

New Beginnings: Fostering College Readiness for Low-Income and Minority Students in STEM

Applicant

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Objectives

We propose to build a long-term relationship between students and faculty in the ISAT Department and freshman students in the new science and math concentration at Huguenot High School in Richmond, Virginia. IDEA funds would be used to kick off this four-year relationship with a week-long, joint alternative spring break (ASB) activity between ISAT students, ISAT faculty and Huguenot freshmen in this program. We envision that this will result in a significant number of these students matriculating to JMU when they complete their studies at Huguenot, contributing to the number of STEM students at JMU from minority and low-income backgrounds. This activity will also immediately benefit students and faculty at JMU by raising their awareness and understanding of the issues that may prevent these students from reaching a school such as JMU.

Motivation and Background

Two factors motivate the efforts described in this grant proposal: the challenges low-income and minority students face in gaining college admission, and also the awareness of college students and faculty of these issues. High school students from low income and minority backgrounds face certain difficulties in getting to college. These students may come from families that do not necessarily value higher education, and as such do not encourage or challenge the students to have college as a goal, and to work towards college readiness. Even if the families wish to see their children attend college, if none of the student's relatives have a post-secondary education, the family may not be aware of what is necessary to prepare the students for this path. A further difficulty is that the schools that serve primarily low-income and minority communities are frequently not able or not adept at offering the kinds of courses and guidance necessary to adequately prepare students to get into college. Students find that even though they have graduated from high school in the top 10% of their class, they are not successful in winning admission to college. In such cases, the assistance of members of the higher education community can significantly increase the preparedness and chances for college admission for these students.

Despite having much to offer, faculty and students at universities may not be aware of or

familiar with the challenges that students from low-income and minority communities face. Particularly at colleges with a relatively low proportion of students from low-income and minority backgrounds, students and faculty do not have enough opportunities to interact with these students and are therefore not confronted with or exposed to the stories these students tell. A greater awareness of the challenges these students face can not only foster a more understanding, supportive, and accepting environment at the higher ed level, but also motivate more faculty and students to become actively engaged in working to help students from these backgrounds to be successful in gaining admission and later graduating from college.

Huguenot High School in Richmond, Virginia is a school that serves a primarily low-income and minority community. James Madison University is a college that has a relatively low proportion of students from low-income and minority backgrounds. This grant proposal describes New Beginnings, a joint program between Huguenot and JMU designed to help Huguenot students make successful applications to college, particularly at JMU, and particularly in STEM (Science, Technology, Engineering, Mathematics) fields. \$4,000 is requested to fund a high-impact kick-off event for a new cohort of New Beginnings students that would take place during the Huguenot spring break in the spring of 2011.

The New Beginnings Program

In the spring of 2008 the first cohort of thirty New Beginnings students were recruited from the Huguenot High School freshman class. These students were recruited by the JMU Professor In Residence (PIR) Cythia Klevickis in their freshman science classes. Over the last three years these students have participated in a number of courses and activities and have received guidance aimed at preparing them for college. Now seniors, 100% of the twenty-seven students remaining in the program are in the process applying to college, and a majority of them include JMU as one of the schools to which they are applying. The elements of the New Beginnings program will be described briefly.

Course Registration Consultation

One of the key criteria for college acceptance is that students pursue a challenging course of study while in high school. For example, students should complete a series of mathematics courses that include geometry, algebra, and trigonometry. Without guidance, Huguenot students are likely to select math courses that do not meet the standards that colleges are looking for. Ironically, one of these substandard courses is entitled "College Math." New Beginnings students receive one-on-one consultations from the JMU PIR at their school prior to registering for courses each year, ensuring that they have the basic courses that they need.

Offering AP and Dual-Enrollment Courses

Another problem faced by Huguenot students is a lack of challenging courses, which are not offered due to a lack of resources. Through the partnership with JMU, Huguenot students are able to take dual-enrollment courses which add to their portfolio of challenging courses.

Parental Involvement and Outreach Events

The parents and guardians of Huguenot students are encouraged to be a part of preparing their children for college admission. As part of New Beginnings, events are planned that allow families to learn about the desirability of and requirements for gaining college admission.

Summer Enrichment and JMU On-campus Experience Opportunities

One of the most reliable predictors of college applications is whether or not students have had an opportunity to actually visit the campus of the college to which they apply. New Beginnings students are given the opportunity to take part in programs at JMU such as Cyber City, Male/Female Academy, Bridging the Valley, and JOE (the JMU Overnight Experience).

The current cohort of New Beginnings students are scheduled to graduate from Huguenot in the spring of 2011. Given the success of the program with this group of students, we would like to inaugurate a new cohort of freshmen. One of the keys to the success of the program is getting students into the program early in their high school career and following them through graduation. Our proposal is to use IDEA funds to host a high-impact kick-off event in the spring of 2011 that would serve as a strong foundation for the new cohort.

Method/Process--New Beginnings Kick-off Event at JMU

We propose to bring thirty freshmen from Huguenot High School to JMU during the Huguenot spring break to participate in a high-impact kick-off event that would result in creating a high degree of investment in the New Beginnings program both on the part of the New Beginnings students and also the JMU faculty and students who would interact with them while they are here. The event would be planned and run by the ISAT Program Recruiting Committee with the support of ISAT majors who are members of the ISAT Honor Society and the (unofficial) ISAT Fraternity and the Roop Learning Community (future science teachers). Housing for the students would be arranged with the support of Professor Anthony Teate, who ran the successful IDEA-funded JOE (JMU Overnight Experience) Program last year. Huguenot students would be recruited for the program by the JMU PIR (Cynthia Klevickis) at Huguenot who regularly visits the school and teaches science courses there, as well as the current New Beginnings cohort that is graduating next spring, and the Huguenot Guidance Office. While at JMU, New Beginnings students would stay with JMU students in the dorms and participate in activities such as the following:

- Volunteering with JMU students in the Harrisonburg community in such activities as environmental cleanup
- Visiting the JMU Alternative Fuel Vehicles (AFV) Lab
- Participating in field work being conducted by ISAT science classes such as water sampling and analysis
- Having recreational time at the Festival Center
- Participating in cultural activities at the Forbes Center, step dancing, and gospel choir
- Building a website that they can use to chronicle their time as New Beginnings members

Budget

A total of \$4000 is requested. IDEA funds would be used to pay for transportation for thirty students to/from Richmond (approximately \$1000), and for meals (30 students x \$25 per student per day x 4 days = \$3000). In the event that transportation and/or meals come to less than \$4000, the remainder of the funds will be spent in support of the above activities.

Program Evaluation and Follow-up

In order to evaluate the success of this program we propose the following metrics:

- Pre-event: The number of students who enroll in New Beginnings and come to JMU for the kick-off
- Post-event: The immediate, post-kick-off feedback we get from those students
- Longer-term: the percentage of New Beginnings students:
 - applying/accepted to college
 - applying/accepted to JMU
- Mid-term: evaluation of transcripts of program participants to determine if, in fact, they meet the level of rigor necessary to be successful at college admission
- Ongoing: Program attrition rates over 4 years
- Ongoing: Evidence of awareness of JMU faculty and students via such instruments as focus groups, surveys, and commitments to continue involvement with the New Beginnings program

As this program has a longer-term focus, some of these data will not be available until some time in the future. As requested, a report with data available at the time will be presented by June 1, 2011.

Sustainability Plan

The New Beginnings program is highly sustainable primarily because it makes a concerted effort to take advantage of resources that are already in place, such as the ISAT Program Recruiting Committee, the JMU PIR program, summer programs at JMU, and various student groups and organizations.

Summary

In summary, this program is in line with a number of JMU's institutional priorities and strategic goals such as increasing the proportion of students from low-income and minority backgrounds, and increasing the number of students involved in STEM majors. This proposal builds on the successes of other programs that have been developed at JMU such as PIR and JOE and has a high likelihood of being successful at achieving its aims. Thank you very much for taking the time to read and consider our proposal. We hope you'll be able to get as excited about it as we have and help to bring New Beginnings to a new cohort of Huguenot students.