



# Do Early Social-Emotional Learning Programs Have Lasting Effects Through Middle School?

Middle School Follow-Up Findings  
from a Randomized Trial of INSIGHTS

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**C**hildren from varied socioeconomic backgrounds often enter school with substantial differences in social-emotional skills, including the ability to regulate emotions, resolve conflicts, and build relationships. These differences can widen persistent achievement gaps that resist conventional academic interventions. Social-emotional learning (SEL) programs target these foundational competencies, and extensive evidence highlights the short-term value of such programs: A large review of 213 school-based SEL programs found that, on average, participants showed improvements in academic performance, social-emotional skills, and attitudes toward school and self.<sup>1</sup>

These encouraging findings have spurred policy action. Federal policy-makers have directed funding toward whole-child initiatives with a heightened urgency following the disproportionate impact that the COVID-19 pandemic had on students from disadvantaged backgrounds. State and local education agencies have also highlighted SEL programs as preventive interventions to reduce educational inequities, particularly in under-funded schools.<sup>2</sup>

Despite this enthusiasm, most SEL research focuses on immediate or short-term outcomes, with limited evidence about whether benefits persist as children grow and move to new schools. One review found that 61 percent of SEL studies examined effects for less than one year, and few studies tracked participants through major developmental transitions.<sup>3</sup> This gap matters because initial impacts often diminish over time in a phenomenon known as “fadeout.”<sup>4</sup>

For early-grade SEL programs, there are at least two plausible pathways to longer-term effects. Benefits could persist if children carry improved self-regulation and relationship skills to later settings. Alternatively, SEL programs may improve early classroom behavior and engagement in ways that strengthen early learning, which could in turn support later achievement. However, durable effects are not guaranteed: Students’ later experiences, school environments, and support services, none of which are addressed by time-limited early interventions, may either sustain or erode early gains.

The transition to middle school is a particularly critical test of intervention durability. As students enter adolescence, they experience profound physical, cognitive, and social changes (for example, more complex peer dynamics and increased peer influence) while encountering new school environments with different expectations and support systems. Research consistently documents declines in academic motivation, school engagement, and achievement during this transition, particularly for students from disadvantaged backgrounds.<sup>5</sup> Understanding whether early SEL interventions provide protective benefits as students enter middle school has important implications for both developmental theory and educational policy.

This brief summarizes new intermediate findings from a long-term, follow-up study of INSIGHTS into Children’s Temperament (INSIGHTS), a two-year, temperament-based SEL intervention delivered in kindergarten and first grade in 11 intervention schools (out of 22 study schools), across three consecutive cohorts from 2008 through 2012. Using administrative records, researchers tracked 1,329 students from the original randomized trial of INSIGHTS through eighth grade and examined impacts on academic achievement, school engagement (attendance), grade retention (the practice of having a student repeat a grade), and special education outcomes nine years after random assignment, including outcomes around the transition to middle school.

## **What Is INSIGHTS into Children’s Temperament?**

INSIGHTS into Children’s Temperament is a distinctive early SEL intervention grounded in temperament theory.<sup>6</sup> Unlike universal SEL curricula that deliver identical content to all students, INSIGHTS takes a child-centered approach. The program is based on the concept of “goodness of fit” — the idea that children thrive when their temperamental traits align with environmental demands such

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as classroom routines, teacher expectations, and home dynamics. When this alignment is lacking, children may struggle behaviorally and academically, even if they are equally capable. The program's emphasis on improving "goodness of fit" is intended to influence later outcomes through two related pathways: (1) strengthening children's self-regulation and relationship-building skills, and (2) improving classroom interactions in ways that can support early learning and engagement. This follow-up study tests whether a two-year intervention delivered in kindergarten and first grade produced measurable differences through middle school, recognizing that sustained impacts may also depend on later school experiences and support services.

INSIGHTS teaches adults to recognize temperamental differences and modify environments and interactions accordingly, while helping children develop an awareness of their own traits. The program uses four empirically derived temperament profiles that are represented through puppet characters with various temperamental traits. The high maintenance puppet is intense, active, and has low levels of persistence when undertaking tasks; the industrious puppet is persistent when undertaking tasks and has low levels of reactivity; the cautious/slow-to-warm puppet is withdrawn and hesitant with novelty; and the social/eager-to-try puppet is approachable and has low levels of withdrawal. These profiles guide teachers, parents, and students in understanding children's varied responses to situations.

INSIGHTS delivered coordinated interventions in kindergarten and first grade to teachers, students, and their parents:

- **TEACHER PROGRAM:** Ten sessions, delivered once per week over a 10-week period each school year, provided educators with strategies to recognize children's temperamental traits, reframe challenging behaviors as expressions of temperament rather than defiance, and respond with temperament-matched management approaches.
- **PARENT PROGRAM:** Ten parallel sessions per school year helped families apply similar temperament-based strategies at home, with the content adapted for home environments. One of the sessions brought parents and teachers together to build a shared understanding of the child's temperament and align home and classroom strategies.
- **CLASSROOM PROGRAM:** Ten 45-minute sessions were delivered once per week for 10 weeks in each grade. The sessions included puppet-based activities to help students understand temperamental differences and practice problem-solving skills.

While the teacher and classroom components were delivered to all students in the intervention schools, the parent component was available only to those parents who consented to participate in the study. This variation allows the study to explore whether access to the parent component was associated with more durable effects than the school-based components alone, while recognizing that consent is not random and that these comparisons are exploratory.

## The Original Randomized Trial and Past Findings

This follow-up study draws on a cluster-randomized controlled trial involving 22 New York City public elementary schools.<sup>7</sup> Schools were recruited in three cohorts between 2008 and 2010 and randomly assigned to either INSIGHTS or a control condition designed to provide similar time and attention through a supplemental reading program, known as the attention-control group. In the control condition, students participated in a 10-week, 45-minute after-school reading program, and teachers and parents received reading materials and separately attended two two-hour workshops on early literacy strategies. This comparison helped ensure that the estimated effects reflect INSIGHTS content, not differences in attention or professional development opportunities.<sup>8</sup>

The original randomized sample included 1,329 kindergarten students—641 in INSIGHTS schools and 688 in control group schools. As shown in Table 1, the sample reflected an urban, high-poverty context. Over 70 percent of students were Black, non-Hispanic, and approximately three-quarters were eligible for free or reduced-price lunch. Randomization successfully created equivalent groups, supporting the internal validity of the findings.

INSIGHTS was largely delivered as planned: 94 percent of the intended content for teachers and 92 percent of the intended content for parents was delivered. Teachers attended an average of 9.4 out of 10 sessions, students participated in an average of 8.3 out of 10 classroom sessions, and parents attended an average of 5.9 out of 10 sessions. The supplemental reading program was also delivered as planned in the control group schools: 95 percent to 100 percent of topics were covered during the 10-week program. Some 24 percent of students attended all 10 sessions (and an additional 19 percent attended eight to nine sessions), 30 percent of parents attended both workshops, and 83 percent of teachers attended both sessions.

The original trial demonstrated substantial short-term benefits. Students in INSIGHTS schools showed significantly faster growth in reading and mathematics during intervention years.<sup>9</sup> The program also improved attention and reduced disruptive behaviors. However, follow-up studies revealed diminishing effects by the end of elementary school, with fading academic impacts.<sup>10</sup>

## What Is This Brief About?

The follow-up study reported in this brief extends previous research by tracking the full randomized sample through eighth grade—nine years after randomization—using administrative records from New York City Public Schools (the city’s department of education). Importantly, INSIGHTS was delivered only in kindergarten and first grade, thus the key question for this follow-up study is whether the program’s early academic and behavioral benefits translated into measurable differences during the middle school years. Unlike most previous studies of INSIGHTS, which focused on a subset of consented participants (approximately 30 percent of the sample), this study examines effects across the full randomized sample. Nine years after random assignment, approximately 77 percent of the original sample (1,027 students) remained enrolled in New York City public schools

**Table 1. Baseline Characteristics for INSIGHTS and Attention-Control Group Schools and Students**

Characteristics (%)	INSIGHTS	Attention-Control Group	Estimated Difference	Standard Error	P-Value
<b>A. School level</b>					
Average attendance rate	90.20	90.85	-0.65	0.79	0.423
Female	48.54	49.76	-1.22	1.48	0.420
Race/ethnicity					
Black, non-Hispanic	78.05	71.78	6.27	5.55	0.272
Hispanic	15.54	19.74	-4.21	4.19	0.327
White, non-Hispanic	1.74	4.73	-3.00	2.65	0.271
Other	4.56	3.67	0.89	1.48	0.553
Eligible for free or reduced-price lunch	76.83	71.97	4.86	11.70	0.682
Scored at or above proficiency on ELA state test	53.46	53.17	0.29	6.42	0.964
Scored at or above proficiency on math state test	70.09	68.61	1.48	8.05	0.856
Primary home language is not English	13.19	10.45	2.73	2.54	0.294
Number of students in school	485.91	479.00	6.91	78.28	0.930
Sample size	11	11			
<b>B. Student level</b>					
Baseline age (in years)	5.03	5.00	0.03	0.02	0.250
Female	47.27	46.57	0.70	3.59	0.847
Race/ethnicity					
Black, non-Hispanic	77.90	68.31	9.59	7.59	0.221
Hispanic	14.73	19.98	-5.25	5.44	0.347
White, non-Hispanic	1.72	6.84	-5.12	4.73	0.293
Other	5.64	4.81	0.84	2.52	0.744
Eligible for free or reduced-price lunch	80.16	71.68	8.48	11.65	0.476
Primary home language is not English	11.54	11.93	-0.38	3.23	0.907
SPED classification	9.62	10.82	-1.20	2.93	0.686
Sample size	641	688			

SOURCE: District records collected between 2007 and 2010 and provided by the Research Alliance for New York City Schools (RANYCS).

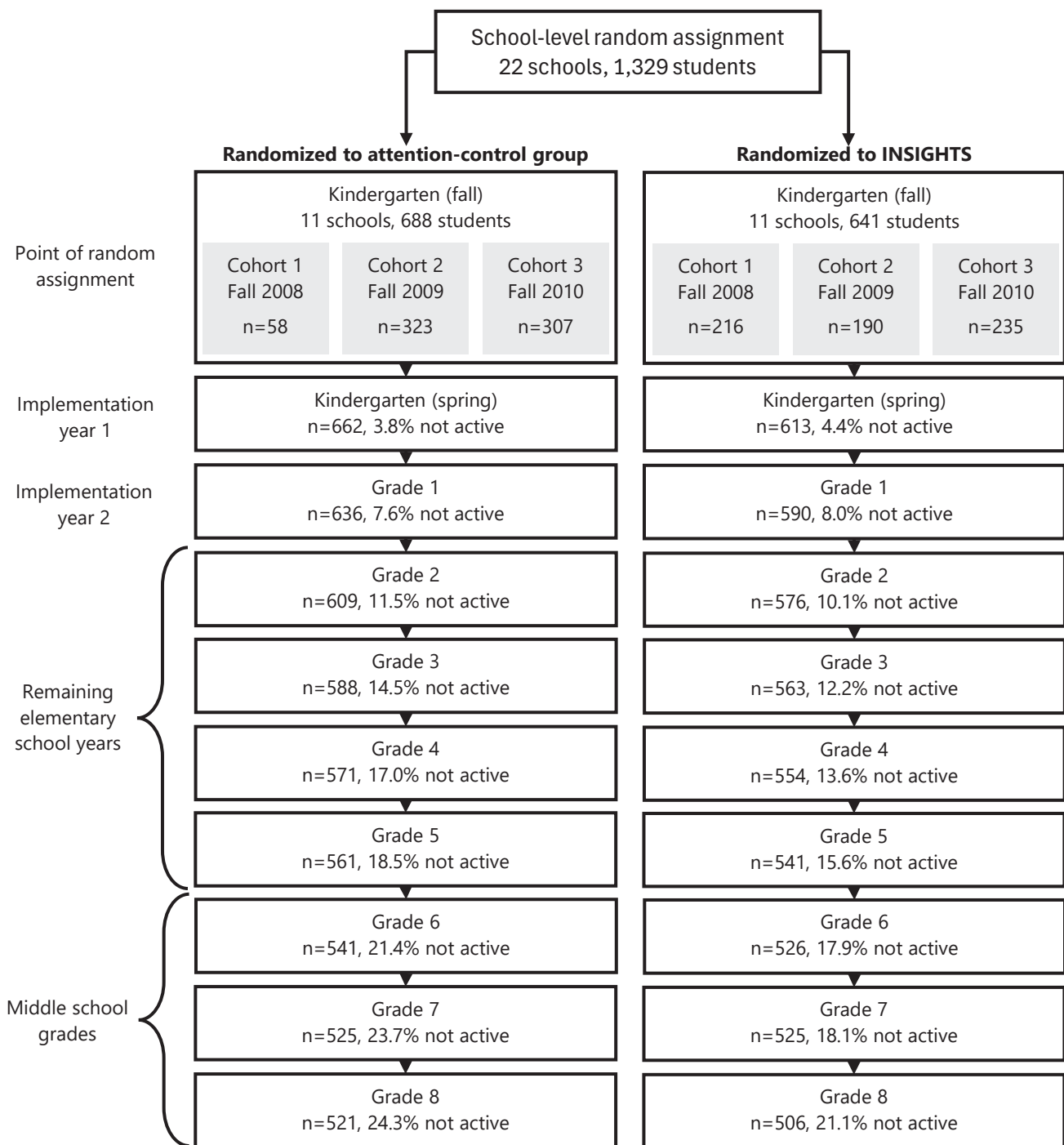
NOTES: ELA = English language arts. SPED = Special education, defined by whether a student has an Individualized Education Program.

Panel A is based on school-level characteristics of the student population in pre-K through grade 5 (including ungraded special education students) at the 22 schools participating in the study in the school year before random assignment (2007-2010). Panel B is based on the background information of kindergarten students who were enrolled in study schools at the time of random assignment. Values for the INSIGHTS group are the simple means for each baseline characteristic. Values for the differences between the two groups are estimated from a regression that controls for cohorts of random assignment. Values for the attention-control group equal the values for the INSIGHTS group minus the estimated difference. Rounding may cause slight discrepancies in calculating sums or differences.

A two-tailed t-test was applied to the estimated differences, and none of them are statistically significant at the 5 percent level. An F-test was used to determine whether there is a systematic difference between the INSIGHTS schools and comparison schools, with respect to the characteristics included in this table. The p-value for this test is 0.984.

(Figure 1). Analyses indicate that attrition did not threaten the internal validity of findings (as shown in Technical Supplement Tables S.1-S.7).

**Figure 1. Study Sample from Randomization to 8th Grade**



(continued)

**Figure 1 (continued)**

SOURCE: District records collected between 2007 and 2019 and provided by the Research Alliance for New York City Schools (RANYCS).

NOTES: Not active = dropped out or discharged from New York City public schools. All grades reflect the grade levels students were expected to be in for a given program year.

This study examined the following student outcomes that schools and districts routinely track in middle grades:

- **ACADEMIC ACHIEVEMENT** includes students' performance on New York State standardized assessments in English language arts (ELA) and mathematics (grades 6 to 8), as well as participation and passage of math Regents exams in middle school.<sup>11</sup> (Regents exams are New York State end-of-course exams that can count toward high school credit.)
- **ATTENDANCE** includes average annual attendance rates in middle school (grades 6 to 8).
- **GRADE RETENTION** indicates whether students were held back during middle school.
- **SPECIAL EDUCATION PLACEMENT** indicates whether students received an Individualized Education Program (IEP) classification during middle school.

The follow-up study also explored whether effects varied for students from families with low incomes (who are defined as being eligible for free or reduced-price lunch) and for students whose parents consented to participate in the parent program component.

Additional technical details are provided in a companion Technical Supplement. The Technical Supplement includes tables on sample characteristics and baseline equivalence (Tables S.1-S.7); additional impact findings (Tables S.8-S.13); robustness checks (Tables S.14-S.17); the multiple-comparisons adjustment (Table S.18); and comparisons with previous INSIGHTS studies (Table S.19).

## Follow-Up Study Findings

### Finding 1: For the average student, early benefits faded by middle school.

Previous evaluations of INSIGHTS demonstrated that the program accelerated students' reading and math growth and reduced disruptive behavior during the primary grades. However, consistent with the fadeout phenomenon observed in other early childhood interventions, these average effects were not maintained through the middle school years.<sup>12</sup>

As shown in Table 2, for the full sample of students, none of the estimated differences between the INSIGHTS group and the attention-control group across the middle school outcomes remained statistically significant after adjusting for multiple hypothesis testing. In unadjusted analyses, INSIGHTS was associated with a small improvement in sixth-grade math scores, but this difference did not remain statistically significant once the multiple-tests adjustment was applied. Math and ELA test scores were otherwise similar for both groups in grades 6 through 8. In addition, the program did not produce lasting changes in attendance, grade retention, or special education classification for the full sample. INSIGHTS also did not increase the number of students taking or passing the Regents math exam by eighth grade.

**Table 2. Estimated Impacts of INSIGHTS on Middle-School Outcomes**

Outcome	INSIGHTS	Attention-Control Group	Estimated Impact	Standard Error	P-Value
State English language arts test (effect size)					
Grade 6	-0.25	-0.35	0.10	0.08	0.208
Grade 7	-0.25	-0.31	0.06	0.09	0.499
Grade 8	-0.22	-0.25	0.03	0.07	0.684
State math test (effect size)					
Grade 6	-0.32	-0.47	0.15 *	0.08	0.078
Grade 7	-0.36	-0.37	0.01	0.08	0.906
Grade 8	-0.34	-0.47	0.13	0.10	0.222
Attempted state test (%)	77.47	70.46	7.01	4.26	0.118
Math Regents test by grade 8					
Attempted math Regents test (%)	25.30	28.72	-3.42	3.48	0.340
Passed math Regents test (%)	17.98	23.00	-5.01	3.07	0.121
Average attendance rate in grades 6 to 8 (%)	90.80	90.97	-0.17	0.84	0.845
Ever retained in grades 6 to 8 (%)	3.14	3.24	-0.10	1.35	0.943
Ever identified for SPED status in grades 6 to 8 (%)	30.11	33.74	-3.63	3.75	0.346

SOURCE: District records collected between 2007 and 2019 and provided by the Research Alliance for New York City Schools (RANYCS).

NOTES: SPED = Special education, defined by whether a student has an Individualized Education Program. Test scores are standardized as z-scores to allow for comparison across grades. A score of 0 represents the New York City public school average from the same grade and year, while positive or negative values indicate how far a student performed above or below that average.

Total sample size varies by outcome, ranging from 727 to 1,300.

Values for the INSIGHTS group are the simple means for each outcome. Impact values are estimated from a hierarchical regression that controls for cohorts of random assignment and school- and student-level baseline covariates. Values for the attention-control group equal the values for the INSIGHTS group minus the estimated impacts. Rounding may cause slight discrepancies in calculating sums or differences.

A two-tailed t-test was applied to the estimated impact. Unadjusted statistical significance levels are indicated as: \* =  $p < 0.10$ ; \*\* =  $p < 0.05$ ; \*\*\* =  $p < 0.01$ .

Taken together, these results indicate that, for the average student, the early gains observed during the INSIGHTS years did not translate into detectable differences in middle school outcomes. This pattern is consistent with the fadeout phenomenon observed in other early interventions and underscores that maintaining early improvements may depend on later school contexts and support services. For example, the middle school setting differs from elementary school in ways that may make it harder for early, classroom-specific “goodness of fit” strategies to carry forward without additional alignment across grades.

## Finding 2: Students from families with low incomes experienced academic gains in early middle school.

While the overall results suggest fadeout, the story is more encouraging for students from families with low incomes, who are defined as being eligible for free or reduced-price lunch (as shown in Table 3). This subgroup makes up a large part of the study sample and often faces structural barriers that can impede academic progress.

**Table 3. Estimated Impacts of INSIGHTS for Students Who Are Eligible for Free or Reduced-Price Lunch**

Outcome	INSIGHTS	Attention-Control Group	Estimated Impact	Standard Error	P-Value	Differential Impact
State ELA test (effect size)						
Grade 6	-0.24	-0.45	0.21 **	0.07	0.005	††
Grade 7	-0.23	-0.41	0.18 *	0.09	0.059	††
Grade 8	-0.23	-0.34	0.11	0.08	0.154	
State math test (effect size)						
Grade 6	-0.33	-0.54	0.21 **	0.09	0.014	
Grade 7	-0.36	-0.44	0.08	0.07	0.263	
Grade 8	-0.33	-0.53	0.20 *	0.12	0.081	
Attempted state test (%)	78.54	74.12	4.42	4.60	0.337	
Math Regents test by grade 8						
Attempted math Regents test (%)	23.41	25.45	-2.04	3.67	0.580	
Passed math Regents test (%)	16.10	19.45	-3.36	3.37	0.319	
Average attendance rate in grades 6 to 8 (%)	90.46	90.38	0.08	0.83	0.921	
Ever retained in grades 6 to 8 (%)	3.18	3.48	-0.31	1.44	0.833	
Ever identified for SPED status in grades 6 to 8 (%)	30.61	38.14	-7.53 *	4.13	0.068	†

(continued)

**Table 3 (continued)**

SOURCE: District records collected between 2007 and 2019 and provided by the Research Alliance for New York City Schools (RANYCS).

NOTES: ELA = English language arts. SPED = Special education, defined by whether a student has an Individualized Education Program. Test scores are standardized as z-scores to allow for comparison across grades. A score of 0 represents the New York City public school average from the same grade and year, while positive or negative values indicate how far a student performed above or below that average.

Total sample size varies by outcome, ranging from 577 to 921.

Values for the INSIGHTS group are the simple means for each outcome. Impact values are estimated from a hierarchical regression that controls for cohorts of random assignment and school- and student-level baseline covariates. Values for the attention-control group equal the values for the INSIGHTS group minus the estimated impacts. Rounding may cause slight discrepancies in calculating sums or differences. A two-tailed t-test was applied to the estimated impact. Statistical significance levels for the impact estimates are indicated as: \* =  $p < 0.10$ ; \*\* =  $p < 0.05$ ; \*\*\* =  $p < 0.01$ . Statistical significance levels for the differential impacts between students eligible and ineligible for free or reduced-price lunch are indicated in the last column of the table as: † =  $p < 0.10$ ; †† =  $p < 0.05$ ; ††† =  $p < 0.01$ .

Specifically, INSIGHTS produced significant improvements in ELA achievement in grades 6 and 7 for students from families with low incomes, with effect sizes of 0.21 and 0.18 standard deviations, respectively. Mathematics achievement also improved in grades 6 and 8, with effect sizes of 0.21 and 0.20 standard deviations. Note that effect sizes summarize the average difference between program and comparison groups in standard deviation units. These estimated effect sizes are considered moderate and are comparable to other successful academic interventions.<sup>13</sup> Importantly, some of these effects were significantly larger than effects for students from higher-income families (indicated by † symbols in Table 3), confirming that the intervention produced differential effects for the high-risk subgroup.

In addition, INSIGHTS reduced the likelihood of special education placement during middle school by 7.5 percentage points — a meaningful reduction given that placement rates approached 30 percent in both groups. This finding suggests that the intervention may have helped reduce special education referrals for students from families with low incomes. However, no significant effects emerged for attendance or grade retention, suggesting that the impacts of INSIGHTS for this group centered on academic achievement and special education classification. These exploratory findings are consistent with compensatory perspectives suggesting that school-based interventions can be especially consequential for students who have less support outside of school.<sup>14</sup> For these students, the self-regulation and problem-solving skills emphasized in INSIGHTS may have provided a buffer during the middle school transition. These findings should be interpreted with caution and considered a hypothesis for future research because the study was not designed specifically to detect effects for subgroups, and multiple comparisons increase the risk of false discoveries.

### Finding 3: Parent involvement did not yield additional long-term benefits.

Students whose families consented to participate in the study (approximately 30 percent of the sample) received the full three-component intervention, including the parent program. Previous studies of INSIGHTS focusing on this subgroup have found positive short-term impacts on academic and behavioral outcomes. However, contrary to theoretical expectations that coordinated home-school intervention would produce more durable effects, these students showed no sustained benefits through middle school, as shown in Table 4.

**Table 4. Estimated Impacts of INSIGHTS for Students with Parental Consent**

Outcome	INSIGHTS	Attention-Control Group	Estimated Impact	Standard Error	P-Value	Differential Impact
State ELA test (effect size)						
Grade 6	-0.21	-0.23	0.03	0.12	0.817	
Grade 7	-0.26	-0.21	-0.05	0.12	0.681	
Grade 8	-0.23	-0.15	-0.08	0.11	0.470	
State math test (effect size)						
Grade 6	-0.29	-0.37	0.08	0.12	0.510	
Grade 7	-0.39	-0.27	-0.11	0.12	0.338	
Grade 8	-0.28	-0.40	0.12	0.15	0.430	
Attempted state test (%)	80.92	68.16	12.76 **	6.17	0.039	
Math Regents test by grade 8						
Attempted math Regents test (%)	27.17	32.23	-5.06	5.54	0.361	
Passed math Regents test (%)	18.50	29.79	-11.29 **	5.07	0.026	
Average attendance rate in grades 6 to 8 (%)	90.78	91.55	-0.77	1.22	0.532	
Ever retained in grades 6 to 8 (%)	3.45	2.81	0.64	2.15	0.767	
Ever identified for SPED status in grades 6 to 8 (%)	32.43	36.07	-3.64	5.85	0.533	

SOURCE: District records collected between 2007 and 2019 and provided by the Research Alliance for New York City Schools (RANYCS).

NOTES: ELA = English language arts. SPED = Special education, defined by whether a student has an Individualized Education Program. Test scores are standardized as z-scores to allow for comparison across grades. A score of 0 represents the New York City public school average from the same grade and year, while positive or negative values indicate how far a student performed above or below that average.

Total sample size varies by outcome, ranging from 233 to 391.

Values for the INSIGHTS group are the simple means for each outcome. Impact values are estimated from a hierarchical regression that controls for cohorts of random assignment and school- and student-level baseline covariates. Values for the attention-control group equal the values for the INSIGHTS group minus the estimated impacts. Rounding may cause slight discrepancies in calculating sums or differences.

A two-tailed t-test was applied to the estimated impact. Statistical significance levels for the impact estimates are indicated as: \* =  $p < 0.10$ ; \*\* =  $p < 0.05$ ; \*\*\* =  $p < 0.01$ . None of the differential impacts between the consent and nonconsent student subgroups are statistically significant at the 10 percent level.

Across attendance, grade retention, special education classification, and standardized test scores, estimated effects were small and statistically not significant. These estimates did not differ significantly between students whose families consented and those whose families did not, suggesting that receiving the parent component did not lead to detectable differences in long-term outcomes.

These results do not provide evidence of added long-term benefits associated with access to the parent component in this study. Practical barriers — such as parents attending only about six of 10 sessions on average — may have reduced the intensity of the home component. In addition, the parent sessions focused on strategies tailored to early childhood; those strategies may have been less aligned with students' developmental needs as they entered adolescence.

## What These Findings Mean for Policy and Practice

This study provides rigorous evidence on whether a time-limited, early-grade SEL intervention can produce sustained benefits through the pivotal transition to middle school. Because INSIGHTS is a temperament-based program delivered in a specific urban context and compared with an attention-control reading program, the findings should be interpreted as evidence about INSIGHTS (and similar early elementary approaches), and not as a conclusion about all SEL programs. The findings offer four key insights for policy and practice.

- **EARLY SEL INTERVENTIONS ALONE MAY NOT BE SUFFICIENT.** The overall fadeout pattern for the full sample underscores the need for sustained support to maintain early gains. Two years of INSIGHTS in kindergarten and first grade, though initially effective, appears insufficient to alter developmental trajectories during middle school without continued reinforcement. In addition, middle school environments — characterized by larger class sizes, multiple teachers, and heightened academic demands — may overwhelm the temperament-based skills fostered by INSIGHTS. Schools interested in sustaining early gains might consider aligning approaches across grades or offering targeted “booster” support during key transitions.
- **EARLY SOCIAL-EMOTIONAL SUPPORT TAILORED TO STUDENTS' TEMPERAMENT MAY SERVE AS A SCAFFOLD FOR SOME STUDENTS FACING GREATER CHALLENGES (SUCH AS ECONOMIC HARDSHIPS OR OTHER FAMILY STRESSES).** The exploratory subgroup findings for students from families with low incomes suggest that INSIGHTS' impacts may vary with students' access to support outside of school. For students who face more barriers, early self-regulation and classroom coping skills may be especially valuable during challenging transitions. These patterns are suggestive rather than definitive and warrant replication in other settings and with other SEL approaches.
- **TARGETING INTERVENTIONS MAY MAXIMIZE IMPACT.** If replicated, the differential effects by socio-economic status could highlight the importance of considering students' backgrounds when designing and targeting interventions. Rather than assuming that a single early-grade approach will benefit all students equally, districts may want to prioritize support where needs are greatest

and where implementation can be sustained. Focusing early SEL investments in schools located in high-poverty areas may increase the likelihood of meaningful returns.

- **FAMILY ENGAGEMENT IN EARLY INTERVENTIONS REQUIRES CAREFUL DESIGN TO PRODUCE LASTING BENEFITS.** In this study, students whose families consented to participate in the parent program showed no additional long-term advantages through middle school, despite having access to the full three-component model. The home component's intensity and content may have been less aligned with families' needs as children entered adolescence. These results suggest that dosage, developmental timing, and alignment with children's changing needs may matter as much as offering components across multiple settings.

## What's Next?

These middle school findings represent an intermediate output from a larger longitudinal study. A forthcoming high school follow-up study will examine outcomes including ninth grade on-track status, Regents exam results, graduation rates, and postsecondary enrollment. These milestones will capture the cumulative influence of early SEL exposure and could reveal whether the cascading effects of INSIGHTS re-emerge at critical junctures. Whether early SEL interventions ultimately affect these outcomes will provide vital insight for supporting students and communities through targeted, equitable interventions.

## Notes and References

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6. Sandee G. McClowry, *Temperament-Based Elementary Classroom Management* (Rowman & Littlefield Education, 2014).
7. In a cluster-randomized controlled trial, clusters (schools in this case) are randomly assigned either to a program group that is eligible to participate in the intervention or to a control group that is not eligible to participate in the intervention. By comparing the outcomes of the two groups, which are not systematically different in any way (and, in large samples, very similar in all ways), a study can estimate the impact of the intervention without bias.
8. See Erin E. O'Connor, Elise Cappella, Meghan P. McCormick, and Sandee G. McClowry, "An Examination of the Efficacy of INSIGHTS in Enhancing the Academic and Behavioral Development of Children in Early Grades," *Journal of Educational Psychology* 106, 4 (2014): 1,156–1,169.
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