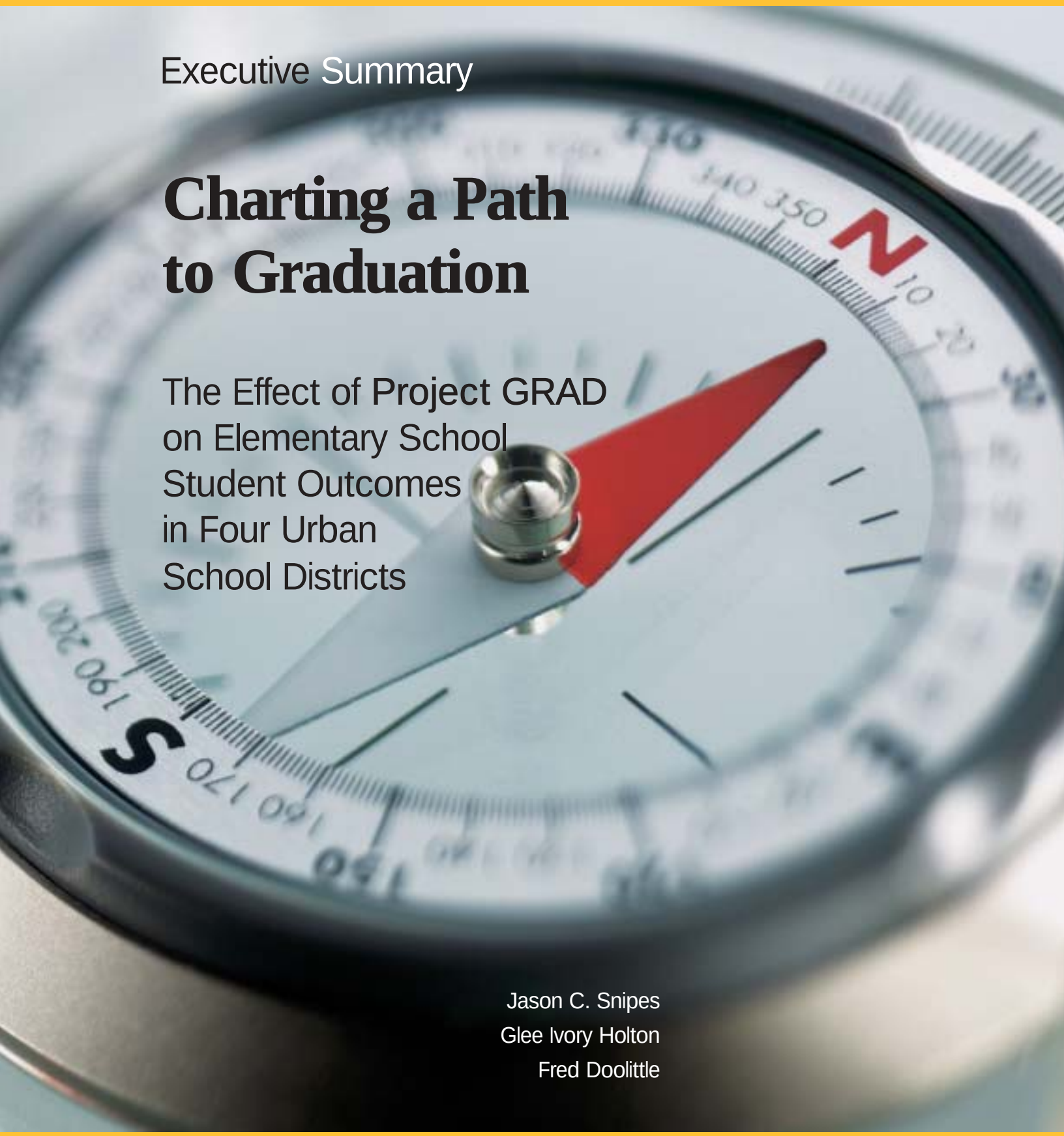
Executive Summary

Charting a Path to Graduation

The Effect of Project GRAD on Elementary School Student Outcomes in Four Urban School Districts



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Project Graduation Really Achieves Dreams (GRAD) is an ambitious education reform initiative designed to improve academic achievement, high school graduation rates, and rates of college attendance for low-income students. It is an unusual reform model in that it intervenes throughout an entire "feeder pattern" of elementary and middle schools that send students into each Project GRAD high school. The initiative recognizes that high schools inherit problems that have arisen earlier in the education pipeline, making it essential to improve both elementary and secondary schools in order to increase the rates of high school graduation, college-going, and college graduation.

Project GRAD schools at all levels build support in the community for school improvement and college attendance, implement a classroom management program, provide students with access to needed social services, and receive special support from local Project GRAD organizations. To help students arrive in middle and high school better prepared academically, Project GRAD elementary schools implement specific reading and math curricula, with enhanced professional development for teachers. At the high school level, Project GRAD's model assumes that better-prepared students would come from the Project GRAD feeder schools, would benefit from special academic counseling and summer academic enrichment in high school, and would qualify for a scholarship to attend college, which is the "cornerstone" of the Project GRAD reform.

Given Project GRAD's emphasis on early intervention, understanding the program's effects on elementary student achievement is a key step in evaluating its overall effectiveness. This report describes the effects of Project GRAD on student achievement at elementary schools in six feeder patterns, encompassing a total of 52 schools across four districts: Houston, Texas (the original site); Atlanta, Georgia; Columbus, Ohio; and Newark, New Jersey. MDRC — a nonprofit, nonpartisan research organization — conducted a third-party evaluation to determine the effects of Project GRAD by comparing the changes in student outcomes at Project GRAD schools with changes at similar, non-Project GRAD schools in the same districts. (A companion report examines Project GRAD's effects at the high school level.)[1] In general, Project GRAD student outcomes are tracked from the implementation of the first components of the model at each site until the 2002-2003 school year. The key findings of this report are:

- **Scores on *state achievement tests* at Project GRAD elementary schools in Houston and Atlanta improved in the years following implementation of the initiative. However, in an environment of strong state and local focus**

[1]Jason C. Snipes, Glee Ivory Holton, Fred Doolittle, and Laura Sztejnberg, *Striving for Student Success: The Effect of Project GRAD on High School Student Outcomes in Three Urban School Districts* (New York: MDRC, 2006).

on state achievement tests, scores improved by similar amounts at comparison schools in these same districts.

- **Project GRAD produced statistically significant positive effects on elementary students' scores on *national achievement tests* in Houston and Newark — that is, while comparison schools experienced a decline in scores on these tests, Project GRAD schools saw scores remain constant or increase.**

- **In Columbus, the implementation of Project GRAD was initially weaker than in the other sites, and this appears to have lowered test scores — both absolutely and relative to comparison schools — in the early years of the initiative.**

The remainder of the Executive Summary describes the Project GRAD model and how it was implemented in the school districts, explains how the evaluation was conducted, and summarizes the study's findings and explores their implications.

What Is Project GRAD and How Was It Implemented?

Project GRAD is unusual in recognizing the interconnection of educational issues at the elementary and secondary levels by working at the level of a feeder pattern — a high school and the associated elementary and middle schools that feed into it. Over time, Project GRAD has evolved from an effort to increase the rate of college-going among students at one Houston high school — by offering college scholarships — into a more comprehensive response to the educational problems that students at all levels face in scores of schools.

A complex, multilayered initiative, Project GRAD includes a set of core components for all the schools in a feeder pattern as well as components for the schools at each level, as described below.

Components at Project GRAD Elementary Schools

During the time covered by this study, Project GRAD had two curricular interventions at the elementary school level, as well as the components described below that seek to create an environment that is conducive to learning. (Currently, Project GRAD supports whatever reading and math curricula that participating districts adopt.)

- **Reading curriculum:** Most Project GRAD sites used Success for All (SFA), a nationally recognized reading program that focuses on the key elements of

reading instruction during concentrated instructional time (90 minutes each day), with the goal of bringing students to grade-level reading by third grade.

- **Math curriculum:** Math Opportunities, Valuable Experiences, Innovative Teaching (MOVE IT™ Math) was Project GRAD's recommended math program. It offers elementary school teachers professional development and instructional materials organized around the National Council of Teachers of Mathematics (NCTM) Standards program, involves heavy use of manipulatives to address a wide variety of learning styles, emphasizes daily problem solving, and introduces algebra in the early grades.

- **Parental and community involvement:** Project GRAD seeks to engage parents and the community in the work of the schools, build awareness of the opportunity to attend college, and support the learning of students.

- **Social services and academic enrichment:** One of two programs — Communities In Schools (CIS) or the Campus Family Support (CFS) Plan (developed by Project GRAD) — bring additional social services, academic activities, and volunteers into Project GRAD schools to address issues that students and their families face and to build commitment to academic success.

- **Classroom management:** Programs developed by Consistency Management & Cooperative Discipline℠ (CMCD)℠ are designed to produce orderly classrooms focused on learning by promoting student responsibility and self-discipline and positive relationships among students, teachers, and other adults in the school.

Components at Project GRAD High Schools

At the high school level, Project GRAD includes the three components focused on parent and community involvement, social services and academic enrichment, and classroom management. In addition, Project GRAD high schools offer two components:

- **Project GRAD college scholarships** are provided to students who have a cumulative 2.5 grade point average, graduate within a four-year time period, complete a recommended college preparatory curriculum, and participate in two summer institutes. Scholarship amounts and criteria vary slightly by site but usually average $1,000 to $1,500 each year during the four years of college. Each Project GRAD high school has a scholarship coordinator who provides counseling, tutoring, and college admission preparation.

- **Summer institutes** provide an opportunity for qualifying Project GRAD students to experience a college campus-based program taught by college faculty and to enhance their academic skills.

Based on encouraging results in its first Houston feeder pattern, Project GRAD expanded to other feeder patterns within the district. In 1998, Newark, New Jersey, became the first site outside Houston to implement Project GRAD; Columbus, Ohio, and Atlanta, Georgia, followed soon thereafter. Currently, Project GRAD operates in five feeder patterns in Houston and in 12 school districts and 211 schools in eight states across the country, serving more than 131,000 students. To manage and support each Project GRAD initiative, local not-for-profit organizations were established in Houston and the expansion sites. Expansion within the Houston schools and to other school districts stretched the capacity of some program developers to support the model's components and prompted the development of a national organization in 2000 — Project GRAD USA — to sustain implementation efforts and to address implementation issues across sites.

Three important points should be noted about the implementation of Project GRAD in elementary schools in the four study sites:

- **Although the implementation process differed across sites, the feeder patterns of schools examined in this report generally implemented the core Project GRAD components and followed the approach set forth in the model.**
- **Local situations in the school districts meant that the strength of Project GRAD's implementation varied. Houston and Atlanta achieved the strongest implementation, followed by Newark and, finally, Columbus.**
- **Many of the comparison schools were also participating in reform initiatives, likely lessening the treatment contrast between Project GRAD and comparison schools, particularly in Houston and Atlanta.**

How Was the Evaluation Conducted?

The goal of this evaluation is to understand whether Project GRAD changed the academic achievement of children in the elementary schools it serves and, if so, how. The study focuses on test scores because they are the focus of policy attention and because other typical measures — like absence or expulsion rates — are already very low in Project GRAD elementary schools. The evaluation relied on the tests administered by the school districts, which included state achievement tests, national achievement tests, or — in Houston — both types of tests.

To estimate the program's effect on achievement, MDRC used an approach called "comparative interrupted time series analysis." The first step in estimating program impacts with this design is to compare the change at Project GRAD schools in a given student outcome after the school began implementing Project GRAD with the average outcome during a baseline period, before implementation. This estimate represents how student performance changed in the presence of Project GRAD but does not, by itself, provide a measure of the *effect* of Project GRAD. The next step is to measure the corresponding change during the same period for similar schools not implementing Project GRAD. This measurement provides an estimate of how student performance would most likely have changed at the Project GRAD schools in the absence of the reform. The *difference* between these two changes is an estimate of the *impact* of the reform — the effects that can be attributed to Project GRAD.

Project GRAD is typically implemented over several years as individual components of the model are put in place, so these findings reflect the initiative at a specific point in its history at each site. Being the first district to implement the model, Houston offers more years of follow-up data than the expansion sites, which were at an early stage in their operation of Project GRAD during the years covered by this report. Finally, student mobility into and out of schools is common in urban districts. While the findings presented here include all students at the Project GRAD and comparison schools, the findings are similar when the analysis focuses on "nonmobile" students who remained at these schools for multiple years.

How Did Project GRAD Affect Elementary Student Achievement?

- **In Houston and Atlanta, where Project GRAD implementation was strong, student scores on *state achievement tests* at the Project GRAD schools improved. During the same period, similar improvements on state tests also occurred at the comparison schools, which implemented other district- and school-level reforms (often focused on boosting scores on state tests).**

Achievement on the Texas state standards-based tests at Project GRAD Houston elementary schools improved substantially during the years following the initiative's implementation. However, comparison schools throughout the district made similar progress on these tests, suggesting that Project GRAD did not improve these outcomes beyond what would have happened without the program. The period from 1993 to 2003 was one of substantial progress in students' test scores across low-performing elementary schools in Houston. For example, over the eight available years of follow-up, average test scores for fourth-grade math (as measured by the Texas Learning Index) at the Project GRAD schools in the Jefferson Davis feeder pattern rose from 63 to 82, while scores at the corresponding comparison schools rose from 61 to 81.

- **Scores on *national achievement tests* fell at comparison schools in Houston and Newark during the study period. Project GRAD frequently prevented or lessened a similar deterioration in performance on these tests, resulting in significant positive effects on elementary student achievement relative to national norms.**

In Houston, findings for the third grade demonstrate the pattern of effects. The Stanford Achievement Test (SAT-9) — a test comparing students to test-takers nationally — was first administered in Houston in 1998, several years after the initial implementation of Project GRAD in the Davis High School feeder pattern. Students' performance on the SAT-9 at the comparison schools used for Houston's three feeder patterns generally declined, whereas scores at the Project GRAD schools in two of the three feeder patterns generally remained relatively stable or fell by less than at the comparison schools. The net result is a consistent set of statistically significant positive effects on elementary-level SAT-9 achievement in both reading and math. For example, the analysis suggests that, in the absence of Project GRAD, third-grade SAT-9 math achievement throughout the Davis feeder pattern would have fallen to the 25th percentile; with Project GRAD, math achievement reached the 38th percentile.

In Newark during the six years prior to Project GRAD's implementation, test scores on the SAT-9 steadily declined, reflecting the district's turmoil. During the first two years of follow-up, scores at the Project GRAD schools stopped declining and improved substantially relative to the earlier trend line, whereas no similar break with prior negative trends occurred at the comparison schools. These effects were especially pronounced for several grades and subjects. For example, the analysis suggests that, in the first year of implementation, average third-grade math achievement at the Project GRAD schools reached the level of the 48th percentile instead of the 28th percentile — the level that was predicted, had the model not been implemented. Unfortunately, changes in testing in the Newark district prevented longer-term follow-up, so it is not possible to determine whether these positive, statistically significant, and substantial effects continued. It is important to note also that the positive effects in Newark began before the model's instructional components were even implemented, suggesting that the components relating to classroom discipline and social supports — by themselves — can have effects on academic performance.

- **In Columbus, trends in test scores reflect the site's inconsistent implementation of Project GRAD. Overall, there was little sustained improvement in test scores at either the Project GRAD or the comparison schools during this early follow-up period. There is some indication that Project GRAD may have produced small, negative impacts on some subjects and grades, most of which dissipated over time.**

As has been found in other studies, difficult early implementation of complicated education reforms can temporarily result in stresses on schools and in unintended short-term effects on student outcomes. In some follow-up years and grades, scores at the Project GRAD Columbus schools appear to have fallen slightly below the baseline averages, while no similar declines from the baseline occurred at the comparison schools. By the third year of follow-up, these negative impacts had largely disappeared, except for declines in fifth-grade math.

What Are the Implications of These Findings?

In general, Project GRAD was able to operate in a variety of contexts that differed in terms of prior student achievement, local capacity, existing education reforms, and district staffing rules. The ambitiousness of the initiative's model and its expansion to sites other than Houston required the creation of a national organization (Project GRAD USA) that developed its own technical assistance capacity. The efforts to expand into additional feeder patterns in Houston and simultaneously into new cities sometimes stretched the capacity of the developers to support the model's reforms.

At the same time, the local context in each district where Project GRAD was attempted had important influences both on the success of the model's implementation and on its effects on student achievement. This leads to a few observations:

- **In settings that were already mounting reforms focused on improving state test scores — as in Atlanta and Houston — Project GRAD does not appear to have generated systematic improvements on state assessments that were greater than the improvements at the comparison schools.**

- **On the other hand, in both Houston and Newark, Project GRAD did reverse declining trends on national achievement tests. This suggests that Project GRAD has the potential to help schools improve — or, at least, to avoid deterioration in — the more general academic competencies measured by some national achievement tests.**

Although data limitations prevent a full examination of this theme, Project GRAD schools with reasonably good implementation appear to have achieved comparable improvements on state tests as similar local schools, while avoiding declines in scores on national tests. Some experts argue that a narrow focus on improving student performance on state standards-based tests can have an unintended deleterious effect on student achievement measured more broadly. Project GRAD's positive impact on national test scores may help address that concern.

- **Except in Houston, the Project GRAD programs were still relatively early in their life cycle when the data were collected. Many argue that it**

takes at least five years for education reforms to take hold and show results, which highlights the possibility that results in Atlanta and Columbus might still improve.

This evaluation represents the experience of only four district sites and six feeder patterns. The expansion sites of Atlanta, Columbus, and Newark were the first of the new districts added to the Project GRAD network, which has since expanded to at least eight additional districts. Project GRAD's implementation process has undergone important revisions — many growing out of this early experience — that are not captured in the evaluation.

- **Project GRAD may be most useful in school districts where existing reform efforts may not yet be providing adequate support to improve elementary-level instruction — districts where the model's programmatic and structural elements may meet important needs.**

In some districts — even in low-performing districts that serve large proportions of economically disadvantaged students — ongoing reforms may be producing rising achievement scores, even though achievement levels may still be lower than desired. This is particularly likely to be the case for performance on state-mandated, standards-based assessments. In such settings, Project GRAD may not fill a gap in existing efforts to improve elementary-level instruction in ways that help meet the standards, and the initiative may compete with other reforms for attention and support. Even in these contexts, however, Project GRAD may improve (or at least prevent the erosion of) student performance on the more general skills that are not necessarily measured by state standards tests.

The key implication is to focus on districts that have low achievement and high levels of disadvantaged and minority students, where Project GRAD's emphasis on elementary-level instruction in reading and math and on classroom management and social service supports would represent a value-added difference over and above reforms that are already in place.