s)?

    At my previous school (If you transferred)

At my current school
Other (Specify below)

Please rate your OK-LSAMP experiences with the following?	Excellent	Good	Okay	Fair	Poor	Not Applicable
Academic support	○	○	○	○	○	○
Social Support	○	○	○	○	○	○
Professional development support	○	○	○	○	○	○
Staff availability	○	○	○	○	○	○
Opportunity to work with other undergraduate research programs on your campus	○	○	○	○	○	○
Opportunity to work with STEM organizations	○	○	○	○	○	○
Interactions with other students in the program	○	○	○	○	○	○

What can be improved?

Did you have an OK-LSAMP research mentor in Spring 2021? (Campus program manager is the OK-LSAMP person who runs the program at your home institution)

Yes, my research mentor is also the OK-LSAMP campus program manager
Yes, my research mentor is someone other than the OK-LSAMP program manager
No

Did you conduct research during Spring 2021?

Yes
No

How did you conduct your research in Spring 2021?

In-person
Remotely
Combination of in-person and remotely

Do you have any comments regarding your Spring 2021 research experience?

Rate the helpfulness of your research mentor.
How did your research mentor help you?

How could your research mentor improve?

Have you met with your campus OK-LSAMP program manager in Spring 2021? (in person or through Zoom or other online platform)?

Yes
No, but I know who the campus program manager is

No, I do not know who the campus program manager is

Comments about campus program manager.

How many times did you attend OK-LSAMP group meetings at your institution in the Spring 2021 semester (in person or via Zoom or other online platform)?
  0
  1
  2
  3
  4
  5
  More than 5

Overall, how helpful were the Spring 2021 group meetings you attended? 1=Not at all Helpful; 5=Extremely Helpful
  1
  2
  3
  4
  5

What was most helpful about the group meetings that you attended?

What was least helpful about the group meetings that you attended?

What would you change for future group meetings?

Do you have any other comments regarding group meetings?

Reasons for not attending Spring 2021 group meetings (Choose all that apply)
  Not in the program at the time
  There were no meetings
  Schedule conflicts
  Not interested in topics
  Other (Specify below)

How many conferences/professional meetings did you attend in Spring 2021 (in person or through Zoom or other online platform)?
  0
  1
  2
  3
  4
  5
  More than 5

Reasons for not attending other conferences/professional meetings (Choose all that apply)
  Not in the program at the time
  I did not know about them

It was too expensive
I was not interested
Schedule conflict
Other (Specify below)

How many presentations did you make at the conferences/professional meetings you attended?
0
1
2
3
4
5
More than 5

Did you receive financial assistance from OK-LSAMP to attend any conferences/professional meetings?
Yes
No

Are there any conferences /professional meetings you would recommend that all scholars attend?

Did you complete Responsible Conduct of Research (RCR) training in Spring 2021?
Yes
No
Not Sure

Were you encouraged to participate in a summer internship?
Yes
No

How did you find out about internship opportunities? (Choose all that apply)
Mentor or campus program manager
OK-LSAMP program emails
OK-LSAMP Social Media
OK-LSAMP group meeting
Friend or family
Current OK-LSAMP participant
Alumni/Past OK-LSAMP participant
Other (Specify below)

Are you planning to participate in an internship in Summer 2021?
>   Yes
>   No

Were you a senior prior to beginning the Spring 2021 semester?
>   Yes

Did someone in the OK-LSAMP program encourage you to take the GRE?
>   Yes
>   No

Did you receive help preparing for the GRE?
>   Yes
>   No

What kind of help did you receive?
>   Magoosh GRE prep through OK-LSAMP
>   GRE prep through another program
>   Other

Have you taken the GRE?
>   Yes
>   No

Have you applied to any graduate schools?
>   Yes
>   No

How many graduate school applications have you completed?
>   0
>   1
>   2
>   3 or more

How many acceptances have you received?
>   0
>   1
>   2
>   3 or more

How many graduate school responses are you waiting for?
>   0
>   1
>   2
>   3 or more

Did you attend the PHD camp in Spring 2021?
>   Yes
>   No

Reasons for not attending the PHD camp in Spring 2021?

      Not in the program at the time

      I did not know about it

      I was not interested

      Schedule conflict

      Other (Specify below)

Did you find the PHD camp in Spring 2021 beneficial?

      Yes

      No

Do you have any suggestions for the PHD camp?

Was the timing of PHD camp in the semester good?

      Yes

      No

Was the length of the PHD camp appropriate?

      Yes

      No

Any other comments about the PHD camp?

Please rate your overall satisfaction with the OK-LSAMP program.

Please rate how the OK-LSAMP program has helped your academic career?

What are the strengths of the OK-LSAMP program?

What are the weaknesses of the OK-LSAMP program?

If you could make any changes to the OK-LSAMP program, what would those changes be?

Any other comments about your OK-LSAMP experience?