



IN LSAMP at IUPUI

In 2021, the National Science Foundation will celebrate the 30th anniversary of The Louis Stokes Alliances for Minority Participation (LSAMP) program. Initiated by a Congressional mandate, LSAMP has grown from six alliances across 40 postsecondary institutions to 53 alliances across more than 600 institutions spanning from Alaska to Puerto Rico (Cordova, 2016). NSF is addressing a national call to action with allocated LSAMP funding.

IN LSAMP was awarded in 2016 and is comprised of six institutions (Indiana University, Ball State University, IU Northwest, IUPUI, IU South Bend and Ivy Tech Community College). IUPUI serves as the lead institution for the alliance and Chancellor Paydar is the Principal Investigator for the award. Our goal is to double the number of underrepresented minorities receiving STEM degrees at our universities. To accomplish this, we focus on promoting student success by engaging students early in their academic career with undergraduate research, building a community of faculty mentors at all alliance campuses, designing professional development activities for students, and support academic persistence through graduation with our network of peer mentors and tutors.

During the academic year at IUPUI, IN LSAMP peer mentors provide tutoring in North Hall tutor room. This is conveniently located in a living/learning community on campus to increase access to tutoring services as well as promote community by staffing the tutoring center with IN LSAMP peer mentors who serve as role models for students seeking academic support. Improving access to tutoring and supplementing hours by providing tutoring across disciplines in the evenings has proved successful. IN LSAMP serves between 75 to 150 students each semester.

IN LSAMP spends an average of \$1,400 per month at IUPUI on peer tutoring

During the summer, IUPUI manages an undergraduate research cohort. The cohort includes IN LSAMP scholars from Ivy Tech Community College. IUPUI also invites scholar from Ivy Tech to IUPUI throughout the academic year for professional development, guest lectures, and cohort meetings. Providing space and opportunities for students to meet faculty members, tour STEM labs, and meet IN LSAMP scholars at IUPUI has prepared students for successful transition into research. Summer research provides early access to research for community college students before they transfer to IUPUI, it also has had positive impacts on their sense of belonging to the IUPUI community and reducing transitional fear toward STEM degree completion.

	<u>To Date</u>			<u>Predicted</u>		<u>Total</u>
	17-18	18-19	19-20	20-21	21-22	
Peer Tutors	20	35	21	24	24	124
Research Scholars (ITCC)	0	12(2)	12(4)	12(10)	12(12)	48(28)
						200

IN LSAMP provides funding to staff the tutoring rooms, conduct funded undergraduate research, and supports professional development workshops for students and faculty mentors. Students have presented 55 times with \$36,000 in support from IN LSAMP travel funds. They have attended and

presented at ABRCMS, ACS, ERN, LSMRCE and SACNAS. Their intellectual contributions have been recognized via awards and publications.

Data Points to Progress

Research scholars complete two surveys, Identity Prominence and Science Self-Efficacy (Stets, et. al., 2017). These are completed at entry into research experience and at the exit. The paired sample t-test for pre and post time comparison showed that item 2 (i.e., I have a strong sense of belonging to the community of scientists; $\Delta M = .47$, $SD = .62$; $t(35) = 3.50$, $p < .001$, $d = .53$) and item 4 (i.e., I have come to think of myself as a 'scientist'; $\Delta M = .39$, $SD = .93$; $t(35) = 3.50$, $p < .05$, $d = .42$) were statistically significant.

Our strongest program recruiters continue to come from our scholars to their peers. Applications for the program have steadily increased since inception from 14 the first year to 25 in year two and anticipation of over 50 in year three. This growth is rewarding but opens discussion for how to meet the research mentoring demand for future students.

Looking Forward to Phase II

IN LSAMP seeks to strengthen the connection and support of transfer students to IUPUI from Ivy Tech Community College. Concomitantly, continue recruitment of faculty mentors to serve as resources for current students at IUPUI with a desire to participate in undergraduate research. Increasing opportunities for student engagement will require connecting with STEM schools and other research-based units on or off campus.

Next Steps

- Endorse continuation of our work within your schools
- Identify additional talent to meet our projected growth
- Commit to pursue Phase II proposal submission in 2021
- Support IUPUI as the lead institution for Phase II

Phase II Proposed Planning Timeline

Activity	Due Date
Identify Partners	September 1, 2020
Set the Alliance Goal/Objectives	October 2020
Communication	November 2020
Data collections, Proposed budget	December 2020
Writing team	April 1, 2021 – October 1, 2021

References

Cordova, F.A. (2016, February 23) Remarks at the 25th LSAMP Research Symposium. Baltimore, MD. Retrieved on-line at https://www.nsf.gov/news/speeches/cordova/16/fc160223_LSAMP.jsp

Stets, J. E., Brenner, P. S., Burke, P. J., & Serpe, R. T. (2017). The science identity and entering a science occupation. *Social science research*, 64, 1-14.