Project Title: SySTEMic Change at Prairie State College: Ensuring African American Student Success in Math & Science

Prairie State College (PSC), a comprehensive community college that serves the south suburbs of Chicago Illinois, recognizes the problem of too few STEM graduates. Over the past 50 years, PSC has been an institutional mirror of its eclectic community. Of the 5,791 total student body, 58.1% are now African American.

Prairie State College’s program supports the PBI program for first time, full time degree-seeking students. The College’s four-year project, SySTEMic Change at Prairie State College: Ensuring African American Student Success in Math & Science, offers a research-based approach to prepare students for STEM achievement with the following goals and objectives.

Goals are to: (1) increase the number of African American students who are successful in math and science at Prairie State College, and (2) increase the number of African American students who complete an Associate in Science (A.S.) degree. The PSC Goal 1 objectives are to: (1a) improve African American student success in gateway and foundation math courses linked to advanced work in STEM fields; and (1b) improve African American student success in the sciences that will lead to increased degree completion in STEM fields. Goal 2 objectives are to: (2a) increase the use of classroom/instructional best practices that leads to an increased persistence of African American students within the STEM educational track at Prairie State College; and (2b) increase student support at PSC that leads to an increased number of African American students graduating with an Associate in Science (A.S.) degree.

Three program components will lead to doubling and then tripling the number of A.S. degrees earned by African Americans over the 4-year project. These initiatives include: STEM Recruitment and Retention, Classroom Innovations, and Student Support Systems. Classroom Innovations include modernizing existing science labs and purchasing lab equipment; implementing curriculum reform, creative teaching/learning approaches, and best practices; and establishing a Summer Undergraduate Research Institute to recruit, retain and graduate a higher number of African American students. Student Support Systems involve intrusive advising, supplemental instruction, Peer Led Team Learning, and a targeted tutoring program for piloted sections of STEM courses. STEM Recruitment and Retention involves recruiting students from local high schools; recruiting instructors, including females, from historically underrepresented groups for mentoring and role modeling for students; and establishing a Career Exploration program where PSC students will hear from successful STEM degree completers who mirror the target population and who have effectively navigated their way through community college.

Through PSC’s well orchestrated efforts, African American students at Prairie State College will be invited to explore STEM possibilities, engaged by state-of-the-art STEM tools and supported academically and personally by STEM professionals. In this way, students will come to realize their full STEM potential, and they will become more engaged in STEM courses and careers.
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Total Funded: $2.34 m ($2,336,435.30)
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Project Director: Dr. Melanie Eddins-Spencer