The Impact of Boston Connects

Summary Report 2008-2009

Boston College Center for Child, Family and Community Partnerships

Boston Connects is now CITYCONNECTS Optimized Student Support
Acknowledgements

We gratefully acknowledge the support of the Boston Public Schools: the Superintendent, the Office of Research, Assessment and Evaluation, the Office of Instructional and Information Technology, and the Department of Unified Student Services. We could not have accomplished this work without the unwavering support of the principals, teachers, staff, and students of the participating Boston Connects schools. Finally, we thank the Lynch School of Education, Boston College, and our funders for their generous support.

Current Support

New Balance Foundation
Charles Hayden Foundation
Strategic Grant Partners
Ludcke Foundation
Boston College
Introduction

It is widely agreed that the achievement gap cannot be closed until out-of-school factors that impact students’ success are addressed through effective approaches to student support. Districts tend to take one of three approaches to coordinating student support activities. Some take a passive approach, in which schools do not break out student support as a unique activity, but view it as the responsibility of teachers or school leaders to provide necessary services to students, or connect students with the right services. Other districts take a mental-health approach, in which a small, select number of students receive counseling at the school or in the community. A third approach is the full-service community school approach, in which a variety of after-school, health, mental health, and related services for students and their families are offered at the school site.

This report provides an overview of an entirely fresh and innovative approach to student support—Boston Connects (BCNX). BCNX brings together the Boston Public Schools, community agency partners, and Boston College to help children engage and learn in school by matching each student to a tailored set of services he or she needs to thrive. BCNX is fully implemented in twelve Boston public elementary schools, with an additional seven randomly selected schools serving as comparison schools for evaluation.

This report is an abridged version of the quantitative and qualitative outcomes of the Boston Connects ongoing evaluation. Our full annual report for 2008-09 presents more detailed information about the Boston Connects intervention, its phased rollout in two Boston Public Schools clusters, and the demographics of the schools involved. The full report also describes in detail the data sources and methodologies employed, and the full results of the quantitative and qualitative analyses of those data.

This summary, like the full report, emphasizes the analyses we conducted in the academic years 2008-09. Quantitative analyses drew on a rich variety of sources, including report card scores, state test scores, student and teacher surveys, and publicly available demographic data. In order to supplement and illuminate the quantitative data, BCNX also rigorously analyzed qualitative data from key participants at the heart of the intervention: teachers, principals, and BCNX staff. Because quantitative data from the Boston Public Schools and the state do not become available until fall of 2009, the quantitative analyses are based on data from 2007-08 and previous years. Qualitative data were gathered and analyzed in academic year 2008-09.

After briefly outlining the Boston Connects intervention, we will present quantitative and qualitative findings on the impact of BCNX on students, schools, community agencies and families. First, we provide information on the context in which the BCNX intervention is embedded.
Context

The demographics of the city of Boston, its public schools, and the Boston Connects schools are important to the interpretation and understanding of the impact of the Boston Connects intervention. In the full report, we provide a wider-ranging description of the Boston context. Here, we concentrate on one segment of the context: BPS elementary schools.

Table 1.

**Percentage of students with different demographic characteristics within BPS, Pilot, Charter, BCNX, and Comparison Elementary Schools, 2008-09.**

<table>
<thead>
<tr>
<th></th>
<th>BPS</th>
<th>Pilot</th>
<th>Charter</th>
<th>BCNX</th>
<th>COMP</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Poverty Status (receiving free or reduced-price lunch)</td>
<td>78.2%</td>
<td>65.4%</td>
<td>74.3%</td>
<td>83.4%</td>
<td>84.8%</td>
</tr>
<tr>
<td>B. Race Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td>5.9%</td>
<td>6.0%</td>
<td>3.3%</td>
<td>16.7%</td>
<td>10.6%</td>
</tr>
<tr>
<td>Black</td>
<td>36.0%</td>
<td>33.2%</td>
<td>57.3%</td>
<td>28.0%</td>
<td>36.4%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>42.0%</td>
<td>40.2%</td>
<td>24.3%</td>
<td>41.5%</td>
<td>36.9%</td>
</tr>
<tr>
<td>White</td>
<td>13.5%</td>
<td>17.3%</td>
<td>12.0%</td>
<td>11.8%</td>
<td>13.8%</td>
</tr>
<tr>
<td>C. Native Language other than English</td>
<td>35.1%</td>
<td>29.4%</td>
<td>19.2%</td>
<td>53.1%</td>
<td>57.1%</td>
</tr>
<tr>
<td>D. Limited English Proficient</td>
<td>21.4%</td>
<td>18.9%</td>
<td>4.0%</td>
<td>18.6%</td>
<td>10.1%</td>
</tr>
<tr>
<td>E. Special Education</td>
<td>19.8%</td>
<td>19.0%</td>
<td>10.7%</td>
<td>19.7%</td>
<td>19.0%</td>
</tr>
</tbody>
</table>

Data source: Massachusetts Department of Education enrollment data.

As shown in Table 1:

- BCNX schools have a higher percentage of students receiving free or reduced-price lunch than BPS as a whole, pilot schools, or charter schools.
- Despite a random lottery process, charter school students are more likely to be black and less likely to be Hispanic than BCNX students.
- Pilot schools, charter schools, and BPS as a whole serve a far smaller proportion of students whose native language is other than English than BCNX schools do.
- Charter schools serve a smaller proportion of SPED students, and a far smaller proportion of students who are Limited English Proficient, than BCNX schools do.
The Boston Connects Intervention

Success in school is predicated on students’ readiness to engage and thrive. Boston Connects sees this readiness as the convergence of strengths and needs across four dimensions: academic, social-emotional, health and family. See Figure 1.

Figure 1.

**Academic success is predicated on students’ readiness to engage and thrive in school.**

Boston Connects is a partnership that addresses this full range of students’ strengths and needs across the four dimensions. Figure 2 shows the partners that together form Boston Connects: the Boston Public Schools, a wide range of community agencies, and Boston College.
Two clusters within the Boston Public Schools are the focus of the intervention. An additional 7 schools provide comparison data to measure the effects of BCNX. Community agency partners from the beginning have provided many of the services needed to address the strengths and needs of BCNX students and their families. The fulcrum of Boston Connects is Boston College, which developed and delivers the Boston Connects intervention. Boston College is the home of the leadership, implementation, and research and evaluation teams, as shown in Figure 2.

Figure 2.
The **BCNX partnership.**

![Diagram of the BCNX partnership]

1 Data source: BCNX Student Support Information System database, 2008-09.
2 Data source: Massachusetts Department of Education enrollment data, 2007-08.
Figure 3 presents our mission and rationale.

**Mission Statement**
To have children engage and learn in school by connecting each child with the tailored set of prevention, intervention, and enrichment services s/he needs to thrive.

**Because Boston Connects is a...**
- Hub for all student support activities in a school
- Systemic approach to addressing the needs of K-8 students
- Connecting point between students and services/resources inside and outside the school
- Partner of schools, communities, and families

**An environment is created where...**
- Students are ready to benefit from instruction
- Teachers teach more effectively as classroom behavior and dynamics improve
- Principals spend less time on student behavior management, crisis intervention, and student support administration
- Each family has a trusted point to access support services for their child and better understand how to advocate for their child’s needs
- Providers can be more effective as referrals are informed and meaningful and steps have been taken to ensure the proper student/provider match

**Resulting in...**
- Significant improvements in student achievement and ability to thrive
At the core of the intervention is a full-time Site Coordinator in each school (a Masters-level school counselor or school social worker) who serves as a hub for connecting students to a customized set of services. The Site Coordinator works with the New Balance Foundation Health Coordinator, who delivers a key prevention service: the New Balance Health and Wellness Program. The Site Coordinator collaborates with families, with school faculty and staff, and with the Boston College leadership and research staff in this work. The inner workings of the BCNX model are shown in Figure 4.

Figure 4.

A School Site Coordinator is central to the workings of the BCNX model.
The Site Coordinator works with classroom teachers and others to systematically assess each and every student and develop a customized plan for support.

**Spring 2010 Addendum**

For each student in every classroom in a City Connects school, the City Connects Site Coordinator works with the classroom teacher and others in the school to assess that student’s strengths and needs in four domains: academic, social/emotional/behavioral, health, and family. As part of this process, each student is assigned to a “tier" according to his or her particular combination of strengths and risks, ranging from Tier 1 (strengths and minimal risk) to Tier 3 (strengths and severe risk).

In addition to helping to organize the work of City Connects, this tiering system has led to a helpful way of studying whether City Connects outcomes vary depending on the degree of risk. The tier level of students established with the input and insights of teachers and other school staff have been used by the evaluation team to analyze the impact of the City Connects intervention.

With the help of this tiering model, the City Connects evaluation team has been able to compare academic achievement and thriving outcomes by tier for students in City Connects schools and Boston Public comparison schools. This innovation is important because it allows the team to discover where City Connects is having its greatest impact. It also offers an innovative way to define what “at risk” means—a definition grounded in the insights and knowledge of teachers, City Connects Site Coordinators, and others who know students well in schools.

In addition to the comprehensive review of each student in the school, students identified as having intensive needs also receive an individual review, where a wider team of professionals discusses goals and strategies. This individual review takes place at meetings of the Student Support Team (SST)—a structure in every Boston public school that brings together a

“I just got an email that one of my 4th grade students made it into [Program Name]! She has come so far and grown so much that it is remarkable to see her growing into such a smart young woman with direction. I truly believe getting her connected with [Agency Name] has contributed a great deal to her success.”

—Site Coordinator
varied group of school staff members (e.g., Educational Team Facilitators, school psychologists, teachers, principals, nurses, and occasional community agency staff members) who play various roles in supporting students. The BCNX Site Coordinator sits on the SST and typically plays a major coordinating role.

As they review each student in the school, the teacher and BCNX Site Coordinator identify the intensity of strengths and needs (thereby identifying the tier appropriate for the student) and develop a tailored service plan. See Figure 6.

Figure 6.
Tiers in the BCNX triangle, with number of students placed in each tier.

TIER 1
Strengths and Minimal Risk

TIER 2
Strengths and Mild to Moderate Risk

TIER 3
Strengths and Severe Risk

Data source: BCNX Student Support Information System database, 2008-09. Numbers based on Whole Class Reviews. Students who entered the school after the WCR process was completed are not included in this figure, although they were monitored by coordinators and received services when the need arose.

The Site Coordinator connects students to a set of school- and community-based services that are tailored to student- and family-specific strengths and needs. The tailoring is accomplished through different combinations of quantity and type of services from Figure 7, resulting in a unique set of services for each student. For any single student, regardless of tier, the tailored set might include a combination of prevention and enrichment, early intervention, and/or intensive services.
Figure 7.
Total number of services delivered to students, by service category.

<table>
<thead>
<tr>
<th>Service Category</th>
<th># Services Delivered</th>
<th>% of Category</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>NBF Health Program</td>
<td>2006</td>
<td>28</td>
<td>18</td>
</tr>
<tr>
<td>NBF Social Competence Program</td>
<td>2006</td>
<td>28</td>
<td>18</td>
</tr>
<tr>
<td>Enrichment</td>
<td>1837</td>
<td>26</td>
<td>16</td>
</tr>
<tr>
<td>Sports/Physical Activity</td>
<td>649</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>BPS-Social Competence</td>
<td>521</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Before School Programs</td>
<td>128</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>Category Total</strong></td>
<td><strong>7147</strong></td>
<td><strong>100</strong></td>
<td><strong>63</strong></td>
</tr>
<tr>
<td>After School Programs</td>
<td>636</td>
<td>87</td>
<td>6</td>
</tr>
<tr>
<td>Summer Program</td>
<td>99</td>
<td>13</td>
<td>1</td>
</tr>
<tr>
<td><strong>Category Total</strong></td>
<td><strong>735</strong></td>
<td><strong>100</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td>Tutoring/Academic Support</td>
<td>1045</td>
<td>46</td>
<td>9</td>
</tr>
<tr>
<td>Adult Mentoring</td>
<td>723</td>
<td>32</td>
<td>6</td>
</tr>
<tr>
<td>Small Social Skills Groups</td>
<td>317</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Behavior Plan/Special Observation</td>
<td>145</td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td>Classroom Interventions</td>
<td>51</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Category Total</strong></td>
<td><strong>2281</strong></td>
<td><strong>100</strong></td>
<td><strong>20</strong></td>
</tr>
<tr>
<td>Family Outreach</td>
<td>261</td>
<td>52</td>
<td>2</td>
</tr>
<tr>
<td>Supplemental Educational Services</td>
<td>194</td>
<td>39</td>
<td>2</td>
</tr>
<tr>
<td>Pre-Referral Diagnostic</td>
<td>44</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td><strong>Category Total</strong></td>
<td><strong>499</strong></td>
<td><strong>100</strong></td>
<td><strong>4</strong></td>
</tr>
<tr>
<td>Mental Health Counseling</td>
<td>385</td>
<td>55</td>
<td>3</td>
</tr>
<tr>
<td>Daily Check-In/Site Coordinators</td>
<td>187</td>
<td>27</td>
<td>2</td>
</tr>
<tr>
<td>Medical Services</td>
<td>54</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Crisis Intervention</td>
<td>43</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>Special Education Evaluation¹</td>
<td>34</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td><strong>Category Total</strong></td>
<td><strong>703</strong></td>
<td><strong>100</strong></td>
<td><strong>6</strong></td>
</tr>
<tr>
<td><strong>TOTAL # All Services</strong></td>
<td><strong>11,365</strong></td>
<td><strong>100</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Data source: BCNX Student Support Information System database, 2008-09.
1 This category includes only Special Education evaluations resulting from the Whole Class Review or Individual Student Review process.
Table 2 shows first that the mean number of services per student is smallest at tier 1 and largest at tier 3, and the differences between these means for tiers 1 through 3 are all statistically significant. Second, the proportion of students receiving 1-2 services is highest for tier 1 students and lowest for tier 3. Third, the corresponding proportions for 5 or more services are the mirror image: the proportion of students receiving 5 or more services is smallest for tier 1 and largest for tier 3. (See Figure 8.) The total N for this table is smaller than the total number of students in BCNX schools because the table includes only students in grades K-5, and does not include students who entered BCNX schools after the Whole Class Review had been completed.

Table 2.
Proportion of students in each tier receiving different numbers of services, grades K-5.

<table>
<thead>
<tr>
<th></th>
<th>1-2 Service</th>
<th>3-4 Services</th>
<th>5+ Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>St. Dev</td>
</tr>
<tr>
<td>Tier 1</td>
<td>883</td>
<td>3.22</td>
<td>1.87</td>
</tr>
<tr>
<td>Tier 2</td>
<td>1242</td>
<td>3.83</td>
<td>2.22</td>
</tr>
<tr>
<td>Tier 3</td>
<td>551</td>
<td>4.58</td>
<td>2.70</td>
</tr>
<tr>
<td>No Tier Assigned</td>
<td>353</td>
<td>3.55</td>
<td>1.91</td>
</tr>
<tr>
<td>Total</td>
<td>3029</td>
<td>3.76</td>
<td>2.24</td>
</tr>
</tbody>
</table>

Data source: BCNX Student Support Information System database, 2008-09.

1 All comparisons of mean differences for tiers 1 through 3 are statistically significant (p<0.05).
2 These students were assessed in a Whole Class Review but did not have a tier entered in the database.

Figure 8.
Proportion of students in each tier receiving 1-2, 3-4, or 5 or more services.

Data source: BCNX Student Support Information System database, 2008-09.
Student Outcomes

Boston Connects helps students achieve academically

In this section, we present a range of quantitative and qualitative evidence that Boston Connects positively impacts student academic achievement.

An analysis of students’ academic growth over time in report card scores in Reading, Writing and Math shows that even though students in BCNX schools overall start with lower report card scores, the beneficial effects of BCNX change their growth trajectories soon after they enter a BCNX school, leading their academic achievement to surpass that of their counterparts in comparison schools.
Figure 9.
Longitudinal change in Reading, Writing and Math report card scores, BNCX vs. comparison-school students.

READING
In BCNX 1st-5th grade v. Comparison

In BCNX 2nd-5th grade v. Comparison

WRITING
In BCNX 1st-5th grade v. Comparison

In BCNX 2nd-5th grade v. Comparison

MATH
In BCNX 1st-5th grade v. Comparison

In BCNX 2nd-5th grade v. Comparison

Data source: Boston Public Schools report card data, 2001-02 through 2007-08.
Figure 9 shows the results of the analysis for all three academic subjects. Each row corresponds to one subject (Reading, Writing or Math). For BCNX students, the different columns of graphs represent different grades of entry into BCNX from grade 1 to 5, followed by continuous enrollment in BCNX through grade 5. For example, in the first column, the blue line represents students who entered BCNX in grade 1 and remained in BCNX through grade 5. These are the students with the largest dosage of BCNX.

Within each graph, the blue line shows the trajectory of the BCNX students’ report card scores. The red line shows the trajectory of the comparison students’ report card scores. Additionally, each graph contains an arrow marking the entrance into BCNX. For example, in the third column, the arrow denotes entrance into a BCNX school at third grade.

- In all graphs in the matrix, after their initial entrance into a BCNX school, BCNX students had significantly greater improvement over time in report card outcomes in Reading, Writing and Math than students who were never in BCNX. (We did not find any BCNX effects in Reading and Math for those who entered in the fifth grade.)

- The first column—that is, those students who start in first grade and remained in BCNX through fifth grade—shows the largest student dosage of BCNX represented in these graphs (5 years). For these students, the BCNX trajectory starts lower in all subjects than that of the comparison students, but the BCNX trajectory always moves higher by around the end of grade 2, and these differences persist through the end of grade 5. For both groups, scores rise until the start of grade 3, although at a faster rate for BCNX students. After grade 3, scores begin to level off or dip, and then recover for both groups along nearly parallel trajectories.

Figure 10 disaggregates the Reading findings by English Language Limited (ELL) status for students enrolled in BCNX for five years, and for comparison-group students.

1. For students who entered BCNX in grade 5, the rate of change on Writing scores was higher than that of comparison school students, even though they did not surpass comparison school students by the end of the fifth grade.
Figure 10. Longitudinal change in Reading report card scores, BNCX vs. comparison-school students, disaggregated by ELL status.

Data source: Boston Public Schools report card data, 2001-02 through 2007-08.

- Both ELL and non-ELL students who were in BCNX schools started, on average, with significantly lower Reading scores than their respective comparison students. Both ELL and non-ELL students who were continuously in BCNX schools from grades 1 through 5 had significantly greater improvement over time in Reading scores than students who were never in BCNX.

- The effect of BCNX on both Reading and Writing score improvements was largest for ELL students. By third grade, ELL students in Boston Connects schools demonstrated similar Reading and Writing report card scores to those proficient in English in the comparison schools, thereby eliminating the achievement gap in Reading and Writing between ELL and non-ELL students.

The growth curves compare the rate of improvement for BCNX vs. comparison-group students. A second technique, propensity-score matching, was used to analyze the differences in Reading, Writing and Math report card outcomes between BCNX and comparison-group students at the end of third, fourth and fifth grade.
• In almost all cases, BCNX has a statistically significant positive impact on report card scores in Reading, Writing, and Math. The sole exception to this pattern is Reading scores at the end of fourth grade, where there was no significant difference between BCNX and comparison group. With this sole exception, in all three areas at all of these grade levels, the BCNX students had significantly higher report card scores on average than comparison-group students.

• Beyond statistical significance, these BCNX impacts have practical significance. The BCNX intervention appears to move the average (median) student up to or near the 75th percentile, and the students at the 25th percentile up to or near average.

Figures 11-13 illustrate these findings.

Figure 11.

**Reading report card scores, BNCX vs. comparison-school students.**

Data source: Boston Public Schools report card data, 2001-02 through 2007-08.
In addition to its impact on report card scores, BCNX has a longer-term positive impact on students’ state test scores. In this section we examine the effects of BCNX on Massachusetts Comprehensive Assessment System scores (MCAS) in English Language Arts (ELA) and Mathematics (Math). MCAS is a series of high-stakes tests administered to all students and used to determine Annual Yearly Progress as part of the No Child Left Behind Act (NCLB).
For interpretive purposes, it is worth considering that Massachusetts uses the results of the grade 10 tests in ELA and Math to determine high school graduation. This high-stakes use of MCAS results generates pressure to prep students for the tests—pressure that is felt across all of the grades, and is further exacerbated by local newspaper coverage of results. This test preparation also includes programs outside school designed to boost these scores (e.g., supplemental educational services, SES, defined by the NCLB Act). The potential for BCNX to boost scores above and beyond this intense universal preparation is limited.

Table 3 reports comparative results on the MCAS for grades 3 through 8 for students in BCNX and comparison schools. The analysis for grades 6 through 8 follows students from BCNX and comparison schools after leaving the elementary grades to determine the longer-term impacts of BCNX. The numbers in Table 3 are effect sizes—statistical indicators of the size of the impact of BCNX. That is, the effect sizes indicate how large the MCAS score differences are between the BCNX and comparison groups.

We estimated BCNX intervention effects by dose (a variable simply indicating whether or not a student has ever been enrolled in a BCNX school) and dosage (which reflects the total number of years a student has been in a BCNX school). Bolded/italicized effects are statistically significant.

Figures 14 and 15 show the BCNX effect sizes for MCAS scores in ELA and Math respectively. Effect sizes for poverty are also in the figures in order to directly compare the beneficial effects of BCNX to the harmful effects of poverty (free lunch). Note that the effect sizes for poverty are negative and are almost always larger in absolute size than the beneficial effects of being in BCNX. Note also that there is no “dose” or “dosage” for poverty.

Together, the table and figures tell a story:

- With two exceptions, results for students in grades 3 through 5 do not show significant positive impacts for BCNX.
- Nonetheless, after grade 5, when students have left the BCNX intervention and are in middle school, a long-term BCNX treatment effect emerges. All BCNX treatment effects on MCAS scores are positive, and half are statistically significant, including most of the effects for dosage. (We return to this below.)
- Furthermore, when compared to the negative effects of poverty (as indicated by the free lunch variable in Figures 14 and 15), the positive effects of BCNX on MCAS scores in grades 6-8 are noteworthy. The bars in these graphs labeled “dosage” take into account all the years students were enrolled in BCNX, and represent the average yearly effect of being in BCNX. These average yearly beneficial effects of BCNX on MCAS scores—long-term effects after leaving the intervention—were between
47% and 66% as large as the negative effects of poverty on the ELA exam, and between 45% and 131% on the math exam.

• In almost all cases, the effects of dosage exceed dose, indicating that the effects of being in a BCNX school on MCAS are greatest for students spending the most time in the intervention. The effect sizes for dosage indicate the average impact of being in BCNX on MCAS scores. These effects on students’ MCAS scores are cumulative. For example, for students in grade 6 who had been in the BCNX intervention for five years, the average effect size is over .20, indicating moderate effects of the intervention that exceed effects found for similar interventions that focused on children in poverty. For details, see the long report.

Table 3.
Effect sizes:
Effect on MCAS scores of being in a BCNX school for at least one year (dose) and length of time in a BCNX school (dosage).

<table>
<thead>
<tr>
<th>Grade</th>
<th>English Language Arts</th>
<th>Math</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Dosage</td>
<td>Dose</td>
</tr>
<tr>
<td>Grade 3</td>
<td>-0.07*</td>
<td>-0.06*</td>
</tr>
<tr>
<td>Grade 4</td>
<td>0.03</td>
<td>0.05*</td>
</tr>
<tr>
<td>Grade 5</td>
<td>0.02</td>
<td>-0.03</td>
</tr>
<tr>
<td>Grade 6</td>
<td>0.13*</td>
<td>0.07</td>
</tr>
<tr>
<td>Grade 7</td>
<td>0.11*</td>
<td>0.05</td>
</tr>
<tr>
<td>Grade 8</td>
<td>0.08</td>
<td>0.05</td>
</tr>
</tbody>
</table>

*Effect size is statistically significant

Note: An effect size is a measure of the impact of the BCNX intervention on MCAS scores. A positive effect size indicates positive impacts on MCAS scores, and a negative effect size indicates a negative impact on MCAS scores.

Figures 14 & 15
Effect sizes:
Effect on MCAS scores of (a) poverty, (b) being in a BCNX school for at least one year (dose), and (c) length of time in a BCNX school (dosage), ELA scores.

Data source: MCAS scores, 2001-02 through 2007-08.
Effect sizes:
Effect on MCAS scores of (a) poverty, (b) being in BCNX for at least one year (dose), and (c) length of time in BCNX (dosage), Math.

Table 3 and Figures 14-15 show a beneficial effect of BCNX on MCAS scores, but not until middle school. There are at least two possible explanations for the delayed appearance of the positive effect. First, the BCNX intervention in elementary school may be focused not directly on MCAS but on issues of greater long-term importance, leading to later achievement. Second, as seen above, BCNX students start at a disadvantage academically, which takes time to overcome.

The numbers tell an encouraging story. Both report card scores and MCAS scores show a significant beneficial impact of BCNX, often for students at greatest risk. What story do educators tell?

To gain a deeper understanding of how educators see the impact of BCNX, we conducted interviews with principals (N=12) and a stratified random sample of teachers (N=17), and drew a sample of Site Coordinators’ weekly written reports (48 narratives across the 14 Site Coordinators at 12 schools). A rigorous data analysis using the qualitative software Atlas-ti confirms the positive impact on academic achievement. (See the full report for details on methodology and weight of findings.)

All principals reported that BCNX had an impact on academic achievement in their schools. They identified two key reasons for the impact:

• **BCNX provides enhanced enrichment services.** Many specified that services like afterschool programs, in-class tutoring, and extra resources provided by BCNX contribute to increased academic achievement.

  “Having those enrichment activities goes a long way in helping them look at the five hours they spend in the classroom focused on academics. It allows them to have that other outlet and they see the school as part of that.”

  —Principal
• **BCNX addresses multiple levels of student need.** Others specified that BCNX impacts student academic achievement because it meets the needs of the whole child (social, emotional, physical, etc.), which for these principals also included addressing non-academic barriers to learning.

   “It’s the hierarchy of need. If my basic needs are met then I’m going to be able to do my work, so if my home life is better, if I can talk to someone about my problems, if there’s food on my table at night, then I can do my work. Then all of those things are part of the role that [the Site Coordinator] has created here. She is making sure that people have what they need in so many different ways.”

   –Principal

**A majority of the principals interviewed reported an association between Boston Connects and MCAS scores.** Despite the quantitative findings, most believed that Boston Connects positively impacts current MCAS scores. Consistent with the quantitative findings, one principal felt that an impact will be seen in the future. Some of these principals felt that the help BCNX provides in addressing non-academic barriers to learning leads to improved test-taking skills.

   “… I think that if we’re providing the support for a student to experience success as a learner, and both academically, emotionally and socially that it ultimately will impact our MCAS scores, particularly with [respect to] stamina.”

   –Principal

In summary, the qualitative analysis confirms the quantitative finding that the BCNX intervention positively impacts academic achievement.

**Boston Connects helps students thrive**

Beyond academic achievement, Boston Connects helps students to thrive across a host of other important outcomes that may contribute to school success and life chances. Indicators of these outcomes are classroom behavior, effort at learning, academic work habits, and health knowledge and behavior.

An analysis of students’ academic growth over time in report card scores in Behavior, Effort and Work Habits shows that after entry in a BCNX school, students surpass their counterparts in comparison schools in these three areas of thriving. See Figure 16, and see above for the interpretation of these figures.
Figure 16. **Longitudinal change in Behavior, Effort and Work Habits report card scores, BNCX vs. comparison-school students.**

**BEHAVIOR**

In BCNX 1st-5th grade v. Comparison

In BCNX 2nd-5th grade v. Comparison

**EFFORT**

In BCNX 1st-5th grade v. Comparison

In BCNX 2nd-5th grade v. Comparison

**WORK**

In BCNX 1st-5th grade v. Comparison

In BCNX 2nd-5th grade v. Comparison

Data source: Boston Public Schools report card data, 2001-02 through 2007-08.
• In all Behavior graphs, after their initial entrance into a BCNX school, BCNX students had significantly greater improvement over time in report card outcomes than students who were never in BCNX.

• The first Behavior graph shows that the largest student dosage of BCNX (5 years) results in a trajectory that immediately begins to increase more rapidly and steeply than that of the comparison group, and the difference persists through the end of grade 5. Moreover, although the comparison students’ Behavior scores begin to level off around 3rd grade, the BCNX students’ trajectory continues to rise.

• In all Effort and Work Habits graphs in the matrix, after their initial entrance into a BCNX school, BCNX students had significantly greater improvement over time in report card outcomes in Effort and Work Habits than students who were never in BCNX.

As in the academic achievement section, the growth curves for outcomes related to thriving compare the rate of improvement for BCNX vs. comparison-group students. A second technique, propensity-score matching, was used again for the indicators of thriving.

• In almost all cases, BCNX has a statistically significant positive impact on report card scores in Behavior, Work Habits and Effort at the end of grades 3, 4 and 5. The exceptions to this pattern are Behavior at the end of grades 4 and 5, and Work Habits at the end of grade 5, where there were no significant differences between BCNX and comparison group. With these exceptions, in all three areas at all of these grade levels, the BCNX students had significantly higher report card scores on average than comparison-group students.

Figure 17 disaggregates the Behavior findings by gender for students enrolled in BCNX for five years, and for comparison-group students.
Figure 17 shows that there is no BCNX effect for Behavior for female students. The female BCNX and comparison lines fall basically on top of each other – see dotted line. However, boys who were continuously in BCNX schools from grades 1 through 5 had significantly greater improvement over time in Behavior scores than boys who were never in BCNX. That is, the treatment effects were largest for boys, a group generally at greatest risk for behavior problems.

Figure 18 disaggregates the Effort findings by English Language Limited (ELL) status for students enrolled in BCNX for five years, and for comparison-group students.
Both ELL and non-ELL students who were continuously in BCNX schools from grades 1 through 5 had significantly greater improvement over time in Effort scores than students who were never in BCNX. Notably, the effect of BCNX on Effort score improvements was largest for ELL students. In fact, by third grade the Effort of ELL students in BCNX schools surpassed the Effort of those proficient in English in the comparison schools, eliminating the gap in Effort scores between ELL and non-ELL students.

Figure 19 disaggregates the Work Habits findings by gender for students enrolled in BCNX for five years, and for comparison-group students.
Figure 19.
**Longitudinal change in Work Habits report card scores, BNCX vs. comparison-school students, disaggregated by gender.**

Both girls and boys who were in BCNX schools started, on average, with significantly lower Work Habits scores than their respective comparison students. Both girls and boys who were continuously in BCNX schools from grades 1 through 5 had significantly greater improvement over time in Work Habits scores than students who were never in BCNX. Notably, the effect of BCNX on Work Habits score improvements was largest for boys.

Once again, the quantitative analysis tells an encouraging story. BCNX has a significant positive impact on indicators of students’ thriving in school. We turn again to the story that educators tell.

**All principals agreed that BCNX impacts students’ classroom behavior.** In their explanations of how BCNX impacted classroom behavior, principals focused on two major mechanisms:

- BCNX provides direct support to individual students, which included one-to-one Site Coordinator check-ins with students or small social skills groups.

  “[The Site Coordinator] helps with giving kids breaks … trying to work with kids before they escalate to a point where they can’t de-escalate on their own regularly or monitor themselves. She’s been a great help there, as well as setting up counseling sessions during school.”

  –Principal
• BCNX provides behavior and discipline supports, both inside and outside the classroom.

“[Site Coordinators] help with teachers strategizing what to do in the classroom, and they really help monitoring those more challenging students.”

—Principal

Some teachers told stories of transformations in student behavior as a result of the work of BCNX. While some of these transformations reduced disruptive behavior, others resulted from an effort to build on students’ strengths, promoting engagement.

“… [One of my students] had been through a horrendous family scene…and the class scene was extremely difficult with him. He could not maintain sitting in a seat, he was out of his seat all day, constantly talking out, very hyper vigilant to his environment, and [Site Coordinator Name] was my savior. She worked with that boy every morning … She put certain things in place, she was also a liaison [with the family]… She has been instrumental, and everyone tells me he’s unbelievably changed.”

—Teacher

“A child got involved in [an arts group] in one of the lunch enrichment programs, and it was a very soft spoken girl, and she shined in the enrichment group, and then started talking in class. Her mother enrolled her in an arts summer program, and she said the girl really came out of her shell.”

—Teacher

Additionally, teachers mentioned that the work of the Site Coordinator has helped students build more positive relationships with peers in the classroom, which in turn can lead to increased time on academic tasks.

“[One student] had a history of extreme bullying … and through the support systems that we’ve been able to give at the school, she now, really, is making conscious efforts to be a better friend with people, she’s completing her work, she’s made huge academic gains in the past few months, and she’s just able to stay on task.”

—Teacher
Both quantitative and qualitative findings provide evidence that Boston Connects helps students to thrive in another area that may contribute to school success and life chances: health knowledge and behavior.

This year, BCNX improved its student survey for measuring change in health knowledge and behavior. We revised and/or developed questions that more closely reflect the program. As a result, we are able to more accurately measure student change in these areas.

Exposure to the New Balance Foundation Health Program makes a significant difference in students’ health knowledge and behaviors as measured by the pre- and post-tests in the annual student survey. Students demonstrated significantly higher Well-being Knowledge. In addition, students reported significantly lower Unhealthy Nutrition Behavior. In both of these areas, students’ post-test scores were significantly higher than their pre-test scores for grades 4 and 5, as shown in Table 4.

Table 4.
Health knowledge and reported behavior, pre-test vs. post-test, grades 4 and 5.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Mean Diff (Post- vs. Pre-)</th>
<th>t</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition Efficacy</td>
<td>2.07</td>
<td>2.11</td>
<td>0.05</td>
<td>1.77</td>
</tr>
<tr>
<td>Unhealthy Nutrition Behavior</td>
<td>3.13</td>
<td>3.21</td>
<td>0.08</td>
<td>3.61*</td>
</tr>
<tr>
<td>Healthy Nutrition Behavior</td>
<td>2.54</td>
<td>2.53</td>
<td>-0.01</td>
<td>-0.30</td>
</tr>
<tr>
<td>Physical Activity Behavior</td>
<td>2.48</td>
<td>2.48</td>
<td>0.00</td>
<td>0.10</td>
</tr>
<tr>
<td>Screen Time</td>
<td>3.56</td>
<td>3.62</td>
<td>0.06</td>
<td>1.54</td>
</tr>
<tr>
<td>WellBeing Knowledge</td>
<td>12.78</td>
<td>14.06</td>
<td>1.32</td>
<td>7.85*</td>
</tr>
</tbody>
</table>

Data source: BCNX student health survey, 2008-09.

*Statistically significant.
† Higher scores for “Unhealthy Nutrition Behavior” represent higher reported avoidance of unhealthy choices.

Further, there is evidence that students enrolled in the New Balance Foundation Health Program longer outperformed students enrolled for a shorter periods on both the pre-test and post-test in the area of Well-being Knowledge. In other words, length of exposure to the program was a significant factor that positively influenced students’ knowledge of the reasons behind various kinds of healthy nutrition and physical activity choices (e.g., the reasons we should eat fruits and vegetables, or the reasons we warm up before physical activity). As Figures 20-21 show, on average, the longer students were exposed to the program, the higher their pre-test and post-test scores in Well-being Knowledge were.
Figure 20.
**Pre-test scores in Well-being Knowledge:**
Effect of years in the New Balance Health Program.

Data source: BCNX student health survey, 2008-09. Non-estimable means are not plotted.

Figure 21.
**Post-test scores in Well-being Knowledge:**
Effect of years in the New Balance Health Program.

Data source: BCNX student health survey, 2008-09. Non-estimable means are not plotted.
It is important to note that students receive the health program for approximately four months each year, then receive no further exposure before the following year’s pre-test. Therefore, the pre-test results on Well-being Knowledge demonstrate that the knowledge gains are persistent from one year to the next: despite this gap in time, students do not seem to lose the knowledge they gained the previous year.

In the electronic survey we conducted, teachers were asked about the New Balance Foundation Health Program. Teachers report high levels of engagement with the health and wellness program: they know the content covered, they integrate it into their classes, and they believe that the curriculum has a positive impact on students’ healthy choices (see Figure 22). In addition to reporting that they are engaged with the program, teachers report that they perceive an impact on students’ healthy food choices, comments on food choices, and comments on exercise and physical activity; they report lower levels of agreement that Boston Connects impacts comments on body image (see Figure 23).

Figure 22.
Teacher engagement with the NBF Health Program.

Data source: BCNX teacher survey, 2008-09.
Teacher perceptions of the impact of the NBF Health Program on students.

When asked in interviews about changes in student behavior or attitudes as a result of Boston Connects, all teachers who had the health curriculum at their school (i.e., teachers from grades 2-5) observed an impact of the curriculum. They reported hearing conversations between students that reflect knowledge gained from the curriculum, and they also observed students making connections between the health curriculum and other areas of classroom instruction. For example, one teacher stated that she had a student who, without any prompt at all, wanted to write about what he learned in health. Students are also able to distinguish between healthy and unhealthy snacks, and teachers reported seeing students reading nutrition labels.

“Like the other day, one of [the students] brought something, some tonic for break time…So then, the other one says, ‘Oops, wait a minute. Did you look at the label? Let’s read the ingredients here…look at that, you’re drinking sugar, 37 grams!’ And then she took out the calculator and said, ‘Remember the formula? This is how much sugar you’re drinking in that soda.’…[then] the other girl threw it away.”

–Teacher
“The kids are becoming more interested in healthful foods that are giving them stronger bodies and perhaps save them from some terrible disease in the future. When an opportunity to go to a cooking class with their parents was presented, lots of kids though that would be really fun, and parents came. And guess what? It was fun.”

—Teacher

The positive effects of BCNX cannot be explained by differences across schools in race or poverty

All of the growth curve and propensity score matching analyses control for demographic and other differences between comparison and BCNX students. We have also taken the additional step of conducting a Partitioning Analysis, which allows us to determine how much of the observed difference between comparison-group and BCNX-group mean scores can be attributed to the treatment, and how much can be attributed to differences in the racial categories and free/reduced-price lunch status of the comparison and BCNX groups.

The results for race for the six different report card categories are presented in Table 5, and the results for free/reduced-price lunch are shown in Table 6. The rows represent the different report card scales. The difference between comparison-group and BCNX mean scores appears in the first highlighted column. The next three columns show how much of the mean difference can be attributed to the BCNX intervention, to racial (Table 5) or free/reduced-price lunch (Table 6) differences, and the interaction effect.

Table 5.
Partitioning report card scores into BCNX effects and racial differences.

<table>
<thead>
<tr>
<th>Report Card Outcomes</th>
<th>Comparison Scale Score</th>
<th>BCNX Scale Score</th>
<th>Mean Difference</th>
<th>Partitioned Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BCNX</td>
</tr>
<tr>
<td>Reading</td>
<td>8.038</td>
<td>8.738</td>
<td>0.700</td>
<td>0.543*</td>
</tr>
<tr>
<td>Writing</td>
<td>10.153</td>
<td>10.940</td>
<td>0.787</td>
<td>0.561*</td>
</tr>
<tr>
<td>Math</td>
<td>7.208</td>
<td>8.006</td>
<td>0.797</td>
<td>0.564*</td>
</tr>
<tr>
<td>Academic Effort</td>
<td>12.899</td>
<td>14.317</td>
<td>1.418</td>
<td>1.105*</td>
</tr>
<tr>
<td>Work Habits</td>
<td>22.858</td>
<td>24.207</td>
<td>1.349</td>
<td>0.929*</td>
</tr>
<tr>
<td>Behavior</td>
<td>18.176</td>
<td>18.916</td>
<td>0.739</td>
<td>0.405</td>
</tr>
</tbody>
</table>

Data source: Boston Public Schools report card data, 2001-02 through 2007-08.
*Significant at p<0.05.
1 Racial differences between BCNX and comparison schools do not explain any significant portions of the report card score differences between these schools.
2 None of the interactions is significant.
Table 6.

**Partitioning report card scores into BCNX effects and and poverty differences.**

<table>
<thead>
<tr>
<th>Report Card Outcomes</th>
<th>Comparison Score</th>
<th>BCNX Score</th>
<th>Mean Difference</th>
<th>Partitioned Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>8.038</td>
<td>8.738</td>
<td>0.700</td>
<td>BCNX 0.715* Poverty* -0.007 Interaction -0.008</td>
</tr>
<tr>
<td>Writing</td>
<td>10.153</td>
<td>10.940</td>
<td>0.787</td>
<td>BCNX 0.824* Poverty* -0.015 Interaction -0.023</td>
</tr>
<tr>
<td>Math</td>
<td>7.208</td>
<td>8.006</td>
<td>0.797</td>
<td>BCNX 0.804* Poverty* -0.008 Interaction 0.001</td>
</tr>
<tr>
<td>Academic Effort</td>
<td>12.899</td>
<td>14.317</td>
<td>1.418</td>
<td>BCNX 1.459* Poverty* -0.018 Interaction -0.023</td>
</tr>
<tr>
<td>Work Habits</td>
<td>22.858</td>
<td>24.207</td>
<td>1.349</td>
<td>BCNX 1.391* Poverty* -0.027 Interaction -0.014</td>
</tr>
<tr>
<td>Behavior</td>
<td>18.176</td>
<td>18.916</td>
<td>0.739</td>
<td>BCNX 0.766* Poverty* -0.010 Interaction -0.016</td>
</tr>
</tbody>
</table>

Data source: Boston Public Schools report card data, 2001-02 through 2007-08.

*Significant at p<0.05.

1The BCNX treatment effects are larger than the mean differences because BCNX schools have fewer full-priced lunch students (i.e., more students in poverty). In other words, the mean differences likely underestimate the treatment effects because the BCNX schools have more economically disadvantaged students.

2Differences in free-lunch, reduced-lunch and full-priced-lunch status between BCNX and comparison schools do not explain any significant portions of the report card score differences between these schools.

3None of the interactions is significant.

- Neither race nor poverty differences between BCNX and comparison schools explain any significant part of the better performance of BCNX students in report card scores in reading, writing, math, behavior, work habits or effort. Moreover, after controlling for race, the BCNX effect is significant for every outcome except behavior, and after controlling for poverty, the BCNX effect is significant for every outcome. Thus, it is not feasible to argue that the positive effect of BCNX is due to differences in racial or poverty makeup between BCNX and comparison schools.
The positive effects of BCNX are meaningful in a practical sense

Beyond statistical significance, it is critical to examine the practical significance of BCNX. In other words, does the intervention have a meaningful impact on children’s lives? If so, how large is that impact relative to that of factors known to affect academic achievement (i.e., the harmful effect of poverty)? And how large is the academic boost BCNX students experienced relative to students in comparison schools?

On average, the effect sizes for BCNX were similar to those for other interventions focused on children in poverty (e.g., SAGE, Head Start). It is worth noting, however, that the lack of random assignment in the BCNX intervention resulted in students in the intervention group starting out lower in achievement than comparison students. This reality makes our effect size estimates more conservative than those from random assignment interventions. Indeed, we find that the impacts of the BCNX intervention were of significant practical importance:

- The beneficial impact of BCNX on student growth in academic achievement (across grades 1 to 5) was, on average, approximately three times the harmful impact of poverty.

- By the end of grade 5, achievement differences between BCNX and comparison students indicated that the BCNX intervention moves students at the 50th percentile up to or near the 75th percentile, and the students at the 25th percentile up to or near the 50th.

- For multiple outcomes, the treatment effects were largest for students at greatest risk for academic failure. For example, English language learners experienced the largest treatment benefits on literacy outcomes, by third grade demonstrating similar report card scores to those proficient in English in comparison schools. In fact, as a result of BCNX, there was no longer an achievement gap between these students.

- After grade 5, the lasting positive effects of the BCNX intervention can be seen in middle-school MCAS scores. The size of the positive effect of BCNX ranged from approximately 50% to 130% as large as the negative effects of poverty on these scores.
Impact on Schools

While demonstrating that BCNX helps students achieve academically and thrive in school is necessary to claim that the intervention is effective, it is not sufficient. Students learn and grow in a school community. To understand the impact of BCNX on students, it is also necessary to probe the intervention’s effects on the processes, context, and people that affect them in school, including the Special Education evaluation referral process, school climate, teachers, principals, and the partnerships schools have with agencies that provide services.

Impact on Special Education

One of the main goals of BCNX is to broaden the options available for supporting students. While Special Education services are clearly the right option for some students, BCNX recognizes that it should not be the only option for all students. Academic and social development requires a range of prevention, early intervention, and intensive supports, of which Special Education is only one.

We assume that Special Education referrals originate with “evidence of a need.” The evidence may be a series of observations by a teacher, parent, or other person. The evidence may also go unnoticed. The evidence may either lead to a referral to Special Education or not. Once a student is referred to Special Education, the student may either be placed or be deemed ineligible for Special Education placement. If a student is not referred to Special Education in elementary school, or is referred and deemed ineligible, the student may or may not be placed in Special Education after elementary school. This logic is schematized in Figure 24.
In this flowchart, A represents the number of students within the school who have a real disability, which BCNX cannot influence. B and C show where in the referral process BCNX could have an impact. First, BCNX might influence what gets noticed as “evidence” of a disability B. Second, BCNX might influence whether the observation leads to a Special Education referral by influencing the interpretation of the evidence and/or offering alternative approaches to meet the student’s needs C. Boston Connects is neither designed to nor able to influence the placement decision after referral D.

To determine whether BCNX has an impact on Special Education referrals at points B and C, we examined the accuracy of Special Education referrals, where an “accurate” referral is one that is not deemed “ineligible” and that results in Special Education placements aligned with student learning needs. This analysis is important for at least two reasons. First, Special Education referrals are costly and, therefore, reducing the number of inappropriate referrals (i.e., those “deemed ineligible”) would amount to cost
savings. Second, and more importantly, appropriate Special Education referrals result in students receiving services that correctly address the student’s barriers to learning.

We examined the impact of BCNX on Special Education referral accuracy from two vantage points:

• First, we examined **inappropriate referrals**. That is, we examined whether referrals in BCNX schools were less likely to result in students being deemed ineligible for Special Education across grades 1-5 than referrals in comparison schools.

• Second, we examined **failure to appropriately refer**. Because one potential unintended consequence of reducing inappropriate referrals could be failing to refer students with real disabilities, we examined whether students from BCNX schools and comparison schools received Special Education placements in grade 6 or beyond. We make the assumption here that these later placements (grades 6-12) indicated a failure to appropriately refer during grades 1-5.

For the analysis of inappropriate referrals, we focus on the number of students deemed ineligible relative to the number placed into Special Education with up to 25% time or less removal from regular education classes (Special Education levels 0.1 and 0.2, reflecting mild disabilities) because more severe developmental disabilities are less difficult to recognize. For example, a student with Down’s syndrome (e.g., 0.3 or 0.4 level Special Education) is highly unlikely to be deemed ineligible for Special Education services. Our analysis reveals the following:

• For grades K-5, BCNX schools are more accurate at referring students who display evidence of mild special needs:
  • Comparison school students who are referred for mild special needs are 22% more likely to be deemed ineligible than similar students in BCNX schools.
  • Accuracy was also indicated by the fact that BCNX schools are not missing students who should have been referred. Among students who were not referred to Special Education in grades K-5, former BCNX students in grades 6-12 do not have significantly lower or higher probabilities of being placed into Special Education (into any category) than grade 6-12 students who were never enrolled in a BCNX school.

Together, these two results on the accuracy of Special Education referrals indicate that BCNX elementary schools have lower rates of inappropriate referrals without increasing rate of failure to appropriately refer.
Examining the impact of BCNX on Special Education referrals has proven difficult. Our access to quantitative data in this area has been substantially limited. Qualitative data, however, illuminate how educators in BCNX schools see changes in Special Education referrals and processes.

- Both principals and teachers reported in interviews that **BCNX has added new systems and processes that have changed the Special Education referral process**.
- Almost all principals report that the BCNX intervention has changed the Special Education referral process at their schools.
- Additionally, some principals stated that they believe Special Education referrals are down in their schools as a result of Boston Connects.

“So what would typically happen... before Boston Connects was you’d have a child ... in a mental health crisis. They did get referred often to Special Education, so our over referral into special ed was much higher. Now I can make a case that I know this child is not-- does not need special ed and I don’t want them to go to a special class because that’s not going to help them... So it does help, and without Boston Connects we wouldn’t be able to do half of what we’re doing.”

—Principal

“I think that for years, teachers felt they had one direction to go in. ‘This child isn’t learning, they have behavioral problems, etc.’ It’s very difficult to look into complex background situations without staffing to help ... You really need that sort of, third party person to intervene, and to ask the hard questions, and to gather that information, and to share that information with both the classroom teacher and whoever is appropriate... in the past, all you had was SPED... that’s not going to be the fixer... it’s not appropriate.”

—Teacher

“If there are a couple students that are really struggling, let’s dig down and find out why that is. And I think before, it was, ‘Oh, they need to be referred or they need this,’ whereas, [now it’s], ‘Ok; we need to sit around as a team; let’s brainstorm.’”

—Principal
Impact on school climate

In interviews with principals and teachers, it was clear that Boston Connects was seen as having a broad impact on the climate in their schools.

“And the reality is, a principal in a school alone is never going to be able to do [all that BCNX does]. So [BCNX] impact[s] climate … when people [feel] supported … they’re happier at work, kids are happier, there’s this general feel that this is a good place to be and to work in and to learn, and people want to come back … when you have the support and you have the resources you can do much more.”

—Principal

“Boston Connects helps me do my job…if there’s something going on, I have support in the classroom…And the beautiful thing about all of it is that if I have support, then I can support [the students]. And there are a lot of teachers who don’t have support.”

—Teacher

“So, [the Site Coordinator] has made an impact in this school … climate. Not just for the students but also the outreach she has done to parents and also just her relationship building and rapport she has established with the teaching staff too.”

—Principal

Specific explanations from principals of why Boston Connects impacts school climate included direct support to students, Site Coordinators’ presence and leadership at a variety of school meetings, and the New Balance Health and Wellness program.

“We had a wonderful Health Fair this year that was coordinated by our Boston Connects support staff. We’ve had children who have really taken on the importance of proper nutrition and being able to bring those things together and being able to share their learning with other children and build upon each other. Absolutely those kinds of things affect climate.”

—Principal
Impact on teachers

This year provided our first opportunity to explore the reasons for the high teacher satisfaction levels reported last year. The exploration occurred through in-depth interviews with a stratified random sample of teachers as well as an electronic survey of randomly selected teachers.

- Results from our electronic survey of teachers provided evidence that Boston Connects enhances teachers’ knowledge of their students in three key areas. Figure 25 shows that 70 to 80% of the teachers indicated that BCNX made them more aware of students’ strengths and needs and of services available to them.

Figure 25.
How BCNX affects teacher perceptions of students

Not only are teachers gaining knowledge of their students through BCNX, but they are also applying this knowledge to their interactions and views of students in the classroom.

“When you have 25 students, some get lost in the shuffle. And I think that’s what Boston Connects does. Whole class. Every single kid. Let’s account for them... It’s a way to articulate how much a student has grown.”

–Teacher
Among those teachers who talked about applying their knowledge of students to their classroom practices, many indicated that as a result of BCNX, they were now thinking about the needs of students who previously might have slipped under the radar.

“The Whole Class Review…makes you look at even the students you don’t normally think of because you think they are doing fine. The ones that sometimes goes unnoticed because they sit in class and do what they are supposed to do and uh, we don’t think about them as much and I think the whole class kind of forces to think about each child individually. And you know what each child brings to the classroom or doesn’t bring you know so I think that was I really liked that I've never done that in any other schools. And when I first actually heard about it my first reaction was like ‘well that kid doesn’t have any problem’ But when I sat down and really thought about each child individually I did.”
—Teacher

• Teachers also report that they now think about their class as a whole. That is, rather than simply thinking about each student individually, they now think about how students relate to one another and how these relationships affect the classroom climate. As one teacher put it, “[the BCNX Whole Class Review helps] you really start to see your class dynamics.”

• Teachers reported that BCNX increased the time they spent on instruction because they did not have to deal with behavioral issues in the classroom. One teacher describes this transformation as follows: “…There was so much chaos and [Site Coordinator] actually helped me remove some of the chaos so that the other children could learn.”

Teachers spontaneously describe several ways in which the BCNX Site Coordinators supported them.

• Site Coordinators serve as someone with whom the teacher can strategize and collaborate.

• Site Coordinators provide “another point of view” about, and “a different lens” on, their students. As one teacher put it, “To have another person…that's also observed behavior…it's like a team that we’re working together to help the child feel successful and move on.”

• Teachers report that Site Coordinators serve as a go-to resource person who listens to their needs. One teacher put it this way: “… I feel like [the BCNX Site Coordinators] really listen to what the teachers
need, and it’s not about ‘this is what we are going to do and this is going to save your school’ … with Boston Connects, it’s … more, ‘Okay, what do you guys need… what’s not working?’”

— Teacher

Across all grade levels, classroom types, and years of teaching experience, teachers credited Boston Connects with improving Student Support procedures and communication within their schools. Teachers spontaneously spoke of one or more of the following benefits:

- **Having formalized processes** such as Whole Class Review (WCR) and the Individual Student Review (ISR) enhanced support systems in the school.

- As a result of the Site Coordinator bringing the appropriate people into the WCR and ISR conversations, **communication** among staff members within the school increased.

- As a result of the formalized BCNX processes, and especially through its requirement to follow-up and document, there has been an **increased accountability** within the school on addressing the needs of each child.

One teacher beautifully described the systemic impact of BCNX on the school community. “So, having a formal group that you can take your concerns to, I think is not only wonderful for the children, because it means they are going to get a significant and a consistent type of support, it’s going to be documented which means that as the child moves on from teacher to teacher, this isn’t going to depend on whether or not a teacher comes and tells you there have been issues and these are the steps that have been taken. There is going to be actual documentation that says here is a list of strategies that we have tried, these are the ones that were effective, these are the ones that weren’t. This is the history of family contact and you don’t have to re-invent the wheel every year.”

— Teacher
Impact on principals

All of the principals provided the interviewers with specific examples of how BCNX is valuable to them.

• They described particular satisfaction with the Site Coordinator, who they saw as providing critical support to them, to students, and to teachers.
• Principals expressed satisfaction with the way BCNX enhances family connections, citing specific examples of Site Coordinators bringing families into the school, securing signatures on consent forms for services, and helping with transportation needs.

“It can be something as simple as if you have a homeless family and they need transportation; [the Site Coordinator] can do the legwork of working with the Boston Public School Department, Transportation Department to get that for the family. Or school based counseling—making sure that the consent form went home and following up with the family. If the family doesn’t have any insurance, find out that there are other options. Just things that a principal does not have the time to do on a day-to-day operations, but are really necessary to make sure the child is fully developed and has the support.”

–Principal

“[The Site Coordinator] knows our families, I don’t have to ask her, she already knows the situation for a lot of different people and is proactive about it… So this one particular family has a meeting at school, she’ll call, ‘Do you need a ride? Do you need a translator?’ So she’s been really fantastic. She’s at every student support meeting and just a great link between home and school.”

–Principal

Principals were very satisfied with the changes that BCNX brought to the Student Support Process. One principal put it this way: “Having worked here in the role as teacher and principal, I can’t tell you how frustrating student support has been, particularly in the role of teacher. When you desperately want things to happen for kids and then it doesn’t get done and I could never understand, where is the breakdown?” – Principal

Impact on Families

The BCNX intervention depends in a substantial way on the involvement of families. The evidence from principal interviews and Site Coordinators’ weekly written narratives suggests that the ties between schools and families are strengthened by the intervention.

• All principals saw Boston Connects as having an impact on families and/or reported specific ways the BCNX Site Coordinator works with families, serving as a “connection,” “link,” or “bridge” between the home and the school.
Principals’ comments revealed that they view BCNX as impacting families in several ways:

- Principals reported that Site Coordinators help families feel welcome and increased their visits to the school. One principal put it this way: “… families can now come into our building in a more welcoming way. Families can now know that there is someone to connect with when the need is great, whether it’s at crisis-level or they’re just beginning to seek potential resources.”
- Principals spoke of the way the Site Coordinators connect families to family services, e.g. connecting families to childcare, summer programs, and other family services.
- Principals also described how Site Coordinators ensured the linkage to services by obtaining appropriate consents for services, securing funding and transportation for families, helping with language barriers, and obtaining help with basic needs like housing and clothing.
- Principals described the Site Coordinators as a supportive point of contact for families, developing strong relationships with families, and serving as a sounding board for families who are challenged.

Like principals, the Site Coordinators also described the different ways in which they work with families.

- Site Coordinators serve as a central point of contact between families and school.
- Site Coordinators help families to overcome the barriers to accessing services, e.g. paperwork, finances, insurance, transportation, limited English proficiency, cultural barriers.
- Site Coordinators help families secure basic resources such as utilities, food, clothing, supplies, childcare, parenting skills, housing, and English language instruction.
- Site Coordinators respond to family crises, such as homelessness, death in the family, or utility shut-off.
- Site Coordinators provide information to families on school processes or service options (e.g. middle school choices, special education, or counseling).
- Site Coordinators assist parents to understand and address disciplinary or behavior issues at school or at home.
- Site Coordinators provide emotional support to caregivers, including helping parents transition their children into the school, talking about challenges in the home environment and neighborhood.

“My role with families has centered on listening to their struggles and concerns about their kids, encouraging them, offering support and providing them with resource options to meet their needs.”

—Site Coordinator
Impact on Community Agencies

Figure 26 shows the number of community agencies that partnered with BCNX schools from 2006-07 to the present.

Figure 26.

**Number of BCNX community agency partnerships, by year.**

The number of community agency partners jumped in 2007-08 with the addition of five new schools. The further increase in 2008-09 reflects continued efforts to establish and maintain partnerships.

Fifty-one community agencies responded to an online survey about their experiences with Boston Connects. The agencies represented a wide range of service areas, including tutoring, enrichment, mentoring, after-school programming, mental health and health.

The majority of community agencies responded favorably to questions about the following aspects of the BCNX program.

- 95% of respondents agreed that they are “*generally satisfied with [their] agency’s relationship with Boston Connects.*”
- 88% of respondents agreed that “*the Boston Connects student support process is effective at identifying students in need of services.*” (See Figure 27.)
- 88% of respondents agreed that “*the Boston Connects student support process is effective at addressing the needs of students.*”

The survey asked community agencies to compare their experience with Boston Connects schools and schools without Boston Connects in two key areas: partnership quality and partnership effectiveness.
Community agencies reported higher levels of satisfaction with the effectiveness of BCNX in tailoring services to students' unique needs in contrast to non-BCNX schools. Figure 28 illustrates this finding for tailoring services to the unique needs of students.
Figure 28. Community agencies’ satisfaction with BCNX effectiveness in tailoring services to the unique needs of students.

Data source: BCNX community agency survey, 2008-09.

I became more aware of the range of services that could help my students.
I became more aware of my students’ needs.
I became more aware of my students’ strengths.

Tier 3
Tier 2
Tier 1

0
10
20
30
40
50
60
70
80
90
100

Strongly Agree
Somewhat Agree

Data source: BCNX community agency survey, 2008-09.
Conclusion

The mission of Boston Connects matters. Boston Connects has shown that it is possible, in a high-impact, cost-effective way, to connect each student to the tailored set of services he or she needs to thrive in school. Attending to the well-being of each and every student makes a difference.

“[Boston Connects] provides the missing link in education for our elementary children.”

–Principal

“[Boston Connects] is the missing piece in schools.”

–Teacher
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