

Policy Brief

Reducing High School Dropout through Elementary School Student Support

Winter 2014



CENTER FOR OPTIMIZED STUDENT SUPPORT
LYNCH SCHOOL OF EDUCATION
BOSTON COLLEGE

POLICY BRIEF

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Introduction

It is widely recognized that to close the achievement gap, schools must address the out-of-school barriers that impact academic success, especially those related to poverty. New research shows that addressing these factors in a systematic way in elementary schools leads to benefits much later in **reducing school dropout**.

Childhood poverty is manifested in food insecurity, housing instability, contagions in the environment, inadequate medical care and insurance, lack of access to enriching activities, and stress on families, among many other conditions. These manifestations of poverty, each one important, interact and exacerbate one another. They demand a flexible and customized approach to supporting the students who face them.

Optimized student support pays careful attention to the individual strengths and needs of students in elementary school and links students to community- and school-based supports and enrichments that are best suited to their particular needs. New findings show that optimized student support contributes to the groundwork for on-time graduation, impacting the life chances of students who experience childhood poverty.

What is optimized student support?

City Connects¹ is a system that broadens the work traditionally done by student support staff in schools. At its core is a full-time, Master's-trained school counselor or social worker who works with each teacher to review the strengths and needs of every

student in the school, then leverages community and school resources to match each student to the specific supports and enrichments they can most benefit from.

Resource allocation is grounded in evidence. City Connects tracks referrals, service delivery, and outcomes and thus can measure effectiveness. It can easily be expanded and sustained in new districts. City Connects is comprehensive, ensuring that no student is overlooked, but also customized and dynamic, with ongoing reviews and adjustments—confronting the non-static nature of childhood poverty.

How does optimized student support impact school dropout?

Students who attended schools implementing City Connects beginning in kindergarten are less likely to drop out of school in high school than comparison students (those who never attended a City Connects school).²

As shown in Figure 1, at every grade level, students who attended City Connects elementary schools from kindergarten on are less likely to drop out of school. The difference at grade 9 is particularly notable (almost 6% for comparison students and 3% for City Connects students).

As shown in Figure 2, the cumulative percentage of students who drop out across the four years of high school is also substantially lower for students who attended an elementary school implementing City Connects starting in kindergarten than for those

¹ See *CityConnects.org*

² Evidence is from a large-scale longitudinal quasi-experimental study.

Figure 1. Proportion of students who drop out from school at each high school grade level, comparison vs. City Connects students

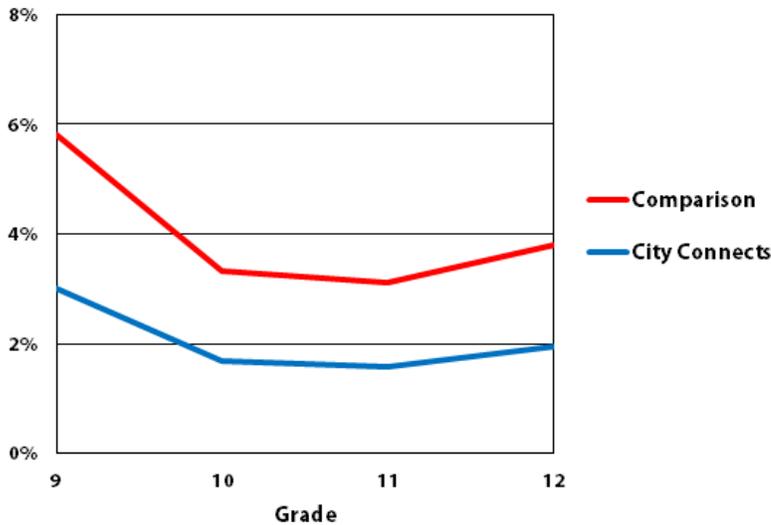
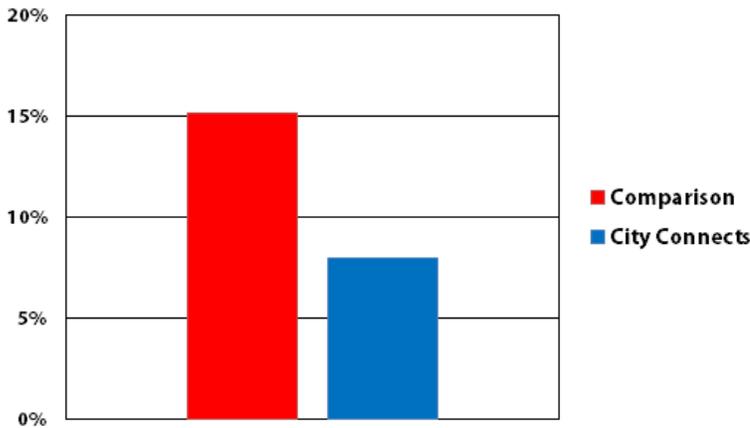


Figure 2. Cumulative percentage of students who drop out from high school, comparison vs. City Connects students



In both figures, proportions adjusted for demographic student characteristics. Source: District withdrawal code data, 2005-12. Comparison N= 19,979; City Connects N=2,265.

who never attended a City Connects school. For students who started City Connects in kindergarten, the difference between students who attended City Connects elementary schools and comparison students translates to approximately 50% lower odds of dropping out between grades 9 and 12. If an entire district

experienced drop-out at a rate similar to that of City Connects students, for a cohort of 5,000 students, approximately 358 fewer students would have dropped out of high school.

High school graduation is widely argued to yield public economic benefits, including higher tax revenue and lower spending on the justice system, healthcare, and public assistance programs. A conservative estimate of the benefit is \$127,000³ per graduate. Assuming this estimate, if a district with a cohort of 5,000 had experienced dropout at a rate similar to City Connects students, the public benefit would have exceeded \$45 million.

How was the study carried out?

This study followed students' longitudinal data records in a large urban high-poverty district from their initial enrollment in a City Connects elementary school, continuing after they left the intervention into middle and high

school (N=2,265). A comparison group of students who attended school in the same district at the same time but never attended a City Connects school was also followed (N=19,979).

³ Levin, H., Belfield, C., Muennig, P., & Rouse, C. 2006. The costs and benefits of an excellent education for all of America's children. Teachers College, Columbia University.

The study looked at the longitudinal records of City Connects and comparison students who had also been enrolled in the same district in elementary school⁴. When students leave the district, the reason for departure is recorded. The analysis drew on this information to classify each student's "dropout" status:

Students classified as non-dropout: Students who leave the district for reasons other than dropout, such as graduation or transfer to another district. If a student does not depart the district, but his/her longitudinal record does not reach grade 12 simply because the student is not old enough to have completed high school, no withdrawal information appears in the record. These students are also included in the non-dropout group.

Students classified as dropout: Students who (1) withdraw from the district entirely; (2) never return to the district; and (3) have a record that clearly indicates non-graduation (such as dropout, pregnant, expelled, or incarcerated).

The City Connects effect on dropout is modeled using discrete event history analysis: repeated measures are nested within students using hierarchical logistic regression and repeated measures and student-level characteristics serve as controls.

What are the advantages of this method of studying dropout?

The individual student record method has advantages over school-level proxies for drop-out (i.e., cohort size difference at 9th and 12th grade). Education program evaluations sometimes follow a school cohort from the beginning of high school to the end, and examine aggregate enrollment differences at grade 9 and grade 12 four years later. That is, these methods estimate dropout rates by counting the number of students at

4 Several other conditions applied: (1) the student's longitudinal record extended to at least the beginning of grade 9; (2) the student was not enrolled in a substantially separate special education classroom at the endpoint of their record; (3) the student's record included complete information on control variables (race, gender, ever eligible for free/reduced priced lunch, ever classified as an English language learner, ever eligible for special education services, total number of school transfers experienced since kindergarten, and grade level at end of longitudinal record).

the beginning and end of high school. Though simple to implement, this strategy may misrepresent true drop-out rates because a number of factors besides true dropout may affect aggregate enrollment counts (e.g., student transfers, retention in grade, school restructurings).

In contrast, student-level records provide more precise indicators of drop-out status because they follow the actual enrollment of each student over time, factoring in the reasons for disenrollment. (Also, some districts report dropout rate calculated as the percentage of students who drop out each year; the analysis reported above examined the percentage of students in each 9th grade cohort who drop out over their time in school.)

What are the implications of this study?

Poverty is a major contributor to the achievement gap. This study suggests that childhood poverty is not destiny. Providing the right customized services and enrichments through a system within the elementary school makes a difference much later, improving school completion. While many policy efforts targeting school dropout focus on high school students, this study shows that intervention at much younger ages is warranted.

CENTER FOR OPTIMIZED STUDENT SUPPORT

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The mission of the Center for Optimized Student Support is to design, implement, and evaluate ways to address the out-of-school factors impacting student learning and thriving in schools.

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