Engaging Families Leads to Student Academic Gains and Increased Attendance

How TalkingPoints Improved Outcomes in a Large Urban School District

Research and analysis by

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TalkingPoints

Introduction

The TalkingPoints model draws on decades of family engagement research, and we base the evolution of our platform and approach on research-driven practices. As a mission-driven nonprofit, we are committed to adding to the body of evidence about the efficacy of and best practices for effectively engaging families in partnership with schools and teachers to improve student outcomes. Our in-house research team is focused on studying how family-school partnerships can help students realize academic success and wellbeing, especially among the most disadvantaged students and families.

In *Engaging Families Leads to Higher Test Scores and Increased Student Attendance: How TalkingPoints Improved Student Outcomes in a Large Urban School District*, researchers looked at student achievement and absenteeism rates over multiple school years in a large U.S. urban school district. This quasi-experimental study is designed to meet the Every Student Succeeds Act (ESSA) Tier 2 standard of evidence[1] and allows for a causal interpretation of the impact of TalkingPoints on student outcomes measures.

Key Finding

Researchers found that using TalkingPoints leads to higher test scores, better grades, and lower absenteeism rates. These gains are even more pronounced for traditionally underserved students, including Black students, Latino students, students with disabilities, and English language learners.

The Problem

Decades of research have shown that family engagement contributes to better academic and socio-emotional outcomes for students[2] — this makes sense considering 85% of a child's time is spent outside of school. However, there are many barriers to effective, equitable family engagement, including time, access to technology, and language barriers for families speaking a language other than English at home — all factors greatly exacerbated by the pandemic. This is especially true for underserved, immigrant, and minority communities. Research shows that family involvement occurs at half the level for these families as compared to higher-income, English-speaking, and white families.[3]

Common Barriers to Effective Family-School Partnerships

- Information barriers
- Time constraints
- Mistrust of schools and institutions

- Knowledge about U.S. school system
- Non-English fluency

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(1) Defined as "supported by one or more well-designed and well-implemented quasi-experimental studies."

(2) Hill & Tyson, 2009; Jeynes, 2012; Patel & Stevens, 2010; Sheridan et al., 2012.

(3) Hill & Tyson, 2009.

Scope and Methodology

The study examines TalkingPoints' impact on student outcomes in a large U.S. urban school district over a multi-year period, drawing from a sample of more than 30,000 students and 2,000 teachers. The study analyzed student-level data, including absenteeism rates, standards-based grades, and state standardized assessments, for schools that had adopted TalkingPoints compared to schools that had not yet adopted TalkingPoints to answer:

⊙ How did the use of TalkingPoints impact student academic outcomes and attendance?

⊙ How did impact on student outcomes vary for different student groups, including groups disaggregated by race and ethnicity, special education status, and English language learner status?

School district profile [4]

- 30,000 students

- 100 schools

- 90% of students identify as students of color

- 70% of students are from low-income households

- 30% of students are English language learners

- 15% are students with disabilities

Findings

How did the use of TalkingPoints impact student academic outcomes?

Overall Student Academic Outcomes Improvement

The study found **statistically significant improvement in student achievement**, and these effects were **more pronounced for traditionally underserved minority students**. Students with family members who had access to TalkingPoints improved course grades in both English language arts (ELA) and math by 7% (ELA: 4 percentage point increase from baseline of 67%; math: 5 percentage point increase from baseline of 66%[5]). On state standardized assessments, students increased math test scores by 9 points (from mean baseline of 2,458) - **a gain that represents approximately 7.3 months of learning for the average student**. We saw no significant change in English language arts scores (4 point increase from a baseline of 2,464).

Course Proficiency Improvements
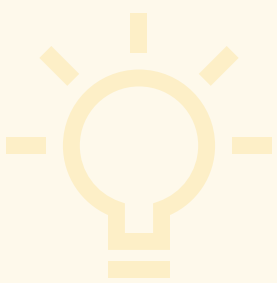
+7%
English language arts

+7%
Math

State Standardized Assessment Scores

No change
English language arts

+9 points
Math

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[4] Numbers are approximate to preserve the district's confidentiality.

[5] Due to rounding, manual estimates of the percentage change may differ from the values reported.

Black Student Academic Outcomes Improvement

Black students improved English language arts and math course proficiency by 8% in both subjects (ELA: 5 percentage point increase from baseline of 58%; math: 4 percentage point increase from baseline of 53%). On state standardized tests, Black students increased math test scores by 7 points (from a baseline of 2,415), with no signficant change in English language arts scores (5 point increase from baseline of 2,425).

Course Proficiency Improvements
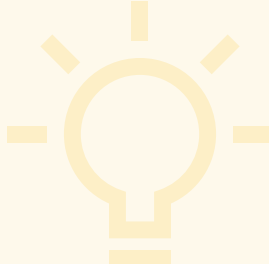
+8%
English language arts

+8%
Math

State Standardized Assessment Scores

No change
English language arts

+7 points
Math

Latino Student Academic Outcomes Improvement

Latino students improved course proficiency in English language arts and math by 10% (6 percentage point increase from baseline of 57%) and 11% (6 percentage point increase from baseline of 58%), respectively. Latino students also improved by 7 points in math state standardized test scores (from baseline of 2,438), with no significant change to English language arts scores (+3 points from baseline of 2,445).

Course Proficiency Improvements
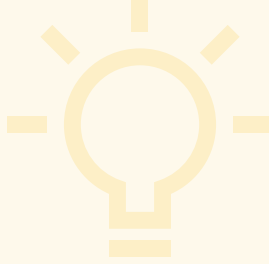
+10%
English language arts

+11%
Math

State Standardized Assessment Scores

No change
English language arts

+7 points
Math

Students With Disabilities Academic Outcomes Improvement

Students with disabilities improved course proficiency by 11% in science (7 percentage point increase from baseline of 64%) and 10% in social studies (7 percentage point increase from baseline of 69%), with no significant change to state standardized test scores (8 and 3 point increases for math and ELA, respectively).

Course Proficiency Improvements

+11%
Science

+10%
Social studies

State Standardized Assessment Scores

No change
English language arts

No change
Math

English Language Learner Academic Outcomes Improvement

English language learners improved English language arts (6 percentage point increase from baseline of 48%) and math (6 percentage point increase from baseline of 54%) course proficiency by 12%, and also experienced improvements on state standardized tests (ELA: 5 point increase from baseline of 2,377; math: 9 point increase from baseline of 2,383).

Course Proficiency Improvements
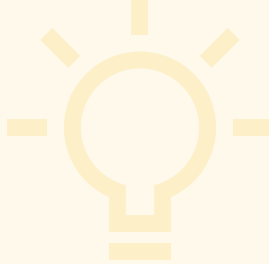
+12%
English language arts

+12%
Math

State Standardized Assessment Scores

+5 points
English language arts

+9 points
Math

These findings are statistically significant and control for individual characteristics, including race and ethnicity, English language learner status, grade, and special education status, as well as school characteristics, including demographics, enrollment, and free and reduced-priced lunch rates. The study also accounted for time differences and fixed school differences. The study used a quasi-experimental difference-in-differences methodology through which the research team evaluated the direct causal impact of TalkingPoints on outcomes metrics (versus a correlational impact). Therefore, we can directly attribute the use of TalkingPoints to student outcome improvements.

How did the use of TalkingPoints impact student attendance?

The study found statistically significant results reflecting an **overall decrease of 15% in the student absenteeism rate** for district schools using TalkingPoints versus those not using TalkingPoints (1 percentage point reduction in absenteeism from a baseline rate of 6%). In addition, the study found that TalkingPoints contributed to **outsized improvements in attendance among traditionally underserved students.**

To put that in perspective, in a district with 30,000 students, a one percentage point increase in attendance equates to 300 more students in classrooms every day — a gain of nearly 2,000 additional hours of learning time. Nationally, among 19.4 million students, a one percentage point increase in attendance would result in 194,000 more students in classrooms daily who would benefit from more than one million additional hours of learning time.

For Black students, absenteeism rates decreased by 22% (2 percentage point reduction from a baseline of 8%). For Latino students, the decrease was 17% (1 percentage point reduction from a baseline of 7%). For students with disabilities, the decrease was 25% (2 percentage point reduction from a baseline of 9%), and for English language learners, the decrease was 18% (1 percentage point reduction from a baseline of 6%).

Decline in Absenteeism Rates

-15%
Overall

-22%
Black students

-17%
Latino students

-25%
Students with disabilities

-18%
English language learners
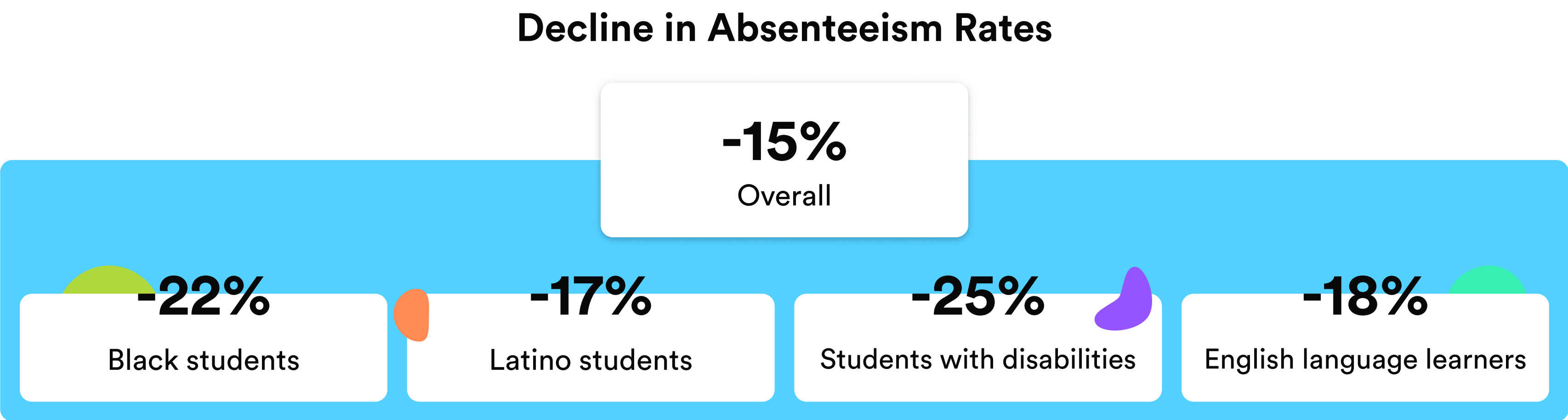
Engaging families makes a difference in outcomes for students, including improved grades and standardized test scores, and decreased absenteeism rates. Schools must foster partnerships with families to generate and expand on these gains in student learning and wellbeing.
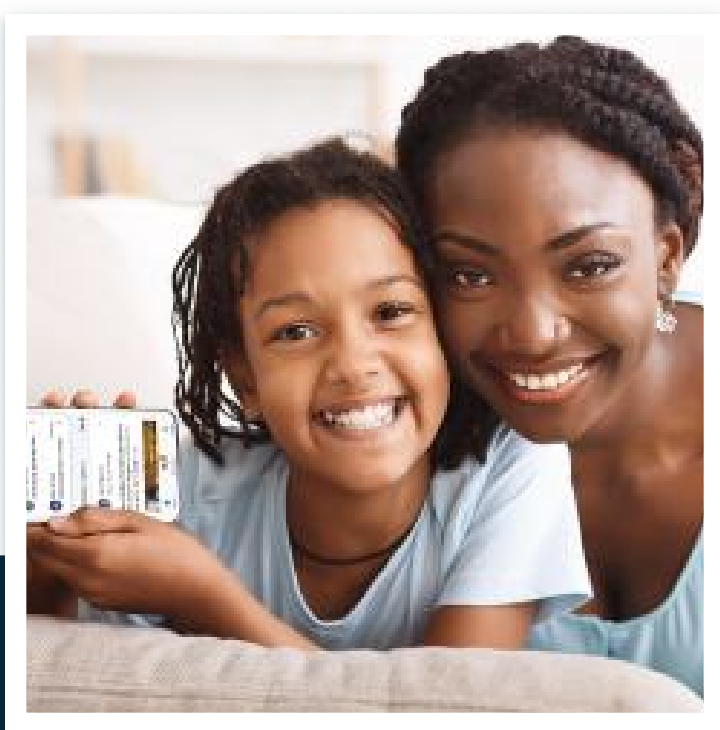
Recommendations

With transformative solutions that support families and teachers in building effective partnerships, student outcomes will improve and educational gaps will narrow for all students, especially traditionally underserved students. Building these partnerships can make the hard work that schools do matter more by aligning schools and families in support of student needs.

Many states are investing in offering additional learning time to help students recover from pandemic losses. However, making more time available is inadequate if students are not present. Improving attendance can make these investments more successful in supporting student progress, particularly in groups where students have learning gaps. Further, district leaders can improve state accountability metrics by encouraging strategies that leverage effective family-school partnerships to reduce chronic absenteeism rates.

Schools must create strong partnerships with families to accelerate learning and wellbeing gains for all students while closing the gap for the most traditionally underserved students.

Based on this research's findings, we recommend schools, districts, and communities integrate family-school partnerships as a key lever for improving student outcomes:

1 Elevate

Integrate family engagement as a part of your district's strategic plan and recognize family engagement as a core tool to improve student academic and wellbeing outcomes.

2 Prioritize

Prioritize communication with families as a strategy in school and district improvement plans to improve student outcomes.

3 Identify

Ensure all teachers and relevant staff have access to a technology platform that removes barriers to engaging all families and allows for effective communication.

4 Support

Provide ongoing professional development to teachers and staff about how to leverage families to support student outcomes.

Acknowledgements

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TalkingPoints is an education technology nonprofit that supports schools and districts in connecting families and teachers for the success and wellbeing of each and every student. TalkingPoints' multilingual platform uses two-way translated communication and personalized content in 145 languages to facilitate meaningful family-school partnerships. Fueling this unique approach is a relentless focus on eliminating barriers to engaging families, including language, time, mindsets, and capacity. For additional information about TalkingPoints, please visit **www.talkingpts.org**.

References

- Hill, N. E., & Tyson, D. F. (2009). Parental involvement in middle school: A meta-analytic assessment of the strategies that promote achievement. *Developmental psychology, 45*(3), 740.

- Jeynes, W. (2012). A meta-analysis of the efficacy of different types of parental involvement programs for urban students. *Urban education, 47*(4), 706-742.

- Patel, N., & Stevens, S. (2010). Parent-Teacher-Student Discrepancies in Academic Ability Beliefs: Influences on Parent Involvement. *School Community Journal, 20*(2), 115-136.

- Sheridan, S. M., Holmes, S. R., Coutts, M. J., & Smith, T. E. (2012). *Preliminary effects of conjoint behavioral consultation in rural communities* (R2Ed Working Paper No. 2012-1). National Center for Research on Rural Education.

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Technical Appendix

Engaging Families Leads to Higher Test Scores and Increased Student Attendance: How TalkingPoints Improved Student Outcomes in a Large Urban School District is a quasi-experimental study designed to meet ESSA Tier 2 standards. It used a difference-in-differences model, which qualifies as a causal treatment estimator. The analysis asks: "What is the effect of 2016 school-wide adoption of TalkingPoints on student learning outcomes, overall (one-year, two-year, and three-years after averages), compared to students attending schools that have not yet adopted TalkingPoints?"

Data

The data was collected from the 2014-15 to 2018-19 school years. The treated sample includes schools that adopted TalkingPoints in the 2016-17 school year. The untreated sample includes schools that did not adopt TalkingPoints in the study timeframe. The study excluded students attending schools that adopted TalkingPoints in the 2017-18 and 2018-19 school years. The full sample included about 30,000 unique students, which resulted in 120,000 student-year observations. These students attended approximately 100 schools. The exact counts have been masked to preserve the confidentiality of the district.

The study focused on the school-wide adoption of TalkingPoints. The early adopting schools included in the analyses tended to have high percentages of ELL students, be lower-performing, and serve the elementary and middle school grades. Therefore, our models included a number of control variables to account for observable differences. The individual level control variables included: grade, gender, race/ethnicity, special education status, and English language learner status. The school level, time-varying covariates included the racial/ethnic demography of the school, the percentage of students receiving a free or reduced-priced lunch, and enrollment size. The models also included variables to account for time and fixed school differences.

The dependent variables examined included: attendance rate (0-100%), suspension (days and number of suspensions), Smarter Balanced Assessment System for grades 3-8 in English language arts and math (scaled scores), and standards-based grades in English language arts, math, physical education, science, social studies, and visual and performing arts.

Model

The data was analyzed using a difference-in-differences model. The model used ordinary least squares regression and took the following form:

$$Y_{ist} = \gamma_s + \delta_t + \beta D_{st} + X_{ist} + Z_{st} + \epsilon_{ist}$$

Where, Y_{ist} is the yearly student learning outcome (e.g., attendance rate, standardized test score, standards-based grading proficiency level), γ_s is school-specific fixed effects, δ_t is year-specific fixed effects, X_{ist} are student-level covariates (e.g., race/ethnicity, ELL status, grade, and special education status), Z_{st} are time-varying school covariates. We are primarily interested in β, the treatment effect of school-wide adoption of TalkingPoints. Standard errors were adjusted to account for clustering at the school level.

For standardized test scores, we converted our results into month learning equivalents to aid in interpretation. We first created an annual measure of impact. In this measure, the numerator was the model estimate and the denominator was the mean ability difference by grade for the baseline group. We then converted the annual measure into months by multiplying it by 12.

Results

Overall, the study found:

- **Standards-based grades:** Statistically significant positive effects on standards-based grade proficiency across four of six subject areas, including English language arts, math, science, and social studies (ranging from 2.5 to 4.9 percentage point increases) with largest impact on math (4.9 percentage point increase from a baseline of 66.4%) and English language arts proficiency levels (4.5 percentage point increase from a baseline of 67.2%). No change was observed for physical education or the visual or performing arts.

- **Smarter Balanced Assessment System:** Significant and positive changes for math (8.7 point increase from a baseline of 2,458). A 9 point increase in math test scores translates to approximately 7.3 months of learning for the average student. Positive, but not significant, estimates for English language arts (4.4 point increase from a baseline of 2,463).

- **Attendance**: Statistically significant positive effects on the attendance rate (1.1 percentage point increase from a baseline of 93.6 percent; equivalent to a reduction of 15% of absenteeism rate from 6.4%) across all specifications.

- **Suspensions:** The study finds no statistically significant findings for the overall student group.

Findings by race and ethnicity

- **Standards-based grades:** The study finds larger impacts for Latino students (10% and 11% increase in English language arts and math standards-based grades proficiency, respectively) and Black students (8% in English language arts and math standards-based grades proficiency).

- **Attendance**: The study finds larger impacts on attendance for Latino students (17% reduction in absence rates with a 1.1 percentage point change from a 6.6% baseline) and Black students (22% reduction in absence rates with a 1.9 percentage point reduction from a baseline of 8.4%).

Findings for students with disabilities

- **Standards-based grades:** Standards-based proficiency increased in social studies (10% improvement; a 6.9 percentage point improvement from a baseline of 69%) and science (11% increase; a 7.2 percentage point increase from a baseline of 64%).

- **Attendance**: A 2.2 percentage point increase from a baseline of 93.7%; (equivalent to a 25% reduction in the absence rate of 8.6%).

- **Suspensions:** This is the only subgroup that showed a statistically significant reduction in suspension rates (23% decrease; a 2.5 percentage point change from a baseline of 11.3%).

Findings for English language learners

- **Standards-based grades:** Standards-based proficiency increased across four subject areas, with an improvement of 12% in English language arts (5.8 percentage points increase from a baseline of 48%) and 12% in math (6.4 percentage points increase from a baseline of 54%), in addition to significant improvements in science and social studies.

- **Smarter Balanced Assessment System:** The study finds statistically significant increases in math (8.7 point increase from the baseline score of 2,383) and English language arts scores (5.1 point increase from the baseline score of 2,377) for state assessment scores.

- **Attendance**: The attendance rate increased by 1.1 percentage points from a baseline of 93.7%. This is equivalent to an 18% reduction in absence rate from a baseline of 6.2%.

Interpretation

The results provide causal evidence of the impact of schools adopting the TalkingPoints platform. Across a variety of measures ranging from attendance and behavior to standardized test scores, TalkingPoints improved student outcomes. Furthermore, an analysis of the results by student subgroup suggests that TalkingPoints adoption may be even stronger for historically marginalized groups like Black and Latino students, English language learners, and students with disabilities.

Limitations

This study has several limitations that we must acknowledge. First, this is an observational study using a quasi-experimental method of analysis. We were unable to randomly assign students or schools to the treatment, the gold standard of causal inference. The difference-in-differences design is based on satisfying several assumptions. The major assumption, common trends, is crucial to making the case that results are credible. While we checked for this assumption using leads and lags, it is difficult to fully check the assumption given the limited pre-treatment time period available in our data. Second, our data is limited to students who could be matched between TalkingPoints' administrative data and the administrative data source. This match is highly dependent on the point in time at which a student enters TalkingPoints data (i.e., when their school adopts). This limitation impacted the control group composition. Third, external validity is unclear. As the first evaluative study of TalkingPoints, the extent of generalizability is not fully established. The study may only generalize the results to similar large, urban districts.