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Formative Evaluation of LSAMP Indiana Alliance **Executive Summary**

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EXECUTIVE SUMMARY

The Louis Stokes Alliance for Minority Participation (LSAMP) Indiana program was established in 2002, uniting five institutions of higher education in their goal to increase the number of students that have historically been underrepresented in the fields of Science, Technology, Engineering, and Mathematics (STEM) earning baccalaureate degrees in the STEM fields. This program, funded by the National Science Foundation (NSF), is currently in the final year of a five-year award to conduct a Phase II implementation of the program. Since 2002, three additional Indiana schools have joined the Alliance, for a total of eight.

The goal of LSAMP Indiana is to triple the number of minority graduates in STEM by the end of the Phase II grant, and to increase the learning and success of historically underrepresented minorities in STEM. LSAMP Indiana Alliance students participate in a variety of research-focused opportunities as part of the program, including funded undergraduate research, various summer programs, mentoring, research skills and career enrichment workshops, and supplemental instruction.

METHODS

GRG's evaluation design included a multi-method approach to assess the process and intermediate outcomes of LSAMP Indiana for the participating campuses, by tracking changes and progress made toward goals over the program's five years. In this final evaluation report, our focus is two-fold: (1) reporting on the activities conducted in year five (7/2011-4/2012), and (2) summarizing analyses of data from the five-year period. Throughout the evaluation, GRG collected data through online surveys and interviews: web-based surveys of faculty and graduate student mentors (n=60), LSAMP conference attendees (n=51), and LSAMP Indiana and LSAMP-eligible undergraduate students (n=227). In addition, we conducted phone interviews with each of the eight campus directors.

KEY FINDINGS

- While LSAMP students are majoring in STEM, as intended, there is room for improvement in representation from some STEM fields. Computer science and engineering majors are especially underrepresented in the LSAMP program.
- Most LSAMP students are provided the opportunity to conduct research in their major areas. However, for about a third of the students, mentors provided fewer than five hours of research experience in the student's major, substantially less than summer research opportunity was designed to provide.
- LSAMP students are significantly more likely than students in the LSAMP-eligible comparison group to have a mentor in their major area and a peer group to rely on for support. As a result, LSAMP students feel more supported than students in the comparison group. However, nearly four in ten LSAMP students do *not* have a mentor in their major area.
- Although nearly all LSAMP students plan to attend graduate school, there is no statistically significant difference between LSAMP students and the comparison group regarding their intentions

to attend graduate school or the graduate degree they would seek. In addition, the groups do not differ in their career awareness or aspirations.

- Less than half of the LSAMP-eligible student population has heard of LSAMP, indicating the message has not yet permeated the intended audience. There is also confusion among students about the requirements for participation (e.g., minimum grades, previous research experience).
- Cohesion as an alliance is limited due to LSAMP leadership changes at both campus and alliance levels. While there is a shared sense of purpose and passion for the goals of LSAMP, other aspects of collaboration across the alliance are weak or lacking.

RECOMMENDATIONS

- Ensure that each LSAMP student has a mentor in his/her major area. The evaluation results show that having a mentor improves students' experiences and retention in the STEM field.
- Investigate the overrepresentation of chemistry majors in LSAMP to see what can be learned regarding communication about LSAMP to students and faculty.
- Ensure that mentors are provided with clear guidance, training, and support in their role, especially since the evaluation results show that professors' attitudes have a large impact on students' perceptions of STEM.
- Formally assess the level of collaboration across the Alliance. Determine the amount of collaboration and the degree of standardization of program implementation desired across participating institutions.
- Consider semi-annual face-to-face working sessions with campus directors to develop common expectations and to strive for more comparability of the LSAMP experience across institutions. Provide time for campus directors to share evidence about successful practices and brainstorm together about challenges.
- Develop an Alliance-wide longitudinal database to track various student-level indicators such as grade point average, credits earned, major, and race/ethnicity for LSAMP and LSAMP-eligible students. Share analyses with mentors and other interested faculty.

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