

The Talent Development Middle School Model

Impacts Through the 2002-2003 School Year

An Update to the December 2004 Report

**Corinne M. Herlihy
James J. Kemple**



August 2005

This report was funded by a subcontract from the Center for Research on the Education of Students Placed At Risk (CRESPAR), a national research and development center based at The Johns Hopkins University, with funds provided by contract number ED-99-CO-0155 from the U.S. Department of Education.

Dissemination of MDRC publications is also supported by the following foundations that help finance MDRC's public policy outreach and expanding efforts to communicate the results and implications of our work to policymakers, practitioners, and others: The Atlantic Philanthropies; the Alcoa, Ambrose Monell, Bristol-Myers Squibb, Ford, Grable, and Starr Foundations; and the Open Society Institute.

The findings and conclusions in this report do not necessarily represent the official positions or policies of funders.

For information about MDRC and copies of our publications, see our Web site: www.mdrc.org.

Copyright © 2005 by MDRC. All rights reserved.

Abstract

The Talent Development Middle School model is a comprehensive reform initiative designed to help transform large, urban middle schools with the aim of improving students' levels of achievement and raising teachers' and students' expectations. In December 2004, MDRC released a report describing the implementation of the initiative in six Philadelphia middle schools and offering impact findings for the 1997-1998 school year through the 2001-2002 school year (*The Talent Development Middle School Model: Context, Components, and Initial Impacts on Students' Performance and Attendance*). This short paper provides an update to that report, presenting information from additional analyses of Talent Development's impact on middle school students through the 2002-2003 school year.

As described in the earlier report, Talent Development had a positive impact on math achievement for eighth-graders, which emerged in the third year of implementation and strengthened during the next two years (in the schools for which data are available). The model also exhibited modest impacts on eighth-grade attendance rates but produced an inconsistent pattern of impacts on eighth-grade reading achievement. It appeared to produce no systematic improvement in outcomes for seventh-graders.

This update tells how, during the 2002-2003 and 2003-2004 school years, the School District of Philadelphia made pervasive changes in school governance, curriculum content, and accountability structures in elementary and middle schools. As a result of the changes, the core components of Talent Development were dismantled in the middle schools that were implementing the model, effectively ending the evaluation of the model's impact. However, one additional year of follow-up data was included in the analysis before the evaluation ended, and the updated findings based on that follow-up — and presented in this paper — support the conclusions of the 2004 report.

Introduction

The Talent Development Middle School model is a comprehensive reform initiative designed to help transform the structure and curriculum of large middle schools in urban districts, with the aim of improving students' levels of achievement and raising teachers' and students' expectations. The model includes a systematic reorganization of each school into small learning communities, organized around interdisciplinary teacher teams that share the same students and have common planning time. It infuses the curriculum with academic courses in English, language arts, mathematics, science, and U.S. history, and these courses are based on nationally recognized standards. Teachers receive professional development on the use of the curriculum and accompanying instructional practice, and each school employs the services of curriculum coaches to help support teachers on an ongoing basis. The model provides catch-up opportunities during the school day to students who are struggling with mathematics or reading.

Talent Development was created by practitioners and researchers at the Center for Research on the Education of Students Placed At Risk (CRESPAR), based at The Johns Hopkins University; the model operates in 21 middle schools nationwide. MDRC conducted an independent, third-party evaluation of Talent Development, funded by the U.S. Department of Education's Institute of Education Sciences, through CRESPAR. The evaluation and CRESPAR's efforts to expand the use of Talent Development are part of the U.S. Department of Education's Comprehensive School Reform Demonstration (CSR/D) program.

This short paper provides an update to an evaluation of the Talent Development Middle School model in Philadelphia. The main report from the evaluation was released in December 2004 and focused on the impact Talent Development was having on student engagement and performance in six middle schools. These schools began using the model between the 1997-1998 school year and the 1999-2000 school year, and the main report followed them through the 2001-2002 school year.¹ This paper presents information from additional analyses of Talent Development's impact on middle school students in the School District of Philadelphia up through the 2002-2003 school year.² Following a brief review of findings from the 2004 report, which serves as the starting point for the current analyses, the paper describes the status of Talent Development implementation in Philadelphia as of the 2003-2004 school year, focusing on the phasing out of the model in most of the schools with which it had been working. It then provides a summary of updated impact findings.

Overview of the 2004 Report

The 2004 report focused on Talent Development's impact on student achievement and attendance in the first six middle schools (the "early-implementing schools") to use the model in

¹See Corinne M. Herlihy and James J. Kemple, *The Talent Development Middle School Model: Context, Components, and Initial Impacts on Student's Performance and Attendance* (New York: MDRC, 2004).

²A separate set of two reports focuses on the implementation and impacts of Talent Development in a group of Philadelphia high schools.

Philadelphia. It covered the first three years that Talent Development worked with these middle schools, as well as up to two additional years of follow-up for a subset of the six schools. It also included limited analyses for the first year of implementation in another five middle schools (the “later-implementing schools”) that used the model for only one year during the follow-up period (which ended with the 2001-2002 school year). The report focused primarily on the eighth grade, which marks the culmination of students’ middle school experiences. The following is an overview of the key findings of the 2004 report:

- Talent Development had a positive impact on math achievement for eighth-grade students, which emerged in the third year of implementation and then strengthened during the next two years in the schools for which data are available.
- Talent Development schools exhibited modest impacts on eighth-grade attendance rates.
- The model produced an inconsistent pattern of impacts on eighth-grade reading achievement: Modest improvements occurred in some years but not in others.
- Talent Development did not produce consistent impacts on seventh-grade math achievement, reading achievement, or attendance.

Status of Talent Development Implementation in Philadelphia After the 2001-2002 School Year

As noted above, the 2004 report encompassed data through the 2001-2002 school year, which included up to five follow-up years for the six early-implementing schools and one follow-up year for the five later-implementing schools. This update to the evaluation includes information on the model’s implementation for two more years, through the 2003-2004 school year.

In short, during the 2002-2003 and 2003-2004 school years, pervasive changes in school governance, curriculum content, and accountability occurred for elementary and middle schools throughout the School District of Philadelphia. As part of the district’s reorganization, many low-performing elementary and middle schools were “taken over” by private education management organizations (EMOs). In 2003-2004, Philadelphia instituted a common core curriculum for all middle schools. Talent Development middle schools were not excluded from these changes. The following is a brief summary of the key issues that resulted from the changes.

The 2002-2003 School Year: The Key Elements of Talent Development Erode

The 2002-2003 school year saw only two of the six early-implementing Talent Development schools retain a relatively full array of Talent Development components and support. The other four early-implementing Talent Development schools were no longer fully implementing the model. Of these four schools, two lost their Talent Development facilitators and curriculum coaches but retained the curriculum. Another school retained Talent Development’s “Student

Team Literature” as its Reading, English/Language Arts curriculum and changed its math curriculum to another standards-based program that Talent Development supported. The last early-implementing Talent Development school was a middle/high school that began the process of eliminating its middle school by dropping the seventh grade in the 2002-2003 school year. Talent Development supported only the eighth-grade curriculum in this school for this school year.

All of the five later-implementing Talent Development schools were taken over by EMOs. The leadership of three of the five schools decided to keep the core Talent Development components. The two other schools were taken over by Edison Schools, a privately-owned company, which dropped Talent Development completely.

The 2003-2004 School Year: Core Components of Talent Development are Dismantled, and the School District of Philadelphia Incorporates Related Features into Its Systemwide Reform

Beginning in the 2003-2004 school year, Philadelphia adopted a core curriculum for middle schools. All middle schools, regardless of leadership and presence of existing reform models, were required to implement the new curriculum. It appears, however, that the new curriculum resembles the Talent Development math and reading components and that the district attempted to provide intensive professional development and coaches for each of the schools, much like Talent Development did. However, the formal Talent Development components were effectively dismantled in the 11 middle schools that had been implementing the model. Two of the six early-implementing schools and three of the five later-implementing schools continued to work with Talent Development to some extent but in a fashion that seems to have been much more limited than in previous years.

Updated Findings from the Extended Follow-Up Impact Analysis

Because of the virtual dismantling of the core Talent Development Middle School components in 2003-2004, the following update on the impact analysis focuses on results only through the 2002-2003 school year. Table 1 (an updated version of Table 4 from the 2004 report) summarizes the impact findings for several measures of engagement and performance for eighth-grade students.³ The findings in the table and in Figures 1 through 4 reflect an additional year of follow-up for each of the first six middle schools that began using the model. (Figures 1 through 4 update Figures 5 through 8 from the 2004 report.)⁴ This means that there are four years of follow-up for all six of these schools. The five-year follow-up results are based on the experiences of four of the early-implementing schools, and the six-year follow-up results are based on the experiences of just two of

³See Herlihy and Kemple (2004), pp. 40-41.

⁴See Herlihy and Kemple (2004), pp. 38, 42, 44, and 46.

the schools. This means the even though some of the impacts in Years 5 and 6 are promising, they may not be statistically significant because they are based on a smaller sample of schools.⁵

The central finding presented in Table 1 and in the figures is that, despite the emerging changes in school leadership and management in 2002-2003, the pattern of impacts on math and reading achievement and attendance appear to have been largely the same as those presented in the 2004 report. The additional year of follow-up data shows that the impacts on math achievement were sustained through the fifth and even sixth year of Talent Development's implementation. The lack of consistent and systematic impacts on reading achievement and attendance was also exhibited in the additional year of follow-up.

The first three outcomes in the table relate to math test scores from the state standards assessment (SSA) administered to all eighth-grade students.⁶ Figure 1 displays changes in National Curve Equivalent (NCE) scores compared to the baseline period for both the Talent Development schools and their comparison group counterparts.⁷ It shows that both groups of schools experienced an increase in math test scores in almost every year of the follow-up period. The first line in the table and the difference in the bars in Figure 1 show that Talent Development students outpaced their comparison group counterparts by a statistically significant margin beginning in the third year of the follow-up period and continuing through Years 4, 5, and 6.⁸ An improvement of three NCE points is equivalent to about 0.20 effect sizes. Impacts of this magnitude are considered to be small to moderate effects by traditional guidelines, but the effects are comparable with other third-party evaluations of comprehensive school reform models.⁹

⁵Statistical significance is a measure of the degree of certainty that some nonzero deviation from the baseline average actually occurred. For example, if an impact estimate is statistically significant, then one may conclude with some confidence that the program really had an effect. If an impact estimate is not statistically significant, then the nonzero estimate is more likely to be the product of chance or random variation in the averages that were calculated across the schools and years under study. Unless otherwise noted, the deviations from baseline averages and the Talent Development impacts discussed in this report are statistically significant at the 10 percent level or less; that is, there is no more than a 10 percent probability that the difference results only from chance or random variation.

⁶The state standard assessment discussed throughout this update is the Pennsylvania System of School Assessment (PPSA), a criterion-referenced test administered in grades 5, 8, and 11, which provides information on student performance on skills and content knowledge specified by the state.

⁷The Normal Curve Equivalent (NCE) is a way of measuring where a student falls along the normal curve. The normalized test score, which ranges from 1 to 99 with a mean of 50, allows for comparisons across tests and subjects. Unlike percentile rank scores, the NCE measurement has an equal interval between scores, which means that NCE scores can be averaged to allow for comparisons of groups of students or schools.

⁸It should be noted that the evaluation team conducted additional analyses using scaled scores rather than NCE scores and the percentage of students at three performance levels, which the state defines and bases on scaled score cut points. These analyses show the same general pattern of impacts, but many of the results are not statistically significant. This may be due to the fact the scaled scores exhibit a somewhat different distribution within and across the schools and school years than are included in the evaluation.

⁹Geoffrey D. Borman, Gina M. Hewes, Laura T. Overman, and Shelly Brown. 2003. "Comprehensive School Reform and Achievement: A Meta-Analysis," *Review of Educational Research* 73 (2): 125-230.

The Talent Development Evaluation

Table 1
Impacts on SSA Test Scores, Attendance, and Promotion
for Eighth-Grade Students in Early-Implementing Talent Development Schools,
Six-Year Follow-Up Results

Outcome	Impact at Follow-Up ^a						Impact Effect Size ^b					
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
SSA test scores												
<i>Number of school clusters</i>	6	6	6	6	4	2	6	6	6	6	4	2
Math												
Average NCE	1.2	0.6	2.1 *	2.6 **	2.9 **	3.4	0.08	0.04	0.14 *	0.18 **	0.20 **	0.23
In the bottom quartile (%)	-2.7	-4.9	-4.1	-8.5 ***	-8.5 **	-11.4 *	-0.07	-0.12	-0.10	-0.22 ***	-0.21 **	-0.29 *
At or above grade level (%)	-0.6	-1.0	0.8	3.2 **	1.8	3.2	-0.03	-0.04	0.04	0.14 **	0.08	0.15
Reading												
Average NCE	-1.2	2.6 **	0.0	-1.0	2.4	0.9	-0.07	0.16 **	0.00	-0.06	0.15	0.06
In the bottom quartile (%)	3.2	-5.8 *	0.6	0.1	-8.7 **	-4.1	0.07	-0.13 *	0.01	0.00	-0.19 **	-0.09
At or above grade level (%)	0.2	4.0 **	0.4	-0.6	3.5	1.2	0.01	0.14 **	0.01	-0.02	0.12	0.04
Attendance^c												
<i>Number of school clusters</i>	5	5	5	5	4	2	5	5	5	5	4	2
Attendance rate	1.6	2.0 *	2.3 *	0.7	0.1	0.0	0.09	0.11 *	0.12 *	0.03	0.00	0.00
Attendance rate of:												
90% or higher (%)	6.2	4.3	9.6 **	4.5	3.7	2.0	0.13	0.09	0.19 **	0.09	0.08	0.04
80% or lower (%)	-4.0	-3.8	-5.6 *	-3.1	-1.3	4.9	-0.08	-0.08	-0.12 *	-0.06	-0.03	0.10
Promotion^d												
<i>Number of school clusters</i>	6	6	6	6	4	2	6	6	6	6	4	2
Promoted to 9th grade (%)	0.1	1.1	2.0 **	3.4 ***	0.6	-0.1	0.01	0.05	0.08 **	0.15 ***	0.03	0.00

(continued)

Table 1 (continued)

SOURCE: MDRC calculations from individual students' school records from the School District of Philadelphia.

NOTES: This table updates Table 4 from the 2004 report (see Herlihy and Kemple, 2004). Sample includes 8th-grade students from the 6 early-implementing Talent Development middle schools and 18 non-Talent Development middle schools. The analysis sample includes students not designated as ESOL or special education for whom a test score record is available or who were enrolled for at least 145 days during a given school year.

The number of school clusters varies by year due to the staggered implementation schedule and availability of data. Results for SSA test scores and promotion in Year 1, Year 2, Year 3, and Year 4 are pooled over six Talent Development schools and six clusters of non-Talent Development comparison schools; results for Year 5 are pooled over four Talent Development schools and four clusters of non-Talent Development comparison schools; and results for Year 6 are pooled over two Talent Development schools and two clusters of non-Talent Development comparison schools.

Attendance measures were only available for five clusters. Therefore, results for Year 1, Year 2, Year 3, and Year 4 are pooled over five Talent Development schools and five clusters of non-Talent Development comparison schools; results for Year 5 are pooled over four Talent Development Schools and four clusters of non-Talent Development comparison schools; and results for Year 6 are pooled over two Talent Development schools and two clusters of non-Talent Development comparison schools.

Estimates are regression-adjusted using ordinary least squares, controlling for 4th-grade math and reading SAT-9 test scores, race, and whether the student had repeated a prior grade.

^aThe impacts at follow-up for a given year were calculated as the difference in deviations from the baseline average between early-implementing Talent Development schools and their non-Talent Development comparison schools. A two-tailed t-test was applied to the impact at follow-up. Standard errors were adjusted to account for cohort effects. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Statistical significance, which depends in part on sample size, may be achieved with impacts of a smaller magnitude in the first three follow-up years, as compared with Year 4 and Year 5, which include fewer schools.

^bThe impact effect size for each outcome was calculated by dividing the impact in a given year by the standard deviation of that outcome for all 8th-grade students in the 11 Talent Development schools and 18 non-Talent Development comparison schools from a pre-Talent Development period, school years 1995-1996 and 1996-1997.

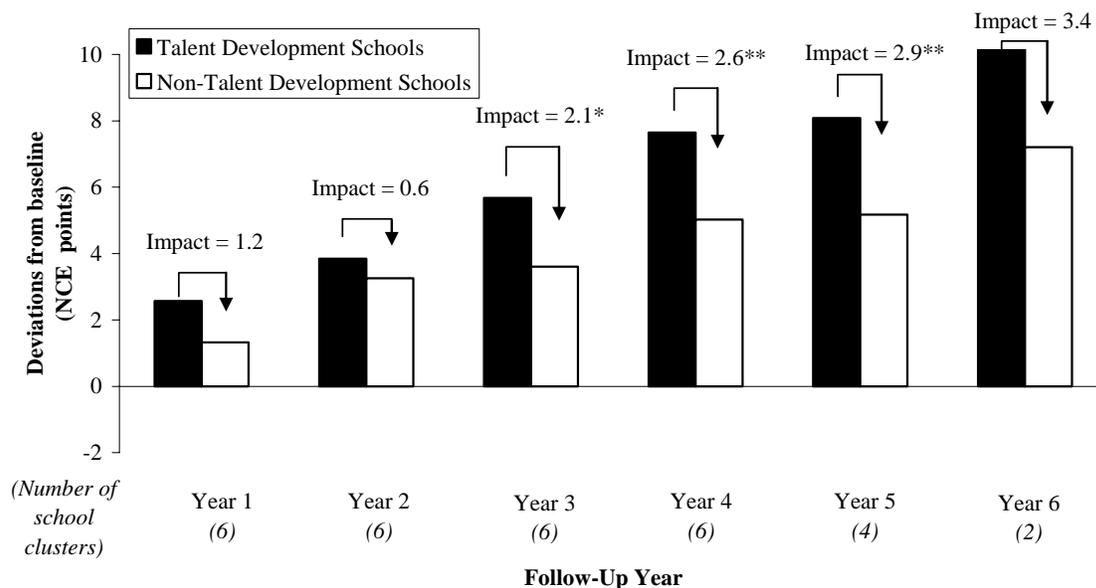
^cAttendance rates were calculated for each student by dividing the number of days the student was present by the total number of days the student was enrolled in a given school year. Attendance measures were not available for one Talent Development school (School E).

^dEighth-grade students were considered promoted if they were listed as 9th-grade students in the district's administrative data file one year after the current year. Students whose records were not included in the data file one year after the current year, for whatever reason, were not in the analysis sample for this outcome.

The Talent Development Evaluation

Figure 1

Impacts on SSA Math NCE Scores for Eighth-Grade Students in Early-Implementing Talent Development Schools Six-Year Follow-Up Results



SOURCE: MDRC calculations from individual students' school records from the School District of Philadelphia.

NOTES: This figure updates Figure 5 from the 2004 report (see Herlihy and Kemple, 2004). Sample includes 8th-grade students from 6 Talent Development middle schools and 18 non-Talent Development middle schools. The analysis sample includes students not designated as ESOL or special education for whom a test score record is available or who were enrolled for at least 145 days during a given school year.

Due to the staggered implementation schedule and availability of data, results for Year 1, Year 2, Year 3, and Year 4 are pooled over six Talent Development schools and six clusters of non-Talent Development comparison schools; results for Year 5 are pooled over four Talent Development schools and four clusters of non-Talent Development comparison schools; and results for Year 6 are pooled over two Talent Development schools and two clusters of non-Talent Development comparison schools.

The black bars represent the deviations from baseline of the Talent Development schools. The white bars represent the deviations from baseline of the non-Talent Development comparison schools. The deviations were calculated as the change in math NCE points from the three-year pre-implementation baseline average to each follow-up year.

The impacts were calculated as the difference in deviations from the baseline average between Talent Development schools and non-Talent Development comparison schools.

A two-tailed t-test was applied to the impacts. Standard errors and statistical significance levels are adjusted to account for cohort effects. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Statistical significance, which depends somewhat on sample size, may be achieved with impacts of a smaller magnitude in the first four follow-up years, as compared with Year 5 and Year 6, which include fewer schools.

While the average NCE score provides a sense of how students measure up against statewide norms, another important test score outcome is the percentage of students scoring in the bottom quartile of the statewide distribution. In fact, during the baseline period, about 80 percent of students in the Talent Development schools and the non-Talent Development comparison schools scored in the bottom quartile in math. As discussed in the 2004 report, and as shown in Figure 2, both Talent Development schools and their comparison group counterparts experienced a significant decline in the percentage of students scoring at this level throughout the follow-up period. The differences between the bars in the figure, however, show that Talent Development schools consistently outpaced their comparison schools in reducing the percentage of students who were scoring in the bottom quartile of the SSA math test. Although there were reductions in this percentage throughout the follow-up period, larger and statistically significant impacts emerged in Year 4 and were sustained through Year 6 in the schools for which data are available.

Table 1 also indicates that the pattern of impacts on reading test scores continued into the extra year of follow-up that is now available. As with the results presented in the 2004 report, the table shows no consistent impact on eighth-grade reading achievement. Talent Development appeared to produce positive impacts on reading in the second year of implementation, but these decayed to virtually zero in Years 3 and 4. While Figure 3 shows that impacts on reading achievement rebounded somewhat in the fifth year of follow-up, they slipped back again in Year 6 in the schools for which data are available. Like the findings presented in the 2004 report, Figure 4 shows that there are only marginal impacts on eighth-grade attendance rates.

A feature of the results shown in Figures 1 and 3 is that math and reading test scores for both the Talent Development and comparison schools appear to be improving during the later years of the follow-up period. Given the phasing out of Talent Development, one would expect a declining contrast between Talent Development schools and non-Talent Development schools in both operating strategies and test scores. This contrast is likely to be further diluted in 2003-2004 as the School District of Philadelphia took on curricular and professional development reforms that are similar to those put in place and supported by Talent Development.

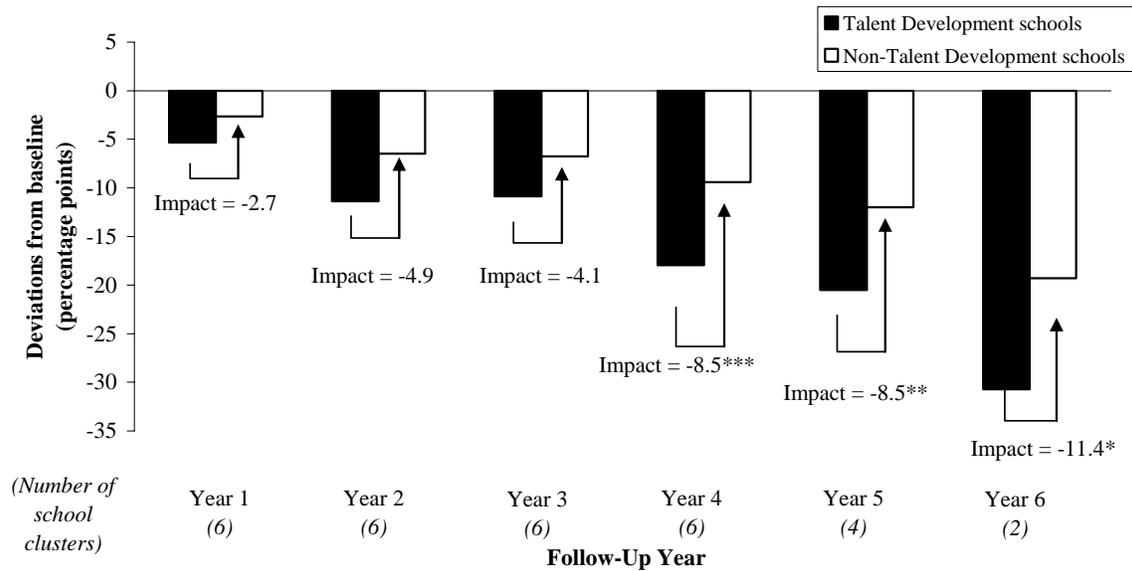
Finally, the evaluation team ran a limited set of impact analyses for seventh-grade students for two additional years of data, and the patterns were also consistent with those reported in the 2004 report. Impacts on seventh-grade attendance were inconsistent. In some years, there was a small negative impact on the overall attendance rate, and in other years a small positive impact on the percentage of students with attendance rates of 90 percent or greater. Very few of the attendance impacts were statistically significant. Because of a change in the seventh-grade test (from the SAT-9 to the Terra Nova), the study was not able to estimate the impact of Talent Development on seventh-grade reading and math achievement in the additional follow-up years.¹⁰

¹⁰The School District of Philadelphia had administered the SAT-9 to several grades, including seventh, from the 1995-1996 through the 2001-2002 school years. In the 2002-2003 and 2003-2004 school years, the district switched to the Terra Nova, which became a high-stakes test in the district. Due to uncertainty about equating the Terra Nova with the SAT-9 in these two follow-up years, this follow-up study did not run impacts for seventh-grade achievement.

The Talent Development Evaluation

Figure 2

Impacts on the Percentage of Students in the Bottom Quartile of SSA Math Scores for Eighth-Grade Students in Early-Implementing Talent Development Schools, Six-Year Follow-Up Results



SOURCE: MDRC calculations from individual students' school records from the School District of Philadelphia.

NOTES: This figure updates Figure 6 from the 2004 report (see Herlihy and Kemple, 2004). Sample includes 8th-grade students from 6 Talent Development middle schools and 18 non-Talent Development middle schools. The analysis sample includes students not designated as ESOL or special education for whom a test score record is available or who were enrolled for at least 145 days during a given school year.

Due to the staggered implementation schedule and availability of data, results for Year 1, Year 2, Year 3, and Year 4 are pooled over six Talent Development schools and six clusters of non-Talent Development comparison schools; results for Year 5 are pooled over four Talent Development schools and four clusters of non-Talent Development comparison schools; and results for Year 6 are pooled over two Talent Development schools and two clusters of non-Talent Development comparison schools.

The black bars represent the deviations from baseline of the Talent Development schools. The white bars represent the deviations from baseline of the non-Talent Development comparison schools. The deviations were calculated as the change in the percentage of students with SSA scores in the bottom quartile from the three-year pre-implementation baseline average to each follow-up year.

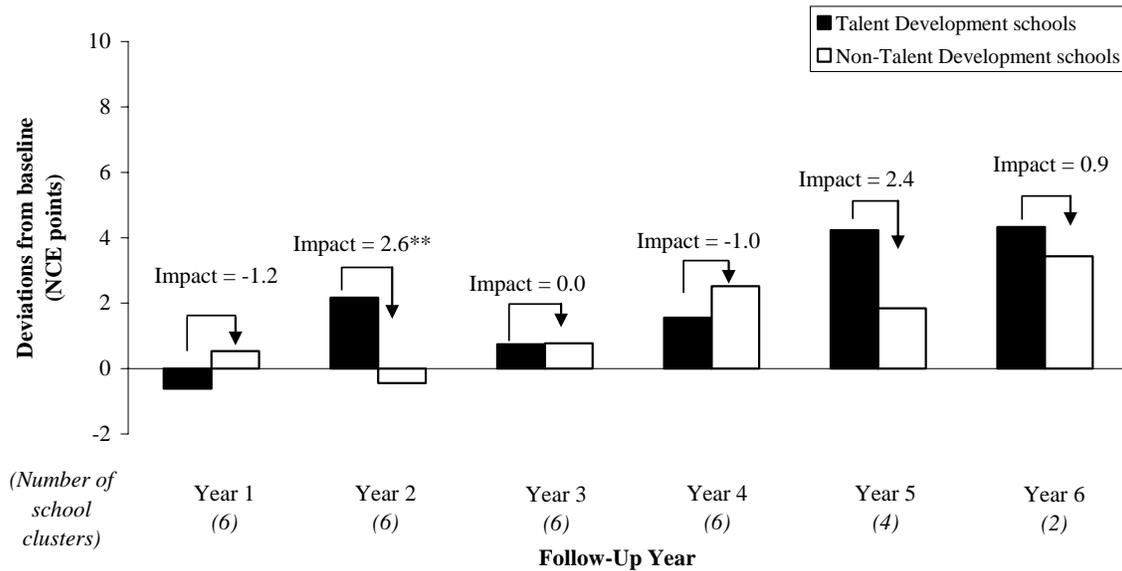
The impacts were calculated as the difference in deviations from the baseline average between Talent Development schools and non-Talent Development comparison schools.

A two-tailed t-test was applied to the impacts. Standard errors and statistical significance levels are adjusted to account for cohort effects. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Statistical significance, which depends somewhat on sample size, may be achieved with impacts of a smaller magnitude in the first four follow-up years, as compared with Year 5 and Year 6, which include fewer schools.

The Talent Development Evaluation

Figure 3

Impacts on SSA Reading NCE Scores for Eighth-Grade Students in Early-Implementing Talent Development Schools, Six-Year Follow-Up Results



SOURCE: MDRC calculations from individual students' school records from the School District of Philadelphia.

NOTES: This figure updates Figure 7 from the 2004 report (see Herlihy and Kemple, 2004). Sample includes 8th-grade students from 6 Talent Development middle schools and 18 non-Talent Development middle schools. The analysis sample includes students not designated as ESOL or special education for whom a test score record is available or who were enrolled for at least 145 days during a given school year.

Due to the staggered implementation schedule and availability of data, results for Year 1, Year 2, Year 3, and Year 4 are pooled over six Talent Development schools and six clusters of non-Talent Development comparison schools; results for Year 5 are pooled over four Talent Development schools and four clusters of non-Talent Development comparison schools; and results for Year 6 are pooled over two Talent Development schools and two clusters of non-Talent Development comparison schools.

The black bars represent the deviations from baseline of the Talent Development schools. The white bars represent the deviations from baseline of the non-Talent Development comparison schools. The deviations were calculated as the change in SSA Reading NCE points from the three-year pre-implementation baseline average to each follow-up year.

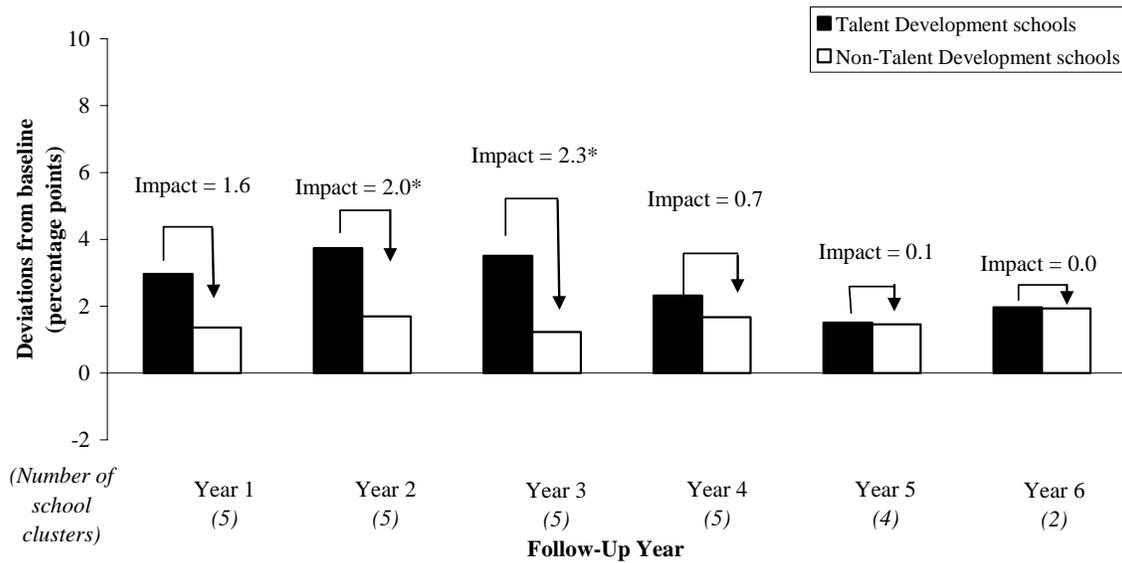
The impacts were calculated as the difference in deviations from the baseline average between Talent Development schools and non-Talent Development comparison schools.

A two-tailed t-test was applied to the impacts. Standard errors and statistical significance levels are adjusted to account for cohort effects. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Statistical significance, which depends somewhat on sample size, may be achieved with impacts of a smaller magnitude in the first four follow-up years, as compared with Year 5 and Year 6, which include fewer schools.

The Talent Development Evaluation

Figure 4

Impacts on Attendance Rates for Eighth-Grade Students in Early-Implementing Talent Development Schools, Six-Year Follow-Up Results



SOURCE: MDRC calculations from individual students' school records from the School District of Philadelphia.

NOTES: This figure updates Figure 8 from the 2004 report (see Herlihy and Kemple, 2004). Sample includes 8th-grade students from 6 Talent Development middle schools and 18 non-Talent Development middle schools. The analysis sample includes students not designated as ESOL or special education for whom a test score record is available or who were enrolled for at least 145 days during a given school year. Attendance data were not available for the sixth early-implementing Talent Development school.

Due to the staggered implementation schedule and availability of data, results for Year 1, Year 2, Year 3, and Year 4 are pooled over five Talent Development schools and five clusters of non-Talent Development comparison schools; results for Year 5 are pooled over four Talent Development schools and four clusters of non-Talent Development comparison schools; and results for Year 6 are pooled over two Talent Development schools and two clusters of non-Talent Development comparison schools.

The black bars represent the deviations from baseline of the Talent Development schools. The white bars represent the deviations from baseline of the non-Talent Development comparison schools. The deviations were calculated as the change in attendance rate from the three-year pre-implementation baseline average to each follow-up year.

The impacts were calculated as the difference in deviations from the baseline average between Talent Development schools and non-Talent Development comparison schools.

A two-tailed t-test was applied to the impacts. Standard errors and statistical significance levels are adjusted to account for cohort effects. Statistical significance levels are indicated as: *** = 1 percent; ** = 5 percent; * = 10 percent. Statistical significance, which depends somewhat on sample size, may be achieved with impacts of a smaller magnitude in the first four follow-up years, as compared with Year 5 and Year 6, which include fewer schools.

In summary, the reorganization of the middle schools in Philadelphia has substantially changed the workings of both Talent Development schools and their comparison schools (many of the latter were also taken over by EMOs). These changes limited the capacity of the evaluation to assess the impact of Talent Development beyond the sixth year of implementation. However, the updated findings presented in this paper support the conclusions of the 2004 report: For eighth-grade students, Talent Development had a positive impact on math achievement, had a modest impact on attendance rates, and produced an inconsistent pattern of impacts on reading achievement. The updated findings are able to answer some (but not all) of the questions posed at the conclusion of the 2004 report:

- The improvements in eighth-grade mathematics that emerged in the third year of implementation do appear to strengthen over time in the early-implementing schools. For example, the magnitude of the impact on the percentage of eighth-grade students in the bottom quartile on the state standards assessment in math increased from 4 percentage points in Year 3 to 11 percentage points in Year 6. Because of Philadelphia’s reorganization of its middle schools, the analysis is not able to assess Talent Development’s impact on math achievement in the later-implementing Talent Development middle schools beyond the first year of implementation.
- It does not appear that the promise of Talent Development’s impact on eighth-grade reading achievement is realized by the end of the follow-up period. Talent Development had a positive impact on reading achievement in the second and fifth year of implementation, but little or no impact in other implementation years.
- The Talent Development theory of change suggests that improvements in attendance and student engagement are precursors to improvements in student achievement. Although the impact of Talent Development on average attendance rates is inconsistent, the findings do show modest improvements in the percentage of students who regularly attend school — that is, students having attendance rates of 90 percent or better.
- The evaluation was not able to assess whether or not improvements in achievement during middle school years translate into students’ greater persistence in high school or their eventual graduation.