Addressing Opportunity Gaps Brief

Program Description

For the past decade, Siena College's Saturday Seminars for Urban Scholars After-School Program (USP) has brought together approximately 80 students from Albany's middle schools and 30 Siena students to collaborate on a range of science, technology, engineering, art, and math (STEAM) projects. The program is conducted on Saturdays during the Fall and Spring semesters on the Siena campus.

Each of 14 annual sessions consists of a 5-hour program divided into morning and afternoon segments. Students work with college mentor-volunteers, who serve as academic guides and models in the program, as well as subject area experts in STEAM and liberal arts topics. Activities include project-based experiences and STEAM content within games that introduce students to academic work in different content areas. Students are provided with busing to the campus and lunch in the cafeteria.

Program Goals

All activities of the program are designed to achieve the following goals:

- Sustain and promote the talents and interests of students in STEAM areas.
- Promote and maintain high motivation for academic achievement.
- Create a program climate that students perceive as highly challenging and appropriately supportive.

Goals 1 and 3 have been addressed by program administrators using student surveys. This research brief focuses on outcomes related to Goal 2 through analyses of attendance and academic performance data from the City School District of Albany (CSDA).

Findings

Who participates in Urban Scholars?

A total of 808 children participated in Urban Scholars from 2003-2017. The vast majority (85%) were identified as CSDA students.

- 58% of participants were female.
- 79% identified as African/American or Hispanic (about 10% more than the current CSDA population).
- Urban Scholars were most likely to attend Hackett or Myers middle schools, as well as Pine Hills or Delaware elementary schools.
- Nearly all participants were in grades 5 through 8.

Are Urban Scholars more likely to be proficient on NYSED assessments?

For the past 5 years, participants in Urban Scholars achieved proficiency on both Math and ELA exams at about twice the rate of peers. **Table 1** provides a more detailed look at this finding.

Table 1. Proficiency on NYSED exams from 2013-2017 (all students)

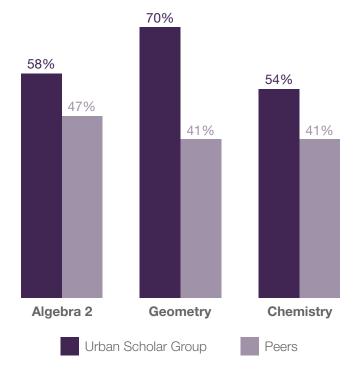
USP Participant	ELA		Math	
	Prof.	N	Prof.	N
Yes	31%	341	25%	321
No	16%	16,957	13%	16,354

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Do Urban Scholar graduates pass Regents exams more frequently than peers?

Analysis of nearly 100,000 Regents scores from Albany High School (2003-2017) showed that program participants were about 8% more likely to pass their exams. However, restricting the data to more recent program years (2012-2017), and focusing on specific, math-related tests generated even more favorable results as displayed in **Figure 1**.

Figure 1. Percent of Students Passing Regents Urban Scholarship Participants and Peers



- Algebra 2 Trigonometry/Algebra 2 Common Core: The majority of students who participated in Urban Scholars since 2012 passed the Algebra 2 exam (58%), compared to 47% of peers.
- Geometry: Since 2012, Urban Scholar graduates were 21% more likely to pass the Geometry Regents (70% vs. 41%).
- Chemistry: 54% of students who took part in Urban Scholars since 2012 passed the Chemistry exam, compared to 41% of peers.

Are students who participate in Urban Scholars less likely to be involved in a discipline incident at school? Regression analyses on data from the 2016-17 school year suggest that the 91 CSDA students who attended Urban Scholars were not less likely to have a reported disciplinary incident. After taking into account gender, school, ethnicity and special education status, involvement in Urban Scholars was not significantly associated with total number of disciplinary or Violent and Disruptive Incident Reporting (VADIR) incidents.

Conclusions and Recommendations

Initial data analysis suggests that students who attend the Urban Scholars program have similar demographic characteristics to the CSDA population, but outperform peers on a number of academic standardized tests, even several years after participating in the program. Since recruitment is strictly through school visits and participation is voluntary, further research is necessary to determine if Urban Scholars is truly changing student trajectories in STEAM fields, or simply supporting the interests of children who already performed well in these areas.

About the Center for Human Services Research

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