

---

*Sandra Whalen  
OK-LSAMP Evaluator*

*Guimy Castor  
Project Assistant*

*University of Oklahoma  
Center for Institutional Data  
Exchange and Analysis*

# Oklahoma Louis Stokes Alliance for Minority Participation

Annual Evaluation Report

Fall 2019 through Spring 2020

---

## Contents

1	<a href="#"><u>Introduction .....</u></a>	<a href="#"><u>3</u></a>
2	<a href="#"><u>Section 1: OK-LSAMP Results Based on Data from Program Office.....</u></a>	<a href="#"><u>4</u></a>
3	<a href="#"><u>Section 2: OK-LSAMP Online Student Survey.....</u></a>	<a href="#"><u>11</u></a>
4	<a href="#"><u>Section 3: The National STEM Retention and Graduation Data.....</u></a>	<a href="#"><u>22</u></a>
5	<a href="#"><u>Section 4: Overall Report Summary and Recommendations.....</u></a>	<a href="#"><u>32</u></a>
6	<a href="#"><u>Appendix 1: Institution-Specific Details.....</u></a>	<a href="#"><u>34</u></a>
7	<a href="#"><u>Appendix 2: Scholar Responses About Group Meetings.....</u></a>	<a href="#"><u>46</u></a>
8	<a href="#"><u>Appendix 3: Scholar Responses About Mentor Support.....</u></a>	<a href="#"><u>54</u></a>
9	<a href="#"><u>Appendix 4: Scholars Responses About Graduate School Preparation.....</u></a>	<a href="#"><u>66</u></a>
10	<a href="#"><u>Appendix 5: Scholar Responses About Support in Seven Areas.....</u></a>	<a href="#"><u>68</u></a>
11	<a href="#"><u>Appendix 6: Scholar Responses About Preparing for Higher Education (PHD) Camp.....</u></a>	<a href="#"><u>72</u></a>
12	<a href="#"><u>Appendix 7: Scholar Responses About Program Strengths, Weaknesses, Recommended Changes, and Final Comments.....</u></a>	<a href="#"><u>73</u></a>
13	<a href="#"><u>Appendix 8: List of Survey Questions.....</u></a>	<a href="#"><u>94</u></a>

## 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 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). The newest member of the Alliance is Oklahoma Panhandle State University (OPSU). This evaluation includes results from the first year of the five-year phase, Fall 2019 through Spring 2020.

This period of funding represents Oklahoma's 26th 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 report 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 URM students 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 new 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 URM students 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 URM students 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 URM students 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 is no prior data, we will use the data from this 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.

The Alliance added 19 transfer students during the 2019-2020 academic year. If the OK-LSAMP program recruits more than 19 transfer students in the upcoming year, they will have met the objective to increase the number of scholars who transfer from a two- or four-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, 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 48 transfer students during the 2019-2020 academic year. During this time, 19 of these 48 scholars graduated, leaving 29 transfer students eligible to continue past Spring 2020. The program lost five of these 29 transfer students during the academic year, resulting in an 82.8% retention rate (24 of 29 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 48 transfer students, 19 graduated during the 2019-2020 academic year, resulting in a 39.6% 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 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 must travel abroad for international internships, study abroad, international research, or international conference presentations during this funding period.

## **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 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 Fall 2019 through Spring 2020. 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 280 students. Oklahoma Panhandle State University joined the Alliance in August 2019 and is currently in the recruiting stage. They have already added two scholars to their program.

Table 1 displays participating students by class standing and institution.

Table 1: *Participants by Partner Institution – Fall 2019 through Spring 2020*

<b>Institution</b>	<b>Freshman</b>	<b>Sophomore</b>	<b>Junior</b>	<b>Senior</b>		<b>Total Scholars</b>	<b>% of Total Scholars</b>
<b>Cameron University</b>	1	1	2	6		10	3.6%
<b>East Central University</b>	0	0	1	7		8	2.9%
<b>Langston University</b>	0	6	7	27		40	14.3%
<b>Northeastern OK State</b>	1	0	2	12		15	5.4
<b>Northwestern OK State Univ</b>	1	2	1	4		8	2.9%
<b>OK Panhandle State University</b>	0	0	2	0		2	0.7%
<b>Oklahoma State University</b>	4	14	26	56		100	35.7%
<b>Southeastern OK State Univ</b>	0	2	4	13		19	6.8%
<b>Southwestern OK State Univ</b>	0	1	3	9		13	4.6%
<b>University of Central OK</b>	0	1	1	10		12	4.3%
<b>University of Oklahoma</b>	0	0	9	32		41	14.6%
<b>University of Tulsa</b>	0	6	3	3		12	4.3%
<b>TOTAL</b>	<b>7</b>	<b>33</b>	<b>61</b>	<b>179</b>		<b>280</b>	
<b>Percentage of Total Scholars</b>	<b>2.5%</b>	<b>11.8%</b>	<b>21.8%</b>	<b>63.9%</b>			<b>100%</b>

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 Fall 2019 and Spring 2020 regardless of classification.

### **Results – Graduates**

From Fall 2019 through Spring 2020, a total of 84 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, although they fell short by only four students. Figure 1 shows the results of graduates this year and the goal for the next four years.

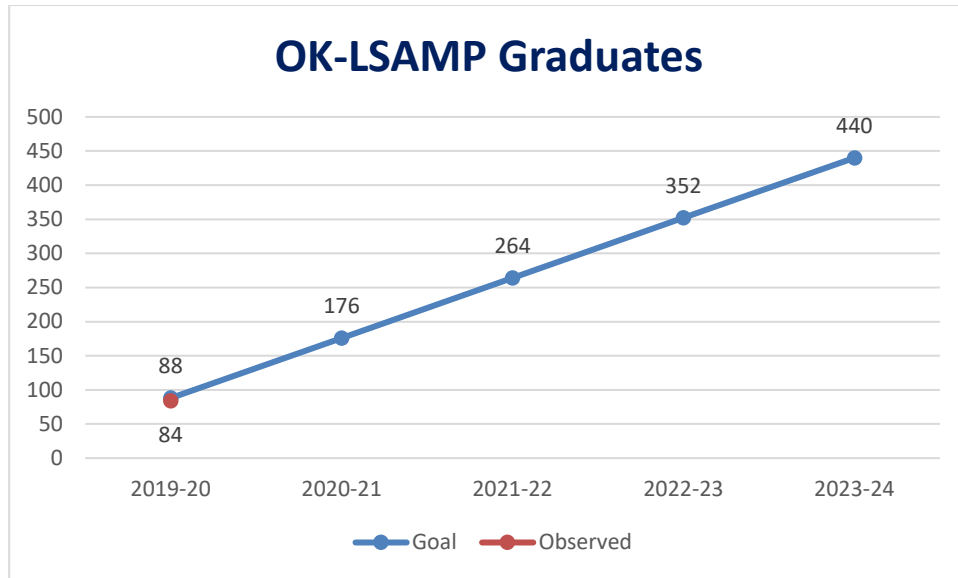


Figure 1: Graduation Counts – Goal vs Observed

The OK-LSAMP graduates accomplished the following:

- 46.9% of the OK-LSAMP seniors (84 out of 179) graduated during this period and most of the remaining seniors continued in the program
- 26.2% (22 of 84) took the GRE
- 41.7% (35 of 84) applied to graduate school
- 85.7% (30 of 35) who applied to graduate school were accepted
- 34.7% of all graduates (30 of 84) were accepted into graduate school
- 88.1% (74 of 84) had a GPA of 3.0 or higher
- 89.3% (75 of 84) had a research mentor
- 59.5% (50 of 84) conducted research during the 2019-2020 academic year
- 60.7% (51 of 84) had at least one summer internship during college
- 11.9% (10 of 84) had at least one international experience. Two additional graduates were scheduled for an international experience in Summer 2020 that was cancelled 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 54 graduates who were not accepted into graduate school—or did not apply—46 (85.2%) had a GPA of 3.0 or greater, 27 (50.0%) had participated in research opportunities during the 2019-2020 academic year, and 32 (59.3%) participated in at least one summer internship during college. Twenty of these 54 OK-LSAMP scholars (37.0%) took advantage of both research—during Fall 2019 and/or Spring 2020—and internships during college. Of these 20 students, three of them (15.0%) applied to graduate school but were not accepted, based on the data received from the Alliance institutions that were used for this evaluation.



## Results – All Scholars

### Objective 1

The Alliance plans to recruit, retain, and graduate 25% more OK-LSAMP scholars during the next five years. To do this, they must average 79 new scholars each year. During the 2019-2020 academic year, 93 new students joined the OK-LSAMP program. The Alliance has exceeded its objective during this reporting period.

There were 280 scholars in the program during Fall 2019 and Spring 2020. Of those, 84 students graduated, leaving 196 who could continue past the Spring semester. Fourteen students left the program, resulting in a 92.9% retention rate (182 of 196 students remained in the OK-LSAMP program at the end of the Spring 2020 semester. Although the difference is negligible, the Alliance has fallen short of successfully retaining its students at a higher rate than the baseline of 93.0% in academic year 2018-19.

To meet the increase of 25% in the number of graduates, the OK-LSAMP program must see an average of 88 graduates per year. During 2019, 84 students graduated, which is four students fewer than the goal for this year.

### Objective 2

The success of transfer students is the focus on Objective 2. As noted earlier in the report, the Alliance began collecting transfer student status during the 2019-20 academic year. The data reported this year will used as the baseline for the next four years, therefore we have no data to report whether this objective was met.

### 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 travel abroad for study, international internships, international research, or international conference presentations. Of the 280 students who participated in the program during the 2019-2020 academic year, 26 of them have had international experiences. An additional ten scholars were scheduled for an international experience in either Spring or Summer 2020, but they were cancelled due to COVID-19. The 26 scholars did academic work in 23 countries and have a total of 38 experiences—seven students traveled to more than one country. Fifty-five more scholars over the next four years will need to participate in international experiences to meet this objective.

### 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 2019-2020 academic year, 30 scholars who graduated in the OK-LSAMP program were accepted into graduate school. The Alliance met this objective for this reporting period.

### 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 280 scholars in the program during the 2019-2020 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.

- 10.4% of the junior and senior scholars (25 of 246) took the GRE
- 48.4% of the students who were in the program during Fall 2019 (119 of 246) conducted research that semester
- 37.9% of the scholars who were in the program during Spring 2020 (96 of 253) conducted research that semester (more students were scheduled for research, but it was cancelled due to COVID-19)
- 44.6% of students who were in the program during the 2019-2020 academic year (125 of 280) participated in at least one internship during college
- 9.3% of students who were in the program in Fall 2019 or Spring 2020 (26 of 280) participated in at least one international experience during college
- 33.7% of students who were in the program in Fall 2019 (83 of 246) attended the OK-LSAMP Research Symposium
- 50.6% of students who attended the OK-LSAMP Research Symposium (42 of 83) 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 2019 list included 237 email addresses, and the Spring 2020 list included 289 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 13, 2019 and April 8, 2020. Each group of students received two follow-up emails before the surveys closed on December 6, 2019 and April 22, 2020, respectively.

One hundred thirty-eight students responded to the survey in Fall 2019. Sixteen of these students did not complete the survey, so their responses are not included in these results. Two of the emails containing the survey invitation were undeliverable or bounced, so those emails have not been considered in the response rate. The response rate of useable data from the survey was 51.9% (122 out of 235). At least one student from each of the 11 institutions that were in the alliance during Fall 2019 responded to the survey. The largest response to the survey (36.9%) 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 University of Oklahoma with the responses comprising 13.9% of the total.

One hundred three students responded to the Spring 2020 survey. Five of these students did not complete the survey, and two students opted out the survey, so their responses are not included in these results. The response rate of useable data from the survey was 33.2% (96 out of 289).

At least one student from each of the 12 alliance institutions responded to the survey in Spring 2020. The largest response to the survey (30.2%) 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 University of Oklahoma with the responses comprising 12.5% of the total.

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 2019 Survey Respondents*

Institution	Total OK-LSAMP Scholars	% of Total OK-LSAMP Scholars	# of Survey Respondents	% of Scholars who Responded to Survey	Distribution of Survey Responses	% of Total Scholars who Responded to Survey
CU	14	4.4%	9	64.3%	7.4%	2.8%
ECU	14	4.4%	6	42.9%	4.9%	1.9%
LU	42	13.2%	9	21.4%	7.4%	2.8%
NEOSU	12	3.8%	2	16.7%	1.6%	0.6%
NWOSU	5	1.6%	1	20.0%	0.8%	0.3%
OSU	112	35.2%	45	40.2%	36.9%	14.2%
OU	51	16.0%	17	33.3%	13.9%	5.3%
SEOSU	19	6.0%	7	36.8%	5.7%	2.2%
SWOSU	17	5.3%	13	76.5%	10.7%	4.1%
TU	16	5.0%	5	31.3%	4.1%	1.6%
UCO	16	5.0%	8	50.0%	6.6%	2.5%
<b>Grand Total</b>	<b>318</b>	<b>100.0%</b>	<b>122</b>		<b>100.0%</b>	<b>38.4%</b>

Percentages may not total 100% due to rounding

Table 2b: *Student Affiliation of Survey Spring 2020 Survey Respondents*

Institution	Total OK-LSAMP Scholars	% of Total OK-LSAMP Scholars	# of Survey Respondents	% of Scholars who Responded to Survey	Distribution of Survey Responses	% of Total Scholars who Responded to Survey
CU	10	3.6%	6	60.0%	6.3%	2.1%
ECU	8	2.9%	7	87.5%	7.3%	2.5%
LU	40	14.3%	4	10.0%	4.2%	1.4%
NEOSU	15	5.4%	6	40.0%	6.3%	2.1%
NWOSU	8	2.9%	3	37.5%	3.1%	1.1%
OPSU	2	0.7%	1	50.0%	1.0%	0.4%
OSU	100	35.7%	29	29.0%	30.2%	10.4%
OU	41	14.6%	12	29.3%	12.5%	4.3%
SEOSU	19	6.8%	4	21.1%	4.2%	1.4%
SWOSU	13	4.6%	11	84.6%	11.5%	3.9%
TU	12	4.3%	7	58.3%	7.3%	2.5%
UCO	12	4.3%	6	50.0%	6.3%	2.1%
<b>Grand Total</b>	<b>280</b>	<b>100.0%</b>	<b>96</b>		<b>100.0%</b>	<b>34.3%</b>

Percentages may not total 100% due to rounding

In the Fall 2019 survey, 22 students reported transferring from these institutions: Beloit College (WI), Bethel College (KS), Cameron University (OK), Iowa State University, New Mexico State University, Northern Oklahoma College, Oklahoma City Community, Oklahoma State University Institute of Technology, Oklahoma State University, Oklahoma State University-Oklahoma City, University of Oklahoma, and Western Oklahoma State College.

In the Spring 2020 survey, 20 students reported transferring from these institutions: Bethel

College (KS), Cameron University (OK), Harding University(AR), Iowa State University, Murray State College (OK), Northeastern Oklahoma State University, Oklahoma City Community College, Oklahoma State University-Oklahoma City, Redlands Community College (OK), Southwestern Oklahoma State University, Spelman College (GA), Tulsa Community College (OK), University of Maryland, and University of Oklahoma (OK).

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, current participants, and friends or family. The specific programs mentioned were McNair Scholars Program, First 2 Go Program, Center for Sovereign Nations, Summer Bridge, CAS Freshman Research Scholars, President's Leadership Council, AISES National Conference, TU-STEM-UP, Office of Research and Sponsored Programs, Tribal Education Department, and the RISE program.

## **Survey Results**

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) meetings, 2) mentor support, 3) the Fall 2019 OK-LSAMP Research Symposium and other professional meetings, 4) summer internships, 5) graduate school preparation, and 6) interest in future workshops. Below are the findings, grouped by category. See Appendix 8 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 122 students who answered the question on the Fall 2019 survey related to attendance at meetings, 73.8% (90 students) attended at least one meeting and 13.1% (16 students) attended five or more. Attendance numbers increased based on the Spring 2020 respondents who answered this question. In the Spring semester, 75.0% (72 of 96 students) attended one or more group meetings and 10.4% (10 of 96 students) attended five meetings or more. For students who did not attend meetings, the main reasons given were the lack of meetings, not in the program at the time, or schedule conflicts.

Students were asked about the helpfulness of the group meetings. Responses ranged from 1 to 5 with 5 being the most helpful. Figure 2 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 32 students (26.2%) who did not attend meetings in Fall 2019 nor the 24 students (25.0%) who did not attend meetings in the Spring 2020. Appendix 2 provides a list of survey responses related to group meetings.

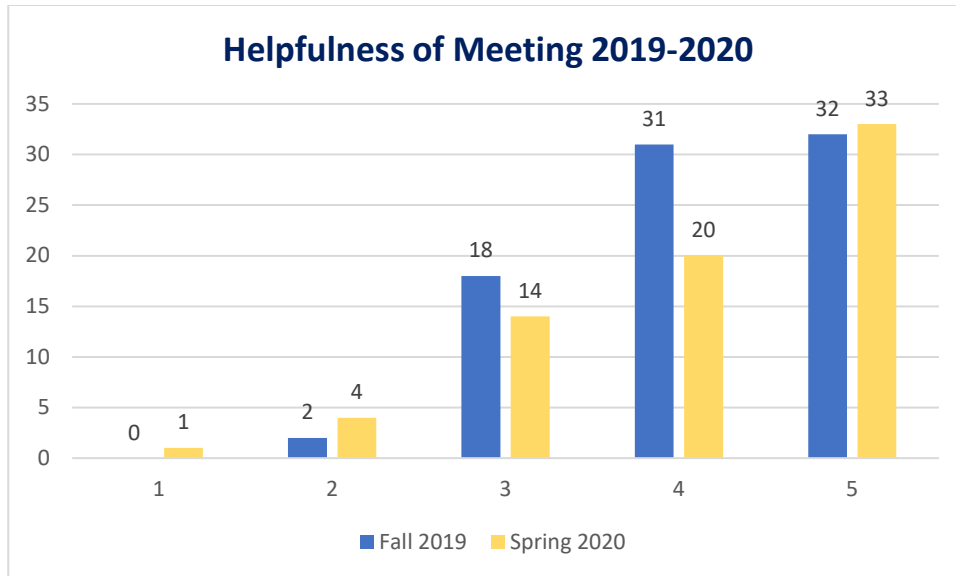


Figure 2: Helpfulness of the Meetings  
1=Least Helpful; 5=Most Helpful

### 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 122 students who participated in the Fall 2019 survey, 68.9% (84 students) indicated they had a mentor. Of the 96 spring students who responded to the survey, 88.5% (85 students) indicated they had a mentor in Spring 2020.

In Fall 2019, 94.0% (79 out of 84) of students attended at least one meeting with their mentor and 63.1% (53 out of 84) met with their mentor at least five times. In the Spring 2020 semester, 94.1% (80 out of 85) students attended at least one meeting with their mentor and 69.4% (59 out of 85) met with their mentor at least five times.

In addition to questioning students about how often they met with their mentors, we also asked the scholars to rate their mentors on how helpful they were, based on an A-F scale. Out of 84 students who had a mentor in Fall 2019 and responded to this question, 82.1% (69 out of 84) gave their mentors an “A” rating, 14.3% (12 out of 84) gave their mentors a “B” rating, 1.2% (1 out of 84) gave their mentor a “C” rating, and 2.4% (2 out of 84) gave their mentors a “D” rating.

Out of 85 students who had a mentor in Spring 2020 and responded to this question, 88.2% (75 out of 85) gave their mentors an “A” rating, and 5.9% (5 out of 85) gave their mentors a “B” rating. 4.7% (4 out of 85) gave their mentor a “C” rating, and 1.2% (1 out of 85) gave their mentors a “D” rating. There were no responses in either survey below a “D” rating. Student responses to this question can be seen in Figure 3.

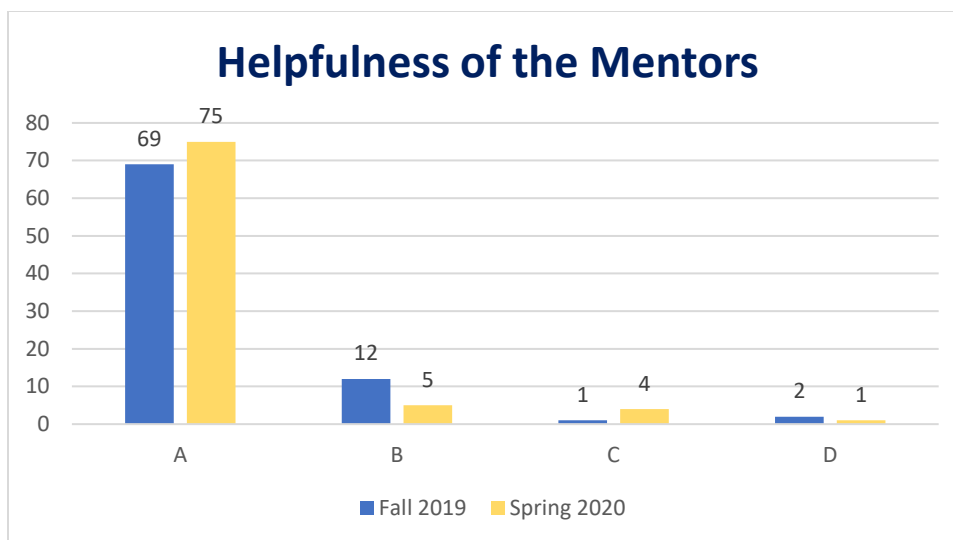


Figure 3: Helpfulness of the Mentors  
Fall 2019 & Spring 2020 Survey

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

#### *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, 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. Students who have conducted research are required to present either an oral or poster presentation highlighting their research. Scholars may 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 2019 survey, 51.6% (63 of 122) of the students who responded to the question attended, and 58.7% (37 of 63) of these students presented. The reasons the 59 students gave for not attending included: not being in the program at the time (18 students), schedule conflict (16 students), lack of research (13 students), other (9 students), I didn’t know about (2 students), and not interested (1 student).

Forty-eight percent (58 of 122) of the Fall 2019 respondents attended other professional meetings during the semester. Of those 58 scholars, 34.5% (20 students) attended three or more professional meetings, 46.6% (27 students) reported they received financial assistance from OK-LSAMP to attend the meetings, and 67.2% (39 students) presented at the meetings. The 39 students who presented at these meetings reported an average number of presentations as two.

Fifty-six students (58.3%) reported attending professional meetings during Spring 2020. Of those 56 students, 27 (48.2%) reported receiving financial assistance to attend the professional meetings, and 29 students (51.8%) presented at the professional meetings. Of the 29 students who presented at professional meetings, the average number of presentations was two.

The timing of our spring 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 spring semester, we also asked how many meetings were cancelled due to COVID-19.

Fifty-nine students were planning to attend meetings that were cancelled, and 37 of these scholars were scheduled to present at these meetings.

### *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, 77.9% of Fall 2019 and 90.6% of Spring 2020 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. Sources of information listed in the “Other” category included websites, NSF meetings, professional meetings, and career fairs. Students could choose more than one response if applicable. The results are seen in Figure 4.

Forty percent (49 of 122) of the Fall 2019 respondents reported that they had participated in an internship that summer. Of the 96 Spring respondents, 48 scholars (50.0%) planned to participate in an internship in Summer 2020.

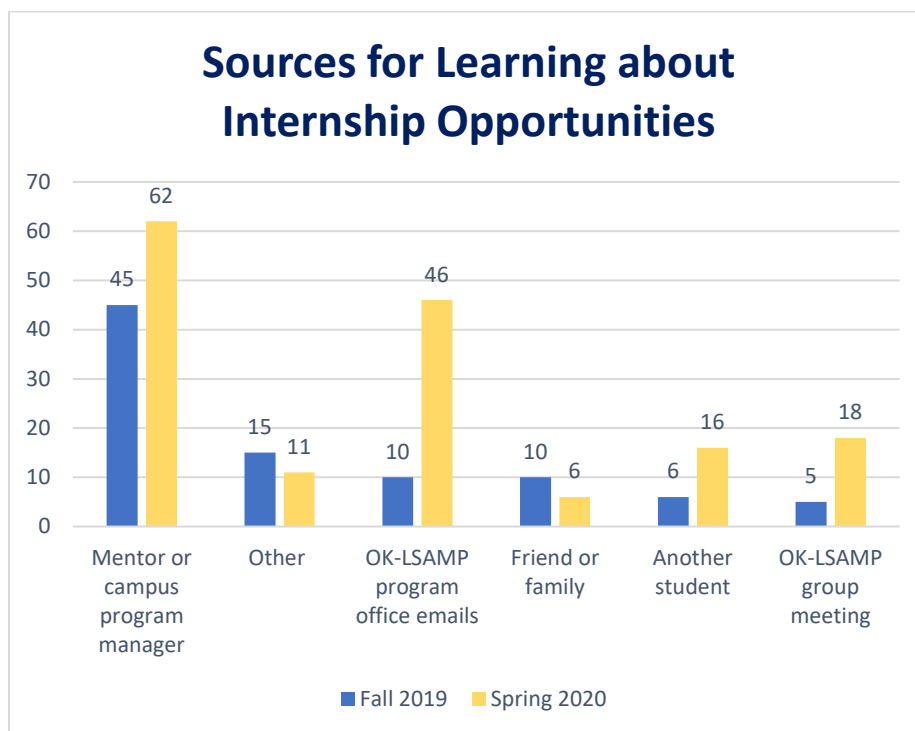


Figure 4: Sources for Learning About Internship Opportunities

### *Graduate School Preparation*

If scholars indicated on the survey that they were either a junior or senior, we asked them a few questions related to the GRE. In the Fall 2019 survey, 59.7% (40 of 67) upperclassmen reported that they were encouraged to take the GRE; 26.9% (18 of 67) received help from the OK-LSAMP program in preparing for the GRE; and 26.9% (18 of 67) of the scholars had already taken the GRE at the time of the survey.



Of the juniors and seniors who responded to these questions in Spring 2020, 70.6% (48 out of 68) reported that they were encouraged to take the GRE, 42.6% (29 out of 68) received help from the OK-LSAMP program in preparing for the GRE, and 17.6% (12 out of 68) 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, test prep, study materials, and the OK-LSAMP PHD camp. Appendix 4 provides a full account of student responses to the survey questions related to graduate school preparation.

*Workshop Interest*

Students were asked if they participated in an OK-LSAMP sponsored international travel workshop. Of the 122 students who responded this question 6.6% (8 students) indicated they participated in a sponsored travel workshop in Fall 2019. Of the 68 students in the Spring 2020 survey who responded to this question, 4.2% (4 students) indicated they participated in a travel workshop in their institution. See students’ responses in Table 3.

Table 3: *Attended an International Travel Workshop 2019-20.*

	Fall 2019	%	Spring 2020	%
Yes	8	7%	4	4%
No	114	93%	92	96%
Total	122	100%	96	100%

*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) with an option to select “N/A”. In all areas, the “Excellent” ranking was reported by the highest number of students followed by the “Good” ranking.

Figures 5a and 5b provide the counts of responses in each category and Appendix 5 offers student responses to the question “What can be improved” about the seven areas listed in these figures.

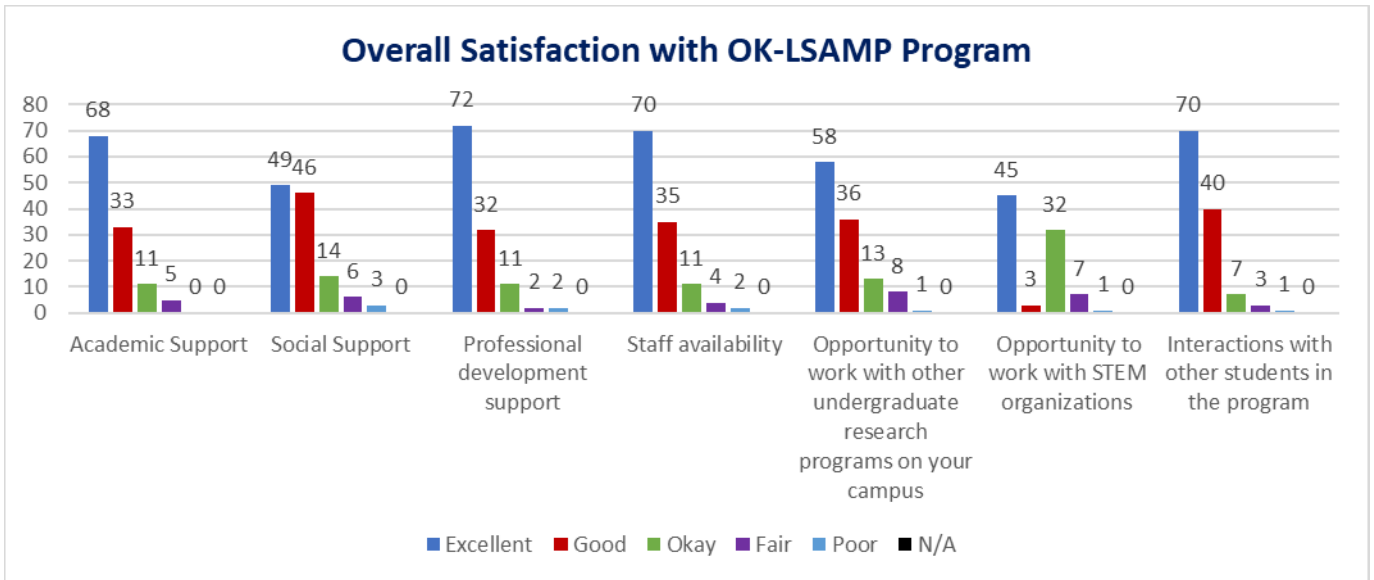


Figure 5a: Number of Student Responses for OK-LSAMP Experiences (Fall 2019)

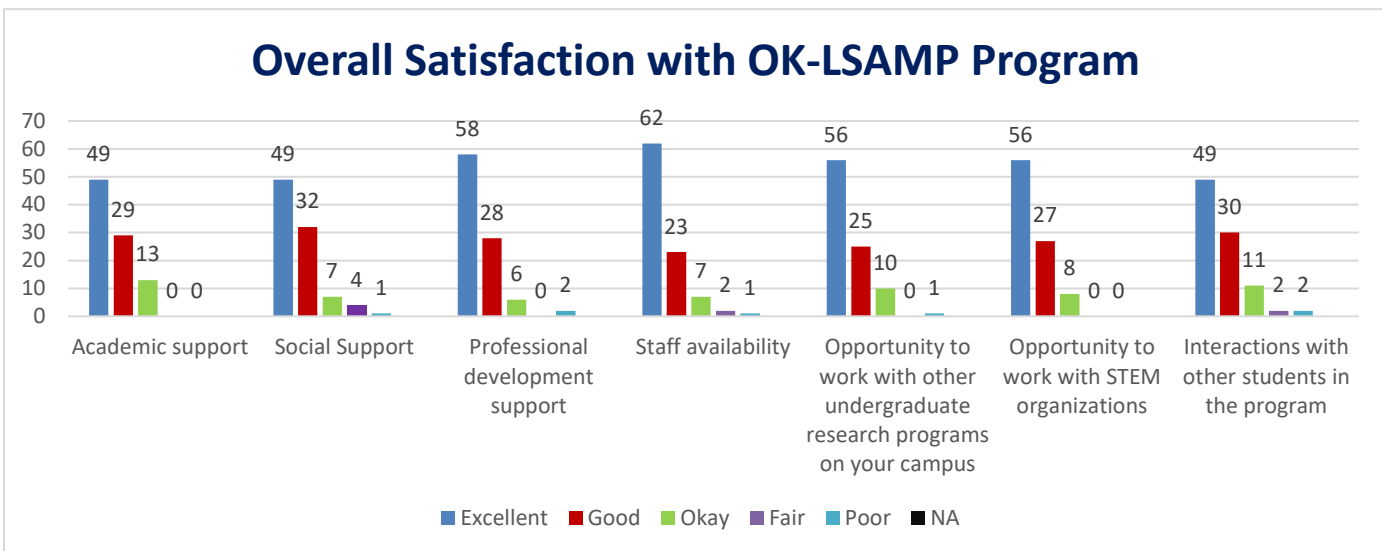


Figure 5b: Number of Student Responses for OK-LSAMP Experiences (Spring 2020)

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. The majority of scholars 71 out of 122 students (58.2%) who completed the Fall 2019 survey reported the highest satisfaction level when asked to rate their overall satisfaction with the OK-LSAMP program. Students were also asked to rate how the program helped their academic career. Forty-four students (36.1%) reported a score of 5.

Using the same 1 to 5 scale, 59 out of 96 students, or 61.5% in Spring 2020 gave a score of 5. There were no ratings of 1 or 2. Students were also asked to rate how the OK-LSAMP program has helped their academic career. From 1 to 5, with 5 being the most helpful, 45 out of 96 students (46.9%) gave a score of 5.

See Tables 4 and 5 for the responses. Appendix 7 offers student responses to strengths and weaknesses of the program, and overall satisfaction.

Table 4: Overall Satisfaction with the OK-LSAMP Program

Fall 2019 Survey

Score	Count	%
1	1	0.8%
2	3	2.5%
3	7	5.7%
4	40	32.8%
5	71	58.2%
Total	122	100.0%

Score: 1= Not Satisfied; 5=Very Satisfied

Spring 2020 Survey

Score	Count	%
1	0	0%
2	0	0%
3	5	5%
4	32	33%
5	59	61%
Total	96	100%

Score: 1= Not Satisfied; 5=Very Satisfied

Table 5: Helpfulness of OK-LSAMP Program on Academic Career

Fall 2019 Survey

Score	Count	%
1	4	3.3%
2	4	3.3%
3	26	21.3%
4	44	36.1%
5	44	36.1%
Total	122	100.0%

Score: 1= Not Helpful; 5=Very Helpful

Spring 2020 Survey

Score	Count	%
1	1	1%
2	2	2%
3	16	17%
4	32	33%
5	45	47%
Total	96	100%

Score: 1= Not Helpful; 5=Very Helpful

## Discussion

The results of our online surveys indicate that most of the OK-LSAMP scholars feel supported by the program and are being helped in their academic careers.

### Group Meetings

More than two-thirds of the Fall 2019 survey respondents indicated they participated in at least one meeting during the semester, while 75.0% of the Spring respondents did so. The spring meetings included in-person and virtual because of campus closures due to COVID-19. Based on the scholars' responses, 13.1% of students attended at least five meetings during the 2019 Fall semester and the participation decreased to 10.4% for the 2020 Spring semester. 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 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 the opportunity to get to know other students in the program, hearing the diverse speakers and topics, receiving guidance with graduate school applications, and learning about internship opportunities. There were several responses indicating the students had 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.

### Research Mentor Support

More than two-thirds of the students stated they had a research mentor in both surveys and

most of them indicated that they met with their mentor at least once during the semester. The coronavirus outbreak shuttered research in Spring 2020 and posed numerous technical and organizational challenges. Of the 74 scholars who were conducting research, 70.3% (52 students) had to stop due to COVID-19. However, 93.2% (69 out of 74) of all scholars who were conducting research were able to continue communicating with their research mentor remotely, including 48 students whose research had ended.

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, and information about internship opportunities. 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. Based on the positive results seen by scholars with mentors, as discussed earlier in this section, the evaluator recommends that Campus Program Managers work to provide mentors for more students. Appendix 3 provides students' comments pertaining to experiences with their mentors.

#### *Research Symposium and Other Professional Meetings*

Fifty-eight students reported in Fall 2019 attending professional meetings other than the OK-LSAMP Research Symposium, and 67.2% of those participants indicated that they presented at other meetings. The average number of presentations given was two. Fifty-nine scholars who planned to attend a professional meeting in Spring 2020 had to cancel due to COVID-19, and 37 of those students were scheduled to present.

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*

Seventy-eight percent of the Fall 2019 respondents and 90.6% of the Spring 2020 respondents indicated they were encouraged to participate in summer internships. Half of the juniors and seniors reported that they planned to do an internship in Summer 2020. These results are very encouraging and show the importance that the OK-LSAMP program is placing on these internships. student survey.

#### *Graduate School Preparation*

Scholars are required to submit a minimum of three graduate program applications, according to the project plan. Of the juniors and seniors who responded to the survey, 13 students (19.4%) in Fall 2019 and 14 students (20.6%) in Spring 2020 had applied to at least one graduate school. Eight scholars (11.9%) in Fall 2019 and eight students (11.8%) in Spring 2020 had applied to at least three graduate schools. In addition to graduate school applications, students were encouraged to take the GRE. More than half of the juniors and seniors in both fall and spring reported that they had been encouraged to take the GRE. However, only about a quarter of the Fall 2019 students had taken the GRE at the time of this survey, while less than 20% of the Spring 2020 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.

### *Workshop Interest*

International experiences are a focus during this funding period, but only 7% of the scholars in the fall survey, and 4% in the spring survey indicated that they attended a workshop assisting them with passport, travel, insurance, and other topics related to international internships. The evaluator recommends that the OK-LSAMP program pursue this activity. It could be accomplished collectively as an Alliance, or individual institutions could host workshops addressing these issues.

### *PHD Camp*

The OK-LSAMP program office hosted the Preparing for Higher Degrees (PHD) Camp on March 6-7, 2020 in Weatherford, OK. 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. Eighteen of the 96 scholars who responded to the spring survey attended the camp, and 94.4% (17 out of 18 students) found the camp to be beneficial. Almost one-third of the students who did not attend the camp indicated that they did not know about it, 38.3% had a schedule conflict, and 18.6% were not interested. Based on the positive comments 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 6 for student responses concerning the camp.

### *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 7 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 51.9% and 33.2%, respectively. Although more participation is always preferable, this response rate was adequate. 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.

When sending out any email distribution, one primary goal is to keep emails from being blocked or directed to the junk folder of scholars. Qualtrics provides an easy and convenient way to distribute the OK-LSAMP surveys to large groups of scholars via email. When a recipient takes the time to manually mark an email as spam, it probably means they do not want to receive those emails anymore. When a recipient marks an email sent from Qualtrics as spam, they are automatically opted out of the contact list and do not receive the email. This may have contributed to some of the emails not making it to the students' inbox.

### Section 3: The National STEM Retention and Graduation Data

In August 2019, the Consortium for Student Retention Data Exchange (CSRDE) finalized the data processing for the annual national STEM retention study, *2018-19 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 176 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 2008 through 2017 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 176 institutions observed in the 2018-19 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 6, the six-year graduation rates are provided for the 2012 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 6: *Six-year Graduation Rates – 2012 Total and URM Cohorts*

Category	Total	URM
<b>All Majors</b>		
<b>National</b>	<b>64.6%</b>	<b>54.0%</b>
OU	67.2%	58.2%
OSU	61.5%	50.6%
CU	30.0%	22.0%
<b>Any Major</b>		
<b>National</b>	<b>67.1%</b>	<b>54.8%</b>
OU	67.5%	58.0%
OSU	61.3%	56.5%
CU	36.4%	28.8%
<b>STEM Major</b>		
<b>National</b>	<b>48.6%</b>	<b>33.8%</b>
OU	44.1%	33.5%
OSU	47.0%	43.5%
CU	29.3%	24.8%

As seen in Table 6, 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 7 provides data based on institutional selectivity. The table shows the six-year graduation rates for the following 2012 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 7: *Six-year Graduation Rates by Selectivity – 2012 URM Cohort*

Category	Highly Selective	Selective	Moderately Selective	Less Selective	All URM
All Majors					
<b>National</b>	<b>67.2%</b>	<b>49.0%</b>	<b>50.3%</b>	<b>43.6%</b>	<b>54.0%</b>
OU	58.2%				
OSU	50.6%				
CU				22.0%	
Any Major					
<b>National</b>	<b>66.5%</b>	<b>48.0%</b>	<b>49.4%</b>	<b>40.8%</b>	<b>54.8%</b>
OU	58.0%				
OSU	56.5%				
CU				28.8%	
STEM Major					
<b>National</b>	<b>44.4%</b>	<b>27.4%</b>	<b>27.2%</b>	<b>22.4%</b>	<b>33.8%</b>
OU	33.5%				
OSU	43.5%				
CU				24.8%	

Table 7 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 Moderately Selective institutions graduated at a higher rate than those at Selective institutions in two of the three categories (All Majors and Any Major categories). We also see that more than half (54.8%) 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 two of the three categories (All Majors and Any Major). Similarly, Oklahoma State University’s six-year graduation rates are above the average of all URM students in two of the three categories (Any Major and 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 average for all URM students in each category. However, when compared to other Less Selective institutions, CU’s six-year graduation rate was higher than the national average in the STEM Major category.

Table 8 provides the six-year graduation rates for all majors, within any major, and within STEM majors for the Total 2012 cohort by selectivity.



Table 8: Six-year Graduation Rates by Selectivity – 2012 Total Cohort

Category	Highly Selective	Selective	Moderately Selective	Less Selective	Total
<b>All Majors</b>					
<b>National</b>	<b>74.9%</b>	<b>56.3%</b>	<b>56.3%</b>	<b>48.2%</b>	<b>64.6%</b>
OU	67.2%				
OSU	61.5%				
CU				30.0%	
<b>Any Major</b>					
<b>National</b>	<b>75.4%</b>	<b>56.2%</b>	<b>56.6%</b>	<b>46.0%</b>	<b>67.1%</b>
OU	67.5%				
OSU	61.3%				
CU				36.4%	
<b>STEM Major</b>					
<b>National</b>	<b>57.2%</b>	<b>37.0%</b>	<b>36.7%</b>	<b>28.1%</b>	<b>48.6%</b>
OU	44.1%				
OSU	47.0%				
CU				29.3%	

In Figures 6-8, the national data for the 2012 URM cohort and the Total cohort are provided for comparison, based on the percentages listed in Tables 7 and 8. Figure 6 shows the graduation rates for all students, regardless of their major when they began college. Figure 7 shows the data for students who began as a STEM major at the institution and graduated in any major at the institution. Figure 8 provides the rates for students who began as a STEM major at the institution and graduated within a STEM discipline.

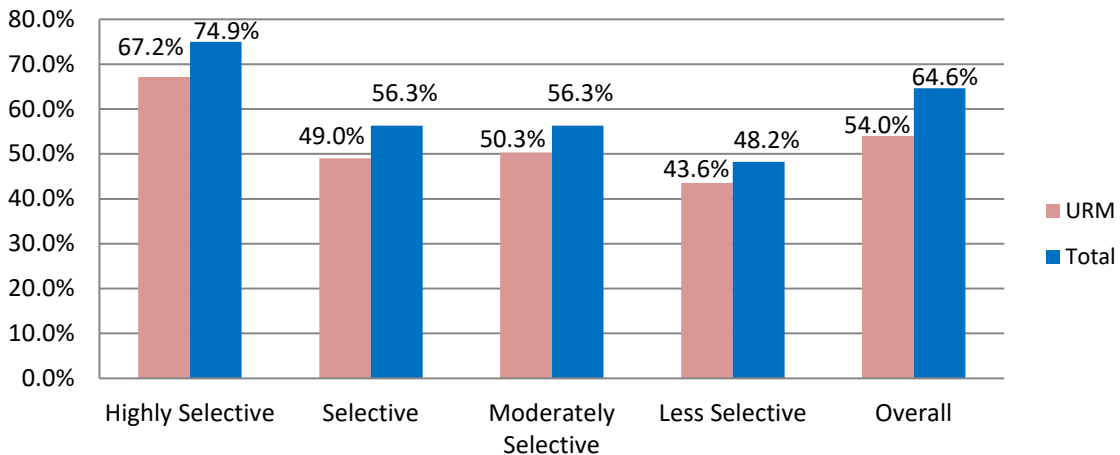


Figure 6: Six-year Graduation Rates for 2012 Total and URM Cohorts by Selectivity – All Majors

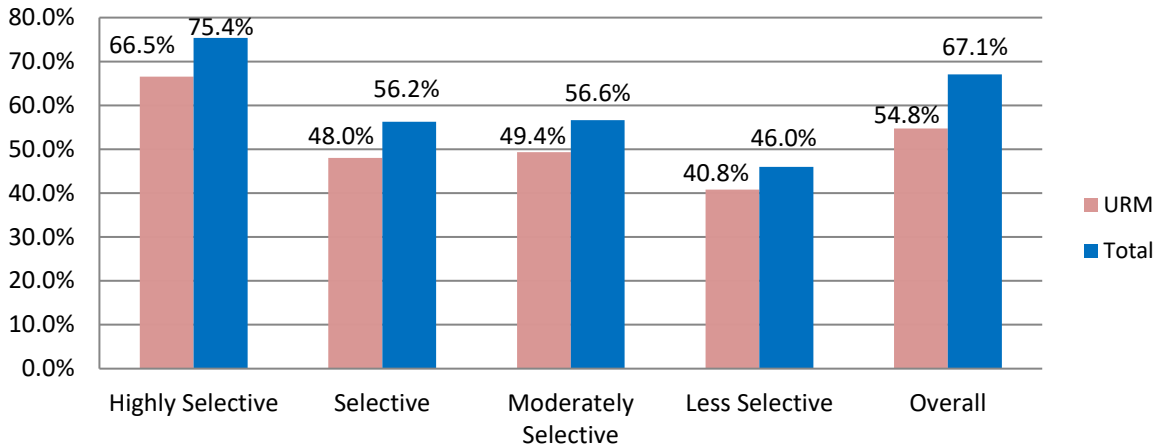


Figure 7: Six-year Graduation Rates for 2012 Total and URM Cohorts by Selectivity – Any Major

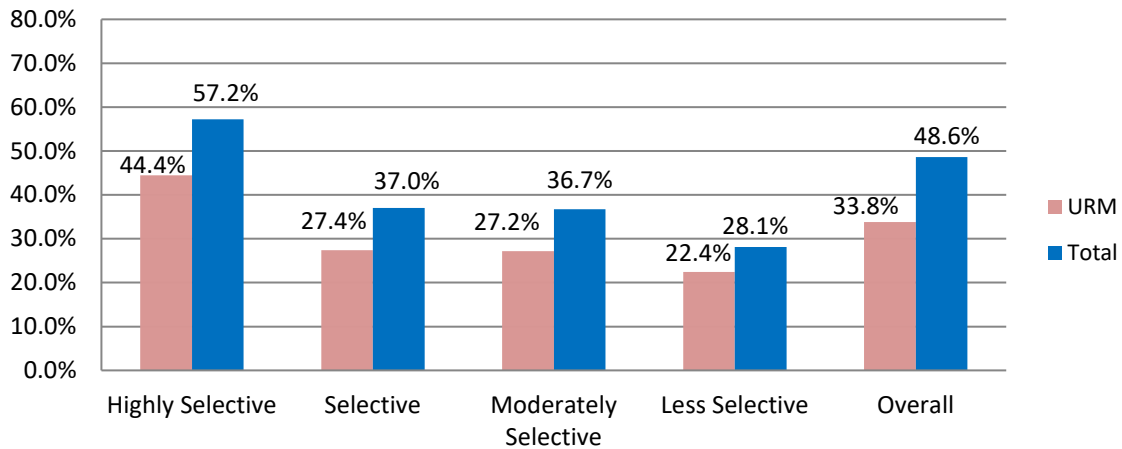


Figure 8: Six-year Graduation Rates for 2012 Total and URM Cohorts by Selectivity – STEM Major

As seen in Tables 7 and 8 and Figures 6-8, the graduation rates of the Total cohort of students generally decrease as the selectivity of the institution decreases with the exception of the Selective and Moderately Selective categories which are typically very similar. URM students in Moderately Selective institutions graduate at a higher rate than the URM students at Selective institutions in the All Majors and Any Major categories. The gap between the graduation rates for URM students and the Total cohort of students is considerable in all institutions, but the difference is slightly smaller within the Less Selective 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 9, the first-year retention rates are provided for the 2017 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, in order to gain a better understanding of how the three Oklahoma institutions are doing compared to similar institutions nationally, Table 10 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 2017 URM cohorts by selectivity.

Table 10 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 Selective institutions. The retention rates for URM students is lower in Selective institutions than Moderately Selective institutions in two of the three categories (Any Major and STEM Major).

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 the same. Conversely, Oklahoma State University's first-year retention rates were below the average for URM students within the highly selective group except for the STEM Major category. OU and OSU's first-year retention rates were greater than or equal to the average for all URM students with the exception of OSU in the All Majors category. Cameron University's first-year retention rates for URM students were below the average in the Less Selective group. Table 11 provides the first-year retention rates of the Total 2017 cohort by selectivity for the national data as well as the three Oklahoma institutions that participated in the study.

Table 9: *First-year Retention Rates – 2017 Total and URM Cohorts*

Category	Total	URM
All Majors		
<b>National</b>	<b>83.6%</b>	<b>79.4%</b>
OU	90.2%	89.3%
OSU	81.8%	77.8%
CU	59.7%	62.9%
Any Major		
<b>National</b>	<b>85.9%</b>	<b>81.2%</b>
OU	91.0%	89.3%
OSU	84.5%	83.6%
CU	65.1%	61.1%
STEM Major		
<b>National</b>	<b>73.6%</b>	<b>67.5%</b>
OU	68.8%	67.5%
OSU	83.8%	82.2%
CU	42.2%	38.9%

Table 10: *First-year Retention Rates by Selectivity – 2017 URM Cohort*

Category	Highly Selective	Selective	Moderately Selective	Less Selective	All URM
All Majors					
<b>National</b>	<b>86.3%</b>	<b>77.0%</b>	<b>76.8%</b>	<b>74.1%</b>	<b>79.4%</b>
OU	89.3%				
OSU	77.8%				
CU				62.9%	
Any Major					
<b>National</b>	<b>87.2%</b>	<b>76.7%</b>	<b>77.5%</b>	<b>75.2%</b>	<b>81.2%</b>
OU	89.3%				
OSU	83.6%				
CU				61.1%	
STEM Major					
<b>National</b>	<b>73.6%</b>	<b>61.4%</b>	<b>63.3%</b>	<b>62.8%</b>	<b>67.5%</b>
OU	67.5%				
OSU	82.2%				
CU				38.9%	

Table 11: *First-year Retention Rates by Selectivity – 2017 Total Cohort*

Category	Highly Selective	Selective	Moderately Selective	Less Selective	Total
<b>All Majors</b>					
<b>National</b>	<b>89.1%</b>	<b>79.3%</b>	<b>78.5%</b>	<b>74.8%</b>	<b>83.6%</b>
OU	90.2%				
OSU	81.8%				
CU				59.7%	
<b>Any Major</b>					
<b>National</b>	<b>90.3%</b>	<b>79.7%</b>	<b>79.7%</b>	<b>75.7%</b>	<b>85.9%</b>
OU	91.0%				
OSU	84.5%				
CU				65.1%	
<b>STEM Major</b>					
<b>National</b>	<b>78.8%</b>	<b>65.0%</b>	<b>66.9%</b>	<b>62.7%</b>	<b>73.6%</b>
OU	68.8%				
OSU	83.8%				
CU				42.2%	

Tables 9-11 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 4.2 to 6.1 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 6-8 and Tables 9-11). The gap between graduation rates of URM students and all students ranges from 10.6 to 14.8 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 9-11, the national data for the 2017 URM cohort and the Total cohort are provided for comparison, based on the percentages listed in Tables 10 and 11. Figure 9 provides the first-year retention rates for all students, regardless of their major when they began college. Figure 10 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 11 provides the rates for students who began as a STEM major at the institution and continued to their second year within a STEM discipline.

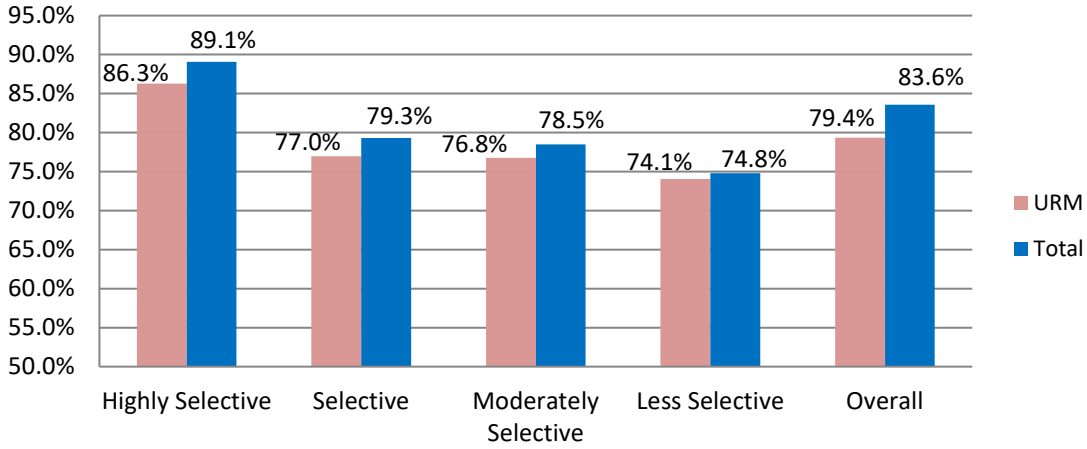


Figure 9: First-Year Retention Rates for 2017 Total and URM Cohorts by Selectivity – All Majors

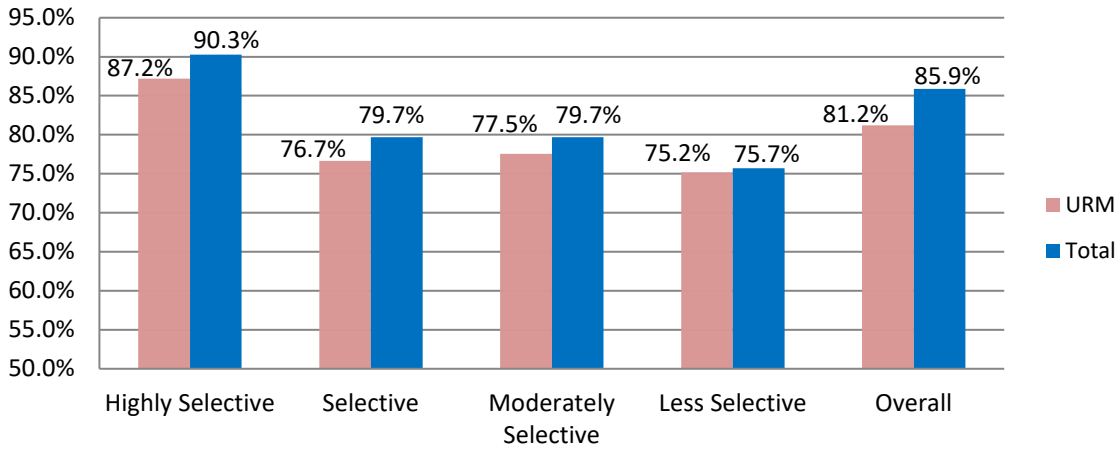


Figure 10: First-Year Retention Rates for 2017 Total and URM Cohorts by Selectivity – Any Major

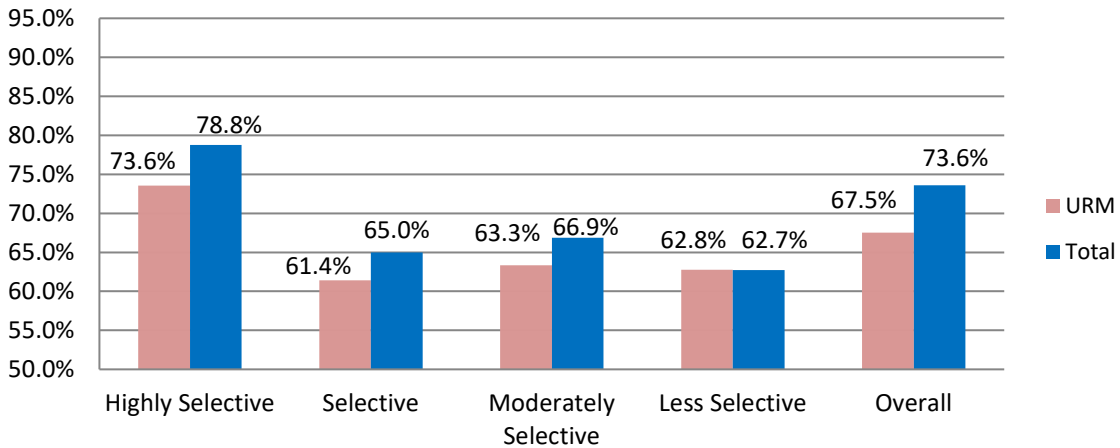


Figure 11: First-Year Retention Rates for 2017 Total and URM Cohorts by Selectivity – STEM Major

## 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 247 students participated in Fall 2019. Of those 247 scholars, 16 graduated and nine students left the program before the beginning of the Spring 2020 semester. Thirty-three new students became OK-LSAMP scholars during the Spring 2020 semester, for a total of 255 scholars participating in the spring. As of the end of the Spring 2020 semester, 68 students graduated and five were known to have left the program. It is anticipated that 71.4% of the Spring 2020 scholars will still be in the program for Fall 2020. The persistence rates for each semester (continuing students plus graduates) are excellent: 96.4% continued from the Fall 2019 to Spring 2020 semester or graduated; 98.0% of scholars in the program during the Spring semester either graduated or were still in the program at the end of the semester. Table 12 shows the retention and graduation data for OK-LSAMP scholars during the Fall 2019 and Spring 2020 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 12: *OK-LSAMP Graduation and Retention Data, Fall 2019 and Spring 2020*

	Total Participating OK-LSAMP Scholars	Graduates Before Next Semester		Known Departures Before Next Semester		Continued to Following Semester (Fall 2019 to Spring 2020 Known; Spring 2020 to Fall 2020 Anticipated)		Graduates and Continuing Students	
		Count	%	Count	%	Count	%	Count	%
<b>Fall 2019</b>	247	16	6.5	9	3.6	222	90.0	238	96.4
<b>Spring 2020</b>	255	68	26.7	5	0.2	182	71.4	250	98.0

## **Section 4: Overall Report Summary**

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 46.9% of the seniors (84 of 179) graduated during the evaluation period; however, the Alliance did not meet its goal to graduate at least 88 OK-LSAMP scholars during this evaluation period. Of the 84 students who graduated, 30 scholars were accepted into graduate school, so the Alliance met its goal of graduating 30 students during this reporting period.

The seniors who did not graduate during the 2019-2020 academic year appear to be on track for graduation and graduate-school readiness as well. Of the 95 seniors who participated in the program during this reporting period who did not graduate, 77.9% (74 of 95) had a GPA of 3.0 or greater and 47.4% (45 of 95) had participated in at least one summer internship. Only nine were known to have left the program during the reporting period. Therefore, 86 senior scholars (90.5%) were expected to continue in the program in Fall 2020 to pursue their STEM degree. Given these numbers and the potential addition of new seniors joining the program in Fall 2020 and Spring 2021, the 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 93 new scholars during this reporting period, far exceeding its goal of 79 new scholars. The retention rate of its students (92.9%) remained about the same as their baseline (93.0%).

Twenty-six of the scholars in the program during Fall 2019 or Spring 2020 have had an international experience, which includes study abroad, international internships, international research, or international conference presentations. The goal is for 81 students who participate OK-LSAMP over the next five years to have an international experience. The Alliance is almost one-third to the goal in the first year of the funding period.

Based on the results of our online student surveys conducted in Fall 2019 and Spring 2020, the scholars are pleased with their experiences in the program. They rated their mentoring experiences very high, they feel that the group meetings they are attending are helpful in their STEM studies, they are participating in summer internships, are attending and presenting at professional meetings, and are being 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. Based on the data the evaluator received from the OK-LSAMP program office, 9.3% of the current scholars (26 of 280) have had international experience. To meet this objective, the Alliance will need 55 more scholars over the next four years to have an international experience.

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. A half or full day set



aside to focus solely on this topic should help increase the number of scholars participating in international opportunities. Given the current COVID-19 situation, this may be difficult during the 2020-2021 academic year, but the Alliance should continue to promote these opportunities.

## **2. Increase research opportunities for scholars**

Data from the OK-LSAMP program office indicate that 55.9% of the seniors (100 of 179) identified during this evaluation period participated in research during at least one semester, and 51.0% of these scholars participated in both semesters. The numbers are similar for juniors: 42.6% (26 of 61) participated in research at some point during this funding period.

Almost half of the juniors and seniors during the evaluation period did not work on 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**

Students who completed the two surveys during this reporting period echoed responses from previous scholars indicating that they would like more opportunities to get to know other OK-LSAMP participants. Scholars are interested in developing social connections with their OK-LSAMP peers so they can encourage each other and learn from one another. Some responses indicated that scholars do not know any of the students in the program on their campus. Appendices 2-6 provide scholar responses from the surveys.

We suggest that the Alliance continue to hold group meetings on their campuses, as scholars find the meetings to be helpful in general. Many noted that the most helpful part of the 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 as some of the scholars suggested.

## **4. More communication**

Based on the responses in the scholar survey, a number of students asked for more communication about the program. Several students commented about their OK-LSAMP campus being disorganized and expressed interest in receiving more information about the program, meetings, and potential research mentors. Many 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**

- 10 students were included in this evaluation
- 1 student was a freshman, 1 was a sophomore, 2 were juniors, and 6 were seniors

#### **Support**

- 9 of the 10 students included in this evaluation (90.0%) received funding during Fall 2019 and/or Spring 2020
- 0 of 1 graduate (0.0%) participated in at least one summer internship

#### **Graduate School Preparation**

- 5 of 10 students (50.0%) who participated in Fall 2019 conducted research
- 1 of 8 students (12.5%) who participated in Spring 2020 conducted research. In addition, four students were scheduled for research but unable to participate due to COVID-19.
- 0 of 1 graduate (0.0%) had a minimum GPA of 3.0
- 0 of 8 juniors and seniors (0.0%) took the GRE
- 0 of 8 juniors and seniors (0.0%) completed at least one graduate school application.

#### **Results**

- 1 of 6 seniors (16.7%) graduated
- 0 of 0 graduates (0.0%) who applied to graduate school was accepted

## **East Central University**

### **Participants**

- 8 students were included in this evaluation
- 1 student was a junior and 7 were seniors

### **Support**

- 8 of the 8 students included in this evaluation (100%) received funding during Fall 2019 and/or Spring 2020
- 2 of 2 graduates (100%) participated in at least one summer internship

### **Graduate School Preparation**

- 4 of 8 students (50.0%) who participated in Fall 2019 conducted research
- 5 of 7 students (71.4%) who participated in Spring 2020 conducted research
- 2 of 2 graduates (100%) had a minimum GPA of 3.0
- 1 of 8 juniors and seniors (12.5%) took the GRE
- 1 of 8 juniors and seniors (12.5%) completed at least one graduate school application. The student completed three or more applications.

### **Results**

- 2 of 7 seniors (28.6%) graduated
- 1 of 1 graduate (100%) who applied to graduate school was accepted

# Langston University

## Participants

- 40 students were included in this evaluation
- 6 students were sophomores, 7 were juniors, and 27 were seniors

## Support

- 18 of the 40 students included in this evaluation (45.0%) received funding during Fall 2019 and/or Spring 2020
- 11 of 14 graduates (78.6%) participated in at least one summer internship. Eight of the graduates participated in two or more.

## Graduate School Preparation

- 14 of 36 students (38.9%) who participated in Fall 2019 conducted research
- 0 of 38 students (0.0%) who participated in Spring 2020 conducted research due to COVID-19
- 12 of 14 graduates (85.7%) had a minimum GPA of 3.0
- 1 of 34 juniors and seniors (2.9%) took the GRE
- 3 of 34 juniors and seniors (8.8%) completed at least one graduate school application. None of the students completed three or more applications.

## Results

- 14 of 27 seniors (51.9%) graduated
- 2 of 3 graduates (66.7%) who applied to graduate school were accepted

# **Northeastern State University**

## **Participants**

- 15 students were included in this evaluation
- 1 student was freshman, 2 were juniors, and 12 were seniors

## **Support**

- 15 of the 15 students included in this evaluation (100%) received funding during Fall 2019 and/or Spring 2020
- 2 of 6 graduates (33.3%) participated in at least one summer internship. None of the graduates participated in two or more.

## **Graduate School Preparation**

- 11 of 12 students (91.7%) who participated in Fall 2019 conducted research
- 13 of 13 students (100%) who participated in Spring 2020 conducted research
- 4 of 6 graduates (66.7%) had a minimum GPA of 3.0
- 0 of 14 juniors and seniors (0.0%) took the GRE
- 5 of 14 juniors and seniors (35.7%) completed at least one graduate school application. None of the students completed three or more applications.

## **Results**

- 6 of 12 seniors (50.0%) graduated
- 3 of 5 graduates (60.0%) who applied to graduate school were accepted

# Northwestern Oklahoma State University

## Participants

- 8 students were included in this evaluation
- 1 student was a freshman 2 were sophomores, 1 was a junior, and 4 were seniors

## Support

- 8 of the 8 students included in this evaluation (100%) received funding during Fall 2019 and/or Spring 2020
- 2 of 3 graduates (66.7%) participated in at least one summer internship. None of the graduates participated in two or more.

## Graduate School Preparation

- 0 of 3 students (0.0%) who participated in Fall 2019 conducted research
- 1 of 5 students (20.0%) who participated in Spring 2020 conducted research
- 3 of 3 graduates (100%) had a minimum GPA of 3.0
- 0 of 5 juniors and seniors (0.0%) took the GRE
- 1 of 5 juniors and seniors (20.0%) completed at least one graduate school application. None of the students completed three or more applications.

## Results

- 3 of 4 seniors (75.0%) graduated
- 1 of 1 graduate (100%) who applied to graduate school was accepted

# Oklahoma Panhandle State University

## Participants

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

## Support

- 0 of the 2 students included in this evaluation (0.0%) received funding during Fall 2019 and/or Spring 2020
- 0 of 0 graduates (0.0%) participated in at least one summer internship.

## Graduate School Preparation

- 0 of 0 students (0.0%) who participated in Fall 2019 conducted research
- 0 of 2 students (0.0%) who participated in Spring 2020 conducted research
- 0 of 0 graduates (0.0%) had a minimum GPA of 3.0
- 0 of 2 juniors and seniors (0.0%) took the GRE
- 0 of 2 juniors and seniors (0.0%) completed at least one graduate school application.

## Results

- 0 of 0 seniors (100%) graduated
- 0 of 0 graduates (0.0%) who applied to graduate school were accepted

# Oklahoma State University

## Participants

- 100 students were included in this evaluation
- 4 students were freshmen, 14 were sophomores, 26 were juniors, and 56 were seniors

## Support

- 28 of the 100 students included in this evaluation (28.0%) received funding during Fall 2019 and/or Spring 2020
- 13 of 25 graduates (52.0%) participated in at least one summer internship. Five of the graduates participated in two or more.

## Graduate School Preparation

- 31 of 88 students (35.2%) who participated in Fall 2019 conducted research
- 27 of 88 students (30.7%) who participated in Spring 2020 conducted research
- 24 of 25 graduates (96.0%) had a minimum GPA of 3.0
- 12 of 82 juniors and seniors (14.6%) took the GRE
- 10 of 82 juniors and seniors (12.2%) completed at least one graduate school application. Four students completed three or more applications.

## Results

- 25 of 56 seniors (44.6%) graduated
- 9 of 10 graduates (90.0%) who applied to graduate school were accepted



# **Southeastern Oklahoma State University**

## **Participants**

- 19 students were included in this evaluation
- 2 students were sophomores, 4 were juniors, and 13 were seniors

## **Support**

- 17 of the 19 students included in this evaluation (89.5%) received funding during Fall 2019 and/or Spring 2020
- 5 of 9 graduates (55.6%) participated in at least one summer internship

## **Graduate School Preparation**

- 9 of 17 students (52.9%) who participated in Fall 2019 conducted research
- 5 of 19 students (26.3%) who participated in Spring 2020 conducted research
- 9 of 9 graduates (100%) had a minimum GPA of 3.0
- 2 of 17 juniors and seniors (11.8%) took the GRE
- 6 of 17 juniors and seniors (35.3%) completed at least one graduate school application. None of the students completed three or more applications.

## **Results**

- 9 of 13 seniors (69.2%) graduated
- 6 of 6 graduates (100%) who applied to graduate school were accepted

# Southwestern Oklahoma State University

## **Participants**

- 13 students were included in this evaluation
- 1 students were sophomores, 3 were juniors, and 9 were seniors

## **Support**

- 11 of the 13 students included in this evaluation (84.6%) received funding during Fall 2019 and/or Spring 2020
- 1 of 3 graduates (33.3%) participated in at least one summer internship.

## **Graduate School Preparation**

- 11 of 13 students (84.6%) who participated in Fall 2019 conducted research
- 11 of 12 students (91.7%) who participated in Spring 2020 conducted research
- 3 of 3 graduates (100%) had a minimum GPA of 3.0
- 0 of 12 juniors and seniors (0.0%) took the GRE
- 0 of 12 juniors and seniors (0.0%) completed at least one graduate school application

## **Results**

- 3 of 9 seniors (33.3%) graduated
- 0 of 0 graduates (0.0%) who applied to graduate school were accepted

# University of Central Oklahoma

## **Participants**

- 12 students were included in this evaluation
- 1 student was a sophomore, 1 was a junior, and 10 were seniors

## **Support**

- 12 of the 12 students included in this evaluation (100%) received funding during Fall 2019 and/or Spring 2020
- 3 of 3 graduates (100%) participated in at least one summer internship. None of the graduates participated in three or more.

## **Graduate School Preparation**

- 11 of 11 students (100%) who participated in Fall 2019 conducted research
- 11 of 11 students (100%) who participated in Spring 2020 conducted research
- 3 of 3 graduates (100%) had a minimum GPA of 3.0
- 1 of 11 juniors and seniors (9.1%) took the GRE
- 1 of 11 juniors and seniors (9.1%) completed at least one graduate school application. One student completed three or more applications.

## **Results**

- 3 of 10 seniors (30.0%) graduated
- 1 of 1 graduate (100%) who applied to graduate school was accepted

## **University of Oklahoma**

### **Participants**

- 41 students were included in this evaluation
- 9 were juniors, and 32 were seniors

### **Support**

- 24 of the 41 students included in this evaluation (58.5%) received funding during Fall 2019 and/or Spring 2020
- 10 of 15 graduates (66.7%) participated in at least one summer internship. Two of the graduates participated in three or more.

### **Graduate School Preparation**

- 17 of 37 students (45.9%) who participated in Fall 2019 conducted research
- 15 of 39 students (38.5%) who participated in Spring 2020 conducted research
- 12 of 15 graduates (80.0%) had a minimum GPA of 3.0
- 6 of 41 juniors and seniors (14.6%) took the GRE
- 7 of 41 juniors and seniors (17.1%) completed at least one graduate school application. Three students completed three or more applications.

### **Results**

- 15 of 32 seniors (46.9%) graduated
- 6 of 7 graduates (85.7%) who applied to graduate school were accepted

## **University of Tulsa**

### **Participants**

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

### **Support**

- 11 of the 12 students included in this evaluation (91.7%) received funding during Fall 2019 and/or Spring 2020
- 2 of the 3 graduates (66.7%) participated in at least one summer internship. Two of the graduates participated in two or more.

### **Graduate School Preparation**

- 6 of 11 students (54.5%) who participated in Fall 2019 conducted research
- 7 of 11 students (63.6%) who participated in Spring 2020 conducted research
- 2 of 3 graduates (66.7%) had a minimum GPA of 3.0
- 2 of 6 juniors and seniors (33.3%) took the GRE
- 1 of 6 juniors and seniors (16.7%) completed at least one graduate school application. One student completed three or more applications.

### **Results**

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

Appendices 2-7 include student responses to the Fall 2019 and Spring 2020 online surveys. Responses have not been edited.

## **Appendix 2: Scholar Responses About Group Meetings**

### **What was most helpful about the group meetings that you attended? (Fall 2019)**

*Answers to questions.*

*being able to bounce out ideas from other people*

*Being able to talk and get advise from mentors and peers.*

*Collaboration*

*conference etiquette*

*getting to know more about the program*

*Getting to know what others are doing*

*getting up to date on all the information necessary such as deadlines and stuff*

*Group involvement*

*Hearing the research experiences of others*

*Helpful info about future*

*Helpful information was provided*

*How to format my research for posters.*

*I have only attended one meeting about jobs in federal positions and I liked it.*

*I have only attended one since getting accepted*

*I learned about the opportunities LSAMP provides*

*I loved the advice I received.*

*I was able to connect with other OKLSAMP scholars.*

*I was able to meet new people and tour the [Name of Institution] campus.*

*Information*

*Information for conferences*

*information provided about what LSAMP help with*

*Introduced me to the other members of the program, which was very helpful.*

*It prepared me for a conference experience.*

*It was the first time we met so it was okay.*

*Just hearing about REUs/Internships as well as Government jobs in the AG field.*

*Just knowing the different experiences scholars have when doing internships*

*learned what my options were for conducting research*

*Learning about additional open opportunities around*

*Learning about how certain opportunities work.*

*Learning about new opportunities*

*Learning from guest speakers*

*Learning how to build an online profile and how to take care of it.*

*meeting new people and the presentations have been helpful*

*Meeting students with the same goals as me and learning all these tools for grad school*

*N/A*

*None have yet to be helpful. Medical school is rarely discussed unlike graduate schools. Internships are rarely talked about.*

*On top of meeting new people, the meetings help me expand my knowledge outside of architecture*

*Opportunities*

*Our program heads brought previous members of the program to our meetings to give very helpful presentations and offer us some guidance. They were very informative presentations.*

*Professional Development as well as increasing awareness about the opportunities for STEM research-students*

*The dissemination of information regarding internships and options available to students.*

*The guest speakers.*

*The information*

*The information about the program and research, also length of meetings*

*The information that is given about the subject.*

*The information was very resourceful and getting to network with other students helped as well.*

*The most helpful thing about the group meetings was the opportunity to meet other OK-LSAMP Scholars and interact with them. Also, it was very nice to learn about different research topics and professional areas that were not related to my research.*

*The social environment and being able to sympathize my own situations with everyone else's. Learning about different opportunities available for scholars and researchers in STEM.*

*The student interaction and discussion. Also, the program manager guidance and attentiveness to us individually.*

*The type of information that was being shared. All the meeting are preparing you for a professional position in the world.*

*They have us updates about what we had planned and brought in student speakers.*

*They provided us with opportunities beyond undergrad. I always feel like I learn of a new opportunity every time that I attend a meeting.*

*They talked to us about overseas research opportunities.*

*They were geared a lot to students considering graduate school and attending their first symposium.*

*They were very good at reminding me what I needed to do for the semester and what I needed to plan for in the future.*

*Understanding the structure of OKLSAMP. Since I am a new scholar, our program managers had a specific new scholar orientation with me and a few others which was nice because we had many questions that were answered during our specific orientation rather than a group meeting.*

*very informative*

*We discussed national meetings we could attend next semester*

*We learn about resumes, job interview questions and how to answer them correctly and read our interviewer and also professionalism.*

*Workshops and grad school info*

**What was most helpful about the group meetings that you attended (Spring 2020)**

*Accountability for research/applications*

*Definitely the motivation given by seeing upperclassmen be successful*

*Finding students that I can relate to, gives me hope.*

*getting good information*

*getting to learn more about the program.*

*Good info*

*GRE prep at PhD camp*



*GRE Workshop Prep*

*Hearing about advice relating to research*

*Hearing from OK-LSAMP scholars that have done posters and presentations before.*

*Information given*

*information on being a scholar .*

*Information rich while still easy to digest.*

*it gave an overall idea of what was offered and what events were coming up it also informed me of the opportunities offered to me*

*Kept me informed about conferences.*

*Learned relevant information that is applicable to research or presentations*

*Learning about different opportunities*

*Learning about graduate school and other research opportunities.*

*Learning how not to plagiarize on your abstract and why it's important not to.*

*Learning how to be successful in an online classroom.*

*Learning to make a poster.*

*No*

*Nothing really*

*One meeting showed us how to write our research abstracts with plagiarism*

*Professional Development*

*Relevant*

*Seeing whos in the group*

*The group meeting introduced me to programs, such as REUs, and provided me with useful information concerning undergraduate research.*

*The information given*

*The information provided!*

*The information was always relevant. Also, [Campus Program Managers] always made sure that we knew each other which was my favorite part. Especially meeting the Bridge to Doctorate members.*

*The poster presentation meeting*

*The speakers were really good!*

*There was a meeting about making poster presentations and how to make them more appealing. As someone who present often, this was a good meeting.*

*There were always new opportunities provided at each meeting. We also were able to network with different people that were brought in outside of LSAMP.*

*There were copious amounts of information available pertaining to all aspects of STEM opportunities.*

*They provided information that was useful to our situation now.*

*They were important updates that allowed me to know upcoming events and to address any concerns I had.*

*They were on topics that were useful to me presently and in the future.*

*To see others do research*

*Updates on available scholarships*

*Useful information regarding professional relationships and activities.*

*very informative about the program*

*We did a seminar on how to build a research poster, which was given by a fellow participant. His presentation helped me improve my own research poster and get it up to par with his.*

*We were able to review and group together what we need to do.*

**What would you change for future group meetings? (Fall 2019)**

*add food*

*Add graduate school info*

*Better presentation*

*Better times and communication.*

*food*

*FOOD*

*Grad school booths would be nice. I wasn't sure if there were any this year (the 25th anniversary), but I did not see any.*

*have food*

*Have weekly meetings instead*

*I think just making a time for us to be more interactive with one another. Most times it is just someone presenting to us the entire time.*

*I would diversify the format of meetings - have the typical guest speaker(s) and visits to establishments - but incorporate a method of interaction and engagements between students to lay a foundation of community that will enable the construction of ideas.*

*I would have more alumni come speak to us.*

*I would love to have a public health guest speaker come and talk with prospective students who are thinking about pursuing a career in the healthcare, whether it be research or physician.*

*I would provide food, no group activity, and have real professional scientist or researcher attend.*

*I would provide some snacks and be more thematic.*

*I wouldn't change anything*

*just more time committed to helping newer members*

*Less Resume development and more presentations about opportunities available*

*Make presentations more focused on what to do to get into graduate school or what to do in order to earn money fro graduate school.*

*Make them more hands on*

*maybe to make them more interactive instead of us just sitting and listening*

*More frequent group meetings*

*More interactive with students*

*More team building activities that allow us to get to know each other.*

*More time devoted to overall academic help and time to get to know the other scholars*

*More time for questions*

*N/A*

*N/A*

*N/a*

*N/A*

*N/A*

*N/a*

*none*

*Nothing*

*Nothing*

*nothing*

*Nothing*

*Nothing*

*Nothing, I was pretty pleased. Or maybe just get someone else in about gov't jobs not concerning Ag?*

*Nothing, these are great.*

*Nothing.*

*Nothing.*

*Probably the way you sign up for them. I had a hard time signing up for the symposium.*

*Request subject matter experts be involved in subjects.*

*The group photo needs to be better organized*

*The times and/or days of them.*

*They were all good in one way or another*

*We should incorporate more discussion time.*

*Yes*

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

*Accessibility for working students.*

*Always have food*

*Different times*

*Field Focused meetings*

*Food provided at the meetings would help with better incentives for attending the meetings.*

*Get a professional from a medical school to come*

*Have more fields in the stem field*

*having the option of either telecom, or zoom drop-ins for meetings this way more students could participate if they have to be away from campus*

*I feel the meetings don't pertain to me*

*I think the biggest thing is just communication of when meetings are.*

*I want to get to know other OK-LSAMP scholars, so I wish we would do team-building activities at the beginning of each meeting.*

*I would just improve interactions between people.*

*I would not change group meeting.*

*It would be better to cover some topics in the fall, and split some meetings based on experience.*

*make it later in the afternoon.*

*Make meeting time shorter.*

*Make them more interactive.*

*Maybe provide food or beverages.*

*More group activities, so that we can get to know each other. Maybe a "speed dating" set up where we go around the room and get to know each other through a set of questions. I think that would be a fun activity.*

*More structure, Agenda*

*More talk of research opportunities*

*N/A*

*N/A*

*N/A*

*N/A*

*n/a*

*N/A*

*n/a*

*N/A*

*NA*

*No*

*none*

*None*

*Nothing*

*Nothing*

*Nothing, this past year has had fantastic meetings*

*Nothing.*

*Nothing.*

*Perhaps more information given to Students at [Name of Institution] about this . There is no much advertising for students to join*

*Probably make some of the talks shorter*

*Probably the times of the meetings*

*Quicker icebreakers*

*shorten them*

*Snacks would be awesome. The meetings are in the evening right at dinner time.*

*Talk more about summer research opportunities.*

*This meeting was well conducted, N/A*

*To be more upfront to new people on what helpful ways there are instead of making them infer.*

*We could discuss our progress towards graduate school applications.*

### **Appendix 3: Scholar Responses About Mentor Support**

#### **How did your research mentor help you? (Fall 2019)**

*Answering any questions I had.*

*Checks in to see that progress is being made and also to see how classes are going*

*Constant guidance*

*[Name of Mentor] would break things down for me over and over until I understood and would perform experiments with me until I was comfortable doing them on my own.*

*[Name of Mentor], assured me that I belong in the microbiology world. [Name of Mentor], was shocked at how well my techniques were regarding his research. That only boosted my confidence, as a soon to be independent scientist.*

*explain what I am doing and the plan for the future*

*Facilitated development of independence in the lab and helped develop scientific paper writing skills.*

*Gave me advice and guided me*

*Gave me design ideas and helped lead me in the right direction*

*Gave me time to complete tasks*

*Gave useful information and was very patient and helpful.*

*Giving me direction on where to go next on the project and how to complete the current parts of the research.*

*Guided me to a research topic*

*Guided me to research opportunities outside of our university and guided me on academic classwork.*

*Guided the research process*

*Guided us to see where we can find more information as well as what would be the best way to attack things.*

*He gave me lots of information on the program.*

*He gave me resources in my major*

*He helped me to design my research project and has given me direction and suggestions to improve*

*He helped with my proposal as well as signed all the forms I needed.*

*He is always showing me different opportunities outside of our research. He lets me know of opportunities where I could present research and conferences that are happening.*

*He made sure that I was always on schedule in conducting research. I was motivated by him to not procrastinate and work diligently each week.*

*He reassured me that If I was not doing well in my classes that I can put a hold on my research. He is very supportive and understanding*

*He stays in or near the lab available to answer any questions that may arise.*

*He taught principles of a discipline I would've never come in contact with*

*He told me future plans and what steps I should take*

*He walks me through the things I need to do*

*He was always available to answer questions via email if not in person.*

*Helped me start my research and show me other scholarships to apply for.*

*Helped me through capstone and applying for scholarships and REU's as well as letters of recommendation.*

*helped me with my public speaking skill and presenting research*

*In every aspect. She helps me learn and grow not only academically but also personally  
In guiding me and determining how the research project will be conducted next semester.  
Internships.*

*Is helping me to discover future career paths*

*Just starting my research but so far, my experience has been magnificent*

*Let me know about the program and pushed me to stay active.*

*Make sure I completed all studying and assignments on time*

*Meeting once a week with me and also helping me when I have trouble.*

*My mentor was always available and always encouraging us to do everything we can to further  
our research and career opportunities. I could not ask for more from her.*

*My mentor would allow me to ask questions and would answer them to where I understood*

*My research mentor checked in with me consistently as I dealt with health issues and doubts  
about my future.*

*My research mentor gave great advice in helping me overcome some of the challenges and  
issues that I faced in my project.*

*My research mentor gave me opportunities that not only helped build my resume but furthered  
my knowledge and understanding of the topic. She has given me multiple opportunities to  
branch off from her and conduct my own research in reference to the topic.*

*My research mentor has helped me tremendously throughout the year. Not just on research but  
in academics as well.*

*My research mentor is always available. When he is not then he always makes time in the near  
future. He also shows interest in my personal life and does not treat it as strict business.*

*My research mentor is available to communicate concepts and ideas that I have regarding my  
research. As well as assisting me with applications for various research programs to enhance  
my future endeavors for graduate school.*

*My research mentor offered me support and guidance with my research project and with  
graduate school applications.*

*N/A*

*N/A*

*Na just joined*

*Not only does he teach me able the research I am doing and explains why we do everything we  
do in depth, but he also helps me with my class schedule and finding new opportunities in and  
out of the school.*



*offers advice when something goes wrong, gives praise for work being done*

*organize experiments, help with papers and posters*

*[Name of Mentor] helped me improve my skills in architecture modeling and helped me expand my knowledge*

*Recommendation letters*

*Scientific writing, time management, data collection*

*She helped me by being supportive and having patience when I needed extra help*

*She helped me decide what to do my research over*

*She helped me with my abstract and poster for OKLSAMP on her personal time. She also answers and explains any questions I have about the research we conduct.*

*She invited me into the lab and did a great job of introducing me to the field at large.*

*She's encouraged me to do more research and come up with my own project and she's been helping me get out of my shell.*

*Support within the lab and out of the lab. Attends conferences with me when possible.*

*understand the concepts and techniques used in the lab*

*Was able to keep me motivated and confident in what I was experimenting on and making sure that I take mental breaks often so that I do not get burnt out.*

*We had biweekly meeting about my developments and if I needed help with research*

*Writing abstracts, preparing for conferences and supporting with a recommendation letters*

*Yes*

### **How did your research mentor help you? (Spring 2020)**

*always available to answer questions*

*Answered all my questions and provided guidance*

*Answered any questions*

*Applying to Grad School, acquiring patents and publications*

*Assisting in Conference applications, helping with thesis edits, prep for thesis defense*

*broke down concepts and experiments in a way that I understood. Showed me how to access papers to find protocols needed. Just an overall champion for me.*

*Cleared up any of my doubts in the lab*

*[Name of Mentor] helped me with my public speaking skills and taught me how the system of EPG works using insects*

*[Name of Mentor]*

*During 1 on 1 meetings, he helped me figure out a solution to one of the blocks we were having with our project.*

*Edited my papers and provided guidelines and due dates to keep me on track.*

*Encouraging*

*Guidance, Accountability*

*Guidance, support, methodology*

*Guided in use of instruments needed to analyze samples. Helped with writing abstracts and editing poster.*

*Guided me in posters, presentations, and applications*

*He always asks me about my life and we get to discuss any problems I have.*

*He always available for questions and would always point me in the right direction when it came to meetings.*

*He gave guidance in regards to studies and in lab, and taught me many more procedures and such within the lab.*

*He guided me through the research I was doing.*

*He has helped build my confidence and has made me a stronger advocator for myself. He makes me feel welcomed and he makes sure I am learning. I have a lot of freedom, and opportunities to prove how hard I am willing to work.*

*He has helped getting my abstracts ready for different conferences, he routinely checks up on me to make sure I'm doing ok and that the research is coming along well.*

*He has taught me more than lab every could about how things work and why they work the way they do. Not only do I know how to do a lot of the things I perform in lab but I know why I am doing them as well.*

*He helped me come up with some ideas on what kind of research I wanted to conduct.*

*He helped teach me about genetics research.*

*He is always available to help me work through any difficulties I have. He challenges me to further my critical thinking skills through developing new research protocols, optimization and data analysis. He also encourages me to develop new skills that can be used in my future research career, such as learning how to operate new instruments and new lab techniques.*

*He is very encouraging and enthusiastic. Allows me to explore my interests to make my research my own.*

*He made sure I had a project that I was interested in and he helped me learn all the new equipment and methods of experimentation that were required for the project. He got me interested in cancer research.*

*He was always available to answer questions or help with parts of the procedures I was unsure of.*

*He was always providing opportunities for me to further develop my research. These opportunities ranged from conferences, to presentations, and even to relevant research articles. He also continuously checked in on my academic and career goals.*

*He was very kind but open with his expectations of me. His encouragement and understanding of my schedule also helped.*

*Helped me find a research project that I was interested in and that pertained to my major.*

*Helped me find the data, and research question.*

*Helped me keep up with progress and instructed me what to do next.*

*If I have any questions about research, she is there to answer questions. She also is supportive helping me with scholarships, classwork, and others things I may need help with*

*Improve in focusing on the goal*

*Multiple ways, by guiding me to resources.*

*My mentor is very hands on in our lives. She makes sure to help with our research, schooling, and personal lives*

*My mentor not only gave me tips as to how to complete given tasks, but she would help me find all of the necessary resources to ensure success. I have learned so much in my time working under [Name of Mentor].*

*My mentor provided me with instruction and was always available if I needed a question answered.*

*My research mentor gave me topics to explore, strengthened my motivation to complete my project, and gave me amazing opportunities.*

*My research mentor helped my confidence and is helping me begin a proposal for what my research will be about.*

*My research mentor makes up one of my few research support system.*

*My resource mentor was excellent. Answered all my questions and really helped me grow as an autonomous scientist.*

*N/A*

*Provides immense support as well as guidance throughout any project or class.*

*providing constructive criticism on how to improve in research or class*

*She advised me in my research as well as my academic life.*

*She gave me papers to learn more about the projects in the lab. She paired me with a graduate student. I started learning about testing techniques until we were shut down.*

*She gives me guidance in my own research projects, as well as gives me instruction in the group's research project.*

*She has gone above and beyond by checking on me and always helping me with not only research but stuff outside of research too.*

*She helped me improve my responsibility and speaking skills.*

*She helped me properly set up my code and interpret it along with giving me advice on the way I could improve my code.*

*She is always available and is always pushing me to do better/more.*

*She was always available to support me in person, via text, slack, video chat*

*She was crucial to the literature review and research process as well as technique learning*

*Showed me how to use all the instruments and explained in depth the research we are working on.*

*Stay on track and focused*

*Supporting me and giving me advice and resources when I needed help*

*their always making time to help me with my research and are always willing to help*

*They help me identify and work towards my goals*

*They helped me prioritize my time and make a plan for future research.*

*They provided academo guidance outside of research in addition to fostering a comfortable and productive research environment.*

*They provided me with extra opportunities to present my research and experiences that can help me further my education.*

*They were patient and explained the research material to me carefully*

*Through her belief in me and having patience with me knowing this was my first time dealing with our projects*

*Very understanding and patient with me.*

*We began talking about how I would start my own research*

*We had meetings and we just talked about my project.*

*with grad school*

*Words*

*Yes*

**How could your research mentor improve? (Fall 2019)**

*a little more structure*

*Allow more independence within the lab.*

*Be more methodical when explaining the research projects and how they will be done.*

*Be willing to say no to student requests or offer a comprise to be better accommodate his schedule.*

*Being even more involved with students.*

*By being more clear when offering options and direction.*

*By being more hands on*

*Continue to do what they are doing.*

*Guiding me*

*Have weekly meetings or bi-weekly meetings*

*Having better memory*

*Having one would help*

*He can't. He is pretty great.*

*He could be nicer and explain things a bit better. I'm a freshman so I don't have much experience.*

*He could probably get more people*

*He does everything fine*

*He is doing great with helping developing my research knowledge and ability*

*How could your research mentor improve?*

*I don't know*

*i don't know*

*I really can't think of anything. She's the most supportive person I've ever met.*

*I think he could improve by being more clear on what he wants us to be doing. It is sometimes hard to tell if he likes what we are doing or would like us to improve.*

*I think he is doing great. I do not have any critiques.*

*I'm doing biochemistry research but don't have many biochemistry tools*

*More in depth knowledge given about what was going on with my research.*

*More individual meetings*

*More specific instruction*

*More time for help.*

*My mentor is excellent.*

*My research mentor does not need to improve anything.*

*N/A*

*N/A*

*N/A*

*n/a*

*N/A*

*N/A*

*N/A*

*N/A*

*N/A*

*NA*

*Na just joined*

*No comment.*

*Nothing*

*Nothing comes to mind.*

*Nothing I can think of*

*Provide more information and guidelines.*

*Quicker responses*

*Send out a calandre of events.*

*She is great right now*

*She's just very busy, but I believe we're starting to hit a stride with working together. I haven't been able to get as much done this semester as I would have liked because I'm dependent on her to start stuff, but once I can be more independent I believe all will be well.*

*Talk more*

*There is not much I can think of for improvement. Most of our meetings were just to go over the goals of the project.*

*There isn't anything I would improve.*

*They did really good*

*they help me in the most amazing and useful way so i don't think they need to improve as i haven't had any problems*

*They just assumed a larger role as the chair of our department so maybe additional mentors might lighten their work load somewhat.*

*Weekly meetings*

**How could your research mentor improve? (Spring 2020)**

*Availability.*

*Be a bit more hands on?*

*Being in the lab with students more often.*

*He could help make me more comfortable talking with the correct jargon*

*He could improve by optimizing the work schedule to balance the weight of the workload. A lot of the tasks are last minute with short deadlines.*

*He couldn't.*

*He seems to be balancing many different things, but possibly having more one-on-ones. The weekly meetings also seemed to be repetitive at times.*

*He was great. There is nothing more I can ask for*

*Help give me a mini project to work with. Give me more ways to practice outside of the lab.*

*Help with the literature review more*

*He's fine how he is*

*He's great*

*Honestly, he needs to learn to say no. He fills his book up because he doesn't know how to say no.*

*I am not sure. My research mentor is doing good so far.*

*I could hit deadlines better and be better at managing my time*

*I don't know, she is great.*

*I don't really have anything to include here, he has been very patient and supportive the entire time.*

*I feel like he could be more active online*

*I have no complaints or advise, I believe my mentor does a very good job.*

*I think he is doing a fine job helping me. Sometimes when I want to meet with him, he is busy with his other classes or has an appointment with a student. He can improve in having more time with me and my research.*

*I think they did a great job.*

*I wish I had more one on one time to meet and ask her questions about our field. But I think that is more on my fault due to business*

*I wish we had more Professors and mentors like [Name of Mentor]. She is welcoming, patient, great sense of humor, she challenges me in a positive way that makes me not want to disappoint here. She gives her best which makes me give my best.*

*Improve handwriting.*

*Is a little passive aggressive*

*Maybe email me back sooner.*



*Maybe setting up meetings a specific amount of times a semester, but they were always around when I needed them!*

*Minimize work load.*

*More clear in how to apply research methods.*

*More hands on work.*

*My mentor is too awesome*

*My research mentor could put more time than he already does into research.*

*My research mentor could reach out to me more.*

*N/A*

*N/A*

*N/A*

*N/A*

*N/A*

*n/a*

*n/a*

*n/a*

*N/A*

*N/A*

*N/A*

*N/A*

*N/A*

*N/A*

*NA*

*No way I can think of.*

*Nothing*

*Nothing I can think of*

*Pay a little more attention to the details of my project.*

*Probably, just be able to keep me more accountable*

*Push our creativity a little more.*

*She's fantastic and an awesome to be around*

*The only thing is giving more time for meetings, but he is very busy with many other projects so it is not a crucial thing to improve.*

*There's really not any more she could do. She absolutely an excellent mentor!*

*They are already great.*

## **Appendix 4: Scholar Responses About Graduate School Preparation**

### **What kind of help did you receive in order to prepare for the GRE? (Fall 2019)**

*A voucher for online test prep.*

*Advice*

*Advice and help finding preparation materials.*

*course for the gre*

*Flashcards and study/practice books*

*GRE advice and strategies*

*GRE course*

*I received websites and advice.*

*Information and study tips*

*NA*

*Online math preparation course*

*prep courses*

*Study package*

*Studying tips*

*There told me about the practice exams and other information that I did not have knowledge prior to my meetings with OK-LSAMP*

*They offered to pay for an online course.*

*Was given test prep course.*

### **What kind of help did you receive in order to prepare for the GRE? (Spring 2020)**

*A prep course*

*A seminar, resources, and information regarding this.*

*Advice, preparation tips, access to practice test*

*financial*

*financial*

*Financial*

*Financial Support*

*Funding for a class.*

*GRE prep*

*GRE Prep Workshop and Prep Online Course*

*Help*

*How to study/apply*

*I am participating in an online GRE prep course*

*informed me about GRE prep courses*

*Magoosh*

*Materials*

*online class*

*online course*

*Online math review class*

*Optional Prep Course*

*PHD Camp*

*PhD camp*

*Practice test*

*Practice test*

*Preparing for PHD camp*

*Signed up for a course through CVTech*

*Study course material*

*Study websites*

*Websites*

## Appendix 5: Scholar Responses About Support in Seven Areas

### What can be improved in the areas of academic, professional development, and social support, staff availability, opportunity to work with other undergraduate research programs on your campus, opportunity to work with STEM organizations, and interactions with other students in the program? (Fall 2019)

*A lot of the meetings I didn't really think applied to me. I think it would be cool if some of the meetings were geared to help get to know the other scholars and give more opportunities to help us study together. I know I have a lot of similar classes with a lot of the scholars*

*Dissemination of information about the program, and research opportunities once in the program, also the late registration for the symposium*

*Doing more team building activities within the program so that we can better build those relationships with others in the program.*

*Everything is fine*

*Everything is great!*

*Flexibility*

*Follow up about meetings,*

*Food*

*for more presence within students, having ambassadors that present to orgs and clubs could increase the number of students that know about oklsamp and participate*

*Have a permanent room to study or talk to other students.*

*Having more events that bring students together twice a year.*

*I had a great time. I thought it was in a rather expensive side of town though. Maybe have it in an area with option for not so expensive to eat, etc.*

*I just got my LSAMP application approved a month ago, but will look to be involved with everything it lists in the coming months.*

*I think possibly doing more collaborative meetings with established STEM organizations on campus. Also possibly letting scholars talk about their own research and share some of their story.*

*I think the times of the meetings maybe can change. I can never make any of the meetings due to class or my lab activities.*

*I would like to have a meeting once a semester where everyone in LSAMP meets each other.*

*I'm happy with how the program is run*

*I've only been an OK-LSAMP recipient for a number of months, and thus far, I have no complaints. However, it may be more beneficial to somehow be connected with other OK-LSAMP scholars on my campus (I don't know of any others).*

*Interaction between students.*

*Interactions with other students in the program.*

*It is a grsat program and so many opportunities to be involved in things I am interested in doing with my life with students that have the same interests. I am a student athlete on my campus and unfortunately that means I am not able to do all of the events and seminars and things incorporated with OK-LSamp. That is the only thing that I have been upset about but it isn't really something that can be fixed.*

*just being able to have more staff would help*

*Maybe set up some more grad school help stuff. Such as just how to apply, when to apply, what to study, etc. Other than that I think this is a great program that really helps people learn about research and get experience through REU's and internships.*

*More about graduate programs*

*More advertising*

*More campus recruitment*

*More Campus Recruitment*

*More conferences or opportunities to present.*

*More meeting throughout the semester. Maybe with some more hands on activities*

*More options for us to be able to do internships. Maybe internship placing for the lsamp scholars  
more social activities for us to be able to connect with our peers and really get to know each other because we don't that by just attending monthly meetings*

*More workshops to meet the people in the program*

*N/A*

*N/A*

*N/A*

*N/a*

*N/A*

*N/A*

*NA*

*Nothing*

*Nothing I can think of.*

*Set up meet and greets for OK-LSAMP students at our institutions.*

*Since the administration of the [Name of Institution] has decided to cut many programs, the OK-LSAMP program became houseless. I hope there is a possibility to give an office or some sort of campus directory to this program rather than a mouth to mouth thing that has been done.*

*The available opportunities to acquire a stipend*

*The communication of this program to eligible participants.*

*The connections between students in the program and professors who want to increase participation from students in UG Research.*

*The distribution of the research checks. It is nearly the end of the fall semester and I still have not received my first check.*

*The program is pretty great already!*

*The program will become more developed as it matures.*

*There needs to be better communication. Information is always missed. People are often forgotten that they're in the program. The lack of communication is the main issue. No one is ever available.*

*There's always room for improvement. Nothing is perfect, so don't stress yourself out with achieving perfection.*

*What can be improved?*

*Yes*

**What can be improved in the areas of academic, professional development, and social support, staff availability, opportunity to work with other undergraduate research programs on your campus, opportunity to work with STEM organizations, and interactions with other students in the program? (Spring 2020)**

*Additional support in finding mentors, and research opportunities on campus.*

*Communication to new members. Maybe have a orientation so they know what is expected of them*

*Emails and communication*

*Everything is fine.*

*Everything was good so far! No complaints*

*Have a google calendar*

*Have one-on-one meetings with students more regularly. Not optional*

*I believe that it was hard to find times when there was someone who was on campus that we could speak to directly. We had to schedule meetings and then commute to south campus to meet with staff. I also think coprogramming meetings with other organizations would be a great way to have more interactions between students. It would also be a great opportunity for recruitment.*

*I got accepted into OK-LSAMP right before COVID-19 outbreak. I had a meeting with the coordinator that went really well and haven't been able to start research. Everything is good so far. I am getting the*

*wheels turning with the professor I will be doing research with and am joining in on zoom calls for OK-LSAMP.*

*I wish I could tutor for the stipend again that was very efficacious for my ability to explain academic processes*

*I would love the opportunity to interact with fellow OK-LSAMP scholars. This will allow a better exchange of ideas and encourage tolerance.*

*I've never met any of the other student in the program at my school. Maybe having a social the beginning of the semester on each campus could improve this.*

*Make this program better known to others by using, for example, social media platforms.*

*More communication and assistance from staff on questions scholars may have...*

*More field focus activities*

*More Financial support for undergraduate & graduate programs.*

*More interaction with other OK-LSAMP Scholars!*

*N/A*

*n/a*

*n/a*

*N/A*

*Not much comes to mind*

*Not Much. I have enjoyed the program!*

*Nothing*

*Nothing*

*Nothing, they put in the effort and do well*

*Possibly OK-LSAMP tutors that could be made available*

*Requirements for Native participants. Lots of people claiming to be Native but aren't ...*

*Sometimes my emails would go unread or the faculty would take a while to respond*

*Tutoring for LSAMP hours*

*We need another Bridge to Doctorate*

*You could get us the money at the start of the semester, when we need it most, or just increase the amount.*

## **Appendix 6: Scholar Responses About Preparing for Higher Education (PHD) Camp**

### **Do you have any suggestions for the PHD Camp? (Spring 2020)**

*A wider variety of speakers from all STEM disciplines would be helpful.*

*Have a personal writing activity*

*Just keep doing them*

*More one to one mentorship*

*More specific examples in the cover letter writing seminar*

*More time*

*N/A*

*No*

*Possibly make it longer and not so rushed. More sessions to choose from.*

*Since it is about prepping for graduate school, it would be beneficial for students who are thinking about medical school to be informed about the MCAT, not just the GRE.*

*Split it up into more days, there were workshops that I would have liked to sit in that were held at the same time.*

*spread out the talk more since it was hard to keep paying attention to the talks after hearing so many of them*

### **Any other comments about the PHD Camp? (Spring 2020)**

*Felt long and seminars felt only ankle deep and not overly informative- however, I am a senior and have heard some of these things before. Maybe a sophomore or junior might get more out of it, but I felt that many things were nothing I hadn't heard before.*

*Great experience*

*I found the ending panel to be the most interesting/beneficial.*

*It could of been longer*

*It was a great way to get to know other researchers/faculty in the OKLSAMP program*

*Make it longer*

*N/A*

*The PHD camp may be better placed around the time of the OKLSAMP symposium. This way, the tools provided at the camp are still fresh as we prepare to apply to graduate school. The camp can also shape which summer internships students apply to and how they interact with their mentors during and after the internship.*



## **Appendix 7: Scholar Responses About Program Strengths, Weaknesses, Recommended Changes, and Final Comments**

### **What are the strengths of the OK-LSAMP program? (Fall 2019)**

*A good scholarship.*

*Ability to mentor and help students in a way that traditionally students wouldn't receive through university councilors or professors without a program like this.*

*Aid to students looking to do research and enter grad school.*

*All of the opportunities they give us. Annual meetings for networking, the emails about internships, the financial support. It's all amazing.*

*all the resources and having a person you can go to with questions*

*By encouraging you to apply to 5+ internships you are much more likely to get one.*

*[Name of Program Manager] is a great strength of OK-LSAMP because she is a great person to talk and open up to.*

*Can't say there are any yet.*

*Connections*

*Connections and communication*

*Doing internships helps you learn more about research and prepares you for Capstone"*

*Enabling students to work in a laboratory alongside their professor or other students at even the sophomore or junior level.*

*Encouraging me to do better than I've already doing because I am capable*

*Exposes students to the realm of research and encourages students to get involved.*

*Financial support*

*Financial support and programs such as GRE assistance really helps. Also being able to attend international internships are a great learning experience.*

*Financial, informational, research driven, tons of experience presenting and traveling to present, and encouragement when you need that uplifting hand to say you can do it.*

*getting to meet other students interested in research and the support of [Name of Staff Member]*

*Giving students experience they would otherwise not be exposed to*

*Good communication with scholars. Keeps up with them and encourages them*

*good exposure*

*Good on resume*

*Great community. [Name of Campus Manager] is so welcoming and supportive. The program is so supportive and encouraging.*

*I don't know much about the program because I have just become a member.*

*I had multiple opportunities to meet other scholars and receive much needed support.*

*It brings other minorities in STEM together in a common place and allows us to meet others with similar interests or backgrounds.*

*It encourages students to get into research*

*It exposes you to other parts of science.*

*It gives you an opportunity to be involved and to completely understand why certain things are done in the lab.*

*It helps students from minority backgrounds, and can potentially provide a good research experience, and further their knowledge by going to graduate school.*

*it is a good at guiding you in the right path and giving you opportunities*

*It is a great opportunity to learn more about what the future could possess. I think it is a very structure program that really allows each participant to get what they want to get out of the program.*

*It offers wonderful financial and scientific opportunities to minority students*

*It pushed me to do things I would not have done otherwise.*

*Letting people know that graduate school is feasible.*

*Lots opportunities for internships*

*Many opportunities*

*Networking*

*Networking opportunities*

*OK-LSAMP offers an open community where I can freely voice any issues that I need help with. Additionally, there are many people and resources that OK-LSAMP has that will help me succeed as a researcher and an aspiring graduate student.*

*OK-LSAMP provided information about internships and scholarship that you would not have gotten elsewhere.*

*Opportunities for OK-LSAMP members*

*Opportunities.*

*Promotes diversity and unity in STEM by providing amazing opportunities for professional and academic growth*

*Provides students who wouldn't otherwise have the opportunity to be a part of something important and build them up in their education.*

*Providing a lot of guidance on how to be successful, creating connections between students and faculty*

*Providing essential resources.*

*Providing research opportunities and resources*

*Research experience, financial support.*

*Research opportunities.*

*Research outreach, unlimited resources, and availability of OK-LSAMP mentors*

*Research support*

*Scholarship money, experience in research*

*stipend, possible networking*

*Strong support for members and faculty*

*Support is always there*

*The family atmosphere*

*The financial assistance for participation*

*The financial help along with great mentors*

*The funded study abroad programs*

*The funding to go to conferences*

*The good information that they provide their scholars. Also, the opportunities that are allotted to their scholars.*

*The great leadership behind the OK-LSAMP program, as well as the background of the directors. More importantly, the enthusiasm to share professional development, research opportunities and more .*

*The Lego graphic that is used to rank how LSAMP helped my academic career! But also the resources offered to all students and helpfulness of the program coordinators.*

*The main strengths of the program are the connections that are available to students in regards to research and help with applying/finding grad schools*

*the meetings*

*The mentors used to help*

*The monetary support, sense of community, and networking opportunities are definitely the greatest strengths of the program.*

*"The money is extremely helpful (even though it comes in AFTER the semester...)*

*The people are very nice and encourage you to do research.*

*They prioritize minorities such as myself and women when selecting REU candidates.*

*The networking and other professional opportunities.*

*the offer so many resources to better ourselves*

*The OK-LSAMP program gives undergraduates an opportunity to perform research and to present over their research which strengthens their graduate school applications.*

*The opportunities it offers.*

*The personal contact and staff. Having scholars of all backgrounds and interests.*

*The research helps when applying to graduate programs*

*The resources and opportunities it provides its members.*

*The stipend.*

*The strengths are everything the program offers! The community, resources, and support.*

*The strengths of the program are the available assets available to scholars as well as the socialization it brings with people in like-minded studies.*

*the support it provides for students when they need it*

*The symposium helped me become more comfortable with presenting and professional conferences*

*There are so many opportunities that are offered! This is a great program for students.*

*They give me the opportunity to be able to do research as an undergraduate and they encourage to further my education past a bachelor's degree.*

*They give students so many opportunities and are always willing to help you achieve your goals.*

*They helped me expand my knowledge and break out of my barriers. They helped me become more confident in myself and in what I am capable of. They gave me resources that I believe that no other program could give.*

*They keep us very informed.*

*This program has made me realize that I can go to grad school and get my PhD. I don't think I was confident about that until I went to the annual symposium and met students like me, that don't have their whole family in this country and struggle the same as me. This program is amazing.*

*Togetherness and someone is always there*

*Well organized, love the students, have good meetings, very informative, help students with finding research opportunities*

*You have a community of other people who are there to help you overcome similar hurdles in regards to stepping into our field of choice*

### **What are the strengths of the OK-LSAMP program? (Spring 2020)**

*A lot of opportunities*

*Allows you to meet other minorities with similar goals to your own, creating a network.*

*alot of opportunities to network and learn about other peoples experiences as well as grad school/research opportunities*

*Career builder*

*Community and support*

*Definitely the research opportunitys which make it easier to find*

*financial assistance*

*financial help*

*Financial Support, Workshops, Mentorships, and great connections*

*Gets undergrads exposure to work in a lab.*

*good support system and creates a community among the group of students scholars*

*great environment*

*Great resources, support, information is distilled clearly and effectively.*

*Great support networks and plenty of events*

*Having a lot of good information about research and grad school*

*Helping kids pay for college.*

*helping minorities to participate in STEM*

*Helps me push myself to be a better student.*

*I believe it helps encourage minorities to apply to STEM related fields and gives them the assistance to achieve their goals.*

*Is great at presenting boundless opportunity to those who seek it.*

*it brings together many disciplines in the STEM field and gives young minority scientists the opportunity to feel a sense of community*

*It helps build up our confidence and gives us opportunities to become better researchers.*

*It is a great program!*

*It provides support that may have otherwise been unavailable to certain individuals while fostering an environment very conducive to professional and academic advancement.*

*It's been nice to be around other STEM majors of color that are conducting research too. The older students are kind and willing to help younger students. Everybody is just very kind and helpful.*

*Money, internships, connections*

*Offering resources to succeed and engage/participate in other scholarly groups*

*OK-LSAMP really helps poor students who are pursuing degrees in STEM succeed. I'm a single mom and instead of going to get an extra job I was able to conduct my research and get paid through OK-LSAMP and that has made all the difference.*

*Our new campus managers are working hard to make sure we actually benefit from being apart of this program. The program also offers opportunities to network, gain research experience, and attend REU's.*

*Reaching minorities.*

*Research opportunities*

*research stipend*

*Scholarship*

*Strengths of OK-LSAMP are topics of discussion, email notifications about scholarships and internships*

*Team building, career exploration, helping you with decisions for your future, financial support, moral support, providing a safe place.*

*The ability to give students the opportunities to show their academic value*

*The administrative staff and resources provided.*

*The amazing guidance I've received*

*The communication*

*The faculty is awesome*

*The people*

*The support*

*There are program managers who are very supportive and are passionate to guide their students forward. Having that type of environment is encouraging and reassuring for me as a student who just entered the program.*

*they are able to guide you in the math to graduate school and offer a lot of opportunities to make going to graduate school easier.*

*They expose you to things you may not have thought to do before, such as a research project.*

*They give minorities the opportunity to do research and possibly enter them into a career that they are passionate about. Work experience*

*This program wants to help students like me so much; I think that is important because most of us need that guidance and help.*

*Unique opportunities to travel and attend national conferences, research and career development, ability to meet and network with other like minded individuals*

*Wonderful mentors and financing opportunities as well as great networking*

*you're good at communication*

**What are the weaknesses of the OK-LSAMP program? (Fall 2019)**

*A lot of the school faculty are not well aware of the program which can make it hard to find a mentor.*

*Being able to connect to other students and have meaningful relationships.*

*Business etiquette*

*Communication*

*Communication*

*Concentrates too much on the future and not the present.*

*Could maybe use more meetings*

*Flexibility*

*How it is structured could be better as far as organization.*

*I can't really say that my problem is with the LSAMP program, but just the way it is run at my university. Our program manager put in minimal effort in running our program so we never had meetings and never really knew what was going on in the program. It was stagnant and gaining no new members. But we recently just appointed a new campus manager for the program, so hopefully things will be better next semester.*

*I don't know much about the program because I have just become a member.*

*I don't see any weaknesses*

*I have not been in the program long enough to experience any weaknesses of the program*

*I haven't identified any, yet.*

*I haven't particularly been let down by LSAMP at any point, so I dare say I haven't encountered any weaknesses.*

*I think the main weakness is its ability to share information about the program and its benefits to students around campus and incoming freshman.*

*I think the program is not very well known for how awesome it is.*

*I want to interact with the officials more often.*

*I wish there was more set or formal way to have 1-1 meetings*

*Information about what all the program offers.*

*Information sharing*

*It may not offer as many graduate school opportunities as expected*

*Lack of communication to scholars.*

*Lack of known internship opportunities just for us*

*Meetings sometimes aren't very interesting or beneficial*

*More food*

*N/A*

*n/a*

*N/A*

*N/A*



*N/a*

*N/A*

*N/A*

*N/A*

*n/a*

*NA*

*Na*

*No BD next year*

*No presence in the [Name of City] Campus*

*No weaknesses*

*not a lot of community*

*Not advertised enough to students.*

*Not any that i can think of.*

*not as many opportunities to meet with others in the program*

*Not enough meetings*

*Not enough outreach.*

*Not much of a coalition, seems very fractured; not many members apart of the program are even present in meetings.*

*Nothing*

*nothing*

*Nothing*

*Nothing I can think of*

*Nothing that I can think of.*

*One weakness would be the lack of guidance when it comes to finding a research professor. Each participant is just kinda told to ask a professor that they like and that is about it.*

*[Name of Institution] specifically: the lack of structure.*

*Perhaps too large but I understand it is better to help a larger number of people.*

*Recruitment*

*Schedule conflicts.*

*Some people don't attend meetings even though they are mandatory, meeting times may not work in schedules well.*

*Spread out.*

*still young*

*Team building exercises - I barely know the names of the other scholars.*

*The lack of communication with eligible participants could be benefiting from this program. An earlier introduction to this program could have provided countless opportunities for me to advance my academic career.*

*The meetings conflict with student schedules and notes from each aren't provided for those who couldn't make it.*

*The money comes in very late and the amount is based on the amount of research you've done THAT YEAR. So if you had done an REU the past 3 years straight and presented, but couldn't this year because of personal problems, your stipend would be reduced. Even if you're still interested in research and going to grad school, which I believe is the entire point of the program.*

*The money system seems difficult to use. It was confusing at first and then realizing all the points that I needed to score, it seemed there was a lot of quantity over quality.*

*The overall program tends to tailor towards native americans but forgets they work for other minorities as well*

*The program is not as strict.*

*The program is slightly disorganized on a statewide level. It is almost the end of the Fall semester and my institution still has not received any of our funding, so none of us scholars have gotten our research checks, which some of us have been counting on.*

*There are a lot of scheduling conflicts. However, this program is great.*

*There has been a lack of guidance up until recently when we got new program directors.*

*There's not as much information about grad school*

*Topic discussions during group meetings*

*Very graduate school minded. I would like to participate more but I know for sure I don't want to go to graduate school and a lot of events were geared towards research*

*When working on projects alone, it is easy to get lost in what is going on.*

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

*A weakness would be not communicating with its members.*

*Campus coordinators do not always have very many answers and don't seem to get them...*

*Can't think of any*

*Communication to participants*

*Don't explain them well. I don't even know half of them*

*Dont know any*

*I believe it lacks some structure to it. There are times when I do not understand what I am supposed to be doing.*

*I can not think of any weaknesses.*

*I did not know hardly any information about the research side of the program until my last year in it.*

*I only know one person in the program and I think that screening should be more rigorous. I know of someone in the program who is not a minority but claims to be one so that he gets financial help.*

*I think that sometimes either other scholars can't make it to meetings which could help them.*

*I was a bit confused on how to get started but it was quickly sorted out once I asked.*

*In a smaller departments it is easier to go unnoticed*

*Individual campus management*

*Is not so great at helping people who are confused about what they want to do for the rest of their life, do research on, etc.*

*it doesn't highlight the need for more research geared graduates over professional track students*

*Less state-wide meetings*

*N/A*

*n/a*

*Na*

*NA*

*Needs to help freshman and newcomers an easier path to securing a mentor*

*Newsletter emails are not the easiest to read or search through.*

*No weaknesses*

*None*

*none*

*None*

*None*

*None so far*

*None that I know of.*

*Not as helpful for students who have decided against graduate school*

*Not enough money, hard to get an internship at any non OK-LSAMP program, hurts to lose money because you didn't get accepted to an internship*

*not structured yet, just needs time to become more organized and whatnot.*

*Not that much interaction between students*

*notas many people know about it*

*Nothing*

*Nothing.*

*Outreach to smaller schools*

*Reaching out to the community because some people see research as out of reach or not for them*

*recruiting maybe table at the student union or welcome week*

*Scheduling conflicts*

*Small size*

*Sometimes I feel disconnected on my campus. I have no idea who the other OK-LSAMP scholars are and I'd like to have connections and discuss research with them. Also, I have very little contact with my campus advisor and don't find out about some opportunities until later. We've had problems with students claiming that they are Native (when they are not) and receiving money through OK-LSAMP scholarships. The institution should ask for copies of CDIB cards or verification of membership of a tribe to avoid this problem. Thanks for all that you do and I wouldn't be where I am today without OK-LSAMP.*

*the format of the program was a little confusing*

*The need to feel like your doing something important can be overbearing at times.*

*The times of the OK-LSAMP meetings, because I was not able, make it due to schedule conflicts*

*There is not enough personal communication. I believe seniors especially need guidance sometimes. So just more one-on-one is needed.*

*This was a transition year, so some things were covered later than would be ideal, but overall the new management is amazing.*

*too many mandatory seminars, i'm busy*

**If you could make changes to the OK-LSAMP program, what would those changes be?  
(Fall 2019)**

*Add a bit more pressure on the students.*

*Add a [Name of City] branch*

*Advertise the program more. Especially to incoming freshmen.*

*Bring in a public health guest speaker for one of the OK-LSAMP group meetings.*

*Edit the point values and encourage more research aspects other than presenting work.*

*Emphasize grad school and symposiums*

*Food*

*Get a BD grant back*

*have a space for studying*

*Haven't been in it long enough to notice anything*

*helping new members find mentors.*

*honestly adding food to meetings would do so much*

*I didn't know of the program until about halfway through the fall semester of my junior year.  
Information about the program should be advertised more on campus.*

*I don't know much about the program because I have just become a member.*

*I think it would be interesting to have more interaction with OK-LSAMP members outside of research symposiums.*

*I think if there was a designated social media or marketing person in charge of spreading word of the program, it would have many more students participating. Also, a video or presentation from other students in the program telling about the many opportunities would be helpful so that it's importance can be stressed and communicated to students who might be interested.*

*I would change it up completely. If I had the ability to make changes at a level like OK-LSAMP, then why not.*

*I would have more individual meetings, concentrate on how to better the present so we can get to those future internships and other programs.*

*I would like more communication and information on internships and other similar opportunities.*

*I would want to meet with the scholars more frequently and help guide them into research.*

*Increase funding to have a full time program leader.*

*Increase the participation of the program manager in student activities and meetings.*

*Just finding more ways to spread information about the fact that this program exists.*

*Just to communicate more throughout the semester about opportunities.*

*Make it more well known so that we can build up a community of researchers*

*Making itself known to faculty and staff that are on campus more widespread.*

*Maybe do group activities or socializing meetings so we can interact with our peers and learn from them*

*Mentor availability.*

*More events for all the scholars to get together and spend time. Not so much pressure to travel and show research. Although I understand some people need to be pushed to travel and present*

*More flexibility*

*More on campus activities*

*More outreach*

*More physical interaction would be great.*

*More team building.*

*move the fall symposium to a later date*

*N/A*

*N/A*

*n/a*

*N/A*

*N/A*

*N/A*

*N/A*

*N/A*

*n/a*

*NA*

*No*

*No comment.*

*none*

*None*

*none right now*

*Not any that I can think of at the moment.*

*Not qualified to answer this question.*

*nothing*

*Nothing*

*nothing*

*partnered research*

*Possible collaboration with other LSAMP universities outside Oklahoma.*

*Scheduling more individual meetings.*

*Similar to college class enrollment. A mandatory, set on schedule way to reach out to the Directors of OK-LSAMP*

*To allow proper communication among scholars as well as making sure they can connect with each other.*

*Try to give the money out halfway through the semester or at least before finals. Base the money on how much research and presentations the students have done overall, not just that semester or summer. Advertise more. I am the only [Name of Tribe] tribal native who has known about this program, and have told many people about it. I am responsible for 3 other additions to the program in the past two years. I have also talked to the head of Higher Education dept. at the [Name of tribe] tribe about encouraging students who go to colleges that support LSAMP because he, and many others, have never heard about it. It feels like almost no one knows about research and REU's in general. If I had never happened to see a random post about a Native only REU at my college 4 years ago, I'd have never been*

*introduced to this and neither would have my other friend who has completely changed his major and future career to a career in research along with interest in grad school.*

*We need more interaction.*

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

*Add a subtle McNair element to the program where seniors get different topics in the fall in preparation for grad application, and having juniors start getting materials ready in spring before applications. Also providing REU info in fall for Juniors.*

*Add an [Name of Institution] Office*

*Be able to tutor for the stipend*

*better office locations*

*Differing meeting times alongside multiple meetings, so those unable to attend one for a regular schedule could attend an alternative*

*explain the grad school process a bit more (the Ph.D. camp might have done it)*

*Get another BD*

*Get our money sooner, possibly a little more baseline because not everyone can afford to leave home for months for an internship and not everyone can do research on top of their classes/jobs*

*Have a constant list of professors at the University looking for undergrads to work in their lab*

*Have more opportunities for pre-med*

*have more opportunities to meet others in the program*

*Helping increase the number of students that know about the program and can be benefitted as much as I have by this program!*

*I like the idea of zoom meeting for the campus and for the whole state to just talk and get to know one another*

*I think I would just make as many opportunities to present and grow. This is already being implimented for the most part but just to reinforce it and push to make as many opportunities as possible.*

*I think this is an exceptional program and I am proud to be a part of it.*

*I would begin an outreach program to bring encouragement to high school and college freshman students. Many of us would have love to begin early if we just had known about this .*

*I would have other genuine representatives come to campus to interact with fellow scholars.*



*I would like it if they talked about different types of graduate schools and not just about research schools.*

*I would like to meet more people.*

*I would not change anything.*

*I would not make changes.*

*I would want to increase the student to student interactions mainly.*

*I wouldn't make any as of now*

*I'm not entirely sure, maybe have the speaker recorded for those who wanted to attend but couldn't.*

*It would be that the program bring in speakers, or arrange visits with successful program professionals  
less seminars*

*Many graduate advisors press the systematic model of finding your place in graduate school and beyond but don't service well those who experience dissonance with that model.*

*maybe not make research presentations a requirement until after the first semester of doing research.*

*Maybe talk a little more about MD/PhD opportunities.*

*Mentorship program. Students placed with mentor.*

*Mentorship with other OK-LSAMP students. A student student mentorship*

*More communication about internships for scholars not in hard sciences such as Actuarial Science, which is more closely related to insurance, not research.*

*More engineering opportunities.*

*More overalls meeting for scholars to network*

*More promotion*

*More support in small departments*

*N/A*

*N/A*

*n/a*

*N/A*

*N/A*

N/A

Na

Na

NA

No changes

None

None

None

nothing

*Outreach to freshman to upperclass high school as well as technical/community colleges for the next OK-LSAMP scholar. Allocate fund for more scholars to benefit from undergrad research.*

*Promote the program better.*

*Provide food at the group meetings.*

*Quicker icebreakers*

*The newsletter would be separated into different sub sections.*

*They should work on uniting the program from within. I want to know more scholars and the research they are doing as well.*

**Any other final comments? (Fall 2019)**

*[Name of Mentor] is an amazing mentor and advisor for the OK-LSAMP program.*

*Grateful to be a part of the program but I wish my local ok-lsamp group met more often.*

*Great program but should be advertised more to student looking to go to graduate school.*

*I am lucky to be part of this program and I appreciate every moment*

*I am proud of being an OK-LSAMP Scholar!*

*I believe research is a good thing, and more students should be told about these amazing opportunities.*

*I look forward to growing as a student through this program and helping my fellow students along their path as well. I am grateful for this opportunity.*

*I really appreciate being a member of OK-LSAMP. It has been a great experience so far to be a member of a group of like minded and research focused students. I look forward to continuing my time in OK-LSAMP as well as using all the resources I have at my disposal.*

*I'm still new to the program so I have not experienced any downsides of the program. The program looks very promising and I'm glad to be part of it!*

*N/A*

*N/A*

*N/A*

*N/a*

*n/a*

*n/a*

*NA*

*no*

*no*

*No*

*No.*

*None*

*Nope*

*Not at the moment*

*thank you for allowing me to be a part of this program :)*

*Thank you for this opportunity.*

*Thank you!*

*This is an amazing program and I am so thankful to be a part of. I hope that more students join and each one finds his or her place for research, grad school, or anything else that may help them succeed in the future. A special thanks to [Names of Program Manager and Grant Coordinator]. They do an amazing job running this program and I, and many others, are VERY thankful to have them as the leaders of this program.*

*This program is great! I love being a part of it and the opportunity it gives to students, especially those who want to pursue a career in research*

**Any other final comments? (Spring 2020)**

*Great program, I look forward to changing the world with the support of OK-LSAMP.*

*I am glad to be a part of this program. I know they are a resource I can always turn to if I need any help.*

*I am so lucky that I am a scholar in this program and am extremely grateful. Thank you!*

*I had medical difficulties in the fall causing me to withdraw from classes. I was supported during my leave and made to feel normal when I came back in the spring. I am incredibly grateful for the kindness I've received from the program. The changes made this year have all been for the better. I am very grateful for this program.*

*I have extremely enjoyed being in OK-LSAMP and am excited to continue my journey.*

*I have loved my time in the program and couldn't be more satisfied*

*I'm a [Name of Institution] student, not sure if this was for all students or just other [Name of Different Institution] students*

*Keep doing this hard work. Science is a field that brings a constant passion solve a problem. The talent is out there , this alliance has enable me and will also help others to continue their inner child passion for discovery.*

*less seminars*

*Love [Campus Program Managers]!!!*

*N/A*

*N/A*

*N/A*

*N/A*

*N-A*

*No*

*No I do not have any*

*No.*

*none*

*None*

*Nope*

*Nope!*

*Thank you*

*Thank you for this opportunity to continue to learn and thank you for the encouragement to keep going.*

*Thanks, OK-LSAMP for the best four years and helping me grow to the person I am today!*

*The [Name of Institution] OK-LSAMP program managers are amazing people that I know I can always approach.*

*While I know most people in this program are in sciences such as chemistry and biology I am in the to [Name of Program]. This does not present with many internship options until you are at least a senior; I looked for one and interviewed at a few, but as I am a sophomore, no company wanted to hire me.*

*Without OKLSAMP I would not be looking into the path that I am currently. This program has gone beyond supporting me financially or professionally. I think OK-LSAMP is one of the best [Name of Institution] research based programs and I will continue sharing these amazing experiences with my peers. Thank you [Campus Program Managers]*

*Would be really nice if you guys could send us our money sooner than usual due to this coronavirus thing. I know it normally takes yall months after finals to send it but it would be REEEALLLY helpful if we could get it ASAP. Most students I know are not receiving stimulus stipends.*

## Appendix 8: 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 2019 and Spring 2020 survey. They are also included below; however, the results are reported by the researcher, not in this evaluation.

### Fall 2019

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

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
- 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)

Did you transfer from another institution?

Yes

No

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

Please rate your OK-LSAMP experiences with the following?

	Excellent	Good	Okay	Fair	Poor	Not Applicable
Academic support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional development support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity to work with other undergraduate research programs on your campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity to work with STEM organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interactions with other students in the program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What can be improved?

Did you conduct research during Fall 2019?

Yes

No

Please respond to these statements regarding your research experience.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I don't have many friends in my research lab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable doing research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My research mentor makes me feel wanted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I am an important member of the research team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I were not part of the research project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am disliked by other student researchers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I am part of the research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am committed to the research project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am supported in my research tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am accepted in the research lab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you have an OK-LSAMP research mentor?

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

How many times did you meet individually with your research mentor during the Fall 2019 semester?

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 Fall 2019?

Yes

No, but I know who the campus program manager is

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

How many times did you attend OK-LSAMP group meetings at your institution in the Fall 2019 semester?

0

1

2

3

4

5

More than 5

Reasons for not attending Fall 2019 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)

Overall, how helpful were the Fall 2019 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?

Did you attend the annual OK-LSAMP Research Symposium at Oklahoma State University in Fall 2019?

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 2019 Symposium?

Yes

No

How many other professional meetings (excluding the Research Symposium) did you attend during Summer or Fall 2019?

0

1

2

3

4

5

More than 5

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

Yes

No

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

0

1

2

3

4

5

More than 5

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

Reasons for not attending other 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)

Did you complete Responsible Conduct of Research (RCR) training in Summer or Fall 2019?

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 office emails

OK-LSAMP Social Media

OK-LSAMP group meeting

Friend or family  
Another student  
Other (Specify below)

Did you participate in an internship in Summer 2019?

Yes  
No

Were you a junior prior to beginning the Fall 2019 semester?

Yes  
No

Were you a senior prior to beginning the Fall 2019 semester?

Yes  
No

Have you graduated?

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?

Have you attended an OK-LSAMP sponsored workshop on international travel in Fall 2019?

Yes  
No

Where did you attend the workshop?

Reason for not attending (Choose all that apply)

Not interested  
It wasn't offered  
Other (Please specify below)

Please respond to these statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
As a result of my OK-LSAMP experience, I have come to think of myself as a 'scientist'.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am interested in a career as a researcher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have the ability to have a successful career as a researcher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I possess the motivation/persistence required for a career in a research-oriented field.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a strong interest in pursuing a career as a researcher.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My desire to become a researcher is strong enough to help me overcome barriers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am confident I can understand research procedures.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In general, being a scientist is an important part of my self-image.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My research mentor understands my cultural background.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being a 'scientist' conflicts with other parts of myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

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?

## Spring 2020

Did you participate as a student in the OK-LSAMP program in Spring 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
- 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	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social Support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Professional development support	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Staff availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity to work with other undergraduate research programs on your campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity to work with STEM organizations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interactions with other students in the program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

What can be improved?

Do you have an OK-LSAMP research mentor?

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 2020?

Yes

No

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

Yes

No

Did you continue to communicate with your research mentor remotely?

<b>Please respond to these statements regarding your research experience.</b>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I don't have many friends in my research lab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel comfortable doing research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
My research mentor makes me feel wanted.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel like I am an important member of the research team.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wish I were not part of the research project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am disliked by other student researchers.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel that I am part of the research.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am committed to the research project.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am supported in my research tasks.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am accepted in the research lab.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you have any comments regarding your research experience?

How many times did you meet individually with your research mentor during the Spring 2020 semester (in person, via phone, or through Zoom or other online platform)?

- 1
- 2
- 3
- 4
- 5
- More than 5

Rate the helpfulness of your research mentor.

How did your research mentor help you?

How could your research mentor improve?

Do you have any comments regarding your research mentor?

Have you met with your campus OK-LSAMP program manager in Spring 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

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

- 0
- 1
- 2
- 3
- 4
- 5
- More than 5

Reasons for not attending Spring 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)

Overall, how helpful were the Spring 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?

How many professional meetings did you attend in Spring 2020?

- 0
- 1
- 2
- 3
- 4
- 5

Reasons for not attending other 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 meetings were you planning to attend that were canceled?

- 1
- 2
- 3
- 4
- 5
- More than 5

Were you scheduled to present at meetings that were canceled?

- Yes
- No

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

- 1
- 2
- 3
- 4
- 5
- More than 5

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

- 1
- 2
- 3
- 4
- 5
- More than 5

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

- 1
- 2
- 3
- 4
- 5
- More than 5

Were you scheduled to present at additional meetings that were canceled due to COVID-19?

- Yes
- No

How many presentations were you scheduled to give at canceled meetings?

- 1
- 2
- 3
- 4
- 5
- More than 5

Did you receive financial assistance from OK-LSAMP to attend any professional 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 Spring 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 office emails
- OK-LSAMP Social Media
- OK-LSAMP group meeting
- Friend or family
- Another student

Are you planning to participate in an internship in Summer 2020? Other (Specify below)

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

Do you have mentor(s) who encouraged you to consider graduate school (check all that apply)?

- OK-LSAMP Campus Program Manager
- Research Mentor
- Other Mentor (please list below) \_\_\_\_\_
- None

How comfortable are you approaching your mentor, advisor, or faculty members?

- Extremely comfortable
- Somewhat comfortable
- Neither comfortable nor uncomfortable
- Somewhat uncomfortable
- Extremely uncomfortable

To what extent has a mentor in your life...	A great deal	A lot	A moderate amount	A little	None at all
Shared history of their career with you					
Encouraged you to prepare for the next steps					
Served as a role model					
Gone out of their way to promote your academic interests					
Conveyed feelings of respect for you as an individual					
Encouraged you to talk openly about anxiety and fears that detract from your work					
Shared personal experiences as an alternative perspective to your problems					

Discussed your questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors, or work/family conflicts					
Helped you finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete					
Protected you from working with other faculty, lecturers, or staff before you knew about their likes/dislikes, opinions on controversial topics, and the nature of the political environment					
Given you challenging assignments that present opportunities to learn new skills					
Helped you meet other people in your field elsewhere					
Given you authorship on publications					
Helped you improve your writing skills					
Helped you with a presentation (either within your department, or at a conference)					
Explored career options with you					
Displayed attitudes and values similar to your own					

Were you a junior prior to beginning the Spring 2020 semester?

Yes

No

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

Yes

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?

Have you attended an OK-LSAMP sponsored workshop on international travel in Spring 2020?

Yes

No

Where did you attend the workshop?

Reason for not attending (Choose all that apply)

Not interested

It wasn't offered

Other (Please specify below)

Did you attend the PHD camp in Spring 2020?

Yes

No

Reasons for not attending the PHD camp in Spring 2020?

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 2020 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?

<b>Please respond to these statements.</b>	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	N/A
As a result of my OK-LSAMP experience, I have come to think of myself as a 'scientist'.						
I am interested in a career as a researcher.						
I have the ability to have a successful career as a researcher.						
I possess the motivation/persistence required for a career in a research-oriented field.						
I have a strong interest in pursuing a career as a researcher.						
My desire to become a researcher is strong enough to help me overcome barriers.						
I am confident I can understand research procedures.						
In general, being a scientist is an important part of my self-image.						
My research mentor understands my cultural background.						
Being a 'scientist' conflicts with other parts of myself.						

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 final comments?