

Growth Pains of A Summer-Bridge Program

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Abstract

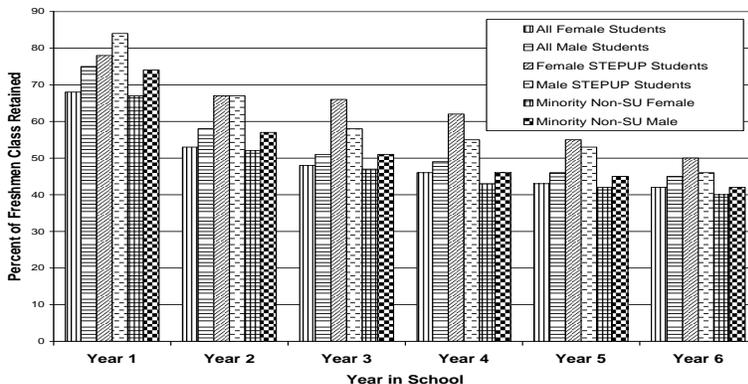
Since 1993, the University of Florida's Herbert Wertheim's College of Engineering has conducted a first-year bridge program for underrepresented students entering the college. The program, entitled the Successful Transition through Enhanced Preparation for Undergraduate Program (STEPUP), consists of two major components which take place during the students' first academic year; a six-week summer residential program and an eight-month, non-residential program. The residential component of the program is the most rigorous and intensive and was developed to address challenges that negatively impact first-year student success. The summer component includes abbreviated classes in General Chemistry, Calculus, Project Design, Introduction to Research, Health and Fitness and Machine Learning. Additional activities include, evening study halls, corporate tours, a corporate speaker series and student development workshops aimed to promote the holistic development of the student (An Academic, Professional and Personal Holistic Development Model). The non-residential component of the STEPUP program takes place during the fall and spring semester and involves peer mentoring, academic support and additional A.P.P Holistic Development programming.

History of the Summer-Bridge Program at UF

In 1994, The University of Florida received funding from the National Science Foundation (NSF) Southeastern University and College Coalition for Engineering Education (SUCCEED) program. These funds were used to spearhead college efforts in addressing poor retention rates for underrepresented student populations (URM's) within the major. On average, URM SAT scores were found to be lower than a score of 600 on the college entrance exam. The Minority Retention Success (MRS) program was created and structured as a non-residential program targeting students from underrepresented populations in to bolster their strengths in calculus, chemistry and physics. The program also endeavored to expose these students to other resources in the form of positive mentors, computer skills, tutoring/study halls and team or cohort building activities. In 1995, the program was revised to include a residential component to address concerns related to poor class attendance and a lack of involvement in other program activities experienced in the MRS model. The combination of the six-week residential program with an eight month, non-residential program resulted in the creation of the Successful Transition and Enhanced Preparation for Undergraduates Program, or STEPUP. The first fourteen years of the program were met with extreme success. Average URM participation in the program was 54% African American, 40% Hispanic-Latino and 27% Women. Participation in the program was determined by self-selection and grade point averages for students participants prior to 2008 was on average .2 to .3 points lower than the general engineering student population. However, in spite of the slightly lower grade point average, first-year attrition rates for STEPUP participants was only 17% in comparison to 34% for non-program participants. (Roberts, et.al. 2009). By year two, attrition rates for STEPUP participants increased to a total of 33% in comparison to 44% percent for non-STEPUP

participants. Further, five-year graduation rates for program participants was higher than students electing not to participate in the program. (Roberts, et.al. 2009).

Yearly Percent Retention of STEPUP and non-STEPUP Male and Female Students Entering as Freshmen from 1996-2007



Beginning in the year 2007, the University of Florida began experiencing a steep decline in admissions rates for African American students. It was estimated that between the years 2007 to 2013 the enrollment of African American students at UF decreased by at least 50%. (Gainesville Sun, 2015). The drastic drop among African American admits presented a diversity challenge not only for the campus at large, but for program recruitment efforts as well. For example, between the years 2012 to 2017, the average rate of African-Americans participating in the program declined from 54% to 23.33% (a decrease of approximately 31%). Hispanic-Latino student participation also declined during this time span as well (from an average of 40% to 20.5%. A decrease of nearly 20%). In addition to declining admission rates for African American students, and a marginal decline in program participant retention rates, other challenges faced by the program include difficulties in recruiting African-American admits into the program (a challenge that was non-existent prior to 2013), a decrease in corporate and alumni sponsorship, and a reduction in program coordinator staff, among others.

Proposed Changes to Program infrastructure - A Work In Progress

During the 2018-2019 academic year, the following strategies are being proposed in efforts to address the growing challenges faced by the STEPUP program.

- **Decrease in Staff Resources:**
 The Office of Student Transition and Retention (STAR) will explore capacity building through a partnership with the AmeriCorps Vista program. After meeting all requirements to attain an AmeriCorps Vista who will assist in program coordination and planning, the program will pursue grant opportunities to become a full AmeriCorps program host site.
- **Program Recruitment Efforts:**
 Preliminary data for URM admits into the college suggest an inverse relationship between student GPA and their decision to self-select participation in the program. While the average gpa of URM's entering the College have continued to increase over the past several

years, it is not evident that this has been correlated with an increase in student retention rates. The STAR office will explore opportunities and resources to offer scholarships to students electing to participate in the STEPUP program as a means of exposing them to the additional benefits of the program.

- **Student Retention Rates:**

In efforts to increase first-year retention rates, the STAR office will incorporate the use of ALEKS Chemistry and Pre-Calculus software into the STEPUP program. Academic support efforts will also be enhanced by adding weekly Supplemental Instruction Sessions combined along with individual tutoring. Further, an additional program component called the “STEPout” program will be used to create and increase experiential learning opportunities for program participants entering their sophomore year. These opportunities will include professional mentoring, internships/externships, and/or support for study abroad participation.

Partnership with the HWCOE Development office:

The STAR office will work with the Herbert Wertheim College of Engineering Development office to sponsor program fundraising challenges, student scholarships, create campaigns for program alumni as well as, target other friends and supporters of the STEPUP program. These alum and friends of the program will have other opportunities to support program participant success through speaker presentations, corporate tours, distance mentoring activities, etc.

Assessment

Data will be collected at the end of the academic year through assessment of efforts to acquire capacity building support via the AmeriCorps Vista program, increase program participant diversity, and improve partnerships with College Development office and ultimately, impact on first year retention within the College.

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