

Chapter Four

Henry E. S. Reeves Elementary School, Miami-Dade County, Florida

4.1 Descriptive Summary of School

Henry E. S. Reeves Elementary School is a district contract school that Edison began operating in 1996 to serve grades K-5. As reported in Table 4:2, the school has a total of nearly 90 staff members, and during the 1999-00 school year, the school enrolled 1,161 students, making this a very large elementary school. According to Edison Schools Inc. (Edison, 1999), the student mobility in 1997-98 was 2 percent, and the student/staff ratio was 15.6:1. Data provided by the state and district (see Table 4:2) conflict with the Edison figures. This may be due to a difference of definitions.

With just over 1 percent of its students being white, Reeves had a far lower percentage of white students than the state of Florida (55.8 percent) and the district (13 percent). The school also had a lower percentage of Hispanic students (17 percent) when compared with the district (52 percent) and the state (16.4 percent) in 1997-1998. Table 4:1 contains additional figures for the 1997-98 school year. During the 1999-00 school year, 87.9 percent of Reeves' students qualified for free/reduced lunches, while the district average was 70.1 percent and the state average was 53.2 percent. Table 4:2 contains further details about student characteristics.

The total enrollment for Henry E.S. Reeves Elementary School has remained relatively stable, only fluctuating by 20 students over the years between 1996 and 1999 (1,081 students to 1,193 students). Both the district and the state have similarly stable enrollment patterns, with no dramatic increases or decreases. The average class size has grown during the time the school has been operated by Edison, increasing from 25.7 students per class in 1996-97 to 29.8

Table 4:1 Distribution of Students by Ethnic Grouping (1997-98)

Ethnicity/Race of students	Reeves Elementary	Miami-Dade District	State of Florida
Black	81.0%	33.4%	25.3%
Hispanic	17.0%	52.0%	16.4%
White	1.0%	13.0%	55.8%

students per class in 1998-99, and then back to 27.6 in 1999-00. During the same period of time, the average class size remained consistent in the district at approximately 25.5 students per class and at the state level at approximately 23.5 students per class.

The percentage of students at Reeves with limited English proficiency has increased from 15 percent in 1996-1997 to 17.2 percent in 1998-1999, and then down to 9.2 percent in 1999-00. The district had a higher percentage of students with limited English proficiency (about 25 percent in 1999-00), while the state had a similar percentage of students (9.3 percent in 1999-00) with limited English proficiency. The percentage of Reeves' students who have disabilities has remained at about 3.7 percent, while both the district and the state have maintained much higher percentages (i.e., 9.8 percent and about 15.1 percent, respectively in 1999-00). In terms of gifted students, the Edison school had 4.9 percent of its students in the gifted program in 1999-00, as compared with 6.5 percent in the district and 3.9 percent in the state.

The promotion rate overall for Henry E. S. Reeves Elementary, the district, and the state has decreased slightly, but has remained above 95 percent. The district and state attendance rates reflect a steady 8 to 9 percent of students absent for 21 or more days, but the rate at Reeves has been higher with 20.7 percent in 1998-1999 and 9.2 percent in 1999-00.

The total number of staff has increased from 69 in 1996-1997 to 89 in 1999-00. The district and state both increased their total number of staff during these years also. Of the staff population at Henry E. S. Reeves Elementary in 1999-00, 70.8 percent are instructional staff, 2.2 percent administrative, and 27 percent are support staff. The district has similar staffing figures (close to 72 percent of the district staff are instructional, 3.3 percent are administrative, and 25.1 are support staff). The instructional staff at Henry E. S. Reeves is very different in terms of formal training and years of experience. Reeves teachers have substantially fewer years of experience, and a much lower proportion of their teachers have advanced degrees. Table 4:2 contains specific details about the differences between Reeves, the district, and the state. A close examination of the figures in Table 4:2 suggest that there is a high rate of attrition among teachers at Reeves since the average years of experience are decreasing each year rather than increasing, as one would expect. The average years of experience of teachers at Henry E. S. Reeves has decreased from 3.4 years in 1996-1997 to 1.8 years in 1999-00. During the same period the average years of experience of district teachers increased from 11.6 in 1996-1997 to 12.1 years in 1999-00.

Expenditures per pupil for exceptional, regular, and at-risk students, as well as for the school operating costs per pupil at Henry E. S. Reeves, have all increased over the past 4 years. Table 4:2 includes specific figures broken down by student groups and years. The per-pupil expenditure at Reeves increased from \$3,370 in 1997-1998 to \$5,117 in 1999-00, while the district increased from \$4,925 to \$5,365 during the same period.

Table 4:2 School, Student and Teacher Background Information for Henry E.S. Reeves Elementary, Miami-Dade, and the State of Florida

	Henry E.S. Reeves				Miami-Dade District				State of Florida			
	1996-97	1997-98	1998-99	1999-00	1996-97	1997-98	1998-99	1999-00	1996-97	1997-98	1998-99	1999-00
Student Characteristics												
Number of Students (Fall)	1,081	1,076	1,193	1,161	176,674	174,393	175,161	176,705	1,127,315	1,138,979	1,150,251	1,164,051
Average Class Size	25.7	26.9	29.8	27.6	25.6	25.5	25.6	24.8	23.8	23.6	23.7	23.3
Free/Reduced-Price Lunch %	86.3%	90.9%	87.2%	87.2%	70.7%	70.1%	69.8%	70.1%	52.4%	52.2%	52.8%	53.2%
Limited English Proficient %	15.0%	12.6%	17.2%	9.2%	21.7%	21.5%	21.2%	25.3%	7.7%	7.9%	8.2%	9.3%
Students with Disabilities (%)	3.6%	3.7%	4.2%	3.7%	8.8%	9.2%	9.5%	9.8%	14.4%	14.8%	14.9%	15.1%
Gifted %	2.6%	2.7%	5.8%	4.9%	5.0%	0.1%	0.6%	6.5%	3.8%	3.9%	3.9%	3.9%
Mobility %	99.7%	169.8%	608.8%	142.3%	31.3%	31.4%	43.5%	34.5%	33.3%	32.1%	35.0%	33.3%
Promotion Rate %	99.6%	95.8%	98.7%		99.0%	98.6%	98.2%		97.8%	97.0%	96.3%	
Absent 21+ Days (%)	9.1%	9.4%	20.7%	9.2%	9.7%	8.5%	7.4%	6.7%	9.3%	8.7%	7.5%	6.2%
School Staff												
Total	69	82	82	89	13,977	14,019	14,283	14,653	104,662	107,331	110,007	113,338
Instructional (%)	85.5%	80.5%	78.0%	70.8%	72.0%	72.0%	71.7%	71.7%	63.1%	63.0%	63.1%	62.6%
Administrative (%)	1.4%	125.0%	1.2%	2.2%	3.3%	3.3%	3.2%	3.3%	2.6%	2.5%	2.6%	2.5%
Support (%)	13.0%	18.3%	20.7%	27.0%	24.8%	24.7%	25.1%	25.1%	34.3%	34.4%	34.3%	34.8%
Teachers												
Master's Degree or Higher %	36.2%	23.5%	20.9%	16.4%	42.3%	43.0%	42.9%	43.2%	31.8%	31.5%	32.0%	32.5%
Average Years of Experience	3.4	2.6	2.5	1.8%	11.6	11.5	12.2	12.1%	12.6	12.3	12.5	12.9%
Per Pupil Expenditures/Finance												
Exceptional (\$)		\$4,180	\$5,866	\$6,365		\$7,385	\$8,068	\$8,051		\$6,555	\$6,880	\$7,092
Regular (\$)		\$3,118	\$4,935	\$4,752		\$4,315	\$4,263	\$4,608		\$3,902	\$4,024	\$4,247
At-Risk (\$)		\$6,571	\$7,897	\$10,026		\$5,106	\$5,427	\$6,194		\$4,827	\$5,081	\$5,383
Vocational (\$)		\$0	\$0	\$0		\$4,243	\$4,438	\$4,949		\$4,422	\$4,714	\$4,879
School Operating Costs (per pupil)		\$3,370	\$5,155	\$5,117		\$4,925	\$5,091	\$5,365		\$4,507	\$4,692	\$4,874

Note: The data in this table were derived from various Florida School Indicators Reports (Florida Department of Education, 2000b).

4.2 Past Studies and Evaluations

Miami-Dade County Public Schools (MDCPS) contracted with Edison to take over the operation of the Henry E. S. Reeves Elementary School. The contract was for a period of five years, beginning with the 1996-97 school year, and stipulated yearly evaluations to be conducted by the public school district in conjunction with Edison. To date, the Office of Educational Evaluation, in conjunction with Edison, Inc., has conducted three annual Interim Reports that were prepared by Drs. Joseph Gomez and Sally Shay for the 1996-97, 1997-98, 1998-99 school years (Gomez & Shay, 1998, 1999, 2000). A fourth evaluation of longitudinal student achievement outcomes was conducted by Sally Shay and reported in her dissertation (Shay, 2000).

4.3 Summary of Findings by the Miami-Dade County Public School District

In this section, we provide a summary and comparison of the methods and findings as reported in the first, second, and third year interim reports dated February 1998, March 1999, and June 2000 respectively.

Objectives and evaluation questions

According to MDCPS evaluation reports (Gomez & Shay, 1998, 1999, 2000) four general areas were evaluated: (1) actual implementation of the Edison model in the school, (2) raising the academic achievement of all students to the highest level possible, (3) increasing parent involvement and satisfaction to levels consistent with educational excellence, and (4) improve school climate in the many ways necessary to foster greater learning.

Methodology

To address the four evaluative questions, the MDCPS evaluation team utilized a wide variety of research methods. The various methods used by the MDCPS evaluation team are described below.

Implementation of the Edison model. Unstructured interviews were conducted with the principal. The interviews primarily focused on the school's progress in implementing the basic elements of the Edison model. Teacher surveys attempted to (1) assess the teachers' perceptions of the Edison model, (2) rate the extent of implementation of the basic elements of the model, and (3) compare the Edison model with their previous experiences with other district schools. Classroom observations were also conducted. In the first interim report, classroom observations were conducted near the end of the fourth grading period (end of the year). For the second and third interim reports, classroom observations were obtained at the beginning of the third grading period and near the end of the fourth grading period. Classroom visitations, which were conducted by members of the evaluation team, were unannounced and randomly determined.

Student's academic achievement. The primary source of student achievement data were student scores on the Stanford Achievement Test 8th Edition (SAT-8). MDCPS routinely administers the SAT-8 in the spring to all students in all grade levels except kindergarten and grades 10 and 12. The analysis of student performance on the SAT-8 was examined by way of a nonequivalent control group design limited to students who were enrolled in Reeves in year 1. Details of this evaluation component can be found in the third interim report: 1998-99 (Gomez & Shay, 2000). In addition to the SAT-8 analyses, a comparative analysis of student performance on the Florida Writing Assessment was conducted. Finally, the evaluation team examined overall student progress in attaining the curriculum standards of the Edison model.

Involvement of parents. Various parent surveys were conducted. In the first year the School Climate Survey was used (annually administered by MDCPS). In the second year this instrument was supplemented with the parent satisfaction survey. A final source of information on parent involvement was from data obtained from project records that detailed parents' participation in school-related activities.

School climate. The school climate was evaluated by comparing survey responses from teachers at Reeves with responses from teachers in control schools.

As can be seen, MDCPS has conducted and made available its extensive evaluation of the progress Edison has made in Henry E. S. Reeves Elementary School relative to the four evaluation goals it set out to examine. For a fuller appreciation of these evaluations, please refer to the three interim reports (Gomez & Shay, 1998, 1999, 2000).

Summary of findings from MDCPS evaluations

Below we have summarized the main findings and, where appropriate, referred to the year of the evaluation. The findings are grouped according to specific questions that were addressed in the MDCPS evaluation.

Implementation of Edison model. The first interim report covering the academic year 1996-97 indicated that all elements of the model (21 in all) were either fully or partially implemented. There was general consensus that the model was fully implemented in year 2, an improvement from year 1. However, in the third interim report, the data did not support full implementation of the Edison model. Specifically, the teachers reported that at least one element of the model was not fully implemented. However, the third interim report indicated that the model as a whole was fully implemented.

Students' academic achievement. Data pertaining to this goal were treated separately depending on the specific type of student data analyzed: SAT-8, Florida Writes, or students' attainment of Edison's curriculum standards. In year one the performance of the control students was better at nearly every grade level in both reading and math than the performance of the Edison students, and the evaluation team concluded that "the analysis of the SAT test results have revealed that to date the project students have not performed as well academically as their counterparts in the regular MDCPS

program” (Gomez & Shay, 1998, p. 41). However, Henry E. S. Reeves’ students significantly outperformed control students on the Florida Writes assessment in year one. Finally, in its interim report for 1996-97, the MDCPS evaluation team summarized the findings from their evaluation: “To date, the analysis of the data has yielded no evidence that the model will eventually ‘raise the academic achievement of the [project] students to the highest level’” (Gomez & Shay, 1998, p. 44). The third data component for evaluating student achievement outcomes was based on subjective judgments of the percentage of students attaining the 100 curriculum standards specified by Edison. Results indicated a mixed picture of whether or not students actually met the curriculum standards.

In the year two report, Edison students generally compared favorably with control students in SAT reading, and the differences from year one mathematics were much narrower. Contrary to year one findings, on the Florida Writes assessment where the project students significantly outperformed control students, in year two the difference was lost. Edison and control students scored at equivalent levels on this test. In year two the MDCPS evaluators’ report was generally positive in terms of the students’ attainment of the curriculum standards set by Edison Schools Inc.

In the year three interim report, analysis of the SAT achievement indicated that the gains in year two were not capitalized on. In fact, in the year three analysis, some of the achievement gains in year 2 were actually lost. Gomez & Shay (2000) offered this interpretation: In year one the achievement of the project students was below that of the control students, but in year two these differences were significantly reduced. However, in year three much of the gains in year two were lost, especially in mathematics. Thus, by year three, the project students were able to overcome their poor performance in year one, but by year three only the reading performance had risen to a level comparable to the control students. Project students’ performance in mathematics had not yet reached a level comparable to the control students. Performance on the Florida Writes assessment in year three presented a similar picture, There was no evidence, based on the FWA, “that indicates the Edison model has produced an advantage in student’s writing proficiency” (Gomez & Shay, 2000, p. 50). In the analysis of the attainment of Edison curriculum standards, Gomez and Shay (2000) concluded that there was still insufficient evidence to report that the teachers had fully attained this goal. And in their summarizing sentence (2000, p. 52) they concluded “. . . the project has yet to attain the first and most important of its stated objectives: To raise the academic achievement of all students to the highest level possible. . . the project students’ academic achievement at its best can be deemed only comparable to that of their counterparts in the regular MDCPS program.”

Involvement of parents. The third goal was to increase parent involvement and satisfaction to levels consistent with educational excellence. In the first year, the MDCPS evaluators’ reported that the available data were sufficiently mixed and thus reported that there was inconclusive evidence to report that the project had met this goal. However, in year two they reported a direct improvement regarding this goal. Moreover, in year three, continued progress was made toward increasing “parent involvement and satisfaction to levels consistent with educational excellence.”

School climate. The final goal of Edison, Inc. is to “improve school climate in the many ways to foster greater learning.” In year one MDCPS evaluators concluded that during the initial year the project failed to make adequate progress in attaining this objective. In year two progress was made toward meeting this objective, but in year three the progress evidenced in year two had waned.

4.4 Longitudinal Student Outcomes: The Shay Study

Shay (2000) recently conducted a comprehensive longitudinal (growth curve) analysis of achievement outcomes of the students at Henry E. S. Reeves Elementary School. In her study, Shay examined the academic achievement (SAT-8, scaled scores) of students in Reeves relative to a control group from 1996-97 to 1998-99. This study builds upon the official MDCPS interim reports (Gomez & Shay, 1998, 1999, 2000) by conducting the first longitudinal analysis of student achievement. In this study two panels of students were followed. Panel A (n=114) progressed from second grade to fourth grade and Panel B (n=159) students progressed from third to fifth grade. Control groups for each panel were constructed by taking stratified random samples of students who attended other district schools. Stratification variables insured comparability among the groups in terms of demographics and pretest performance, despite attrition. Achievement results in reading and mathematics were examined for each panel. Two different analytical approaches were examined, a traditional mixed model repeated measures ANOVA and a three-level hierarchical linear model (HLM) employing individual growth curves. Both the more traditional repeated measures analysis and the HLM analysis indicated statistically significant levels of growth over the three year period in both subject areas for both groups (Edison and control). In reading, no statistically significant differences could be attributed to group membership. However, the results for mathematics presented a more complex picture. The repeated measures analysis indicated a significant group by year interaction in both panel analyses, suggesting that the rate of growth was different in the two groups. Table 4:3 presents descriptive statistics for each group by year.

In parallel analyses, Shay used a 3-level HLM model with individual variation over time as the level-1 effect, individual variation with the same group as the level-2 effect, and between group variation as the level-3 effect to test for differences in longitudinal growth in achievement between the two groups. HLM results for reading paralleled the previous repeated measures analyses for both panels. Significant growth was observed as students progressed through the grades, while individual growth curves varied significantly, growth rates did not differ significantly, and there were no differences that could be attributed to group membership. As expected from the repeated measures analysis, HLM results for mathematics depicted a different picture. In panel A, not only was there significant growth within individuals, there was significant difference in growth among individuals within a group but not between groups. Panel B results presented a different picture. Once again there was significant individual growth but at comparable rates within a group. However, in Panel B there was also a statistically significant difference in the group growth rate.

Table 4:3 Descriptive Statistics for Reeves and Control Groups by Year

	Henry Reeves				Control			
	Mathematics		Reading		Mathematics		Reading	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Panel A								
Year 1	561.03	38.30	553.64	41.79	564.82	37.53	570.82	37.68
Year 2	595.10	37.08	595.11	53.56	599.79	35.59	594.74	39.26
Year 3	607.62	39.04	615.24	58.88	613.81	35.68	627.18	47.86
Panel B								
Year 1	576.29	32.64	563.51	42.54	579.39	33.28	573.93	45.51
Year 2	592.72	37.87	597.02	46.07	594.86	36.68	608.09	48.99
Year 3	617.65	35.47	627.97	42.77	619.16	35.93	628.13	44.69

Source: Adopted from Shay (2000, p. 49).

Fairly consistent results were obtained in Shay’s study, which indicated that at the end of three years of enrollment in an Edison school there were no differences in achievement, as measured by the SAT reading and mathematics subtests, that could be accounted for by group membership. The main research question posed by Shay was whether the students who attended one elementary school operated by Edison Schools Inc. in Miami-Dade County made greater academic progress than comparable students who attended other district schools. This question is consistent with the focus and purpose of this evaluation. Shay’s study is the most rigorous study of Edison achievement to date. In summary, after three years of exposure to the Edison model, students enrolled in the Henry E. S. Reeves Elementary School are no better off than comparable students in other district schools as measured by the SAT.

4.5 Performance on the FCAT and Florida Writes State Assessments

Individual student achievement data (longitudinal) were not provided to us by Edison or by the administration of Henry E. S. Reeves Elementary School, so we could not include this information in this report. The data we have utilized for our analyses came from the two different state-mandated testing programs: FCAT and Florida Writes assessments. Since these data only recently became available, we have only one year of data to report.

Henry E. S. Reeves Elementary School participates in two state-mandated assessments: the Florida Comprehensive Assessment Test (FCAT) and the Florida Writes test. Before we break down the results on these tests for the chi-square and odds ratio analyses, we shall examine the absolute scores and measure gains in the average total scores in comparison to the Miami-Dade County Public School District and the state.

The FCAT is administered in grade 4 (reading) and grade 5 (mathematics), and the Florida Writes is administered in grade 4. Scores on the FCAT can range from 100 to 500. Five student achievement levels categorize students based on the scale score ranges. Level 5 is the highest level and Level 1 is the lowest. The Florida Writes assessment is scored along a 6 point scale with 6 point being the highest and 1 the lowest.

As one can see from the results in Exhibit 4:1, this school performs substantially lower than the district and state on these tests. However, in terms of gains in average scores, the size of the gains for two years on the reading and math tests and for three years on the writing test showed that Henry E. S. Reeves gained more than the district and state. The largest gains were on the reading test where the Edison students gained 13 points, while the district lost 2 points and the state lost 3 points. Because the total scores run up to 500, and because the level of performance at the Edison school is considerably lower, it is hard to determine if this gain is substantial or not. In the next sections, we will examine the data more closely and measure whether or not the differences between the Edison school and the district and state are significant, as well as whether the odds of not meeting state standards have increased or decreased at the Edison school.

Exhibit 4:2 illustrates the performance of the school in terms of the established performance levels for the FCAT and Florida Writes test. The charts in Exhibit 4:2 include results for the 1998-99 school year only since we were not able to obtain data broken down by levels for the previous year.

4.6 Chi-Square Analysis of FCAT Data

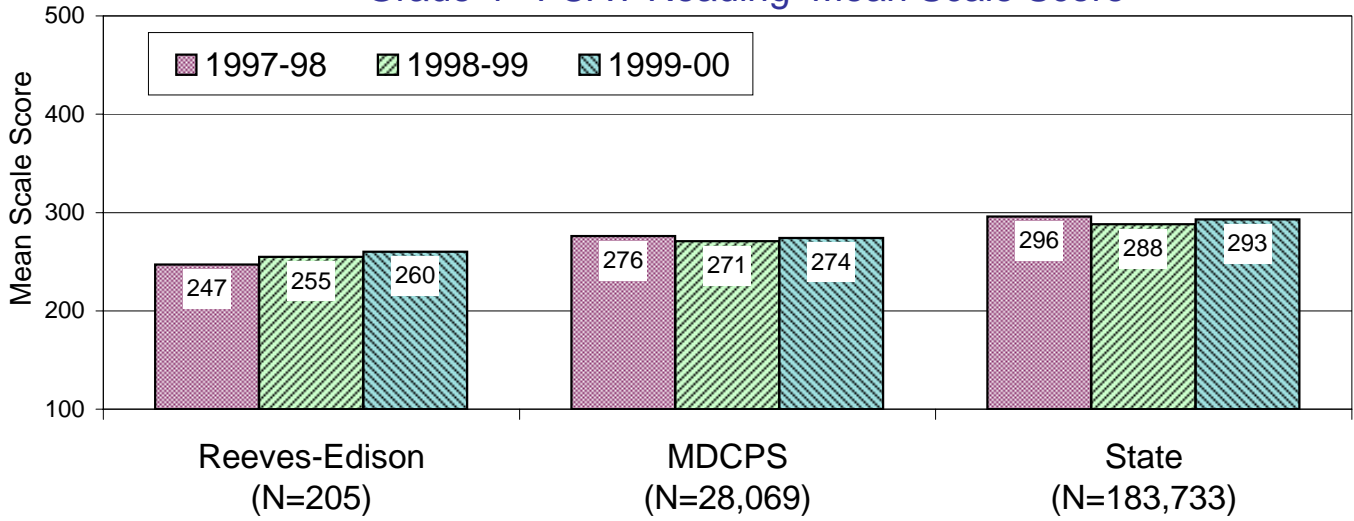
Available data

A chi-square analysis was initiated on data made available from the state of Florida on the outcomes of the Florida Comprehensive Assessment Test (FCAT) and the Florida Writes test, the state-mandated criterion-referenced tests. While the chi-square results can help us distinguish the size and strength of the differences between Henry E. S. Reeves Elementary School and the two control groups we compare it with, our main interest is in the change over time at this Edison school.

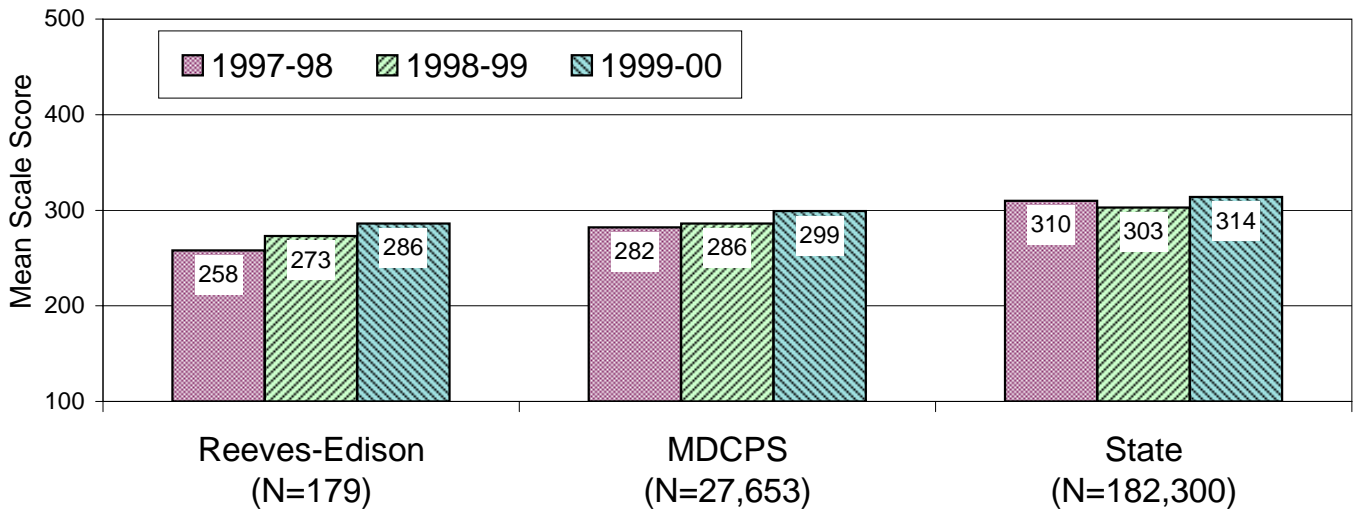
The FCAT was administered in January and February 1998 in order to establish baseline information on the achievement of Florida students and schools. The results for this first year were not broken down in the five scoring levels, so we could not use this data for chi-square and odds ratio analyses. The results from the February 2000 analysis were not available when we conducted our analysis for this case, so we were left with just one year of data for the chi-square and odds ratio analyses. However, we were able to obtain the mean standard score for three years on the Grade 4 and 5 FCAT results, which are described in Exhibit 4:1.

Exhibit 4:1 Henry E. S. Reeves Elementary School, FCAT and Florida Writes Results 1997-1999 Performance on Grade 4 and 5 Tests Compared with Local School District and the State

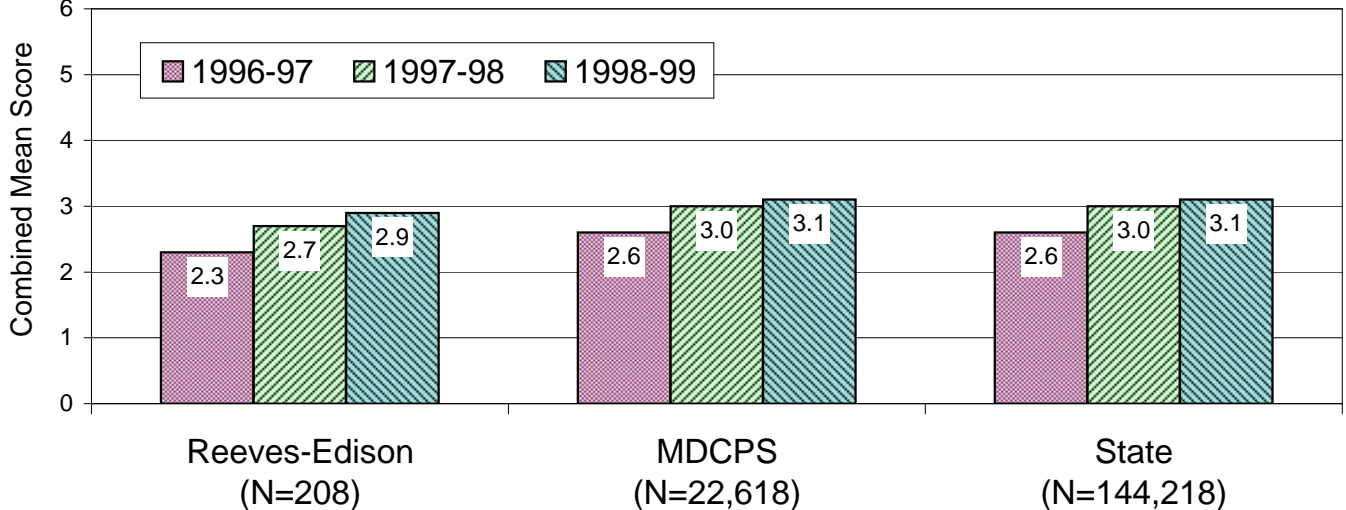
Grade 4 FCAT Reading Mean Scale Score



Grade 5 FCAT Math Mean Scale Score



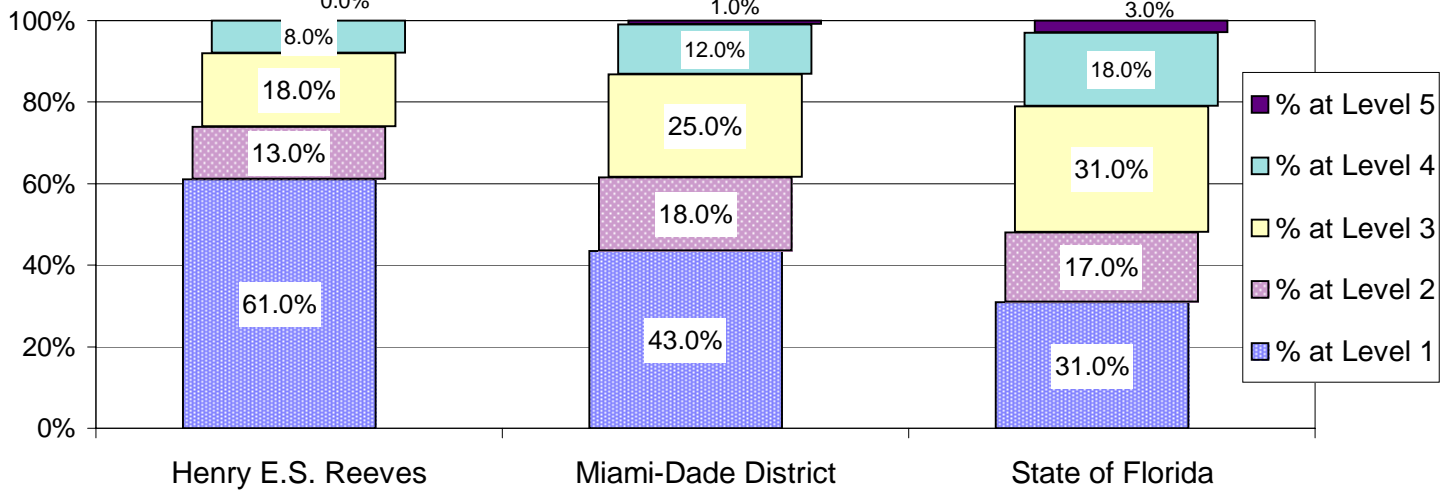
Grade 4 Florida Writes Combined Mean Score



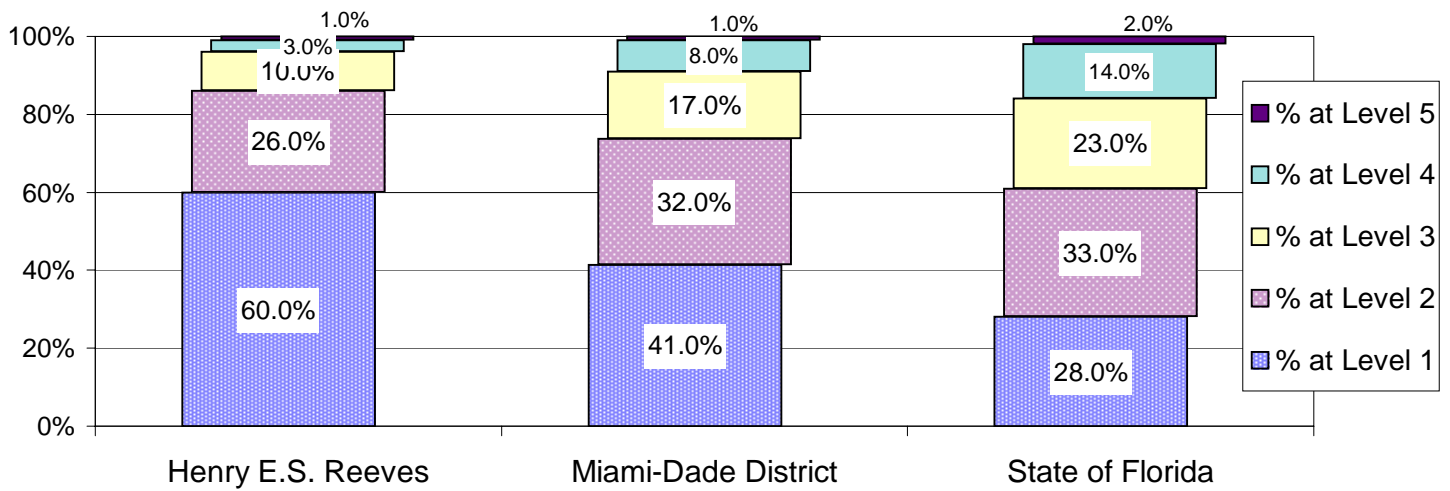
Note: The N represents the number of students taking the test in 1999-00.

Exhibit 4:2 Henry E.S. Reeves Elementary School, FCAT and Florida Writes Results 1998-1999
Performance on Grade 4 and 5 Tests Compared with Local School District and the State

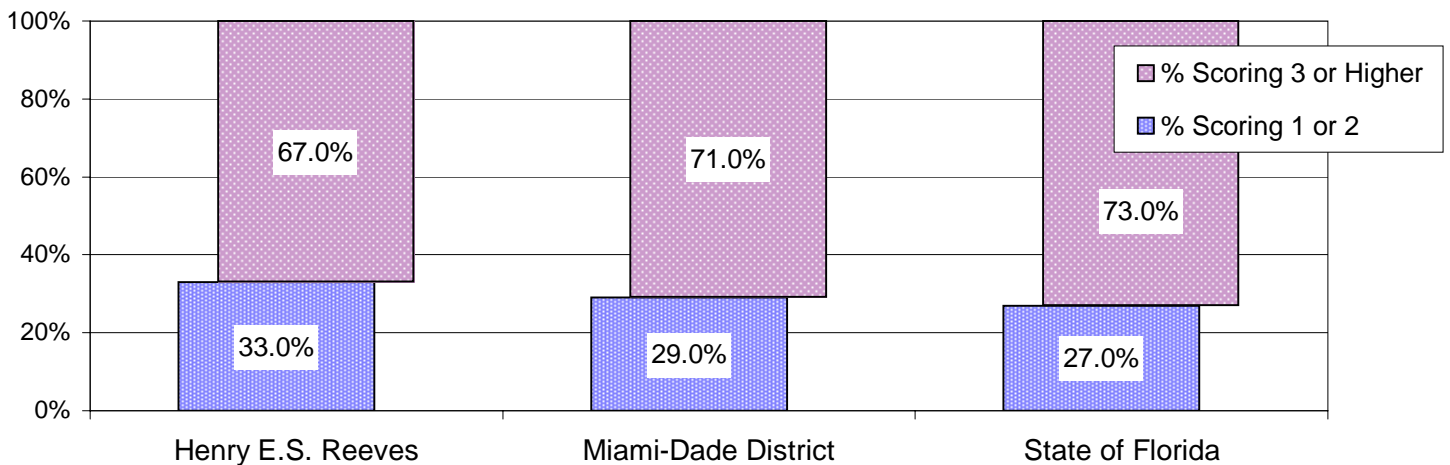
Distribution of Student FCAT Results on 5 Scoring Levels, Grade 4 Reading 1998-99



Distribution of Student FCAT Results on 5 Scoring Levels, Grade 5 Math 1998-99



Distribution of Students Results on the Florida Writes Test Grade 4 1998-99



Source: Results were derived from Florida Indicators Report, 1996-1999 (FDE, 2000).

Note: The FCAT results are reported according to 5 scoring levels with Level 5 being the highest and Level 1 the lowest. The Florida Writes assessment is scored along a 6-point scale, with 6 being the highest and 1 the lowest.

Construction of the comparison groups

We constructed two different comparison groups for the chi-square analyses. Since we were interested in examining the number/proportion of students who met state standards (“passing”) or conversely the number/proportion of students who did not meet state standards (“failing”) on the FCAT, we needed to define a suitable comparison group. Our first comparison is with the district (i.e., Miami-Dade Public Schools). The second comparison group we selected was the state average passing/failing rates.

General procedure

Utilizing published data from the state of Florida, we made comparisons for the 1999 administrations for both grades 4 and 5. Percentage data (students in each scoring category) were converted to raw frequency data prior to chi-square analysis. To insure independence of the rows in the chi-square tables, the raw frequencies for each scoring category of the FCAT in the district and state comparisons were down-weighted by subtracting the number of students in that category from Henry E. S. Reeves. Thus, both the district and state numbers reflect all students in the district or state exclusive of those in Henry E. S. Reeves Elementary School.

Four chi-square analyses were evaluated for each grade level. Two of these analyses were on uncollapsed data, that is, all scoring levels were represented in the contingency table (e.g., a 2x5) for the district and state comparisons. Two follow-up analyses were conducted on the data after collapsing the multilevel scoring into a dichotomy (pass, fail), thus producing 2x2 contingency tables. For the purpose of our chi-square and odds ratio analyses, we defined Level 1 as “not proficient or fail” and levels 2 and higher as “proficient or pass.” We chose this grouping because between 40 and 60 percent of the students fall into Level 1, and the description of the five levels suggests that students who fall into Level 1 have not met the Sunshine State Standards. For the Florida Writes test, we rated scores 3 and above as passing, since this is both close to the mean score and many Florida districts as well as the Florida Department of Education report the proportion of students that score 3 or higher.

Chi-square findings

These chi-square analyses are testing the null hypothesis that the relative frequency (of students) in the four (or two) scoring categories are the same for Henry E. S. Reeves and the comparison group (either district or the state).

Results of the chi-square analyses for grade 4 covered the 1999 FCAT administration for reading, grade 5 mathematics, and the grade 4 Florida Writes assessment. Individual contingency tables are presented in Appendix E.

The first set of comparisons were made against district data as the comparison group. Four separate chi-square statistics were evaluated from 2x5 contingency tables and four from 2x2 contingency tables (see Appendix E) for the FCAT. Only 2x2 analyses were available for the Florida Writes assessment; however, we were able to secure data from 1998 and 1999.

District and state comparisons on the reading subtest administered in grade 4 closely parallel each other. Statistically significant differences were observed relative to the district and state proportions among the 5 scoring levels. Fewer Reeves students fell into the more advanced performance levels relative to the overall state and district. This pattern was also replicated in the collapsed analyses (2x2).

In grade 5, the mathematics subtest is administered. As seen in Table 4:4 the results of the grade 5 chi-square analyses parallel the grade 4 findings. That is, students at Reeves performed lower relative to students in the district or state in both analyses.

Exhibit 4:1 compares the Reeves’ results on the FCAT and Florida Writes assessment with the district and state. The three charts in Exhibit 4:1 indicate that Reeves is behind the district and state but made noticeable progress in Grade 4 reading while the district and state lost some ground. The results for Grade 5 math and Grade 4 writing indicate that Reeves, the district, and the state all show improvements.

Exhibit 4:2 illustrates the breakdown of the FCAT and Florida Writes assessments that were administered in the spring of 1999 according to the five established scoring levels for the FCAT and according to the state standard (3 or higher) on the Florida Writes assessment.

4.7 Odds Ratio Analysis of the FCAT Data

Consistent with state interpretations of FCAT, we grouped all scoring levels above 1 as “proficient or pass” and kept Level 1 as “not proficient or fail” for our odds ratio analyses. As presented in Section 2.4 of this report, the 2x2 tables analyzed in the previous section can be thought of as representing a class cohort in a prospective design. From a classical epidemiological perspective, the students in the Edison school can be viewed as the “exposed” group, that is, exposed to the “Edison-effect,” and students in the comparison group as the unexposed group. From this

Table 4:4 Summary of Chi-Square Findings for Henry E. S. Reeves, 1999

	2x5	2x2
<i>Grade 4, Reading</i>		
Reeves vs. District	sig	sig
Reeves vs. State	sig	sig
<i>Grade 5, Mathematics</i>		
Reeves vs. District	sig	sig
Reeves vs. State	sig	sig
<i>Grade 4, Florida Writes</i>		
Reeves vs. District	1998	1999
Reeves vs. District	sig	n.s.
Reeves vs. State	sig	n.s.

Red color indicates a statistically significant difference that favors the comparison group, blue color indicates a significant difference that favors the Edison school.

perspective, each yearly comparison is a new cohort, measured over a period of years. There is a minimal possibility for cohort contamination if a number of students in one group are not promoted to the next grade level. However, we think this represents a very small number of possible cases and therefore has minimal impact on the validity of these analyses. Section 2.4 details the OR statistic and corresponding $1-\alpha$ confidence interval. We calculated and charted OR for each of the 2x2 tables constructed from the chi-square analyses presented above. Exhibit 4:3 and Tables 4:5 and 4:6 present these findings. Only one year of data could be obtained for these comparisons; thus, a trend could not be estimated. However, Table 4:6 reveals that students in Reeves did not fare well relative to students in Miami-Dade County or the rest of the state. Generally, Reeves students were at least two times more likely to score in the Level 1 category than these other students in reading and more than 3.5 times more likely to score in the Level 1 category in mathematics.

Table 4:6 presents the odds ratio analyses for two years of data on the 4th grade Florida Writes examination. Here, students enrolled at Reeves performed only slightly below their counterparts in the district and state. In both district and state comparisons, the Breslow-Day statistics for testing the homogeneity of OR over the two years were not rejected (significant). Thus, a common OR can be meaningfully calculated. Table 4:6 presents these OR and corresponding 95 percent confidence intervals.

The results from the odds ratio analysis suggests that there is no significant change over time between Reeves Elementary and the district in terms of the odds of meeting or not meeting state standards.

Table 4:5 Summary of FCAT Odds Ratio Findings for Reeves Elementary School

1999	
<i>Odds of not meeting standard compared with district</i>	
4 th grade FCAT Reading	2.043 (1.508 – 2.768)
5 th grade FCAT Math	2.092 (1.546 – 2.832)
<i>Odds of not meeting standards compared with state</i>	
4 th grade FCAT Reading	3.479 (2.603 – 4.650)
5 th grade FCAT Math	3.788 (2.844 – 5.046)
<i>Odds of not meeting standards compared with state</i>	
Reading	2.341
Math	1.809

Red color indicates a statistically significant difference that favors the comparison group, blue color indicates a significant difference that favors the Edison school.

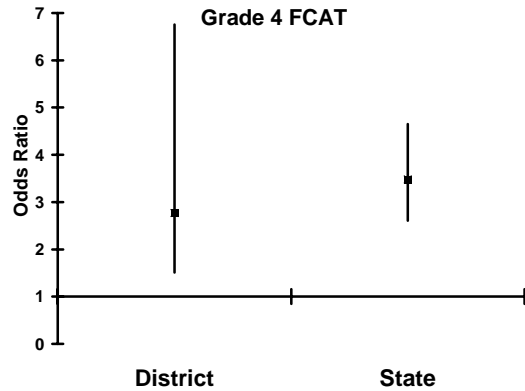
Table 4:6 Summary of Florida Writes Odds Ratio Findings for Reeves Elementary School

	Common OR	95% CI
<i>Odds of not meeting standard compared with district</i>	1.372	1.103 - 1.708
<i>Odds of not meeting standard compared with state</i>	1.472	1.184 – 1.830

Exhibit 4:3 Results of the Odds Ratio Analysis for Henry E. S. Reeves Elementary School (Grades 4 and 5)

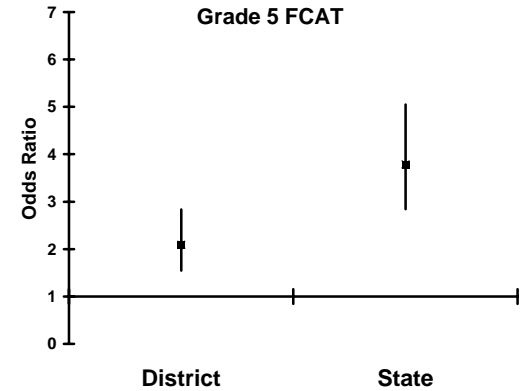
Grade 4 FCAT Reading

Year	U CI	L CI	OR
District	6.756	1.508	2.768
State	4.650	2.603	3.479



Grade 5 FCAT Math

Year	U CI	L CI	OR
District	2.832	1.546	2.092
State	5.046	2.844	3.788

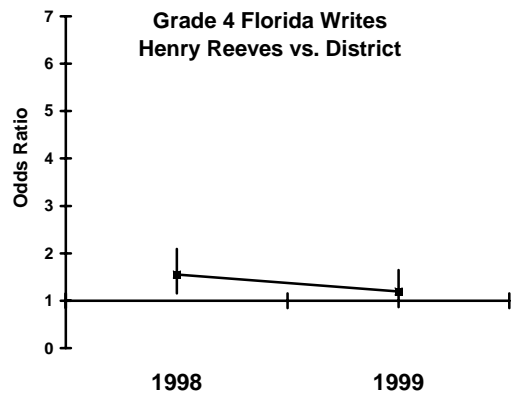


Grade 4 Florida Writes

Year	U CI	L CI	OR
1998	2.092	1.153	1.553
1999	1.648	0.864	1.193

Breslow-Day for Homogeneity of Odd Ratio
Chi-Sq (1, N=45,926) = 1.376, p = .241

OR = 1.372
UB = 1.708
LB = 1.103

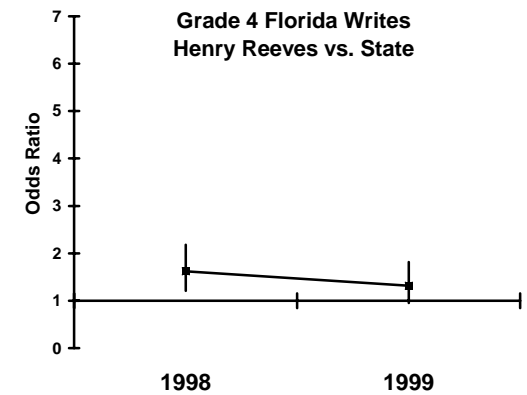


Grade 4 Florida Writes

Year	U CI	L CI	OR
1998	2.182	1.207	1.623
1999	1.815	0.955	1.316

Breslow-Day for Homogeneity of Odd Ratio
Chi-Sq (1, N=304,828) = 0.873, p = .350

OR = 1.472
UB = 1.830
LB = 1.184



4.8 Summary

MDCPS' ongoing evaluation of Henry E. S. Reeves Elementary School is very thorough, likely the most thorough evaluation of any Edison school to date. It utilizes a Silver Medal design (see Appendix C), but falls short in that it only examines change from one year to the next, not longitudinally. For example, the 1998 interim report examined the 1997-98 school calendar while the 1999 report examined the 1998-99 year. Likewise, the 2000 report evaluated only the 1999-2000 year. It would be highly desirable to link these three years of data into one longitudinal evaluation with both cohort and panel samples available. This is exactly what the Shay (2000) study has done. On the positive side, MDCPS developed a plausible and defensible set of criteria to define comparison schools and utilized appropriate statistical techniques for the comparisons they made. This evaluation also looked at other factors, such as parent satisfaction and school climate.

Norm-referenced test findings

Limited data were available for us to gauge trends in NRT data. However, Shay (2000) presented partial effect size estimates (expressed in percentages) from the repeated measures analyses she conducted. Table 4:7 presents our NRT trend ratings based on these estimates. The percentage estimates in this table reflect effect size contributions from both the main effect for group membership and the group by time interaction.

Table 4:7 Summary Results on Norm-Referenced Tests

SAT-8	Partial Effect Size Estimate	Trend
Panel A - Mathematics	≈ 3.2%	Mixed (0)
Panel A - Reading	< 1 %	Mixed (0)
Panel B - Mathematics	≈ 2.1 %	Mixed (0)
Panel B - Reading	< 1 %	Mixed (0)

The gains at Reeves during its second year under Edison are highlighted in Edison's second annual report (1999). But as the MDCPS (Gomez & Shay, 1999) evaluation report points out, the performance of the Edison students is comparable to the control groups, but not better after two years of operation as an Edison school. Based on the thorough analyses conducted by the evaluation team at MDCPS, the student achievement results suggest that improvements between the second and third year helped the Edison students make up for losses in test performance between the first and second years of operation in comparison with control groups. Unfortunately, these gains apparently were not maintained in the third year.

Criterion-Referenced Test Findings

Decisions regarding the OR were based on whether or not the $(1-\alpha)$ C.I. included 1.0. If the $(1-\alpha)$ C.I. fell completely below 1.0, this was interpreted as a protective odds ratio (1), favoring the Edison School. If the $(1-\alpha)$ C.I. included 1.0 (0), this was interpreted as an equal odds situation. If the $(1-\alpha)$ C.I. fell completely above 1.0 (-1), this was interpreted as an increase in odds for failing the state

CRT relative to the comparison sample (see Table 4:8). If the Breslow-Day statistic (B-D) is nonsignificant, one overall OR and $(1-\alpha)$ C.I. can be used to represent the odds for failing the CRT relative to the comparison group. Thus, there are no trends reported for each specific year in the tables, only a rating in the B-D column. If the B-D statistic is found to be statistically significant, then an overall common OR cannot be meaningfully interpreted; that is, there is a statistically significant change in the OR over years and yearly OR are necessary. Thus, our summary ratings appear for each year of data and not in the B-D column.

Table 4:8 Summary Results on Criterion-Referenced Tests

Reeves vs District	1998	1999	BD	Finding/Trend*
FCAT Grade 4 Reading		-1	N/A	mixed (0)
FCAT Grade 5 Math		-1	N/A	mixed (0)
FL Writes Grade 4			-1	mixed (0)

* We have adjusted our trends to reflect a mixed rating due to the recent availability of 2000 test results discussed in Section 4.5 and presented graphically in Exhibit 4:1.

Student results from the three state-mandated tests (FCAT reading and math and Florida Writes), indicate some gains for the Edison students, but absolute scores are still far behind the averages for the district and state). More importantly, the gains made by Reeves on the CRT are similar to those made by the district and state groups.

Combined ratings

Table 4:9 Combined Overall Trends for Henry E.S. Reeves Elementary School

	Positive	Mixed	Negative
Norm Referenced	0 of 4	4 of 4	0 of 4
Criterion Referenced	0 of 3	3 of 3	0 of 3
TOTALS	0 of 7	7 of 7	0 of 7

Based on the findings presented in this chapter and based on the discussion of the results, we rate the trends in this school as Mixed with an overall mean trend rating of 0.0. In fact, all seven trends that we considered when summing up this case were Mixed. In its second annual report, Edison (1999) rated the trends on student performance as Positive. In its third annual report, Edison rated the trends for 1999-00 as Strongly Positive and the overall trends since opening as Strongly Positive. There are extensive results from the SAT-7 available for this school. Unfortunately, Edison did not consider the findings from the district evaluation, nor from the Shay (2000) study, when presenting the results for this school in its 2000 annual report. In fact, while Edison reported same cohort SAT results for 1996-97 and 1997-98 in its 1999 annual report, it only included limited consecutive cohort SAT results in its 2000 annual report.