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## ABSTRACT

This study examined whether reading and mathematics performance of New York City Schools Under Registration Review (SURR) elementary and middle schools with extended time differed from performance of SURR schools without extended time in 1999-00. It also examined whether extended-time schools attracted more certified teachers and relationships between teacher certification and student academic performance in these schools. Researchers examined the absolute and relative performance of extended-time and non-extended-time schools. Outcome measures included performance on city and state English language arts/reading tests and scores on city mathematics tests, all administered to elementary and middle school students. Researchers analyzed the percentage of students in each school who met grade standards, the percentage of students who had the lowest proficiency, and changes in the percentage of certified teachers in these two groups. Students in extended-time schools improved at a greater rate on city and state reading and mathematics assessments than did students in non-extended-time schools in terms of increasing the percentage meeting grade-level standards and decreasing the percentage scoring in the lowest proficiency level on reading and mathematics tests. A relationship existed between the percentage of certified teachers and performance in the schools. (SM)

ANALYSES OF PERFORMANCE OF EXTENDED-TIME AND NON-EXTENDED TIME SURR SCHOOLS  
FLASH RESEARCH REPORT #1

September 14, 2000

Division of Assessment & Accountability  
New York City Board of Education

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## **FLASH RESEARCH REPORT #1**

### **Analyses of Performance of Extended-Time and Non-Extended Time SURR Schools**

#### **KEY FINDINGS**

Two key findings emerged from analyses of the performance of Extended-Time and Non-Extended Time SURR schools. First, students in Extended-Time Schools improved at a greater rate on city and state reading and mathematics assessments than did students in Non-Extended Time Schools both in terms of increasing the percentage of students meeting standards for their grade and in decreasing the percentage of students scoring in the lowest proficiency level on reading and mathematics tests. Second, there appears to be a relationship between the percentage of certified teachers and performance in Extended-Time and Non-Extended Time Schools.

#### **BACKGROUND**

Nearly half of the elementary and middle Schools Under Registration Review (SURR) operated under Extended Time provisions during the 1999-00 school year while the remaining SURR elementary and middle schools did not. The analytic questions addressed in these analyses are (1) did the reading and mathematics performance of SURR elementary and middle schools with Extended Time differ significantly from the performance of SURR schools that did not have extended time in 1999-00? (2) did the Extended Time schools attract more certified teachers? (3) what was the relationship between teacher certification and students' academic performance in these schools?

#### **METHODOLOGY**

Both the absolute and relative performance of Extended Time and Non-Extended Time schools were examined in these analyses. The primary outcome measures were performance on city and state English language arts/reading tests administered to students in Grades 3, 4, 5, 6, and 7 and scores on city mathematics tests administered to students in Grades 3, 5, 6, and 7. The percentage of students in each school who met grade standards (i.e., scored in proficiency levels 3 and 4) as well as the percentage of students who scored in the lowest proficiency level (i.e., level 1) were analyzed for both the 1999 and 2000 tests. Changes in the percentage of certified teachers in these two groups of schools were also examined.

#### **FINDINGS**

As indicated in Table 1, the improvement in the percentage of students achieving grade standards in both reading (6.8 percent) and in mathematics (2.9 percent) was greater in Extended Time schools than in Non-Extended Time schools (reading = 4.7 percent, and mathematics = 1.2 percent) even though the absolute performance of the two groups was initially comparable. A similar trend was observed when the reduction in the percentage of students scoring in level 1 was examined. Extended Time schools reduced the percentage of students in level 1 by 12.5 percentage points in reading as

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compared with a 10.1 point reduction in Non-Extended Time Schools and by 9.6 percentage points in mathematics as compared with a 5.3 point reduction in Non-Extended Time Schools. The improvement in the percentage of students achieving grade standards and the corresponding reduction in the percentage of students scoring in the lowest proficiency level in Extended Time schools was greater than that recorded for all schools citywide.

Table 2 presents changes in the percentage of certified teachers in Extended Time and Non-Extended Time schools in 1999 and in 2000. The percentage of certified teachers increased by 6.9 percentage points in Extended Time schools and decreased by 2.3 percentage points in Non-Extended time schools during this period. Statistical analyses indicate small, marginally significant correlations between changes in the percentage of certified teachers and the percentage of students achieving grade-level standards in mathematics ( $r=.228$ ,  $n=81$ ,  $p=.04$ ) and in reading ( $r=.207$ ,  $n=81$ ,  $p=.055$ ). A moderate correlation ( $r=-.328$ ,  $n=81$ ,  $p=.003$ ) between changes in the percentage of certified teachers and the percentage of students scoring in the lowest proficiency level in mathematics was also found. In fact, 11 percent of the variance in changes in level 1 math performance was accounted for by the percentage of certified teachers. These relationships suggest that the percentage of certified teachers is positively related to student achievement.

## **CONCLUSIONS**

The findings reported here indicate that students in Extended Time Schools improved at a greater rate on city and state reading and mathematics assessments than did students in Non-Extended Time Schools both in terms of increasing the percentage of students meeting grade-level standards and in decreasing the percentage of students scoring in the lowest proficiency level on reading and mathematics tests. Further, there appears to be a relationship between the percentage of certified teachers and performance in Extended Time and Non-Extended Time Schools. Further examination of these relationships is warranted due to the relatively small number of cases in these analyses.

**Table 1**  
**Comparison of Reading and Mathematics Performance**  
**In Extended Time and Non-Extended Time SURR Schools**

<b><u>Percentage Scoring in Levels 3 and 4</u></b>						
<b>Group</b>	<b><u>Reading</u></b>			<b><u>Mathematics</u></b>		
	<b>1999</b>	<b>2000</b>	<b>Change</b>	<b>1999</b>	<b>2000</b>	<b>Change</b>
Extended Time	13.9	20.7	+6.8	10.6	13.5	+2.9
Non-Extended Time	14.4	19.1	+4.7	10.6	11.8	+1.2
All Schools Citywide	35.1	41.0	+5.9	31.9	32.9	+1.0

<b><u>Percentage Scoring in Level 1</u></b>						
<b>Group</b>	<b><u>Reading</u></b>			<b><u>Mathematics</u></b>		
	<b>1999</b>	<b>2000</b>	<b>Change</b>	<b>1999</b>	<b>2000</b>	<b>Change</b>
Extended Time	42.5	30.0	-12.5	57.0	47.4	-9.6
Non-Extended Time	42.4	32.3	-10.1	57.7	52.4	-5.3
All Schools Citywide	23.0	17.6	- 5.4	33.9	30.8	-3.1

Note. Students scoring in proficiency levels 3 and 4 meet or exceed grade level standards while students scoring in level 1 perform in the lowest proficiency level. Reading scores include Grades 3-7 and Math scores include Grades 3, 5, 6 & 7.

**Table 2**

**Comparison of the Percentage of Certified Teachers  
In Extended Time and Non-Extended Time SURR Schools**

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<b>Group</b>	<b><u>Percentage of Certified Teachers</u></b>		
	<b>1999</b>	<b>2000</b>	<b>Change</b>
Extended Time	78.2	85.1	+6.9
Non-Extended Time	79.6	77.3	-2.3

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Note. Statistical analyses examining the relationship between the change in the percentage of certified teachers and changes in reading and mathematics performance suggest a relationship between these variables.



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