

Rafael Bahamonde, Ph.D.
Director of Diversity Scholars Research Program (DSRP)
<http://www.opd.iupui.edu/Units/CRL/dsrpHome.asp>

Center for Research and Learning
UL1140
278-6223

Contact Email: rbahamon@iupui.edu

Project Title: Effects of the Diversity Scholars Research Program on
Minority Students Graduation rate at IUPUI

Project Dates: Summer 2007-Spring 2008

Project Checklist

- Statement of support from the department chair or school dean by e-mail to lhouser@iupui.edu - as a separate file not included in the proposal.
- Simple budget : A detailed budget is not necessary. Nevertheless, please include a brief paragraph/details indicating how you intend to spend the grant money.
- IRB (Institutional Review Board) approval attachment by email or hard copy to lhouser@iupui.edu or (Linda Houser, ES 3155, IUPUI) or project director statement that IRB representatives have been consulted and all requirements have been fulfilled sent to same. **Disbursement of funds will be contingent on receipt of approval by the Institutional Review Board, if human subjects review is necessary.**

Abstract

The purpose of the study is to assess how participation in the Diversity Scholars Research Program (DSRP) influenced the graduation rate of underrepresented minorities at IUPUI. Admission (SAT or ACT scores, class rank), academic (GPA freshman year) and graduation (GPA, years to graduate) data from minority students that entered IUPUI from 1997-2002 will be used to establish three cohorts. A cohort of minority students that did not participate in DSRP but had similar entry requirements, a cohort of students that participated in DSRP, and a cohort of minority students admitted to IUPUI in good standing but below the entry requirements for DSRP. The three cohorts will be statistically compared to determine if participation in DSRP had an effect on the graduation rate, years to graduate and final GPA of underrepresented minority students at IUPUI

Purpose

Undergraduate research (UR), “*An inquiry or investigation conducted by an undergraduate student that makes an original, intellectual, or creative contribution to the discipline,*” *Council of Undergraduate Research, (CUR)* has been proclaimed to be the pedagogy of the 21st century. There is a strong body of evidence supporting the theory that UR should be a critical component of undergraduate education. Research studies have shown that students participating in undergraduate research programs (URP) such as DSRP increase their independence and self –confidence (Seymour, Hunter et al. 2004) and benefit from higher learning (Kardash 2000). More importantly, UR improves retention and graduation rates of minority students (Nagda, Gregerman et al. 1998) in underrepresented fields, and these students are more likely to continue to pursue a graduate degree (Lopatto 2003; Seymour, Hunter et al. 2004).

The Minority Research Scholars Program (MRSP) started at IUPUI in 1997 and changed its name to the Diversity Scholars Research Program (DSRP) in 2004. Before 2002, this program was the only UR program for minority students at IUPUI. In 2003 IUPUI received federal funding to establish other programs (Louis Stokes Alliance for

Minority Participation, (LSAMP) and Ronald McNair Program) that use UR as a pedagogy for retention and graduation for underrepresented minorities.

Graduation rates for minority students at IUPUI from 1990-1998 averaged 15% with African American student rates below 15% (Bantz 2006). In contrast, internal data from DSRP students (N=34) from 1997-2002 showed a six year graduation rate of nearly 65% with nearly 46% of them earning an advanced degree or are currently enrolled in graduate school. Therefore, it is the purpose of the study to compare DSRP student data with a similar cohort of students at IUPUI and to determine if minority students that participate in DSRP take less time to graduate, have a higher graduation rate, and have better GPAs than minority students that did not participate in structured URP such as DSRP.

Intended Outcomes

As a result of this assessment, we intend to gather data that would allow us to determine the following outcomes:

1. Graduation rate of minority students that participated in DSRP between 1997-2002
2. Graduation rate of minority students that did not participate in DSRP from 1997-2002
3. Effect of DSRP on graduation rate, time to graduation, and final GPA.

Assessment methods

Demographic, admission, and graduation data from underrepresented minorities that entered IUPUI from 1997-2002 will be gathered from the admission office, Registrar, and DSRP with permission of the Institutional Review Board. Demographic data will include race/ethnicity, age, and gender. Admission data will be the date of the first semester at IUPUI SAT/ACT scores, and class rank (when available). Academic and

graduation data include freshmen year cumulative GPA, year of graduation, and final cumulative GPA.

These data will be used to divide the students into three cohorts.

Cohort A

Minority students with SAT scores of ≥ 1050 and freshmen cumulative GPA of 3.0 that did not participate in DSRP

Cohort B

Minority students with SAT scores of ≥ 1050 and freshmen cumulative GPA of 3.0 that participated in DSRP

Cohort C

Minorities students with SAT scores of < 1050 and freshmen cumulative GPA below 3.0 but not lower than 2.0

Participation in DSRP will be determined from internal data. Data will be kept within the Center for Research and Learning and will be reported as group data, with no possibility of traceability to a particular student.

Data Analysis

Descriptive statistics will be used to represent and facilitate cohort comparisons. Differences between cohorts graduation rates will be determined using Chi Square techniques while differences between cohorts on final GPAs and years to graduate will be analyzed using One-Way ANOVAs for independent groups. Statistical analyses will be performed using SPSS (Statistical Package for the Social Sciences) with an alpha level of $p = .05$ for all the tests.

Evaluation and Dissemination of Results

A written report of the findings will be submitted to the Executive Director of the Center for Research and Learning. In addition, a report of the findings could be

submitted to the IUPUI Diversity Cabinet and the Undergraduate Research Action Committee. The IUPUI community could benefit from the results through presentations in the Moore Symposium and/or 8th Annual Symposium Highlighting the Research of Faculty, Staff, and Students of Color. Results of the study could be submitted for publication to the Journal of the Scholarship of Teaching and Learning (JoSoTL), the Council of Undergraduate Research (CUR) Quarterly Journal, or similar publications. Nationally, presentations to CUR or National Conference for Undergraduate Research (NCUR) could provide dissemination of results to the academic community in general.

Details of Use of Findings for Program Improvement

This assessment would serve a dual purpose. Internally (IUPUI), the results of this study will help us determine and confirm that minority students engaged in a structured URP graduate at a higher rate, in a shorter time frame, and with higher GPAs than students that do not participate in a URP. This information could be used by the Admission Office for the recruitment of minority students and to help improve the graduation rate of minority students at IUPUI. The results of this study will be extremely valuable in establishing benchmark data that could be used for publication and to apply for external funding at the local, state, and federal levels.

References

- Bantz, C. R. (2006). The State of Diversity at IUPUI. Indianapolis, Indiana University Purdue University Indianapolis: 1-10.
- Kardash, C. M. (2000). "Evaluation of undergraduate research experience: perceptions of undergraduate interns and their faculty mentors." Journal of Educational Psychology **92**: 191-201.
- Lopatto, C. (2003). "The essential features of undergraduate research." Council of Undergraduate Research Quarterly **24**: 139-142.
- Nagda, B. A., S. R. Gregerman, et al. (1998). "Undergraduate student-faculty partnerships affect student retention." The Review of Higher Education **22**: 55-72.
- Seymour, E., A. B. Hunter, et al. (2004). "Establishing the benefits of research experiences for undergraduates in the sciences: first findings from the three year study." Science Education **88**(4): 493-534.

Budget

Items	Description	Cost
Data Collection	Money to hire a person student to help with data collection and entry @ \$15.00 /hour for 5 hours @ week for approximately 26 weeks This person will be responsible for getting all the data from the respective offices and getting the data format ready for statistical analysis	\$2,000
Data Analysis fees	Pay for assessment help in data analysis/statistics	\$500
Total Requested		\$2,500

*IRB Exempt Approval requested: Pending to approval.