

GOING AWAY TO SCHOOL

An Evaluation of SEED DC

Executive Summary

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Overview

The prospect of a well-paying job for a worker without a college education has significantly dimmed in the past three decades, in the wake of sweeping changes in the U.S. economy and labor market. The effects of these changes are particularly devastating for young people from disadvantaged urban communities. In response to this issue, the SEED Foundation, founded in 1997 by former management consultants Rajiv Vinnakota and Eric Adler, opened the first public, urban, college-preparatory boarding school in the country. The primary mission of the SEED School of Washington, DC (SEED DC), is to provide an intensive education program that prepares students from low-income and underserved communities for college enrollment and success.

The SEED school, located in a residential section of southeast Washington, serves approximately 320 sixth- through twelfth-graders. Students attend school on campus five days a week, arriving on Sunday evening and going home on Friday afternoon. The SEED model posits that an alternative urban academic environment that puts a high priority on academic excellence and personal development will allow students to succeed through high school and in college. An important facet of the SEED model is to surround students with a cadre of adults to support them in preparing for college success — including their teachers, school administrators, and the residence hall staff.

Using the random assignment inherent in the school admissions lottery, this report presents results from a six-year evaluation of SEED DC, including both an implementation study — to understand how the school operates in practice — and an examination of the impacts of winning admission to SEED DC on a broad range of student outcomes.

Key Findings

- SEED DC creates a highly supportive environment for its students, with a network of caring adults. The school provides students with a wide array of services, ranging from academic support to emotional support and relationship-building activities.
- The school produced significant, positive impacts on students' standardized test scores and proficiency levels — particularly in math — in comparison with outcomes among students who did not win admission to SEED.
- For students in the earliest cohorts, who can be followed through high school, SEED DC did not increase the proportion who graduated from high school in four years.
- Although SEED DC showed a couple of positive behavioral effects, it did not show an impact on the key nonacademic outcomes, such as teen pregnancy or interaction with the criminal justice system, that could justify its higher cost.

It is important to note that SEED DC operates in a district with many innovative alternatives and, owing to local rules, is unable to target the most underserved students. Thus the evaluation cannot speak to the question of whether SEED's unusual boarding school model could produce larger effects in different environments, serving students who face more serious obstacles to success.

Preface

Of the 24 million adolescents in the United States today, 41 percent live in low-income families and 19 percent, or 4.7 million, live in families with incomes falling below the federal poverty threshold. These young people are more likely to move multiple times, to face food insecurity, and to live in neighborhoods characterized by crime and a lack of resources. While educational attainment is often heralded as a pathway out of poverty, many of these young people live in neighborhoods with failing schools and come from families without a history of high school completion or college enrollment.

Education reformers working in low-income areas have tried for decades to improve students' school options and break the cycle of poverty. While there have been some successes, for some students, the compounding effects of multiple disadvantages are often too disruptive. In response the founders of SEED boarding schools sought to create a holistic intervention that provides students with a constant, safe place to live; regular healthy meals; and the kinds of resources — such as a library and a peaceful outdoor area — found in middle- and high-income communities. Within this context SEED strives to provide its students with a rigorous, college-ready academic program and supplements it with a youth development-focused life skills curriculum after school hours.

The SEED Foundation created its first school, SEED DC, in 1997. It currently serves 320 students in grades 6 through 12; students live on campus Monday through Friday and go home on the weekends. The evaluation described in this report, funded under the Social Innovation Fund, takes advantage of lotteries within the SEED DC admissions process to assess SEED's effects on students throughout middle and high school. The study focuses mainly on students' academic outcomes but also uses a survey to measure whether SEED students are more likely to be engaged in school and have positive plans for the future.

Notably, SEED improved students' scores on standardized tests, but to date a partial sample of students who won a lottery to attend SEED were no more likely to graduate in four years than students who lost the lottery and attended other schools. There is no evidence that SEED students were less likely to engage in risky behaviors. Finally, many students left SEED after middle school. Still, it will be important to understand whether the gains in academic performance translate into additional high school graduates and higher rates of college enrollment in later years. The results raise the question of whether the intensive SEED approach would be more effective if aimed more narrowly at students facing very serious obstacles to success.

Gordon L. Berlin
President, MDRC

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We are tremendously grateful to several individuals on the staff at the SEED Foundation and the SEED School of Washington, DC. We could not have produced this report without the cooperation of SEED Foundation founders Rajiv Vinnakota and Eric Adler, as well as members of their staff, including Shane Mulhern, Mary Lease, Corin Collier, Lesley Poole, and Vincena Allen. We are equally grateful for the dedicated collaboration of so many school administrators and educators at the SEED DC school, including Carmen Johnson (Managing Director), Charles Adams (Head of School), Mecha Inman (Director of Admissions), Erika Asikoye (Director of Student Support Services), Jon Tucker (Director of Student Life), Kara Stacks (Principal), Kerry Richardson (Director of College Counseling), Matthew Carothers (Director of Middle School), Stacey Pearl (Special Education Coordinator), and Melissa Freeman (College Success Manager).

We could not have learned about the implementation of the SEED DC school model without the help of many other staff members at SEED DC, including middle school, ninth-grade, and high school teachers, resident advisers, academic intervention and life skills counselors, health counselors, and all other members of the SEED DC community, who are deeply committed to creating a caring and supportive space for the young people there.

At MDRC, Howard Bloom, William Corrin, Kate Gualtieri, and Janet Quint provided thoughtful comments on several drafts of this report. Karla Mendez and Danielle Craig coordinated the production of the report. Jennie Kaufman edited the report, and Stephanie Cowell prepared it for publication.

We are especially grateful to the SEED DC students, who graciously and enthusiastically welcomed us into their school. They participated in surveys and focus group discussions and allowed us to partake in and observe their daily lives. Many of the students were excited about our research and the opportunity to develop more knowledge about urban public boarding schools and the services that they can provide for young people.

The Authors

Executive Summary

Sweeping changes in the U.S. economy and labor market over the past three decades have dramatically reduced the availability of well-paying jobs for workers without postsecondary education. Yet one in five high school freshmen nationwide do not graduate in four years, and many who do complete school are not ready to perform college-level work.¹ These patterns are particularly pronounced in urban areas, and among students from low-income and underserved families.

In recent years, charter schools, which receive public funding but operate independently of local school districts, have increased in number and popularity, in part due to their flexible governance structure, which allows them to implement innovative new education models. One such model belongs to the SEED School of Washington, DC (SEED DC), the nation's first urban, public, college-prep boarding school. The school provides students with an intensive, fully integrated academic and boarding school program, including scheduled study time, constant access to positive role models, and life skills training. SEED's model is based on the assumption that, for certain disadvantaged students who face overwhelming barriers to success at home and in the community, piecemeal reform efforts will not be sufficient.

This report presents the findings from a rigorous evaluation of SEED DC, which was supported by the Social Innovation Fund (SIF), a program of the Corporation for National and Community Service (CNCS). The Edna McConnell Clark Foundation (EMCF) is leading a SIF project that includes support from CNCS and 15 private co-investors. EMCF's SIF project included an investment in the SEED Foundation, the national nonprofit organization that oversees SEED DC and the two other SEED schools (in Baltimore and Miami) currently in operation.

SEED has been the subject of previous studies, including an impact study that found that SEED led to significant gains in standardized test scores in seventh and eighth grade.² The authors of that study questioned whether these increases were large enough to justify the high cost of the boarding school model. If SEED affects nonacademic outcomes such as teen pregnancy or crime involvement, which trigger very high social costs, the program could turn out to be a worthwhile investment of public funds.

The study uses SEED DC's annual admissions lottery to identify two comparable groups of students: those who applied to SEED and were selected, at random, to be offered a

¹Grace Kena, Susan Aud, Frank Johnson, Xiaolei Wang, Jijun Zhang, Amy Rathbun, Sidney Wilkinson-Flicker, and Paul Kristapovich, *The Condition of Education 2014*, NCES 2014-083 (Washington, DC: National Center for Education Statistics, 2014).

²Vilsa E. Curto and Roland G. Fryer Jr., "Estimating the Returns to Urban Boarding Schools: Evidence from SEED," National Bureau of Economic Research Working Paper No. 16746 (2011).

slot in the school, and those who applied to SEED and were not offered a slot. By following those two groups of students over time, the study can estimate the impacts of SEED DC on standardized test scores, high school graduation rates, and other nonacademic outcomes. This study focuses only on SEED DC, which is by far the most mature of the existing SEED schools.

The evaluation examined both the implementation of SEED DC and its impact on student outcomes. The study's two overarching research questions are as follows:

- **How is SEED DC structured and how does it operate in practice?** Using interviews with staff members and students, observation, and other methods, the evaluation team set out to understand the on-the-ground reality of SEED DC and how the school is experienced by students. This information not only helps in interpreting the impact findings, but also may help SEED improve service delivery over the long run.
- **What is the effect of being offered an opportunity to attend SEED DC on student outcomes?** Academic outcomes include standardized test scores and high school graduation. Nonacademic outcomes include both attitudes (for example, college aspirations) and behaviors (positive ones like homework completion and risky ones like alcohol and drug use).

The evaluation focuses on 766 students who “won” or “lost” the SEED lottery as fifth- or sixth-graders between 2006 and 2011. The study followed those students through the 2013-2014 academic year, which means that only a small number of them could have graduated from high school or enrolled in college during the study period. Thus, while improving students' performance in college is a key goal of SEED's, it is too soon to assess whether SEED improves students' postsecondary outcomes.

SEED DC in Operation

Located in a residential section of southeast Washington, SEED DC serves approximately 340 sixth- through twelfth-grade students. Students in the study sample were primarily African-American and were economically and academically disadvantaged. Of those who won the SEED lottery (the SEED group), four out of five qualified for free or reduced-price lunch. In the year they applied to SEED, 14 percent of the SEED group students qualified for special education services and just under 50 percent scored at or above proficient on the district-wide reading and math exams.

Students attend school on campus five days a week, arriving on Sunday evening and returning home on Friday afternoon. During the days that students reside on campus, they have access to quiet places to study and sleep, nutritious meals, academic resources, and spaces to

engage in extracurricular activities. By design, students are also surrounded by a cadre of caring adults who support them in preparing for success in college. In both academic and residential life programs, the school uses a grade-based cohort system, meaning that distinct goals, expectations, and approaches are set for middle school, ninth-grade, and high school students.

Academic Curriculum

The school philosophy is that all students have the same inherent potential for academic success, and thus all students are expected to excel at SEED. The academic department strongly believes in using data to guide and inform instruction, so all students take interim assessments in English and math four times per year. After each assessment, academic and Student Life staff members meet in teams to discuss the results and identify priority issues. Teachers then use the assessment results to develop lesson plans to “reteach” skills that students have been unable to master.

SEED students are expected to attend college following high school graduation. The College Counseling department is responsible for providing support to students in the college search, application, and selection process. From sixth grade on, students are encouraged to visit the College Café, a colorful and inviting space stocked with information and decorated with memorabilia from many of the nation’s colleges. In middle school, students engage in discussions about the value of enrolling in college, visit a college campus, and participate in activities to strengthen their academic habits. Starting in ninth grade, students practice taking college entrance exams (the PSAT) so that they become familiar with the test and can improve their scores. High school students have access to test preparation materials during after-school hours. Eleventh-graders receive college advising focused on finding the “right-fit” college — the one that is the best academic match and also meets their financial, social, and personal needs — and students in the twelfth grade are actively engaged in the college search, application, and choice process.

A unique feature of the SEED student experience is the support that SEED students and graduates receive from the College Transition and Success (CTS) team, a unit within the SEED Foundation. Working in collaboration with the College Counseling Department, the CTS team holds a series of college transition workshops for seniors and their parents (including a financial literacy workshop) and helps students finish required college enrollment paperwork. The CTS Team also monitors and supports SEED graduates as they make the transition to college and maintains contact with SEED graduates who are enrolled in college.

Student Life Curriculum

Perhaps the most distinctive aspect of SEED’s learning environment is the time that adults spend with students after school and through the evening. The Student Life Department is

responsible for developing and coordinating residential life programming and managing students' time outside of the traditional academic day. Students are organized into houses (or groups) within the dorms, each of which is led by a resident adviser. Each house is named after a college or university and decorated with its pennants, pillows, and the like.

The Student Life Department aims to develop students' behavioral, social, and life skills while reinforcing what they are learning in the classroom. Middle school programming is intended to develop and refine social skills that are connected to meeting behavior expectations and routines, such as following instructions the first time they are given, adhering to the school dress code, and learning how to disagree appropriately. Ninth-grade Student Life activities aim to develop and reinforce the skills and habits necessary for success in high school, such as planning ahead, using anger control strategies, and building strong self-esteem. High school programming focuses on the transition to college. To accomplish these goals, the majority of Student Life time is structured, especially for the middle school grades.

The SEED-created Habits for Achieving Life-Long Success (HALLS) program teaches students social and basic life skills, such as decision making and communication strategies, and the importance of taking responsibility for oneself and others. HALLS activities focus on a variety of topics, such as bullying, dating relationships, and appropriate dining etiquette.

Students described the social and life skills they are being taught as an important step in their preparation for college and beyond. They told of instructional and noninstructional staff members routinely discussing the personal habits and skills that students need to succeed in college, such as self-motivation, discipline, independence, strong time management skills (a recurring theme in all interviews and focus groups), leadership qualities, and other personal characteristics. Middle school students characterized their schedules as being regimented and related an overall sense of being overscheduled, yet many also reported taking advantage of the various extracurricular activities offered at SEED. For example, some participated on the track team and some in student government.

Impacts on Academic Achievement and Behavior

At the beginning of the study period, students entered SEED as seventh-graders, but two years later SEED changed its model and began to enroll sixth-graders as well. In 2010-2011, SEED fully transitioned to its new model and admitted students only as sixth-graders. Analyses drew on separate samples for sixth-grade and seventh-grade entrants to estimate the short-term effects of SEED and drew on the sample of students from the first two years of the study (cohorts 1 and 2 of the seventh-graders) to estimate the longer-term effects.

Washington, DC, is an especially charter-rich environment, and many of the students who applied to SEED but did not win the lottery actively sought out other innovative school options. Specifically, of the SEED lottery losers, roughly half the students enrolled in charter schools and half enrolled in traditional District of Columbia middle schools. Thus, in this study the SEED student experience was compared with a diverse set of other school experiences that may not exist in other contexts.

Short-Term Effects of SEED

About 20 percent of the students who won the SEED lottery (the SEED group) did not enroll in SEED the following fall. Among lottery winners who did not enroll in SEED, a little more than half enrolled in other charter schools and the remainder enrolled in traditional District of Columbia middle schools.

Short-term academic effects were measured by standardized test scores in the first two years of follow-up. Findings for the Seventh-Grade Entrant Sample are as follows:

- On average, being offered the opportunity to attend SEED increased students' academic achievement in math. In the first year, SEED group scores were higher than non-SEED group scores by 0.24 standard deviation, which is roughly equivalent to a 76 percent improvement on top of the typical annual gains for this age group. In the second year, the SEED effect in math was equivalent to one and a half years of typical growth.³
- Students in the SEED group did not perform better than students in the non-SEED group in their first year of follow-up on the standard reading exam, but in the second year, the SEED group's test scores exceeded those of the non-SEED group by the equivalent of one year of typical growth in reading.⁴

Students in the Sixth-Grade Entrant Sample experienced a similar, though slightly weaker, pattern of positive SEED effects.

Longer-Term Effects of SEED

In their third follow-up year, students in the first two cohorts made the transition into high school.⁵ SEED's high school model is different from the middle school model in a few key ways — boys and girls are taught in the same classroom, students' time after school is less structured, and students begin more rigorous college-preparatory activities. Between the second

³Carolyn J. Hill, Howard S. Bloom, Alison Rebeck Black, and Mark W. Lipsey, "Empirical Benchmarks for Interpreting Effect Sizes in Research," *Child Development Perspectives* 2, 3 (2008): 172-177.

⁴Hill, Bloom, Black, and Lipsey (2008).

⁵Ten percent of the students were retained in grade.

and third follow-up years, roughly 20 percent of the SEED lottery winners in cohorts 1 and 2 who were enrolled in SEED chose to leave and attend a different high school.

In the fall of 2013 the research team surveyed lottery winners and lottery losers in cohorts 1 and 2 and asked them a variety of questions about their experiences in school. At that point, most of the respondents were high school seniors or had recently graduated. Overall, students in the SEED group reported experiencing a more rigorous and supportive academic environment.

- Students in the SEED group took fewer Advanced Placement courses but a larger number of foreign language, advanced science, and advanced math courses; participated in more extracurricular activities; received more academic support from teachers and adults; and participated in more college-prep and work-readiness activities.
- SEED group students reported having more orderly classrooms and more academically motivated peers. Students did not report a difference in the calmness and order of weekday living environments or the frequency of meals, though students in the SEED group did report that they slept less and exercised more during the week.

The effects on high school graduation for the earliest cohorts were limited:

- Being offered the opportunity to attend SEED did not have an effect on students' probability of four-year high school graduation.

In addition to positively affecting students' academic achievement, SEED aims to promote positive behaviors like rigorous study habits and self-control, while discouraging "risky" ones like alcohol use and unplanned pregnancy. SEED may have had small effects on some measures of student behavior, but only four are statistically significant:

- While the SEED group did not report having developed more rigorous study habits or organizational skills than the non-SEED group, they did report spending four more hours a week doing homework than the non-SEED group.
- Students in the SEED group reported slightly lower tobacco use in the past 30 days than non-SEED group students.
- Students in the SEED group indicated slightly more frequent risky behavior (for example, skipping school, arguing with parents, or hitting someone) in the three months before they were surveyed, compared with non-SEED group students.

- SEED group students reported slightly lower levels than non-SEED group students on scales designed to measure “grit” or perseverance.

Conclusions

Several factors are critical to the interpretation of the findings to date from this evaluation:

- **Cost.** Owing to its boarding school model, SEED costs at least twice as much per student as a traditional nonresidential school. If SEED has impacts on four-year high school graduation and nonacademic outcomes such as teenage childbearing and justice involvement, it would have the potential to produce large societal benefits that would offset its cost. At this point, there is little evidence that SEED DC has affected either graduation or the nonacademic outcomes, though it is important to note that the sample size for measuring longer-term impacts (about 200 students) is quite small.
- **Enrollment targeting.** SEED’s founders argue that the intensive, holistic, boarding-school model is needed for some students who face very serious obstacles to school success in their homes and communities. And, indeed, both the Maryland and Florida SEED schools are open only to students who meet certain specific criteria signifying severe disadvantage. In contrast, owing to local rules, the DC school, the focus of this evaluation, is open to any student who resides in Washington. It is possible that SEED’s model would produce larger impacts for students facing more serious obstacles to success.
- **Local educational context.** Washington, DC, has many innovative charter and magnet schools, and it appears that a large proportion of the students who lost the SEED lottery enrolled in these schools, particularly by the time they reached high school, when two-thirds of the non-SEED group were attending charter or magnet schools. It is possible that SEED would make a bigger difference in a context with fewer innovative alternatives.
- **Length of stay at SEED.** SEED DC’s impacts on academic proficiency are substantial, particularly in the middle school years, and other literature suggests that middle school test scores are highly predictive of high school graduation. Yet there is no evidence to date that SEED has increased high school graduation rates. This fact, coupled with data showing that less than half the SEED group was still at the school in twelfth grade, raises the question of whether SEED could have larger, more sustained impacts if more students

remained in the school longer and received a larger “dose” of SEED — in other words, whether the school needs to focus more on promoting retention.

- **Implementation quality.** While the implementation study noted many positive qualities of SEED DC’s operation, it also raised questions about the quality of instruction in SEED DC’s classrooms — particularly at the high school level — and noted that many students seemed to be struggling with the transition from eighth grade to ninth grade, even while remaining at the same school. The SEED Foundation has recently announced a renewed and intensified focus on the quality of instruction, leadership, and services at its schools. For example, the foundation reports that SEED DC has identified new curriculum resources to strengthen the middle school math program and is seeking to increase student engagement through interactive learning technologies. Given these and other ongoing changes, it is possible that impacts on student outcomes — and, perhaps, retention rates — will be stronger in the future.

About MDRC

MDRC is a nonprofit, nonpartisan social and education policy research organization dedicated to learning what works to improve the well-being of low-income people. Through its research and the active communication of its findings, MDRC seeks to enhance the effectiveness of social and education policies and programs.

Founded in 1974 and located in New York City and Oakland, California, MDRC is best known for mounting rigorous, large-scale, real-world tests of new and existing policies and programs. Its projects are a mix of demonstrations (field tests of promising new program approaches) and evaluations of ongoing government and community initiatives. MDRC's staff bring an unusual combination of research and organizational experience to their work, providing expertise on the latest in qualitative and quantitative methods and on program design, development, implementation, and management. MDRC seeks to learn not just whether a program is effective but also how and why the program's effects occur. In addition, it tries to place each project's findings in the broader context of related research — in order to build knowledge about what works across the social and education policy fields. MDRC's findings, lessons, and best practices are proactively shared with a broad audience in the policy and practitioner community as well as with the general public and the media.

Over the years, MDRC has brought its unique approach to an ever-growing range of policy areas and target populations. Once known primarily for evaluations of state welfare-to-work programs, today MDRC is also studying public school reforms, employment programs for ex-offenders and people with disabilities, and programs to help low-income students succeed in college. MDRC's projects are organized into five areas:

- Promoting Family Well-Being and Children's Development
- Improving Public Education
- Raising Academic Achievement and Persistence in College
- Supporting Low-Wage Workers and Communities
- Overcoming Barriers to Employment

Working in almost every state, all of the nation's largest cities, and Canada and the United Kingdom, MDRC conducts its projects in partnership with national, state, and local governments, public school systems, community organizations, and numerous private philanthropies.