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ELEMENTARY SCHOOL STUDENT ACHIEVEMENT: AN ANALYSIS OF SCHOOL
SIZE AND STUDENT ACHIEVEMENT

by

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A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Education
in the Department of Educational Research, Technology and Leadership
in the College of Education
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Orlando, Florida

Fall Term
2009

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ABSTRACT

Student achievement is the cornerstone of educational intuitions. Having a comprehensive understanding of what factors into having a successful student achievement rate requires the use of previous research and analyzing of historical accounts. The purpose of this study was to determine if there was a difference in student achievement when elementary school size was a factor. The analysis of the results offered beneficial information pertaining to Florida's public schools while providing a stepping stone towards future research. The results of this study and subsequent studies can provide information and guidance to decision makers regarding school size relative to student achievement.

The population for this data was obtained from the Florida Department of Education's Florida Schools Indicator Reports. Three elementary schools were selected from each school district in the state of Florida based on its student enrollment. A small school consisted of an enrollment of 1-300 students, a medium school consisted of 301-500 students, and a school was considered large if its enrollment was 600 students or more. From these schools, the 3rd, 4th, and 5th grade Florida Comprehensive Assessment Test (FCAT) mathematics and reading scores were analyzed.

Analysis of the data revealed that there was no statistically significant difference found for student achievement in mathematics when school size was a factor. However, there was a statistically significant difference found in student achievement in

reading. The significance was found to lie between medium and large schools, with large schools scoring significantly better than medium schools.

This work is dedicated to my grandparents. Your presence in Heaven lets me know that I have four wonderful angels watching over me.

ACKNOWLEDGMENTS

My sincere appreciation goes to Dr. Kenneth Murray, from our first advising conversation, I knew we would be a great fit. You have been a tremendous help throughout this experience. To Dr. Barbara Murray, you saw something in me that I did not even know existed. Thank you for encouraging me over the years and for being so resourceful. You two are an excellent team!! The University of Central Florida is blessed to have you both. To Dr. Doherty and Dr. Hutchinson, thank you for your time and effort. Working with you both has truly been a pleasure. To Elayne Reiss, thank you for your patience and expertise.

To Oliver W. Pough, IV, my future husband, I am so excited to start this chapter of my life with you and I thank you for supporting me and encouraging me.

To my parents, without your continued support this would not have been possible. Thank you for always loving me, supporting me, and spoiling me!!! To my siblings, watching you both made me a better person and a better student. Thank you for your guidance and setting a path for me.

To my late Great Uncle Ed “Buddy” Davis, I believe everything about the work I have completed speaks volumes to you and our relationship. When I was a little girl, you would ask me, “did you get your lesson today?” At that time, I had no clue what you were talking about, but as I have grown I have remembered those conversations and realized how important my education was to you. I hope I have made you proud.

To Mr. & Mrs. Pough, you have welcomed me into your family and given unselfishly to our future and our personal endeavors. I can never repay you for all that

you have done, but I will do everything in my power to continue to make your son happy.

To my Lord and Savior, thank you for everything! I carry You in my heart with every step that I take. When my time on earth is done, I hope to meet You and hear the words "Well done, My Child".

TABLE OF CONTENTS

LIST OF FIGURES	xi
LIST OF TABLES	xii
CHAPTER 1 PROBLEM STATEMENT AND RESEARCH DESIGN	1
Introduction	1
Statement of the Problem	2
Purpose of the Study	3
Research Question	3
Hypotheses	3
Population and Sample.....	3
Data Collection	4
Data Analysis	4
Significance of the Study	4
Limitations.....	5
Delimitations	5
Organization of the Study	5
CHAPTER 2 REVIEW OF LITERATURE.....	7
Introduction	7
The Historical Impact of School Size.....	7
School Size.....	9

School Reform	17
Florida School Reform Efforts.....	22
Student Achievement.....	26
Effects of School Reform	29
Summary	33
CHAPTER 3 METHODOLOGY.....	34
Introduction	34
Statement of the Problem.....	34
Population and Sample.....	34
Data Collection	35
Dependent and Independent Variables	35
Data Analysis.....	35
Research Question 1	36
Research Question 2	36
CHAPTER 4 ANALYSIS OF DATA.....	37
Introduction	37
Description of Population.....	37
Research Question 1	46
Research Question 2	47
Summary	48
CHAPTER 5 SUMMARY AND RECOMMENDATIONS.....	49

Introduction	49
Statement of Problem	49
Methodology	49
Population	49
Data Collection.....	50
Data Analysis	50
Summary and Discussion of Findings	50
Conclusion	51
Recommendations for Practice.....	52
Recommendations for Future Research.....	53
APPENDIX A MAP OF FLORIDA SCHOOL DISTRICTS	55
APPENDIX B FCAT READING DATA FOR GRADE 3	57
APPENDIX C FCAT READING DATA FOR GRADE 4.....	71
APPENDIX D FCAT READING DATA FOR GRADE 5.....	85
APPENDIX E FCAT MATH DATA FOR GRADE 3	99
APPENDIX F FCAT MATH DATA FOR GRADE 4	113
APPENDIX G FCAT MATH DATA FOR GRADE 5.....	127
LIST OF REFERENCES	139

LIST OF FIGURES

Figure 1: Theory of action - Chicago High School Redesign Initiative	19
Figure 2: Map of Florida School Districts	56

LIST OF TABLES

Table 1 Elementary Schools Studied	39
Table 2 Descriptive Statistics of FCAT Math Proficiency Based on School Size	47
Table 3 Descriptive Statistics of FCAT Reading Proficiency Based on School Size	48
Table 4 FCAT Reading data for Grade 3	58
Table 5 FCAT Reading data for Grade 4	72
Table 6 FCAT Reading data for Grade 5	86
Table 7 FCAT Math data for Grade 3.....	100
Table 8 FCAT Math data for Grade 4.....	114
Table 9 FCAT Math data for Grade 5.....	128

CHAPTER 1 PROBLEM STATEMENT AND RESEARCH DESIGN

Introduction

School systems provide information on student achievement on an annual basis using statewide standardized test data. This study analyzed student achievement in the state of Florida when school size is a factor.

There is published research that indicates that school size has little to no effect on student achievement, while there is also contradictory research established. Much of the research debates the advantages and disadvantages of small schools versus larger schools, such as school safety and graduation rates; while earlier studies specifically examined the appropriate enrollment range of a school to reach its optimal size for student achievement. Research indicates that small schools offer more personable experiences and stronger learning environments for their students. Raywid (1997) stated “small schools are especially beneficial in each of these regards for disadvantaged or at-risk students, who appear to depend to a greater extent on school size and organization for succeeding than do more fortunate youngsters” (p. 18). Jon Bailey (2000) found that “out of 22 major studies examining academic achievement by school size, none finds that large schools are superior to small schools. Fourteen studies find equivalent achievement, and 8 studies find small schools superior” (p. 4). Bailey’s findings offer general conclusions; however, the goal of this study is to provide detailed information that specifies the difference in student achievement when elementary school size is a factor.

Each year in the state of Florida, elementary students in grades 3 – 5 are tested based on the Sunshine State Standards (SSS) in reading, mathematics, science and writing. This information, along with student academic grades, is then utilized to differentiate the students into their learning environments for the upcoming school year. The results are also used to provide teachers with data that shows evidence of success and where growth is needed.

The Florida Comprehensive Assessment Test (FCAT) is the standardized test administered throughout the state of Florida annually. According to the Florida Department of Education (2008), the purpose of the FCAT is to “access student achievement of the Sunshine State Standards benchmarks in reading, mathematics, science, and writing (p. 2). The Florida Department of Education (2008) further details that the FCAT “includes norm-reference tests (NRT) in reading comprehension and mathematics problem solving, which allow for comparing the performance of Florida students with students across the nation” (p. 2). This information was analyzed and expressed as a comparison between schools of different sizes to see whether or not school size is a factor of student success in an elementary school educational setting.

Statement of the Problem

While there has been sufficient research on the effects of school size on student achievement, there is limited information, to date, regarding the effects of school size on student achievement in Florida public schools. This study attempted to determine if differences exist in student achievement at the elementary level when school size is a factor.

Purpose of the Study

The purpose of this study was to discover whether there is a difference in student achievement in the state of Florida based on Math and Reading FCAT Sunshine State Standard scores when elementary school size is a factor.

Research Question

The study was guided by the following research questions:

1. What differences, if any, exist in student achievement, based on the school-wide FCAT Math assessment at the elementary level, when school size is a factor?
2. What differences, if any, exist in student achievement, based on the school-wide FCAT Reading assessment at the elementary level, when school size is a factor?

Hypotheses

The proposed research hypotheses were as follows:

H₁: There is a statistically significant difference in student achievement on the FCAT Math when school size is a factor.

H₂: There is a statistically significant difference in student achievement on the FCAT Reading when school size is a factor.

Population and Sample

The population for this study was comprised of three elementary schools from each of the sixty-seven school districts in the state of Florida. The elementary schools were divided into three categories based on the population of each school. The categories were as follows:

- A school with 1 – 300 students was considered small.
- A school with 301 – 599 students was considered medium.
- A school with 600 or more students was considered large.

The sample for this study included the school-based data that was collected for each school. This information included the number of students, the 2006 – 2007 FCAT Math scores for grades 3 - 5, and the 2006 – 2007 FCAT Reading scores for grades 3 - 5. At the time of this study, the 2007 – 2008 FCAT results were not available.

Data Collection

All of the data used in this study was compiled from the Florida Indicator Reports generator and school accountability reports available on the Florida Department of Education website.

Data Analysis

A One-way ANOVA statistical analysis was used to discover whether there was a statistically significant difference in student achievement on the FCAT when school size is a factor.

Significance of the Study

This study included data from the sixty-seven school districts in the state of Florida. The data will demonstrate the similarities and differences of the Florida school districts through an in-depth analysis of student achievement on the FCAT and school size. The results of this study will provide information and guidance to school and school district decision makers regarding school size relative to student achievement.

Limitations

There are factors which could limit the validity of this research. One of those factors could be the variations of school district size in Florida that will limit the likelihood of having an elementary school to fit each of the three school size parameters. The reality that some schools may or may not report all of the information being analyzed was taken into consideration. The study is limited to the accuracy of the reported data on the Florida School Indicators Report. Additionally, schools may be small due to outside factors, including school choice, the needs of the school district, and the location of the school.

Delimitations

This study is delimited to reported data of FCAT scores and student population on the Florida School Indicators Report for the 2006-2007 school year. This study is delimited to one school for each of the three set school size parameters. The focus of this study is placed solely on elementary school size, therefore, middle school and high school information, for each of the school districts, has been excluded for the purpose of this study.

Organization of the Study

Chapter 1 of this study has provided the general background of the study, introduced the problem, the components, the research questions, and the methodology used to acquire and analyze the data for this study. Chapter 2 contains a review of the relevant literature to school size and student achievement. Chapter 3 includes the

methods and procedures used to collect and analyze the data for this study. Data analysis and the results of this study are presented in Chapter 4. Chapter 5 provides a summary of the findings, conclusions, recommendations for practice, and recommendations for future research.

CHAPTER 2 REVIEW OF LITERATURE

Introduction

This chapter is a review of related literature pertaining to the main subjects of this study: school size and student achievement. Other variables, such as school operation costs, per-pupil expenditures, socio-economic status, school location, and school culture, are presented in the review of literature as they pertain to different studies. The review of literature is presented with six subtitles: a) The Historical Impact of School Size, b) School Size, c) School Reform Efforts, d) Florida School Reform Efforts, e) Student Achievement, and f) Effects of School Reform.

The Historical Impact of School Size

With the continuous efforts to effectively improve school districts and to restructure schools, researchers have closely studied the evolution of public education. According to Cotton (1996), between the years of 1940 to 1990 the number of school districts throughout the country declined by 87% from 117,108 to 15,367. Cotton (1996) further stated “between 1940 and 1990, the total number of elementary and secondary public schools declined 69 percent—from approximately 200,000 to 62,037—despite a 70 percent increase in the U.S. population. Consequently, the average school enrollment rose more than five times—from 127 to 653” (p. 1). These changes would impact the course of public education for decades to follow.

Lee and Smith (1993) researched the differences in school structures while focusing on historical accounts that over time have proven to may have been the more

effective manner of operating a public school system. Lee and Smith (1993) wrote “changes toward larger, more efficient, and more differentiated comprehensive high schools have led to the alienation of a considerable number of students” (p. 166). Lee and Smith (1993) also found adverse effects to the declination of the number of schools. Lee and Smith (1993) wrote “besides inducing alienation, differentiation of functions and an emphasis on instruction that is grouped by ability – important features of bureaucratically organized schools – magnify the social distribution of achievement” (p. 166).

School size and the declination of public school districts and schools has been an ongoing challenge for education. As with any major organization or entity, the impact of one issue brings awareness to other issues. Thompson (1996) wrote “when we reduce the number of schools in favor of a few large ones that fits the nation’s cry for efficiency” (p. 6). The cry for efficiency that Thompson (1996) wrote about was answered with the No Child Left Behind Act of 2001. Since the development and implementation of NCLB, many public school districts have been inundated with uncertainties towards how to improve student achievement while focusing on accountability. Gallucci (2008) states the “NCLB and other contemporary education policies, in taking aim on the quality of instructional experiences for public school students in the United States, pose learning challenges for educators across levels of the system” (p. 541). NCLB’s academic accountability tool is simply too narrow to measure students’ mastery of these skills (Sofa, 2008). Sofa (2008) also stated the following:

Instead, the 2001 legislation defines appropriate student achievement as scoring above a proficient score on a single standardized test, and both the test and the score are chosen independently by each of the fifty states. Furthermore, the tests are not designed to measure performance in any areas other than content knowledge and skills related to math and reading. Finally, the current law does not address each student's academic growth or decline from year to year.

With the implementation of NCLB, researchers have found areas as to which the legislation could be improved to offer a more definite way of tracking student achievement and accountability. Those research efforts interconnect other pressing educational matters, such as school size.

School Size

Since the mid 1800s, historical accounts ensure that school size has been a perpetual concern in education. Since evolving from the single teacher, one-room school house of the 1800s to the large school buildings of today, researchers have found considerable evidence that small schools offer more advantages to students and academic success than large schools. There have been studies performed that both support and dispute these findings. Within this section is an overview of different studies that analyze school size based on various factors and variables. The studies also offer recommendations for optimal student membership.

Meier (1995) wrote of her experiences with school reform and found replacing larger schools with smaller schools has proven to be a great success in East Harlem's

District 4. Meier (1995) found that since opening The Central Park East Secondary School (CPESS), an inner-city school that educates approximately 450 students in grades 7-12, over 95 percent of the students have received their diplomas, and 90 percent of those students went on to attend college. Statistics show that prior to the opening of CPESS, the citywide average graduation rate was only 50 percent. Meier (1995) further promotes school reform for Julia Richman High School, which was classified as a failing school, by transforming the large school into six autonomous small schools, all located within the same facility, and finding great success with all six small schools.

Vander Ark (2002) found “studies show that small schools have higher attendance rates and lower dropout rates, their students have higher grade point averages, and students and teachers report greater satisfaction with the school experience” (p. 55). Vander Ark (2002) stated that the Bill & Melinda Gates Foundation has “invested more than \$250 million in grants nationwide for creating new small schools and transforming large high schools through the schools-within-a-school model” (p. 55). In recent years through this initiative, The Gates Foundation has “learned some lessons from its investments in pathbreaking schools” (Alter, 2008). The Gates Foundation has found that “rigorous accountability is the only option” and the creating of path breaking schools proved “insufficient without major changes in personnel” (Alter, 2008). Consequently, Wainer and Zwerling (2006) found that in 2005, after awarding nearly \$1.7 billion in grants for school reform, The Gates Foundation decided to move “away from its emphasis on converting large high schools into smaller ones and instead giving grants to specially selected school districts with a track record of academic

improvement and effective leadership” (p. 303). Wainer and Zwerling (2006) further stated that The Gates Foundation believed that “improving classroom instruction and mobilizing the resources of an entire district were more important first steps to improving high schools than breaking down the size” (p. 303).

Overbay (2003) agreed with The Gates Foundation initiative in its earlier stages by stating “it may be possible to achieve the desired student outcomes by reorganizing school populations or by creating small learning communities within existing facilities”

(p.1). Overbay (2003) also found the following:

After examining, 9,812 sets of records for the same students across grade levels, Lee and Smith (1997) found a curvilinear relationship between high school size and achievement. According to their findings, high school achievement rises as enrollment rises to 600, remains steady up to about 900, and then drops with increasing school size.

The most recent metaanalysis of production-function studies (Andrews et al., 2002) resonates with these findings, indicating that high schools above 1,000 students and elementary schools above 600 students may experience diminishing returns; that is student performance and school services appear to decline relative to increasing inputs (e.g. the number of teachers, administrators, and support staff). Thus, some available evidence suggests that schools can be *too* small, but that some schools (high schools, especially) may be too large. Still, Andrews et al. caution readers that methodological oversights in many available studies can make comparing their results somewhat problematic.” (p. 3).

Overbay (2003) constructed a table within her research that offered a brief overview of many frequently cited studies on optimal school size. In 1984, one study performed by Eberts, Key, Hole, and Stone focused on 287 elementary schools where the dependent variable was achievement scores, and the independent variables included school size and student, teacher, principal, and school-climate characteristics (Overbay, 2003). Overbay (2003) stated that Eberts, Key, Hole, and Stone found that small schools (under 200 students) and medium schools (400-600 students) had minimal impact on student performance; however, student performance exhibited a significant decline as student population grew towards 800 students. Overbay (2003) also stated that a key limitation in Eberts, Key, Hole, and Stone's study was the exclusion of control for school location.

Overbay (2003) included a 1982 study by Lindsay that investigated 14,668 students in 328 elementary schools in which the dependent variables included extracurricular participation rates, student satisfaction and attendance. The independent variables were school size, socio-economic status, student ability, and location. Overbay (2003) states that Lindsay found "schools with 100 pupils or less in both urban and rural areas had higher extra-curricular participation rates, student satisfaction, and attendance, controlling for socio-economic status and ability" (p. 4). Overbay (2003) found the limitation to this study included the exclusion of a variable for suburban schools.

Lee and Smith (1997) studied 9,812 sets of student records from 789 high schools. The dependent variables included reading and mathematics achievement and the independent variables included school size and socio-economic status. The study

was based off of three research questions: a) Which size high school is most effective for student learning?, b) In which size high school is learning most equitably distributed?, and c) Are size effects consistent across high schools defined by their social compositions? Lee and Smith (1997) found that in terms of the effectiveness of student learning, enrollment should fall between 600 and 900 students. Lee and Smith (1997) also found that “in schools smaller than this, students learn less, those in large high schools (especially over 2,100) learn considerably less” (p. 205). “Learning is more equitable in very small schools, with equity defined by the relationship between learning and student socioeconomic status (SES)” (Lee & Smith, 1997). Lee and Smith (1997) found the following:

An important finding from the study is that the influence of school size on learning is different in schools that enroll students of varying SES and in schools with differing proportions of minorities. Enrollment size has a stronger effect on learning in schools with lower-SES students and also in schools with high concentrations of minority students. (p. 205)

With the number of studies performed on school size, there are different limitations that would allow for the variation in results. Hylden (2004) found discrepancies while researching what is considered the optimal size for small schools. Hylden (2004) found that in a 2002 report commissioned by the Rural School and Community Trust, that an effective high school would have an upper limit of 300 students, whereas, The Cross City Campaign for Urban School Reform recommends capping enrollment in high schools at 500 students. Through research in rural North Dakota, which was used to encourage the continuation of operation of small schools in

the area versus closing them to create one large school, Hylden (2004) found that smaller schools, with enrollments of under 50 students, outperformed schools with over 500 students by wide margins. Hylden (2004) further encouraged policymakers to keep the doors of the smaller schools open and focus on providing the resources to continue to have the smaller learning environments which have proven to be beneficial to its students.

In an earlier study, “Conant (1959) determined that in order to offer the best possible college preparatory curriculum, a high school should have at least 100 students in its graduating class” (Bard et al, 2006). In support of large schools, Conant further stated “that the most outstanding problem in education was the small high school, and that the elimination of small high schools would result in increased cost-effectiveness and greater curricular offerings” (Bard et al, 2006).

Craig Howley and Robert Bickel (1999), Mary Anne Raywid (1999) and Karen Irmsher (1997) have all researched school size extensively. Their studies offer different views on the topic of school size and provide in-depth findings that further support the need for close observations of school size in public education. Comparing and contrasting these studies will further support the need for performing a study that combines the variables: school size and student achievement, with a focus on Florida schools.

The Matthew Report, a study that evolved from a series of previous studies, tested the “negative influence of poverty on academic achievement in California, Alaska, and West Virginia” (Howley, Bickel 1999). The Matthew Report also included the states of Ohio, Georgia, Texas and Montana to further research the variables of

socio-economic status and school size. The report provided “strong evidence that a one-best, everywhere ‘optimal’ school size is a figment. The appropriate size for a school, when the aim is to maximize aggregate student achievement, depends on community circumstance, operationalized here as aggregated SES [socio-economic status]” (Howley, Bickel 1999). The Matthew Report showed that although there is no optimal school size that “schools can be so large as not to serve anyone very well” (Howley, Bickel 1999). The report encourages the establishment of an “upper limit of school size” (Howley, Bickel 1999).

Raywid (1999) analyzed the benefits of small schools while determining, through previous research, what population size impact a small school. Based on the financial aspect of small schools, Raywid (1999) found the following:

When viewed on a cost-per-student-enrolled basis, they are somewhat more expensive. But when examined on the basis of the number of students they graduate, they are "less" expensive than either medium-sized or large high schools. (These findings hold true for the small academic and alternative schools, but not for the more costly "last chance" alternative or vocational schools.) (p. 3)

Much of Raywid’s findings delivered an understanding that smaller schools create better climates and educational environments for students. A look into some of New York District 3 and District 4 schools determined that dropout rates had significantly decreased through the creation of small schools.

Irmsher (1997) conducted research that examined whether or not larger schools have “produced greater academic success at lower costs” (p.2). The findings showed

the contrary - larger high schools did not produce greater academic success at lower costs. Irmsher stated "although large schools offer greater curricular variety, only a small percentage of students take advantage of advanced and alternative classes" (p. 2).

Irmsher's study further detailed which groups benefited from small school sizes.

A higher percentage of students, across all socioeconomic levels, are successful when they are part of smaller, more intimate learning communities. Females, nonwhites, and special-needs students, whether at risk, gifted, exceptional, or disadvantaged, are all better served by small schools. Security improves and violence decreases, as does student alcohol and drug abuse. (p.3)

Through the number of research efforts on school size, there is evidence that shows there is no difference in student achievement in large or small schools. There were also studies that show student achievement in small schools outperformed student achievement in large schools. However, the studies provide no evidence that large schools were superior to small schools. Even with the conflicting results, the relationship between school size and student achievement is relatively too small to distinguish.

Although the results of the previously stated studies vary by the numerical value of each of the enrollment ranges, each study concludes that school size should remain relatively small. The review of the literature builds a solid foundation for the purpose of this study based on the variations of optimal school size. Previous studies show that there is no true optimal size for a school, however, through continued research;

parameters can be set to find the appropriate size based on the geographic area of each school district.

Although the studies offer rationale supporting smaller schools, the findings articulate the need for more studies to be conducted that can show a relationship between school size and student achievement specifically in the state of Florida. The results from the aforementioned studies all contribute community and socio-economic status as variables that enable or interrupt student achievement. With the extreme variations of socio-economic status and school size in the school districts in Florida, it is necessary to examine the state to find what can be done, if anything, to improve student achievement based on school size and factors contributing to school size.

School Reform

Kahne, Spote, and Easton (2005) conducted a study on school reform in Chicago based on a recognized need for reform in the urban public high schools. The researchers found “only 54 percent of the 2000-01 freshman cohort graduated in four years” (Kahne et al, 2006). Only 36% of Chicago’s eleventh graders met the 2004 Prairie State Achievement Exam standards in reading and only 28% in Math, which was significantly lower than the state of Illinois’ average for reading and math; 57% and 52%, respectively. The researchers also found “only 6.5 percent of those who started as thirteen-year-olds in Chicago’s public high schools in 1998 or 1999 had earned a bachelor’s degree by the time they were 25. Only about 3 percent of male African-American and Latino students did so” (Kahne et al, 2006).

Kahne, Sparte de la Torre and Easton (2006) detailed that their study consisted of an quantitative analysis of “how small schools compare to the rest of Chicago Public Schools, taking into account individual- and school-level characteristics.” The first phase of the study was based on three questions: “How is Chicago’s effort to implement small schools on a large scale proceeding? Are small schools creating the contexts for principals, teachers, and students that reformers believe will ultimately lead to desired reform and improved outcomes? And what are early indications of the small schools’ impact on student outcomes?” (Kahne et al, 2005). To respond to these questions, the researchers developed a theory of change, as detailed in Figure 1. The framework “was developed through consideration of relevant literature, analysis of documents related to the initiative, and through interviews and discussions with key stakeholders” (Kahne et al, 2005). Kahne, Sparte, and Easton (2005) explained that the framework “portrays the mechanisms through which various features of small school reform are thought to promote desired contexts for students and teachers. It also details how these contexts, in the presence of district, state and federal influence, can promote both curricular change and desired outcomes” (p. 10).

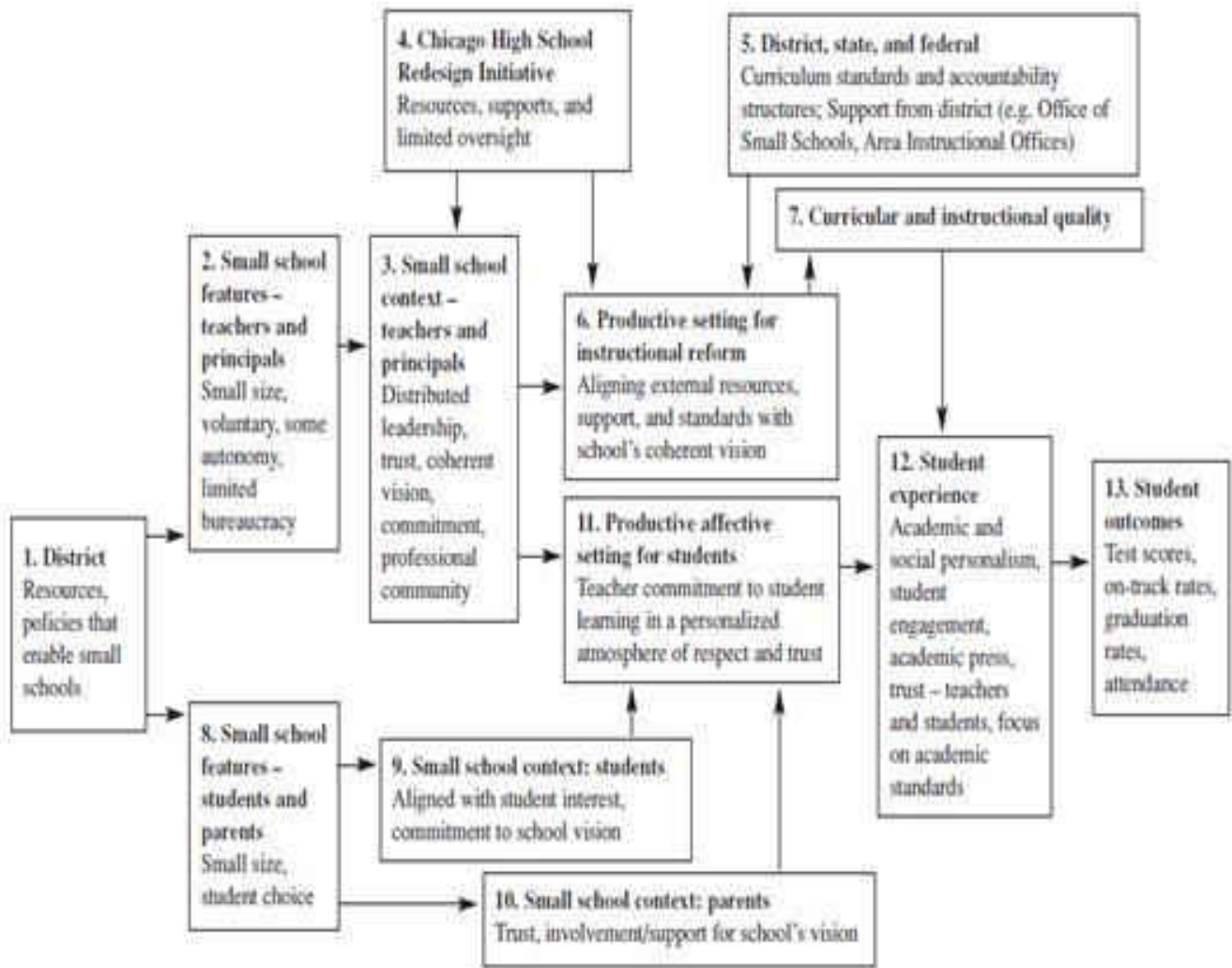


Figure 1: Theory of action - Chicago High School Redesign Initiative

Kahne, Sparte, de la Torre, and Easton (2006) detailed many of their findings of this study. Although the researchers found that juniors at the Chicago High School Redesign Initiative (CHSRI) schools did not score differently on the Prairie State Achievement Exam than their non-CHSRI counterparts, they did find that first-time freshmen at CHSRI attended school more than their peers at other Chicago public high schools. Another finding detailed the following:

First-time freshmen at CHSRI schools were more likely to be on-track to graduate than similar students at similar schools in all three years, but the difference was not large enough to be statistically significant. The difference ranged from about 9 percentage points for academic year 2002-03 to about three percentage points in 2004-05. (p. 2).

Kahne, Sparte de la Torre and Easton (2006) found, later in the study, that smaller schools are fostering more personal learning environments for students and healthier work environments for teachers. “These differences may be related to the differences in dropout rates and absences that we found in our analysis, but they do not appear to be spurring increased instructional reform activity, differing instructional practices, or improved student achievement test scores” (p. 2).

Haenn (2002) conducted research on class size and student success through three lab schools and two traditional elementary schools. The lab schools were created to decrease the number of students in a given inner city school, however, they were not associated with any university nor were they used to experiment with innovative pedagogical methods. The two traditional schools were selected due to their adjustments to their budget to create more space for smaller class sizes. The purpose of this study was based on of previous research conducted by Glass and Smith (1978).

“The primary catalyst of the debate over class size was a meta-analysis of the research on class size research that indicated that student improvements were relatively small for class sizes of about 20 students, but significantly improved for classes with fewer than 15 students” (p. 4).

Haenn (2002) found that lab schools were making positive impacts on student achievement in primary grades, but each grade level performed differently. Haenn (2002) stated that students in kindergarten, first grade, and second grade outperformed their counterparts in the traditional schools. However, one of the three lab schools outperformed their traditional school counterparts in grade 4. In third and fifth grades, the Lab School students did not show higher achievement than the students in the traditional schools.

Sharing the same opinion with researchers who believed reducing class size is a way to improve student achievement, Graham (2009) stated “reduced class size is a necessary strategy to close the achievement gap and address inequalities in public school education caused by years of neglect” (p. 1).

In 1996, the state of California initiated school reform that reduced the size of K-3 classes across the state by approximately 10 students per class. The efforts held financial obligations that surpassed one billion dollars, which proved beneficial for researchers who found significant conclusions from this initiative. Jepsen and Rivken (2007) found that “the ten-student reduction in class size raised school average mathematics and reading achievement by roughly 0.10 and 0.06 standard deviations of the school average test score distribution, respectively, holding other factors constant” (p. 224).

Although no study has produced significant numbers to defend one size school over the other, reforms should continue and future researchers should incorporate other variables into their studies to solidify any findings in favor of small schools or large schools.

Florida School Reform Efforts

Conroy and Arguea (2002) stated “the state of Florida’s A-Plus plan for education included provisions to ‘(set) high standards and provide adequate funding, and then hold schools and educators accountable for the performance of the students they are entrusted to educate’” (p. 656). Among these provisions was the class size amendment of 2002.

McNeil (2008) states, in reference to the Florida Legislature’s class size amendment, “the new requirements mean that districts must reduce pupil-teacher ratios in every classroom to 18-to-1 in prekindergarten through 3rd grade, 22-to-1 in grades 4-8, and 25-to-1 in high school, or face financial penalties from the state department of education” (p. 1).

On the basis of class size reduction, Harris (2004) recommended that the Florida Legislature fund an external review of class size reduction costs and benefits “to provide a steady source of objective information as the amendments are implemented”. Porter and Soper (2003) state the offerings of a class size reduction plan:

A carefully designed class size reduction (CSR) plan offers a systematic approach to school wide improvement that incorporates every aspect of a school, from curriculum and instruction to school management; a program

and a process designed to enable all students to meet challenging academic content and performance goals; a plan for using research to direct the move from multiple, fragmented educational programs to a unified plan with a single focus: academic achievement; incentives and direction for long-term, collaborative efforts among school staff, parents and district staff (p. 4).

Harris (2004) believes that the class size amendment “can be funded without changing Florida’s status as a low-tax state” (p. 11.12). Harris (2004) further states that the actual costs of class size reduction will be lower than even the lowest estimates being considered by the Florida Legislature while finding ambiguity about “what costs will be incurred” (p. 11.12).

While further researching the effects of the class size amendment, McNeil (2008) found that starting with the 2008-09 school year, Florida school districts must meet “new size caps in each classroom, robbing school officials of the wiggle room they enjoyed during the phase-in period, when school systems were allowed to use district-wide and then school wide averages in calculating class sizes” (p. 1). McNeil (2008) reported “officials warn that the mandate will mean hiring more teachers and building more classrooms at a time when the state is facing an ongoing \$2 billion budget deficit and new pressures from a recently approved constitutional amendment cutting property taxes” (p. 2).

There is a growing need to learn how large Florida’s public schools should recruit, and how education funds in the state of Florida are being allocated in support of student achievement. The National Education Association (2007) stated that in fall of

2005, the state of Florida was ranked fourth in the nation in total public school enrollment, however, it ranked 41st in the number of school districts. In regards to the amount of money spent on public education, Florida ranked 50th in per capita expenditures of state and local governments for all education (National Education Association, 2007).

In an effort to emphasize the need for legislative reform on school funding in Florida, Harris (2004) reported that funding for education in the state of Florida has increased at a slower rate than the rest of the nation of 1.4% annually between the years of 1981-2001. Harris (2004) further states that “like businesses, schools compete with other organizations in the private sector to attract employees” as a basis for Florida to continue to increase spending to improve education throughout the state. Harris (2004) continues with the following:

It is possible to place too much emphasis on financial responsibilities as a factor affecting education quality, especially in a budgetary analysis such as this. More so than most states, Florida has engaged in a wide variety of other reforms, from high-stakes testing to charter schools, that are all part of the state’s efforts to improve education. Combined with the state’s relatively low spending, it is therefore clear that Florida’s school improvement efforts have focused on accountability rather than on enhancing resources. The recent votes approving constitutional amendments that enshrine a standard of quality suggest that the public may demand a more balanced approach (p. 11.3).

While funding Florida public education comes from both state and local sources, the state has seen an increase in funds since the initiation of the Florida Education Finance Program (FEFP) in 1973-73 (U.S. Department of Education, 2001). The FEFP bases public education's financial support and financial resources on the number of participating students in educational programs throughout the state (U.S. Department of Education, 2001). State funds for public school support are provided primarily through the FEFP, while the major source of revenue for state support of public schools is the state sales tax and the major source of revenue for local support of public schools is property tax (U.S. Department of Education, 2001).

As Harris (2004) and others aim towards protecting public schools in Florida, the National Education Association (2003) found that although all 50 states offer either abatements or tax increment financing (TIF) or both, Florida is one of only two states that shield school revenues from both abatements and TIF. The National Education Association (2003) states that tax increment financing is defined as the process of granting long-term diversions of certain districts' property taxes to corporations making investments in those districts. The National Education Association (2003) also stated that the "state law requires votes of each county to approve an enabling referendum before county officials can start awarding property tax abatements" (p. 22). This state law grants the public full involvement in the funding decisions for public schools. This information can be interpreted to show that school enrollment and school funding are elements that perpetuate overcrowded schools and classrooms, which is directly related to student success.

Student Achievement

Fulton (1996) reported that for years policymakers, educators and community members have been working towards improving student achievement through school reform. According to Fulton (1996), “policymakers must continue to ask for evidence and to push the research community to provide the types of information they need to make sound laws. Building these practices into the policymaking process will increase the chance that education reforms will lead to improved student performance” (Fulton, p. 8).

The Florida Comprehensive Assessment Test (FCAT) is the standardized test administered throughout the state of Florida annually. The purpose of the FCAT is to assess student achievement in the third grade through the eleventh grade in reading, mathematics, science and writing based on their knowledge of the Sunshine State Standards (SSS). The FCAT includes norm-reference tests that allow for the performance of Florida students to be compared to that of the performance of students nationally in reading comprehension and mathematics problem solving. Smith (2004) states the following:

The Florida Comprehensive Assessment Test (FCAT) is the principal instrument to measure proficiency: a “proficiency standard” is set for each grade level. Students scoring above the cutoff score advance to the next grade. The students scoring below the cutoff are targeted for intensive remediation of their low achievement in reading, math, and writing. Schools must identify students whose results are below the proficiency

standard and concentrate their resources on remediation. The state must monitor and enforce school compliance (p. 3.1).

Smith (2004) further states:

The FCAT proficiency standard makes no allowance for the standard error (the normal variation around any score on a test) of FCAT scores or for the cutoff score. This combination of one absolute standard, the strict monitoring, and the tight enforcement make the Florida policy one of the most stringent in the nation (p. 3.1).

According to the Success for All Foundation (2006), elementary schools in the state of Florida have steadily shown significant increases on the FCAT Reading assessments.

The Learning First Alliance (2004) states that educators and parents want children to attend safe, supportive schools that use sound methods to enhance students' academic, social, emotional, and ethical growth. On the other hand, Porter and Soper (2003) find that "conventional wisdom maintains that American public schools are in crisis – they are not adequately preparing our youth to be successful and economically productive in the future" (p. 2). Porter and Soper (2003) further state the measures needed to take toward comprehensive school reform that will assist in developing safe and supportive learning environments with much of the research grounded in class size reduction. Those measures include encouraging schools and districts to complete "a thorough needs assessment to determine their own strengths and weaknesses, and to find the strategy that best fits the needs, culture and climate of their schools" (p. 9), acquiring the support from the community and the school system,

and to “work hard to ready themselves and the community prior to implementation” (p. 9) of the comprehensive school reform.

According to Mosteller (1995), students who begin their education in smaller class settings continued to perform better than students from larger class settings with or without a teacher’s aide. In other research pertaining to small schools and student achievement, Gamoran (1996) found the following:

Students with average reading scores who entered magnet schools by lottery tended to improve their reading achievement more than otherwise similar students who, because they were unsuccessful in the magnet-school lottery, attended comprehensive schools. The magnet-school “lottery winners” also earned more credit toward graduation and were less likely to drop out prior to high school (p. 4).

Porter and Soper (2003) analyzed piecemeal school reform attempts and failures in Tennessee and California. The study examined Tennessee’s success with the overall school reform process and California’s policymakers enactment of a voluntary class size reduction plan due to Tennessee’s success. Porter and Soper (2003) found the following:

Single focus reform efforts cannot, by themselves, sufficiently change the overall culture and academic climate of our most troubled schools. As useful as smaller classes had been shown to be in Tennessee, in California they could not solve – but rather highlighted – problems of teacher qualification and severe shortages in resources. (p. 2)

In reference to school size, Friedkin and Necochea (1988) found that “in the empirical literature on the relationship between the size and performance of school systems one finds reports of negative, negligible, and positive associations” (p. 237). Friedkin and Necochea (1988) went on to “examine the relationship for both schools and school districts in light of the new hypotheses about the mechanisms through which the size of a school system influences system performance” (p.237). Friedkin and Necochea (1988) discovered that “school system size has strong negative effects on performance that are eliminated, but not strongly reversed, in high socioeconomic status settings” (p. 237).

In 1968, Herbert J. Kiesling conducted a study that investigated “the question of school characteristics and achievement” (Kiesling, 1968, as cited in Fowler, Walberg, 1991). The findings displayed a “negative relationship between achievement tests (math and verbal ability tests) and school size” (Kiesling, 1968, as cited in Fowler, Walberg, 1991).

Current literature on school size and student achievement exposes different findings under each category. Studies have been conducted that discuss the importance of school size in relation to student achievement, whereas much of the research is in support of small schools and investigating the enrollment parameters that define small schools.

Effects of School Reform

Research showed that schools and school districts are constantly seeking new methods of providing the level of school reform necessary to improve student

achievement. Examining current school reform efforts will allow for future researchers to compare and contrast previous undertakings to current and future efforts to improve student achievement.

Rubenstein (2007) studied the Chugach School District, in South Central Alaska. In the early 1990s, the Chugach School District had students who could barely read, graduates struggling to maintain employment, and the district only produced a few college graduates over the course of two decades. In 1994, the school district saw a need for reform based on their low graduation rates, the high teacher turnover, and through complaints from business leaders that the graduates of the Chugach School District lacked the basic skills. The school district created a Quality School Model. The Quality School Model is an individualized standards-based model where the students take control of their education. A student can advance through the academic levels at any given time throughout their academic career. The outcome of this model has proven that school reform, when implemented correctly, can benefit all involved parties. Rubenstein (2007) found the following

Now, more than 80 percent of Chugach students who took the state's third-grade and ninth-grade exams last year passed in reading, and more than 60 percent passed in math. Of the twenty-five graduates the district has tracked since 2001, fifteen are enrolled in college or have already graduated, five work full time, two are in the military, and two are stay-at-home moms. Chugach can legally fund enrollment for students until age twenty-one, though every student over eighteen counts against the graduation rate under the No Child Left Behind Act. (p. 29).

Sunderman et al (2004) found common results when studying two groups of educators from urban school districts in Fresno, California and Richmond, Virginia. One recommendation found was that “schools need additional resources, but not just more money” (Sunderman et al, 2004). The teachers in both school districts recommended that more supplemental educational services be available to assist in “developing coherent instructional programs” (Sunderman et al, 2004). In a similar study, Sofo (2008) researched school district reform that took place in the Freedom Area School District in Freedom, Pennsylvania. This research detailed how one school district modified its instructional model to focus on “The New 4 R’s of rigor, relevance, relationships, and reflection” and took a “classroom-level intervention to support struggling learners” to facilitate its major components of its reform. Although Freedom Area School Districts’ efforts began in the classroom, the effects of the initiative are recognized throughout the schools and the school district.

Ford (2008) witnessed school reform first-hand as a principal of Johnsvie Village School. Johnsvie Village School serviced a heavily transient community which often made school reform difficult to prepare for. Over the course of three years, Johnsvie Village School was able to create and implement an instructional plan that benefited all students and, “as a result, managed a steady, incremental rise in reading, writing, and mathematics” (Ford, 2008).

The desire for school reform can directly be connected to the enactment of the No Child Left Behind Act of 2001 (NCLB). Fursarelli (2004) stated “NCLB establishes a comprehensive framework of standards, testing, and accountability absent in previous federal legislation, and in the process, it removes some discretion from local education

authorities in determining what the goals and outcomes of education should be” (p. 72). Fursarelli (2004) studied the potential impact of NCLB on minority groups and found that “the promise of NCLB to enhance equity and opportunity by reducing the achievement gap will likely remain unfulfilled due to insufficient funding and an overly simplistic definition of the achievement gap” (p. 71). Mathis (2003) carried similar sentiments in his study. Mathis (2003) found the following:

The primary promised benefit of NCLB is that 95% of all student groups will reach their state test standards by 2014. Obviously, we don't know if that goal can or will be reached. But if the system is not adequately funded, then reaping that benefit is a remote and forlorn hope (p. 683).

Fursarelli and Mathis both agreed that NCLB holds a negative outlook on student success based on funding issues; however, the American Federation of Teachers had a more optimistic approach to curving the complexities of NCLB. The American Teacher (2009) states the American Federation of Teachers plans to do the following:

Providing universal early childhood education, starting with low-income households; preparing young people for high-skill, high-demand “green jobs”; providing a boost to high-achieving students from low-income households; offering high-quality educational choices within the public school system; focusing intensely on improving low-performing schools; establishing community schools that serve the neediest children by bringing together services that they and their families need; ensuring that every school facility is a place where teachers can teach and students can learn; expanding teacher induction so that new teachers are not left to sink

or swim; creating an online teacher resource network with information on curriculum, lesson plans, and source documents to enhance teaching; and offering every student a well-rounded education that would stand in stark contrast to the “standardized test score competition” that has resulted from NCLB (p. 6).

Summary

The purpose of this chapter was to provide a review of related literature and present other relevant studies that would support the directive of this study. This chapter provided information on previous studies that were conducted to focus on the advantages and disadvantages of school size and how it directly affects student achievement. The review of related literature offered substantial information that confirmed that there is no optimal school size; however, studies have been performed to determine where the enrollment parameters should be set to benefit student achievement in specific geographic areas of the nation. It also presented studies that have benefited student achievement based on the geographic areas' need, therefore, further presenting evidence that there is no universal remedy available to increase student achievement. Chapter 2 explained the findings of relevant research pertaining to large schools and small schools while focusing on the many different endeavors taking place across the country to improve student achievement.

CHAPTER 3 METHODOLOGY

Introduction

Chapter 3 provides an overview of the methodology utilized to study the differences in student achievement when elementary school size is a factor. The chapter includes the following sections: a) statement of the problem, b) population and sample, c) data collection, d) data analysis, and e) summary.

Statement of the Problem

While there has been sufficient research on the effects of school size on student achievement and student personal growth, there is limited information, to date, regarding the effects of school size on student achievement in Florida public schools. This study attempted to determine if differences exist in student achievement at the elementary level when school size is a factor.

Population and Sample

The population for this study consisted of the elementary schools in the state of Florida. The sample was comprised of three elementary schools from each of the sixty-seven school districts in the state of Florida. For the purpose of this study, the parameters that determined the size of the school were as follows:

- A school with 1 - 300 students was considered small.
- A school with 301 – 599 students was considered medium.
- A school with 600 or more students was considered large.

Based on the parameters, there were a total of 130 schools within the sample.

Data Collection

The data collected for each school in the population included the number of students, the 2006 – 2007 FCAT Math scores for grades 3, 4, and 5, and the 2006 – 2007 FCAT Reading scores for grades 3, 4, and 5. At the time of this study, the 2007 – 2008 FCAT results were not available. All of the data used in this study was compiled from the Florida Indicator Reports generator and school accountability reports available on the Florida Department of Education website.

Dependent and Independent Variables

The dependent variables for each of the tests were the percent of proficient mathematics scores and the percent of proficient reading scores for the third, fourth and fifth grade students. The independent variable was school size.

Data Analysis

Analysis of the data was completed by the researcher. The findings are further discussed in Chapter 4.

In order to analyze the collected data, a one-way ANOVA statistical analysis was used to discover whether there was a difference in student achievement on the FCAT when school size is a factor.

Research Question 1

Research Question 1 asked what differences, if any, exist in student achievement, based on the school-wide FCAT Math assessment at the elementary level, when school size is a factor. A one-way ANOVA test was performed to determine if a significant difference existed between student achievement and school size. The dependent variable was the percent proficient in math for the third, fourth, and fifth grades. The independent variable was school size.

Research Question 2

Research Question 2 asked what differences, if any, exist in student achievement, based on the school-wide FCAT Reading assessment at the elementary level, when school size is a factor. A one-way ANOVA test was performed to determine if a significant difference existed between student achievement and school size. The dependent variable was the percent proficient in reading for the third, fourth, and fifth grades. The independent variable was school size.

Summary

Chapter 3 described the methodology and procedures used to analyze the difference in student achievement on the FCAT standardized tests when public elementary school size is a factor. Chapter 4 includes the data analysis and the presentation of results for this study.

CHAPTER 4 ANALYSIS OF DATA

Introduction

This study investigated standardized test scores in mathematics and reading of students in grades 3, 4, and 5, and public elementary school size in all 67 school districts in the state of Florida. The data was compiled from the Florida School Indicator Reports available at <http://data.fldoe.org/fsir/>. This chapter addresses the research questions and presents the statistical findings.

Description of Population

The population for this study consisted of the elementary schools in the state of Florida. The sample was comprised of three elementary schools from each of the 67 school districts in the state of Florida. However, the parameters set for this study eliminated 71 schools based on data not being reported for the 2006-2007 school year and multiple schools falling into one or more parameter. In the event that a school district had two or more schools fall under one parameter, the median population was found. That school was chosen to represent the parameter for that school district. For the purpose of this study, the parameters that determined the size of the school were as follows:

- A school with 1 - 300 students was considered small.
- A school with 301 – 599 students was considered medium.
- A school with 600 or more students was considered large.

Based on the parameters, there were a total of 130 schools within the sample.

All of the data used in this study was compiled from the Florida Indicator Reports generator and school accountability reports available on the Florida Department of Education website.

Table 1

Elementary Schools Studied

			Student
Group	District	School Name	Membership
1	Alachua	Chester Shell Elementary	245
1	Bradford	Hampton Elementary	191
1	Brevard	Robert L. Stevenson Elem	261
1	Calhoun	Carr Elementary School	197
1	Dade	Liberty City Elementary	264
1	Duval	Arlington Elementary School	293
1	Escambia	George S. Hallmark Elementary	260
1	Franklin	H.G. Brown Elementary School	224
1	Gadsden	Gadsden Elementary School	149
1	Glades	West Glades Elementary	254
1	Hamilton	South Hamilton Elementary	175
1	Holmes	Poplar School	165
1	Walton	Bay Elementary	274
1	Volusia	Ortona Elementary	277
1	St. Lucie	Ft. Pierce Magnet	290
1	Sumter	North Sumter Intermediate	252
1	Putnam	William D. Moseley Elementary	281
1	Santa Rosa	Chumuckla Elementary	267

			Student
Group	District	School Name	Membership
1	Orange	Hungerford Elementary	232
1	Pasco	DaySpring Academy	261
1	Pinellas	North Ward Elementary	277
1	Monroe	Sigsbee Elementary	260
1	Nassau	Bryceville Elementary	282
1	Okaloosa	Laurel Hill School	218
1	Levy	Yankeetown School	221
1	Liberty	Hosford Elementary Jr. High	214
1	Madison	Lee Elementary	230
1	Marion	Marion Charter	191
1	Lake	Altonna School	103
1	Lee	Ft. Myers Beach Elementary	190
2	Volusia	Bonner Elementary	436
2	Walton	Freeport Elementary	558
2	Washington	Vernon Elementary	558
2	St. Johns	Crookshank Elementary	523
2	St. Lucie	Parkway Elementary	591
2	Sumter	Lake Panasoffkee	517
2	Polk	Berkley Elementary	572
2	Putnam	James A. Long Elementary	592

			Student
Group	District	School Name	Membership
2	Sarasota	Englewood Elementary	451
2	Seminole	Geneva Elementary	502
2	Orange	Aloma Elementary	469
2	Osceola	P.M. Wells Charter Academy	486
2	Palm Beach	Allamanda Elementary	521
2	Pasco	Trinity Oaks Elementary	553
2	Pinellas	Azalea Elementary	599
2	Martin	Hobe Sound Elementary	592
2	Nassau	Atlantic Elementary	369
2	Okaloosa	Annette P. Edwins Elementary	435
2	Levy	Williston Elementary	498
2	Liberty	W.R. Tolar K-8	434
2	Manatee	Ballard Elementary	530
2	Marion	South Ocala Elementary	546
2	Lafayette	Lafayette Elementary	554
2	Lake	Eustis Elementary	525
2	Lee	Alva Elementary	461
2	Leon	Woodville Elementary	475
2	Alachua	Alachua Elementary	429
2	Baker	MacClenny Elementary	511

			Student
Group	District	School Name	Membership
2	Bradford	Lawtey Community School	308
2	Brevard	Coquina Elementary	449
2	Broward	Dania Elementary School	555
2	Charlotte	Peace River Elementary School	539
2	Citrus	Homosassa Elementary School	366
2	Clay	Clay Hill Elementary School	496
2	Collier	Avalon Elementary School	562
2	Columbia	Niblack Elementary School	339
2	Dixie	James M. Anderson Elementary	579
2	Duval	Arlington Heights Elementary School	582
2	Escambia	Allie Yniestra Elementary School	441
2	Gadsden	Greensboro Elementary School	435
2	Glades	Moore Haven Elementary School	440
2	Hamilton	Central Hamilton Elementary	546
2	Hardee	Wauchula Elementary	585
2	Hendry	Eastside Elementary	596
2	Highlands	Lake Country Elementary	559
2	Hillsborough	Broward Elementary	525
2	Holmes	Ponce De Leon Elementary	384
2	Indian River	Thompson Elementary	419

			Student
Group	District	School Name	Membership
2	Gulf	Port St. Joe Elementary	525
2	Jackson	Sneads Elementary	541
3	Alachua	C.W. Norton Elementary	703
3	Baker	J Franklyn Keller Elementary	693
3	Bay	Patronis Elementary	916
3	Bradford	Southside Elementary	620
3	Brevard	Discovery Elementary	960
3	Broward	Challenger Elementary School	1221
3	Calhoun	Blountstown Elementary School	630
3	Charlotte	Vineland Elementary School	910
3	Citrus	Citrus Springs Elementary School	958
3	Clay	Lake Asbury Elementary School	1384
3	Collier	Laurel Oak Elementary School	1196
3	Columbia	Summers Elementary School	877
3	DeSoto	Memorial Elementary School	939
3	Duval	Sabal Palm Elementary School	1259
3	Escambia	Hellen Caro Elementary School	858
3	Flagler	Belle Terre Elementary School	1383
		George W. Munroe Elementary	
3	Gadsden	School	815

			Student
Group	District	School Name	Membership
3	Hendry	Country Oaks Elementary	825
3	Hernando	John D. Floyd Elementary	1483
3	Highlands	Sun 'N Lake Elementary	885
3	Hillsborough	Boyette Springs Elementary	1062
3	Holmes	Bonifay Elementary	690
3	Indian River	Glendale Elementary	626
3	Volusia	Deltona Lakes Elementary	1013
3	Wakulla	Crawfordville Elementary	827
3	Walton	Maude Saunders Elementary	748
3	Washington	Kate M. Smith Elementary	851
3	St. Johns	Mill Creek Elementary	1319
3	St. Lucie	Rivers Edge Elementary	857
3	Sumter	Bushnell Elementary	789
3	Suwannee	Suwannee Elementary	699
3	Taylor	Taylor County Elementary	683
3	Polk	Alta Vista Elementary	951
3	Putnam	Interlachen Elementary	809
3	Santa Rosa	Berryhill Elementary	983
3	Sarasota	Ashton Elementary	877
3	Seminole	Bear Lake Elementary	1076

			Student
Group	District	School Name	Membership
3	Palm Beach	Binks Forest Elementary	1178
3	Pasco	Sand Pine Elementary	1034
3	Pinellas	Cypress Woods Elementary	750
3	Martin	Palm City Elementary	900
3	Nassau	Hilliard Elementary	732
3	Okaloosa	Antioch Elementary	866
3	Okeechobee	Everglades Elementary	707
3	Levy	Chiefland Elementary	829
3	Madison	Madison County Central School	820
3	Manatee	Freedom Elementary	766
3	Marion	Maplewood Elementary	875
3	Jefferson	Jefferson County Elementary	654
3	Lake	Lost Lake Elementary	1463
3	Lee	Gulf Elementary	1359
3	Leon	Gilchrist Elementary	917
3	Dade	Ernest R Graham Elementary	2176
3	Union	Lake Butler Elementary School	955

Research Question 1

What differences, if any, exist in student achievement, based on the school-wide FCAT Math at the elementary level, when school size is a factor?

Descriptive statistics for the population from the third, fourth, and fifth grade FCAT Math results, including comparative means and standard deviations, are depicted in Table 2. The groups are denoted as followed:

- Group 1 – small schools with a population of 1 – 300 students.
- Group 2 – medium schools with a population of 301 – 599 students.
- Group 3 – large schools with a population of 600 or more students.

The descriptive statistics show that large schools performed the highest throughout the state of Florida on FCAT Math, followed by medium schools and then by small schools. Based on the One-Way ANOVA test, there was no statistically significant difference found ($F_{(2, 127)} = 3.014$ $p > .05$).

Table 2

Descriptive Statistics of FCAT Math Proficiency Based on School Size

Group	Mean	Standard Deviation	N
Small Schools (1)	.6342	.15224	29
Medium Schools (2)	.6380	.13139	50
Large Schools (3)	.6969	.13293	51
Total	.6603	.13897	130

Research Question 2

What differences, if any, exist in student achievement, based on the school-wide FCAT Reading at the elementary level, when school size is a factor?

Descriptive statistics for the population from the third, fourth, and fifth grade FCAT Reading results, including comparative means and standard deviations, are depicted in Table 3. The groups are denoted as followed:

- Group 1 – small schools with a population of 1 – 300 students.
- Group 2 – medium schools with a population of 301 – 599 students.
- Group 3 – large schools with a population of 600 or more students.

The descriptive statistics indicate that large schools performed the highest throughout the state of Florida on FCAT Reading, followed by small schools and then by medium schools. Based on the One-Way ANOVA test, a statistically significant difference was found ($F_{(2, 127)} = 4.539$ $p < .05$). 6.7% of variability is explained by school size, but not enough to explain how much of a factor school size is to student

achievement. A Post Hoc test was performed to determine where the significance lay. Due to having uneven group sizes, the Scheffe test was performed to determine where the significance lay. The Scheffe test concluded that the significance lay between medium and large schools. Based upon the Scheffe post hoc analysis, large schools scored significantly better than medium schools. This difference contributed to the significant results of the one way ANOVA.

Table 3

Descriptive Statistics of FCAT Reading Proficiency Based on School Size

Group	Mean	Standard Deviation	N
Small Schools (1)	.6972	.13970	29
Medium Schools (2)	.6656	.10886	50
Large Schools (3)	.7372	.11739	51
Total	.7008	.12282	130

Summary

Chapter 4 presented an analysis of data collected that framed the course of this study. Chapter 5 provides a summary and discussion of the results, conclusions, implementations and recommendations for practice, and recommendations for future research.

CHAPTER 5 SUMMARY AND RECOMMENDATIONS

Introduction

This chapter presents a review of the problem statement, methodology, and data analysis for the study on school size and student achievement of elementary school students on the FCAT Reading and FCAT Math standardized tests. Chapter 5 also provides a summary, conclusion and recommendations that were derived from the data analysis.

Statement of Problem

While there has been sufficient research on the effects of school size on student achievement and student personal growth, there is limited information, to date, regarding the effects of school size on student achievement in Florida public schools. This study attempted to determine if differences exist in student achievement at the elementary level when school size is a factor.

Methodology

Population

The population for this study consisted of the elementary schools in the state of Florida. The sample was comprised of three elementary schools from each of the 67 school districts in the state of Florida.

Data Collection

For the purpose of this study, the parameters that determined the size of the school were as follows:

- A school with 1 - 300 students was considered small.
- A school with 301 – 599 students was considered medium.
- A school with 600 or more students was considered large.

Based on the parameters, there were a total of 130 schools within the sample.

All of the data used in this study was compiled from the Florida Indicator Reports generator and school accountability reports available on the Florida Department of Education website.

Data Analysis

Analysis of the data was completed by the researcher. In order to analyze the collected data, a one-way ANOVA statistical analysis was used to discover whether there was a difference in student achievement on the FCAT when school size is a factor.

Summary and Discussion of Findings

Two research questions guided the course of this study. The following section discusses the results and data analysis for each question.

Research Question 1

What differences, if any, exist in student achievement, based on the school-wide FCAT Math at the elementary level, when school size is a factor?

Based on the results of the one-way ANOVA test, large schools had a higher percentage of proficiency among its students ($\mu = .6969$) than both medium ($\mu = .6380$) and small schools ($\mu = .6342$). However, there was no statistically significant difference in any of the math analyses.

Research Question 2

What differences, if any, exist in student achievement, based on the school-wide FCAT Reading at the elementary level, when school size is a factor?

Based on the results of the one-way ANOVA test, large schools had a higher percentage of proficiency among its students ($\mu = .7372$) than both small schools ($\mu = .6973$) and medium schools ($\mu = .6656$). The findings of this study showed that all reading analyses were significant. The size of a school is a potential factor in explaining the differences in mean FCAT proficiency rates. Based on the Scheffe Post Hoc Tests, differences were significant only between medium and large schools, however, not between small and medium schools or small and large schools.

Conclusion

The study has indicated that school size is not a factor that contributes to the differences in proficiency rate of public elementary school students on FCAT Math in the third, fourth, and fifth grades. Findings in this study suggest that for undetermined reasons, elementary school students in large schools performed better on FCAT Reading than students in small schools and medium schools.

There are multiple factors that could contribute to the findings of this study. Resources, such as advanced technology and the availability of Reading Coaches, are

elements that could have contributed to there being a statistically significant difference between medium schools and large schools on FCAT Reading. In compliance to the No Child Left Behind Act (NCLB), school choice is an aspect to take into consideration when examining student achievement when school size is a factor. Through NCLB, parents have the right to send their children to better performing schools, which possible creates an adverse affect on underperforming schools' population and FCAT scores. Additional facets to take into consideration when examining student achievement when school size is a factor are student to teacher ratios and the variety of programs offered at the various schools.

Recommendations for Practice

The findings of this study can be used as a catalyst for school size reform in the state of Florida. Based on this study, it is clear that schools that are considered large are more effective in reading performance. Although this study displayed results that show evidence of no statistical significant difference in mathematics achievement, research has shown that small schools offer “fewer discipline problems, lower dropout rates, higher levels of student participation, steadier progress toward graduation and more learning” (Raywid, 1997). The research strongly suggests that there are underlying factors that should be investigated to find out what is causing the ambiguity of the results of this study. The following are recommendations for practice:

1. Focus on which practices in large schools which can further benefit small and medium schools in reading achievement.

2. Have political decision makers and education leaders use this information to discuss the importance of school size and student achievement, while focusing on how to improve mathematics achievement.

Recommendations for Future Research

“From reviewing the literature, it appears that there is not an ideal or optimal district or school size that is universally agreed upon” (Bard et al, 2006). Based on the analysis of the data within this study the following recommendations for future research include:

1. As research supports the effects of small schools, more conclusive research should be performed to settle discrepancies between appropriate school size parameters before new laws are presented for discussion.
2. An expansion of this study would examine school size and student achievement in the state of Florida over the course of five to seven years to observe whether there is a change in the level of significance of each variable.
3. Further interest could be found in determining what factors are to be considered in determining why the FCAT Reading results differ from the FCAT Math results among the different size schools.
4. Further investigation of this study would allow for researchers to determine the factors that allowed for larger schools to perform better on FCAT Reading.
5. A study can be developed to determine why there was no statistically significant difference between the small, medium, and large schools in FCAT Math student achievement.

6. Future studies could include controlling school location (urban, suburban, and rural) throughout the state of Florida as an additional independent variable.
7. Develop future studies that analyze additional variables that could help provide more detailed information on precisely how school size affects student achievement specifically in the state of Florida (i.e. school location, school programs, school resources, socio-economic status, etc).
8. An expansion of this study would examine school size and student achievement in the state of Florida for various student populations (i.e., White, Black, Hispanic, SES, ESE).
9. Another expansion of this study would include examining the difference between the delivery systems in small schools, medium schools, and large schools.

Law makers should be “cautious about making broad policy decisions about school size” (Lashway, 1999). As other studies are developed, specifically for the state of Florida, and analyzed, state law makers will be able to create legislation that will benefit student achievement while also putting limitations on school size.

APPENDIX A
MAP OF FLORIDA SCHOOL DISTRICTS

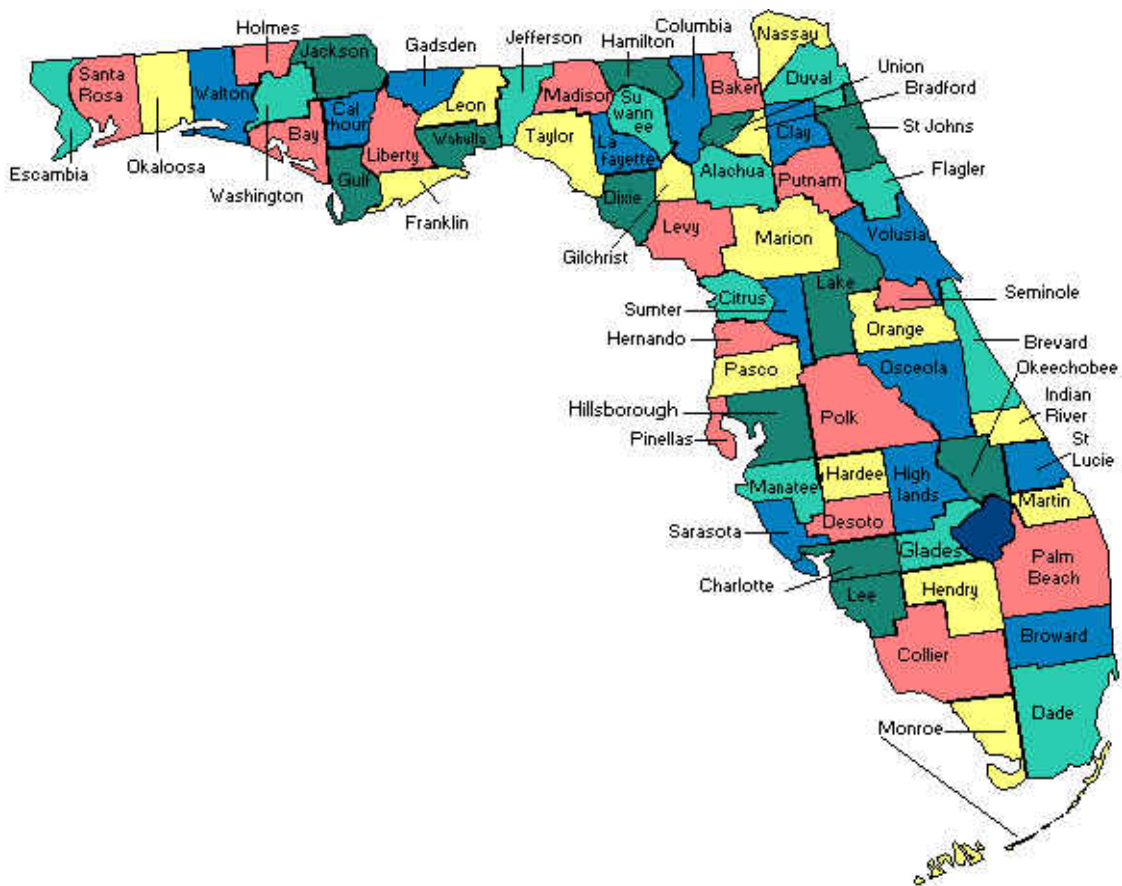


Figure 2: Map of Florida School Districts

APPENDIX B
FCAT READING DATA FOR GRADE 3

Table 4

FCAT Reading data for Grade 3

District	School Name – Group 1	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Alachua	Chester Shell Elementary	29	21	0	9.86	7.14	0
Bradford	Hampton Elementary	54	25	0	12.96	6	0
Brevard	Robert L. Stevenson Elem	14	48	36	6.16	21.12	15.84
Calhoun	Carr Elementary School	35	42	8	9.1	10.92	2.08
Dade	Liberty City Elementary	25	7	0	11	3.08	0
Duval	Arlington Elementary School	23	17	2	11.04	8.16	0.96
Escambia	George S. Hallmark Elem	50	21	0	12	5.04	0
Franklin	H.G. Brown Elementary School	37	29	0	12.95	10.15	0
Gadsden	Gadsden Elementary School	28	33	6	5.04	5.94	1.08
Glades	West Glades Elementary	51	21	0	27.03	11.13	0

District	School Name- Group 1	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Hamilton	South Hamilton Elementary	41	32	5	9.02	7.04	1.1
Holmes	Poplar School	32	24	12	8	6	3
Walton	Bay Elementary	30	35	16	11.1	12.95	5.92
Volusia	Ortona Elementary	36	22	6	18	11	3
St. Lucie	Ft. Pierce Magnet	32	34	2	16	17	1
Sumter	North Sumter Intermediate						
Santa Rosa	Chumuckla Elementary	32	37	12	13.12	15.17	4.92
Sarasota	Sarasota Suncost Academy	38	36	18	14.82	14.04	7.02
Orange	Hungerford Elementary	35	12	0	11.9	4.08	0
Pasco	DaySpring Academy	51	21	7	21.93	9.03	3.01
Pinellas	North Ward Elementary	52	19	5	21.84	7.98	2.1
Monroe	Sigsbee Elementary	37	24	5	14.06	9.12	1.9

District	School Name- Group 1	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Nassau	Bryceville Elementary	41	39	7	18.04	17.16	3.08
Okaloosa	Laurel Hill School	67	24	0	14.07	5.04	0
Levy	Yankeetown School	48	23	5	19.2	9.2	2
Liberty	Hosford Elementary Jr. High	33	30	12	10.89	9.9	3.96
Madison	Lee Elementary	33	31	8	11.88	11.16	2.88
Marion	Marion Charter	37	17	0	12.95	5.95	0
Lake	Altonna School	30	30	0	3	3	0
Lee	Ft. Myers Beach Elementary	19	55	13	5.89	17.05	4.03

District	School Name – Group 2	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Volusia	Bonner Elementary	25	12	0	15	7.2	0
Walton	Freeport Elementary	32	26	8	26.88	21.84	6.72
Washington	Vernon Elementary	35	24	5	41.3	28.32	5.9
St. Johns	Crookshank Elementary	42	18	3	28.14	12.06	2.01
St. Lucie	Parkway Elementary	47	13	2	58.75	16.25	2.5
Sumter	Lake Panasoffkee	31	43	10	23.87	33.11	7.7
Putnam	James A. Long Elementary	41	25	4	28.29	17.25	2.76
Santa Rosa	Bagdad Elementary	32	43	7	22.08	29.67	4.83
Sarasota	Englewood Elementary	34	34	9	25.16	25.16	6.66
Seminole	Geneva Elementary	30	33	8	24.9	27.39	6.64
Orange	Aloma Elementary	36	27	4	29.88	22.41	3.32
Osceola	P.M. Wells Charter Academy	38	22	8	27.74	16.06	5.84

District	School Name – Group 2	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Palm Beach	Allamanda Elementary	44	26	6	33.88	20.02	4.62
Pasco	Trinity Oaks Elementary	34	36	10	31.96	33.84	9.4
Pinellas	Azalea Elementary	33	25	8	35.31	26.75	8.56
Martin	Hobe Sound Elementary	41	26	9	36.9	23.4	8.1
Nassau	Atlantic Elementary	31	38	13	59.21	72.58	24.83
Okaloosa	Annette P. Edwins Elementary	39	25	9	26.91	17.25	6.21
Levy	Williston Elementary	30	30	6	48	48	9.6
Liberty	W.R. Tolar K-8	30	30	8	19.2	19.2	5.12
Manatee	Ballard Elementary	31	17	1	26.04	14.28	0.84
Marion	South Ocala Elementary	24	43	4	27.36	49.02	4.56
Lafayette	Lafayette Elementary	33	27	8	29.7	24.3	7.2
Lake	Eustis Elementary	29	30	19	22.91	23.7	15.01

District	School Name – Group 2	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Lee	Alva Elementary	33	30	9	28.38	25.8	7.74
Leon	Woodville Elementary	32	32	3	20.8	20.8	1.95
Baker	MacClenny Elementary	36	38	5	51.84	54.72	7.2
Bay	Lucille Moore Elementary	36	21	8	28.8	16.8	6.4
Bradford	Lawtey Community School	44	26	8	17.16	10.14	3.12
Brevard	Coquina Elementary	42	28	10	25.2	16.8	6
Broward	Dania Elementary School	38	22	3	37.24	21.56	2.94
Charlotte	Peace River Elementary	36	28	12	28.08	21.84	9.36
Citrus	Homosassa Elementary School	44	25	13	24.2	13.75	7.15
Clay	Clay Hill Elementary School	42	34	4	33.18	26.86	3.16
Collier	Avalon Elementary School	32	9	0	23.68	6.66	0

District	School Name – Group 2	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Columbia	Niblack Elementary School	43	5	3	15.91	1.85	1.11
Dixie	James M. Anderson Elem.	45	28	8	33.75	21	6
Duval	Arlington Heights Elem.	31	15	2	33.48	16.2	2.16
Escambia	Allie Yniestra Elem.	39	10	0	23.01	5.9	0
Gadsden	Greensboro Elementary School	37	3	2	22.2	1.8	1.2
Glades	Moore Haven Elementary	52	28	3	31.72	17.08	1.83
Hamilton	Central Hamilton Elementary	29	11	0	22.04	8.36	0
Hardee	Wauchula Elementary	42	29	6	43.68	30.16	6.24
Hendry	Eastside Elementary	39	17	2	47.97	20.91	2.46
Highlands	Lake Country Elementary	43	15	3	43.86	15.3	3.06

District	School Name – Group 2	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Hillsborough	Broward Elementary	34	16	4	28.22	13.28	3.32
Indian River	Thompson Elementary	38	18	0	27.74	13.14	0
Dade	Lakeview Elementary	42	32	2	37.8	28.8	1.8
Gulf	Port St. Joe Elementary	35	25	9	23.8	17	6.12
Jackson	Sneads Elementary	37	33	13	31.08	27.72	10.92

District	School Name – Group 3	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Alachua	C.W. Norton Elementary	42	28	11	43.68	29.12	11.44
Baker	J Franklyn Keller Elementary						
Bay	Patronis Elementary	32	31	25	43.2	41.85	33.75
Bradford	Southside Elementary	35	22	5	33.25	20.9	4.75
Brevard	Discovery Elementary	34	36	5	44.54	47.16	6.55
Broward	Challenger Elementary School	31	35	7	72.85	82.25	16.45
Calhoun	Blountstown Elementary	35	30	10	36.05	30.9	10.3
Charlotte	Vineland Elementary School	37	39	7	49.58	52.26	9.38
Citrus	Citrus Springs Elem.	34	40	13	51.68	60.8	19.76
Clay	Lake Asbury Elementary	41	38	6	80.77	74.86	11.82
Collier	Laurel Oak Elementary School	33	35	9	69.96	74.2	19.08

District	School Name – Group 3	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Columbia	Summers Elementary School	36	32	6	45	40	7.5
DeSoto	Memorial Elementary School	31	22	3	45.57	32.34	4.41
Duval	Sabal Palm Elementary School	36	40	6	78.48	87.2	13.08
Escambia	Hellen Caro Elementary School	34	38	13	42.5	47.5	16.25
Flagler	Belle Terre Elementary School	36	29	13	80.28	64.67	28.99
Gilchrist	Trenton Elementary School	28	40	4	29.12	41.6	4.16
Hendry	Country Oaks Elementary	39	17	2	47.97	20.91	2.46
Hernando	John D. Floyd Elementary	40	31	7	84	65.1	14.7
Highlands	Sun 'N Lake Elementary	33	20	10	45.21	27.4	13.7
Hillsborough	Boyette Springs Elementary	35	32	9	71.75	65.6	18.45
Holmes	Bonifay Elementary	36	37	3	43.2	44.4	3.6
Indian River	Glendale Elementary	35	33	11	40.25	37.95	12.65

District	School Name – Group 3	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Volusia	Deltona Lakes Elementary	35	30	4	55.3	47.4	6.32
Wakulla	Crawfordville Elementary	28	41	9	38.36	56.17	12.33
Walton	Maude Saunders Elementary	44	25	3	49.28	28	3.36
Washington	Kate M. Smith Elementary	40	32	9	63.2	50.56	14.22
St. Johns	Mill Creek Elementary	34	34	12	73.78	73.78	26.04
St. Lucie	Rivers Edge Elementary	33	32	13	45.87	44.48	18.07
Sumter	Bushnell Elementary	41	25	9	46.74	28.5	10.26
Suwannee	Suwannee Elementary	29	30	9	98.89	102.3	30.69
Taylor	Taylor County Elementary	47	25	6	111.86	59.5	14.28
Polk	Alta Vista Elementary	35	7	1	52.5	10.5	1.5
Putnam	Interlachen Elementary	37	32	7	41.81	36.16	7.91
Santa Rosa	Berryhill Elementary	31	40	15	50.22	64.8	24.3

District	School Name – Group 3	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Sarasota	Ashton Elementary	35	38	17	59.15	64.22	28.73
Orange	Palmetto Elementary	24	13	3	53.28	28.86	6.66
Palm Beach	Binks Forest Elementary	20	49	20	41.4	101.43	41.4
Pasco	Sand Pine Elementary	34	43	5	56.78	71.81	8.35
Pinellas	Cypress Woods Elementary	33	41	16	40.26	50.02	19.52
Martin	Palm City Elementary	25	47	20	39.75	74.73	31.8
Nassau	Hilliard Elementary	39	36	8	50.7	46.8	10.4
Okaloosa	Antioch Elementary	30	43	14	39.6	56.76	18.48
Okeechobee	Everglades Elementary	35	20	5	42	24	6
Levy	Chiefland Elementary	38	16	9	48.64	20.48	11.52
Madison	Madison County Central	37	16	1	44.03	19.04	1.19

District	School Name- Group 3	FCAT Reading 3rd grade Percent Level 3	FCAT Reading 3rd grade Percent Level 4	FCAT Reading 3rd grade Percent Level 5	Total # of students FCAT Read3 L3	Total # of students FCAT Read3 L4	Total # of students FCAT Read3 L5
Manatee	Freedom Elementary	35	29	6	40.25	33.35	6.9
Marion	Maplewood Elementary	43	20	3	49.02	22.8	3.42
Jefferson	Jefferson County Elementary	41	19	5	37.31	17.29	4.55
Lake	Lost Lake Elementary	30	40	14	74.1	98.8	34.58
Lee	Gulf Elementary	38	40	9	90.06	94.8	21.33
Leon	Gilchrist Elementary	20	46	23	28.6	65.78	32.89
Dade	Ernest R Graham Elementary	40	31	3	120.4	93.31	9.03
Union	Lake Butler Elementary School	41	35	7	67.24	57.4	11.48

APPENDIX C
FCAT READING DATA FOR GRADE 4

Table 5

FCAT Reading data for Grade 4

District	School Name – Group 1	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Alachua	Chester Shell Elementary	36	19	3	12.96	6.84	1.08
Bradford	Hampton Elementary	50	21	0	12	5.04	0
Brevard	Robert L. Stevenson Elem	17	38	44	11.22	25.08	29.04
Calhoun	Carr Elementary School	34	37	18	12.92	14.06	6.84
Dade	Liberty City Elementary	43	15	3	17.2	6	1.2
Duval	Arlington Elementary School	33	16	6	16.83	8.16	3.06
Escambia	George S. Hallmark Elem	22	16	0	9.9	7.2	0
Franklin	H.G. Brown Elementary	47	18	0	7.99	3.06	0
Gadsden	Gadsden Elementary School	29	41	12	4.93	6.97	2.04
Glades	West Glades Elementary	21	28	5	9.03	12.04	2.15

District	School Name – Group 1	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Hamilton	South Hamilton Elementary	40	28	0	10	7	0
Holmes	Poplar School	41	18	5	9.02	3.96	1.1
Walton	Bay Elementary	24	49	12	9.84	20.09	4.92
Volusia	Ortona Elementary	33	30	7	15.18	13.8	3.22
St. Lucie	Ft. Pierce Magnet	33	29	6	16.17	14.21	2.94
Sumter	North Sumter Intermediate	38	16	5	48.64	20.48	6.4
Santa Rosa	Chumuckla Elementary	30	42	9	9.9	13.86	2.97
Sarasota	Sarasota Suncost Academy	30	50	5	6	10	1
Orange	Hungerford Elementary	28	15	0	10.92	5.85	0
Pasco	DaySpring Academy	40	38	4	19.2	18.24	1.92
Pinellas	North Ward Elementary	35	35	0	15.05	15.05	0
Monroe	Sigsbee Elementary	37	37	6	12.95	12.95	2.1

District	School Name – Group 1	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Nassau	Bryceville Elementary	32	45	8	12.16	17.1	3.04
Okaloosa	Laurel Hill School	46	23	8	17.94	8.97	3.12
Levy	Yankeetown School	32	11	7	8.96	3.08	1.96
Liberty	Hosford Elementary Jr. High	40	37	3	12	11.1	0.9
Madison	Lee Elementary	51	34	6	17.85	11.9	2.1
Marion	Marion Charter	30	15	9	9.9	4.95	2.97
Lake	Altonna School	27	18	14	5.94	3.96	3.08
Lee	Ft. Myers Beach Elementary	22	46	24	8.14	17.02	8.88

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Volusia	Bonner Elementary	32	13	0	19.2	7.8	0
Walton	Freeport Elementary	35	31	4	35	31	4
Washington	Vernon Elementary	36	22	6	37.08	22.66	6.18
St. Johns	Crookshank Elementary	45	14	4	34.65	10.78	3.08
St. Lucie	Parkway Elementary	46	13	0	40.02	11.31	0
Sumter	Lake Panasoffkee	31	30	6	26.04	25.2	5.04
Putnam	James A. Long Elementary	40	10	1	30.8	7.7	0.77
Santa Rosa	Bagdad Elementary	35	32	10	26.95	24.64	7.7
Sarasota	Englewood Elementary	27	35	14	19.17	24.85	9.94
Seminole	Geneva Elementary	37	32	7	41.07	35.52	7.77
Orange	Aloma Elementary	42	23	8	29.82	16.33	5.68
Osceola	P.M. Wells Charter Academy	41	19	1	28.7	13.3	0.7

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Palm Beach	Allamanda Elementary	34	25	16	23.12	17	10.88
Pasco	Trinity Oaks Elementary	31	40	5	28.21	36.4	4.55
Pinellas	Azalea Elementary	28	29	3	28	29	3
Martin	Hobe Sound Elementary	35	35	13	34.65	34.65	12.87
Nassau	Atlantic Elementary						
Okaloosa	Annette P. Edwins Elem	35	37	7	24.85	26.27	4.97
Levy	Williston Elementary	27	28	8	46.71	48.44	13.84
Liberty	W.R. Tolar K-8	37	21	4	24.79	14.07	2.68
Manatee	Ballard Elementary	34	19	4	32.64	18.24	3.84
Marion	South Ocala Elementary	21	41	17	17.01	33.21	13.77
Lafayette	Lafayette Elementary	38	23	6	34.2	20.7	5.4
Lake	Eustis Elementary	37	26	4	31.08	21.84	3.36

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Lee	Alva Elementary	34	23	12	27.88	18.86	9.84
Leon	Woodville Elementary	27	21	5	17.01	13.23	3.15
Baker	MacClenny Elementary						
Bay	Lucille Moore Elementary	29	31	6	22.62	24.18	4.68
Bradford	Lawtey Community School	33	29	8	16.83	14.79	4.08
Brevard	Coquina Elementary	39	29	4	19.11	14.21	1.96
Broward	Dania Elementary School	28	24	3	21.28	18.24	2.28
Charlotte	Peace River Elementary	41	20	5	31.16	15.2	3.8
Citrus	Homosassa Elementary	30	48	15	12	19.2	6
Clay	Clay Hill Elementary School	48	33	5	35.04	24.09	3.65
Collier	Avalon Elementary School	34	16	3	26.18	12.32	2.31

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Columbia	Niblack Elementary School	41	11	0	15.17	4.07	0
Dixie	James M. Anderson Elem.	35	28	6	23.8	19.04	4.08
Duval	Arlington Heights Elem.	32	15	4	23.36	10.95	2.92
Escambia	Allie Yniestra Elem.	22	16	0	9.9	7.2	0
Gadsden	Greensboro Elementary	37	6	0	19.24	3.12	0
Glades	Moore Haven Elementary	35	20	2	21	12	1.2
Hamilton	Central Hamilton Elementary	36	7	2	20.88	4.06	1.16
Hardee	Wauchula Elementary	35	29	3	34.65	28.71	2.97
Hendry	Eastside Elementary	35	31	1	47.6	42.16	1.36
Highlands	Lake Country Elementary	27	22	1	25.38	20.68	0.94
Hillsborough	Broward Elementary	32	21	4	26.24	17.22	3.28

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Indian River	Thompson Elementary	20	22	0	11.8	12.98	0
Dade	Lakeview Elementary	41	26	8	36.08	22.88	7.04
Gulf	Port St. Joe Elementary	35	27	9	28.7	22.14	7.38
Jackson	Sneads Elementary	31	31	5	22.94	22.94	3.7

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Alachua	C.W. Norton Elementary	31	36	12	33.17	38.52	12.84
Baker	J Franklyn Keller Elem.	37	25	5	124.69	84.25	16.85
Bay	Patronis Elementary	34	36	12	51.68	54.72	18.24
Bradford	Southside Elementary	32	24	7	28.16	21.12	6.16
Brevard	Discovery Elementary	38	21	3	46.74	25.83	3.69
Broward	Challenger Elementary	40	28	6	89.6	62.72	13.44
Calhoun	Blountstown Elementary	33	27	12	28.05	22.95	10.2
Charlotte	Vineland Elementary	30	31	8	45.9	47.43	12.24
Citrus	Citrus Springs Elem.	36	29	9	64.8	52.2	16.2
Clay	Lake Asbury Elementary	33	32	5	61.38	59.52	9.3
Collier	Laurel Oak Elementary	34	37	10	62.9	68.45	18.5
Columbia	Summers Elementary	33	31	3	39.6	37.2	3.6

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
DeSoto	Memorial Elementary	38	14	3	49.4	18.2	3.9
Duval	Sabal Palm Elementary	34	38	9	61.2	68.4	16.2
Escambia	Hellen Caro Elementary	29	31	13	52.49	56.11	23.53
Flagler	Belle Terre Elementary	36	32	8	88.92	79.04	19.76
Gilchrist	Trenton Elementary School	39	38	5	42.9	41.8	5.5
Hendry	Country Oaks Elementary	35	31	1	47.6	42.16	1.36
Hernando	John D. Floyd Elementary	37	32	5	85.47	73.92	11.55
Highlands	Sun 'N Lake Elementary	26	34	6	34.32	44.88	7.92
Hillsborough	Boyette Springs Elementary	26	32	11	47.32	58.24	20.02
Holmes	Bonifay Elementary	34	31	7	43.86	39.99	9.03
Indian River	Glendale Elementary	29	32	9	28.71	31.68	8.91
Volusia	Deltona Lakes Elementary	40	27	3	74.4	50.22	5.58

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Wakulla	Crawfordville Elementary	34	33	7	42.5	41.25	8.75
Walton	Maude Saunders Elementary	27	29	7	27.54	29.58	7.14
Washington	Kate M. Smith Elementary	40	28	7	60.4	42.28	10.57
St. Johns	Mill Creek Elementary	29	36	11	52.78	65.52	20.02
St. Lucie	Rivers Edge Elementary	29	34	12	40.31	47.26	16.68
Sumter	Bushnell Elementary	30	29	10	34.5	33.35	11.5
Suwannee	Suwannee Elementary						
Taylor	Taylor County Elementary	36	26	4	78.48	56.68	8.72
Polk	Alta Vista Elementary	34	7	0	51.34	10.57	0
Putnam	Interlachen Elementary	36	29	5	41.04	33.06	5.7
Santa Rosa	Berryhill Elementary	31	41	13	47.74	63.14	20.02
Sarasota	Ashton Elementary	31	40	17	48.67	62.8	26.69

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Orange	Palmetto Elementary	32	15	2	56.64	26.55	3.54
Palm Beach	Binks Forest Elementary	25	40	27	59.25	94.8	63.99
Pasco	Sand Pine Elementary	40	31	8	71.2	55.18	14.24
Pinellas	Cypress Woods Elementary	32	44	16	37.76	51.92	18.88
Martin	Palm City Elementary	27	41	18	42.39	64.37	28.26
Nassau	Hilliard Elementary	43	39	8	52.46	47.58	9.76
Okaloosa	Antioch Elementary	34	41	14	42.5	51.25	17.5
Okeechobee	Everglades Elementary	44	14	2	55	17.5	2.5
Levy	Chiefland Elementary	37	28	4	42.18	31.92	4.56
Madison	Madison County Central	44	9	1	57.64	11.79	1.31
Manatee	Freedom Elementary	37	30	5	41.81	33.9	5.65

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Marion	Maplewood Elementary	33	29	11	41.58	36.54	13.86
Jefferson	Jefferson County Elementary	39	14	2	25.74	9.24	1.32
Lake	Lost Lake Elementary	29	40	12	69.89	96.4	28.92
Lee	Gulf Elementary	37	32	12	85.84	74.24	27.84
Leon	Gilchrist Elementary	22	44	28	28.6	57.2	36.4
Dade	Ernest R Graham Elem	30	29	8	96.6	93.38	25.76
Union	Lake Butler Elementary	37	27	12	63.64	46.44	20.64

APPENDIX D
FCAT READING DATA FOR GRADE 5

Table 6

FCAT Reading data for Grade 5

District	School Name – Group 1	FCAT Reading 5th grade Percent Level 3	FCAT Reading 5th grade Percent Level 4	FCAT Reading 5th grade Percent Level 5	Total # of students FCAT Read5 L3	Total # of students FCAT Read5 L4	Total # of students FCAT Read5 L5
Alachua	Chester Shell Elementary	26	20	3	9.10	7.00	1.05
Bradford	Hampton Elementary	31	44	0	4.96	7.04	0.00
Brevard	Robert L. Stevenson Elem	13	62	25	7.93	37.82	15.25
Calhoun	Carr Elementary School	28	32	16	7.00	8.00	4.00
Dade	Liberty City Elementary	34	11	0	12.92	4.18	0.00
Duval	Arlington Elementary	54	12	0	22.14	4.92	0.00
Escambia	George S. Hallmark Elem	31	14	0	15.81	7.14	0.00
Franklin	H.G. Brown Elementary	35	23	0	10.85	7.13	0.00
Gadsden	Gadsden Elementary	33	56	6	5.94	10.08	1.08
Glades	West Glades Elementary	35	6	3	11.90	2.04	1.02

District	School Name – Group 1	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Hamilton	South Hamilton Elem.	27	27	18	2.97	2.97	1.98
Holmes	Poplar School	42	33	0	10.08	7.92	0.00
Walton	Bay Elementary	24	41	11	8.88	15.17	4.07
Volusia	Ortona Elementary	35	27	11	12.95	9.99	4.07
St. Lucie	Ft. Pierce Magnet	37	17	4	19.98	9.18	2.16
Sumter	North Sumter Intermediate	34	23	3	40.12	27.14	3.54
Putnam	William D. Moseley Elem	34	5	5	14.96	2.20	2.20
Sarasota	Sarasota Suncost Acad.						
Orange	Hungerford Elementary	43	19	5	9.03	3.99	1.05
Pasco	DaySpring Academy	48	29	8	23.04	13.92	3.84
Pinellas	North Ward Elementary	49	35	3	18.13	12.95	1.11
Monroe	Sigsbee Elementary	45	39	3	13.95	12.09	0.93

District	School Name – Group 1	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Nassau	Bryceville Elementary	30	44	6	16.20	23.76	3.24
Okaloosa	Laurel Hill School	51	27	0	18.87	9.99	0.00
Levy	Yankeetown School	37	29	2	15.17	11.89	0.82
Liberty	Hosford Elem. Jr. High	40	52	0	10.00	13.00	0.00
Madison	Lee Elementary	39	33	6	7.02	5.94	1.08
Marion	Marion Charter	27	23	5	5.94	5.06	1.10
Lake	Altonna School	36	9	0	3.96	0.99	0.00
Lee	Ft. Myers Beach Elem	37	26	11	12.95	9.10	3.85

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Volusia	Bonner Elementary	41	5	2	25.01	3.05	1.22
Walton	Freeport Elementary	49	35	5	41.65	29.75	4.25
Washington	Vernon Elementary						
St. Johns	Crookshank Elementary	35	21	4	23.80	14.28	2.72
St. Lucie	Parkway Elementary	41	14	0	28.70	9.80	0.00
Sumter	Lake Panasoffkee	39	30	8	34.32	26.40	7.04
Polk	Berkley Elementary	33	34	5	29.04	29.92	4.40
Santa Rosa	Bagdad Elementary	35	27	9	30.80	23.76	7.92
Sarasota	Englewood Elementary	38	32	11	31.16	26.24	9.02
Seminole	Geneva Elementary	39	37	9	38.22	36.26	8.82
Orange	Aloma Elementary	43	31	1	28.81	20.77	0.67
Osceola	P.M. Wells Charter Acad.	41	20	9	28.70	14.00	6.30

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Palm Beach	Allamanda Elementary	38	36	3	29.64	28.08	2.34
Pasco	Trinity Oaks Elementary	37	43	0	33.67	39.13	0.00
Pinellas	Azalea Elementary	36	35	6	34.92	33.95	5.82
Martin	Hobe Sound Elementary	25	42	12	22.25	37.38	10.68
Nassau	Atlantic Elementary						
Okaloosa	Annette P. Edwins Elem	41	42	3	31.16	31.92	2.28
Levy	Williston Elementary	33	27	1	52.80	43.20	1.60
Liberty	W.R. Tolar K-8	29	27	5	16.24	15.12	2.80
Manatee	Ballard Elementary	47	17	3	33.84	12.24	2.16
Marion	South Ocala Elementary	40	35	4	31.20	27.30	3.12
Lafayette	Lafayette Elementary	29	33	3	21.75	24.75	2.25
Lake	Eustis Elementary	28	32	9	24.64	28.16	7.92

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Lee	Alva Elementary	42	28	11	26.88	17.92	7.04
Leon	Woodville Elementary	45	22	5	28.80	14.08	3.20
Alachua	Alachua Elementary	30	28	4	37.50	35.00	5.00
Bay	Lucille Moore Elementary	38	30	3	33.44	26.40	2.64
Bradford	Lawtey Community School	27	14	2	11.88	6.16	0.88
Brevard	Coquina Elementary	43	37	2	19.78	17.02	0.92
Broward	Dania Elementary School	41	13	4	31.98	10.14	3.12
Charlotte	Peace River Elementary	42	23	3	36.12	19.78	2.58
Citrus	Homosassa Elementary	29	45	12	14.79	22.95	6.12
Clay	Clay Hill Elementary	42	31	8	29.82	22.01	5.68

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Collier	Avalon Elementary School	46	18	0	33.12	12.96	0.00
Columbia	Niblack Elementary	34	5	0	14.96	2.20	0.00
Dixie	James M. Anderson Elem.	48	28	4	24.00	14.00	2.00
Duval	Arlington Heights Elem.	38	14	1	39.52	14.56	1.04
Escambia	Allie Yniestra Elem.	31	14	0	15.81	7.14	0.00
Gadsden	Greensboro Elementary	34	23	2	21.08	14.26	1.24
Glades	Moore Haven Elem.	33	22	5	19.80	13.20	3.00
Hamilton	Central Hamilton Elem	37	12	1	29.97	9.72	0.81
Hardee	Wauchula Elementary	33	35	4	23.76	25.20	2.88
Hendry	Eastside Elementary	43	22	3	49.88	25.52	3.48
Highlands	Lake Country Elementary	37	33	4	34.41	30.69	3.72
Hillsborough	Broward Elementary	34	16	1	27.88	13.12	0.82

District	School Name – Group 2	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Holmes	Ponce De Leon Elem	49	21	3	34.30	14.70	2.10
Dade	Lakeview Elementary	44	23	0	27.28	14.26	0.00
Gulf	Port St. Joe Elementary	34	28	6	27.88	22.96	4.92
Jackson	Sneads Elementary	25	39	9	20.00	31.20	7.20

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Alachua	C.W. Norton Elementary	37	36	5	49.21	47.88	6.65
Baker	J Franklyn Keller Elem	37	29	3	131.35	102.95	10.65
Bay	Patronis Elementary	29	41	18	36.54	51.66	22.68
Bradford	Southside Elementary	29	29	5	29.00	29.00	5.00
Brevard	Discovery Elementary	31	36	4	43.09	50.04	5.56
Broward	Challenger Elementary	37	29	5	72.52	56.84	9.80
Calhoun	Blountstown Elementary	46	33	5	34.96	25.08	3.80
Charlotte	Vineland Elementary	35	34	8	53.55	52.02	12.24
Citrus	Citrus Springs Elem.	42	27	7	68.88	44.28	11.48
Clay	Lake Asbury Elementary	35	32	4	68.95	63.04	7.88
Collier	Laurel Oak Elementary	31	40	10	68.20	88.00	22.00
Columbia	Summers Elementary	35	31	5	44.80	39.68	6.40

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
DeSoto	Memorial Elementary	38	21	2	49.02	27.09	2.58
Duval	Sabal Palm Elementary	32	43	11	66.88	89.87	22.99
Escambia	Hellen Caro Elementary	35	39	8	55.30	61.62	12.64
Flagler	Belle Terre Elementary	41	37	5	95.53	86.21	11.65
Gadsden	George W. Munroe Elem.	38	8	0	34.96	7.36	0.00
Hendry	Country Oaks Elementary	43	22	3	49.88	25.52	3.48
Hernando	John D. Floyd Elementary	42	27	5	78.12	50.22	9.30
Highlands	Sun 'N Lake Elementary	40	30	1	59.60	44.70	1.49
Hillsborough	Boyette Springs Elem	32	34	7	62.40	66.30	13.65
Holmes	Bonifay Elementary						
Indian River	Glendale Elementary	36	29	9	39.60	31.90	9.90
Volusia	Deltona Lakes Elementary	49	27	3	86.73	47.79	5.31

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Wakulla	Crawfordville Elementary	27	40	9	37.80	56.00	12.60
Walton	Maude Saunders Elem	43	24	4	48.16	26.88	4.48
Washington	Kate M. Smith Elementary				0.00	0.00	0.00
St. Johns	Mill Creek Elementary	33	40	8	50.49	61.20	12.24
St. Lucie	Rivers Edge Elementary	43	27	5	59.34	37.26	6.90
Sumter	Bushnell Elementary	37	28	5	45.14	34.16	6.10
Suwannee	Suwannee Elementary						
Taylor	Taylor County Elementary	35	32	4	74.20	67.84	8.48
Polk	Alta Vista Elementary	34	11	2	45.56	14.74	2.68
Putnam	Interlachen Elementary	37	32	4	46.25	40.00	5.00
Santa Rosa	Berryhill Elementary	30	49	10	46.50	75.95	15.50
Sarasota	Ashton Elementary	29	45	14	44.95	69.75	21.70

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Seminole	Bear Lake Elementary	37	39	9	78.81	83.07	19.17
Palm Beach	Binks Forest Elementary	22	48	24	46.20	100.80	50.40
Pasco	Sand Pine Elementary	43	32	5	69.23	51.52	8.05
Pinellas	Cypress Woods Elem	35	43	11	39.90	49.02	12.54
Martin	Palm City Elementary	27	49	11	48.06	87.22	19.58
Nassau	Hilliard Elementary	40	40	6	47.60	47.60	7.14
Okaloosa	Antioch Elementary	38	40	13	49.78	52.40	17.03
Okeechobee	Everglades Elementary	46	17	2	38.64	14.28	1.68
Levy	Chiefland Elementary	26	32	4	35.62	43.84	5.48
Madison	Madison County Centrall	41	15	2	49.20	18.00	2.40
Manatee	Freedom Elementary	37	35	6	39.96	37.80	6.48
Marion	Maplewood Elementary	34	30	9	34.68	30.60	9.18
Jefferson	Jefferson County Elem	43	13	6	30.96	9.36	4.32

District	School Name – Group 3	FCAT Reading 4th grade Percent Level 3	FCAT Reading 4th grade Percent Level 4	FCAT Reading 4th grade Percent Level 5	Total # of students FCAT Read4 L3	Total # of students FCAT Read4 L4	Total # of students FCAT Read4 L5
Lake	Lost Lake Elementary	33	39	9	85.80	101.40	23.40
Lee	Gulf Elementary	35	39	8	78.75	87.75	18.00
Leon	Gilchrist Elementary	18	51	24	26.10	73.95	34.80
Dade	Ernest R Graham Elem	37	23	3	109.15	67.85	8.85
Union	Lake Butler Elementary						

APPENDIX E
FCAT MATH DATA FOR GRADE 3

Table 7

FCAT Math data for Grade 3

District	School Name – Group 1	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Alachua	Chester Shell Elementary	36	11	3	12.96	3.96	1.08
Bradford	Hampton Elementary	41	15	8	9.84	3.6	1.92
Brevard	Robert L. Stevenson Elem	16	45	39	7.04	19.8	17.16
Calhoun	Carr Elementary School	19	50	15	4.94	13	3.9
Dade	Liberty City Elementary	45	16	7	19.8	7.04	3.08
Duval	Arlington Elementary	35	21	4	16.8	10.08	1.92
Escambia	George S. Hallmark Elem	50	8	4	12	1.92	0.96
Franklin	H.G. Brown Elementary	29	37	9	10.15	12.95	3.15
Gadsden	Gadsden Elementary	39	33	17	7.02	5.94	3.06
Glades	West Glades Elementary	53	17	2	28.09	9.01	1.06

District	School Name – Group 1	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Hamilton	South Hamilton Elem	45	27	0	9.9	5.94	0
Holmes	Poplar School	64	24	0	16	6	0
Walton	Bay Elementary	38	35	16	14.06	12.95	5.92
Volusia	Ortona Elementary	46	26	8	23	13	4
St. Lucie	Ft. Pierce Magnet	32	26	4	16	13	2
Sumter	North Sumter Intermediate						
Putnam	William D. Moseley Elem	49	27	14	24.01	13.23	6.86
Santa Rosa	Chumuckla Elementary	29	34	20	11.89	13.94	8.2
Sarasota	Sarasota Suncost Acad.	28	33	21	10.92	12.87	8.19
Orange	Hungerford Elementary	14	11	0	4.9	3.85	0
Pasco	DaySpring Academy	35	28	9	15.05	12.04	3.87
Pinellas	North Ward Elementary	31	36	12	13.02	15.12	5.04
Monroe	Sigsbee Elementary	42	26	13	15.96	9.88	4.94

District	School Name – Group 1	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Nassau	Bryceville Elementary	41	25	25	18.04	11	11
Okaloosa	Laurel Hill School	48	24	10	10.08	5.04	2.1
Levy	Yankeetown School	43	18	8	17.2	7.2	3.2
Liberty	Hosford Elementary Jr. High	47	32	12	15.98	10.88	4.08
Madison	Lee Elementary	44	14	0	15.84	5.04	0
Marion	Marion Charter	40	9	3	14	3.15	1.05
Lake	Altonna School	50	30	0	5	3	0
Lee	Ft. Myers Beach Elementary	23	58	13	7.13	17.98	4.03

District	School Name – Group 2	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Volusia	Bonner Elementary	37	5	2	22.2	3	1.2
Walton	Freeport Elementary	35	35	11	29.4	29.4	9.24
Washington	Vernon Elementary	33	16	4	38.94	18.88	4.72
St. Johns	Crookshank Elementary	36	25	1	24.12	16.75	0.67
St. Lucie	Parkway Elementary	35	18	4	43.4	22.32	4.96
Sumter	Lake Panasoffkee	31	40	19	23.87	30.8	14.63
Polk	Berkley Elementary	28	40	19	23.8	34	16.15
Putnam	James A. Long Elementary	33	25	9	22.77	17.25	6.21
Santa Rosa	Bagdad Elementary	23	51	12	15.87	35.19	8.28
Sarasota	Englewood Elementary	32	39	22	23.68	28.86	16.28
Seminole	Geneva Elementary	30	37	13	24.9	30.71	10.79
Orange	Aloma Elementary	31	25	18	25.73	20.75	14.94
Osceola	P.M. Wells Charter Academy	32	27	3	23.36	19.71	2.19

District	School Name – Group 2	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Palm Beach	Allamanda Elementary	38	37	8	29.64	28.86	6.24
Pasco	Trinity Oaks Elementary	32	38	7	29.44	34.96	6.44
Pinellas	Azalea Elementary	30	36	8	32.1	38.52	8.56
Martin	Hobe Sound Elementary	41	24	11	36.9	21.6	9.9
Nassau	Atlantic Elementary	28	35	19	53.48	66.85	36.29
Okaloosa	Annette P. Edwins Elementary	46	26	6	31.74	17.94	4.14
Levy	Williston Elementary	40	27	10	64.4	43.47	16.1
Liberty	W.R. Tolar K-8	38	12	2	24.7	7.8	1.3
Manatee	Ballard Elementary	43	18	1	35.69	14.94	0.83
Marion	South Ocala Elementary	25	32	18	28.5	36.48	20.52
Lafayette	Lafayette Elementary	36	32	17	32.4	28.8	15.3
Lake	Eustis Elementary	31	34	21	24.8	27.2	16.8
Lee	Alva Elementary	34	28	18	28.9	23.8	15.3

District	School Name – Group 2	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Leon	Woodville Elementary	49	18	6	31.85	11.7	3.9
Alachua	Alachua Elementary	34	25	12	56.1	41.25	19.8
Baker	MacClenny Elementary	33	37	13	47.52	53.28	18.72
Bay	Lucille Moore Elementary	39	25	10	31.2	20	8
Bradford	Lawtey Community School	41	15	8	15.99	5.85	3.12
Brevard	Coquina Elementary	42	27	8	25.2	16.2	4.8
Broward	Dania Elementary School	40	29	5	38.4	27.84	4.8
Charlotte	Peace River Elementary School	24	36	9	18.72	28.08	7.02
Citrus	Homosassa Elementary School	40	29	11	22	15.95	6.05
Clay	Clay Hill Elementary School	41	37	5	32.39	29.23	3.95
Collier	Avalon Elementary School	32	9	0	23.68	6.66	0
Columbia	Niblack Elementary School	46	14	3	17.02	5.18	1.11
Dixie	James M. Anderson Elem.	40	27	8	30	20.25	6

District	School Name – Group 2	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Duval	Arlington Heights Elem.	31	25	2	33.48	27	2.16
Escambia	Allie Yniestra Elem.	37	17	2	21.83	10.03	1.18
Gadsden	Greensboro Elementary School	31	17	0	18.29	10.03	0
Glades	Moore Haven Elementary School	36	38	15	21.96	23.18	9.15
Hamilton	Central Hamilton Elementary	23	4	0	17.02	2.96	0
Hardee	Wauchula Elementary	38	36	11	39.52	37.44	11.44
Hendry	Eastside Elementary	36	28	7	37.8	29.4	7.35
Highlands	Lake Country Elementary	36	24	5	36.72	24.48	5.1
Hillsborough	Broward Elementary	29	27	1	24.07	22.41	0.83
Holmes	Ponce De Leon Elementary	42	33	5	23.1	18.15	2.75
Indian River	Thompson Elementary	34	10	0	24.82	7.3	0
Dade	Lakeview Elementary	42	29	8	37.38	25.81	7.12
Gulf	Port St. Joe Elementary	38	28	13	25.84	19.04	8.84

District	School Name – Group 2	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Jackson	Sneads Elementary	29	37	29	24.36	31.08	24.36

District	School Name – Group 3	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Alachua	C.W. Norton Elementary	34	38	19	35.36	39.52	19.76
Baker	J Franklyn Keller Elementary						
Bay	Patronis Elementary	25	37	28	33.75	49.95	37.8
Bradford	Southside Elementary	35	20	2	33.25	19	1.9
Brevard	Discovery Elementary	45	28	7	58.95	36.68	9.17
Broward	Challenger Elementary School	40	29	5	39.2	28.42	4.9
Calhoun	Blountstown Elementary School	27	42	19	27.81	43.26	19.57
Charlotte	Vineland Elementary School	39	40	9	52.26	53.6	12.06
Citrus	Citrus Springs Elementary School	30	37	16	45.6	56.24	24.32
Clay	Lake Asbury Elementary School	39	34	10	76.83	66.98	19.7
Collier	Laurel Oak Elementary School	37	37	8	78.44	78.44	16.96
Columbia	Summers Elementary School	38	35	8	47.12	43.4	9.92
DeSoto	Memorial Elementary School	34	26	7	50.32	38.48	10.36

District	School Name – Group 3	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Duval	Sabal Palm Elementary School	33	34	16	71.94	74.12	34.88
Escambia	Hellen Caro Elementary School	39	31	17	48.75	38.75	21.25
Flagler	Belle Terre Elementary School	33	33	13	73.59	73.59	28.99
Gadsden	George W. Munroe Elem.	33	12	1	36.63	13.32	1.11
Gilchrist	Trenton Elementary School	35	35	13	36.4	36.4	13.52
Hendry	Country Oaks Elementary	38	24	2	46.74	29.52	2.46
Hernando	John D. Floyd Elementary	39	29	7	81.9	60.9	14.7
Highlands	Sun 'N Lake Elementary	29	34	13	39.73	46.58	17.81
Hillsborough	Boyette Springs Elementary	28	32	20	57.68	65.92	41.2
Holmes	Bonifay Elementary	44	22	4	52.8	26.4	4.8
Indian River	Glendale Elementary	31	37	13	35.65	42.55	14.95
Volusia	Deltona Lakes Elementary	32	27	11	50.24	42.39	17.27
Wakulla	Crawfordville Elementary	38	38	7	52.06	52.06	9.59

District	School Name – Group 3	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Walton	Maude Saunders Elementary	39	28	5	43.29	31.08	5.55
Washington	Kate M. Smith Elementary	41	26	16	64.78	41.08	25.28
St. Johns	Mill Creek Elementary	31	39	14	66.96	84.24	30.24
St. Lucie	Rivers Edge Elementary	38	32	9	52.82	44.48	12.51
Sumter	Bushnell Elementary	42	27	4	47.46	30.51	4.52
Suwannee	Suwannee Elementary	37	25	8	125.8	85	27.2
Taylor	Taylor County Elementary	38	36	11	90.44	85.68	26.18
Polk	Alta Vista Elementary	41	12	4	61.5	18	6
Putnam	Interlachen Elementary	37	30	8	41.81	33.9	9.04
Santa Rosa	Berryhill Elementary	33	45	18	53.13	72.45	28.98

District	School Name – Group 3	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Sarasota	Ashton Elementary	32	38	17	44.16	52.44	23.46
Seminole	Bear Lake Elementary	35	30	17	66.5	57	32.3
Orange	Palmetto Elementary	22	12	1	48.84	26.64	2.22
Palm Beach	Binks Forest Elementary	22	34	37	45.54	70.38	76.59
Pasco	Sand Pine Elementary	41	26	6	68.47	43.42	10.02
Pinellas	Cypress Woods Elementary	22	46	25	27.06	56.58	30.75
Martin	Palm City Elementary	23	38	33	36.57	60.42	52.47
Nassau	Hilliard Elementary	42	31	10	54.6	40.3	13
Okaloosa	Antioch Elementary	19	50	24	24.89	65.5	31.44
Okeechobee	Everglades Elementary	33	22	3	39.6	26.4	3.6
Levy	Chiefland Elementary	44	23	10	56.32	29.44	12.8
Madison	Madison County Central School	26	23	8	30.94	27.37	9.52
Manatee	Freedom Elementary	37	28	10	42.55	32.2	11.5

District	School Name – Group 3	FCAT Math 3rd grade Percent Level 3	FCAT Math 3rd grade Percent Level 4	FCAT Math 3rd grade Percent Level 5	Total # of students FCAT Math3 L3	Total # of students FCAT Math3 L4	Total # of students FCAT Math3 L5
Marion	Maplewood Elementary	40	27	8	45.6	30.78	9.12
Jefferson	Jefferson County Elementary	38	34	8	34.58	30.94	7.28
Lake	Lost Lake Elementary	27	38	22	66.96	94.24	54.56
Lee	Gulf Elementary	38	29	26	89.68	68.44	61.36
Leon	Gilchrist Elementary	14	54	25	20.16	77.76	36
Dade	Ernest R Graham Elementary	33	36	11	99	108	33
Union	Lake Butler Elementary School	30	41	15	49.2	67.24	24.6

APPENDIX F
FCAT MATH DATA FOR GRADE 4

Table 8

FCAT Math data for Grade 4

District	School Name – Group 1	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Alachua	Chester Shell Elementary	39	14	0	14.04	5.04	0
Bradford	Hampton Elementary	35	20	2	17.85	10.2	1.02
Brevard	Robert L. Stevenson Elem	29	39	32	19.14	25.74	21.12
Calhoun	Carr Elementary School	50	21	8	19	7.98	3.04
Dade	Liberty City Elementary	38	18	3	15.2	7.2	1.2
Duval	Arlington Elementary	41	18	2	20.91	9.18	1.02
Escambia	George S. Hallmark Elem	32	9	0	15.04	4.23	0
Franklin	H.G. Brown Elementary	41	0	0	6.97	0	0
Gadsden	Gadsden Elementary School	59	12	0	10.03	2.04	0
Glades	West Glades Elementary	35	30	5	15.05	12.9	2.15
Hamilton	South Hamilton Elem	52	16	0	13	4	0

District	School Name – Group 1	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Holmes	Poplar School	27	9	5	5.94	1.98	1.1
Walton	Bay Elementary	41	32	22	16.81	13.12	9.02
Volusia	Ortona Elementary	41	20	2	18.86	9.2	0.92
St. Lucie	Ft. Pierce Magnet	24	22	8	11.76	10.78	3.92
Sumter	North Sumter Intermediate	38	13	4	50.54	17.29	5.32
Putnam	William D. Moseley Elementary	44	21	0	17.16	8.19	0
Santa Rosa	Chumuckla Elementary	42	24	9	13.86	7.92	2.97
Sarasota	Sarasota Suncost Academy	50	35	5	10	7	1
Orange	Hungerford Elementary	25	13	0	10	5.2	0
Pasco	DaySpring Academy	42	38	8	20.16	18.24	3.84
Pinellas	North Ward Elementary	47	19	5	20.21	8.17	2.15
Monroe	Sigsbee Elementary	46	23	6	16.1	8.05	2.1
Nassau	Bryceville Elementary	47	21	5	17.86	7.98	1.9

District	School Name – Group 1	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Okaloosa	Laurel Hill School	41	28	3	15.99	10.92	1.17
Levy	Yankeetown School	39	21	0	10.92	5.88	0
Liberty	Hosford Elementary Jr. High	57	20	7	17.1	6	2.1
Madison	Lee Elementary	46	17	0	16.1	5.95	0
Marion	Marion Charter	35	15	0	11.9	5.1	0
Lake	Altonna School	27	18	0	5.94	3.96	0
Lee	Ft. Myers Beach Elementary	27	35	30	9.99	12.95	11.1

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Volusia	Bonner Elementary	41	8	0	24.19	4.72	0
Walton	Freeport Elementary	45	13	8	45	13	8
Washington	Vernon Elementary	31	30	16	31.62	30.6	16.32
St. Johns	Crookshank Elementary	41	23	0	31.98	17.94	0
St. Lucie	Parkway Elementary	46	7	3	40.02	6.09	2.61
Sumter	Lake Panasoffkee	42	24	6	35.28	20.16	5.04
Polk	Berkley Elementary	45	25	9	39.6	22	7.92
Putnam	James A. Long Elementary	35	10	6	26.95	7.7	4.62
Santa Rosa	Bagdad Elementary	38	32	9	29.26	24.64	6.93
Sarasota	Englewood Elementary	37	30	11	26.27	21.3	7.81
Seminole	Geneva Elementary	45	23	9	50.4	25.76	10.08
Orange	Aloma Elementary	30	30	14	21.3	21.3	9.94
Osceola	P.M. Wells Charter Academy	46	13	0	33.12	9.36	0

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Palm Beach	Allamanda Elementary	41	16	19	28.7	11.2	13.3
Pasco	Trinity Oaks Elementary	44	21	8	40.04	19.11	7.28
Pinellas	Azalea Elementary	39	19	5	39	19	5
Martin	Hobe Sound Elementary	38	42	9	37.62	41.58	8.91
Nassau	Atlantic Elementary						
Okaloosa	Annette P. Edwins Elementary	35	22	19	24.15	15.18	13.11
Levy	Williston Elementary	39	25	8	67.47	43.25	13.84
Liberty	W.R. Tolar K-8	39	13	4	26.13	8.71	2.68
Manatee	Ballard Elementary	42	8	4	40.32	7.68	3.84
Marion	South Ocala Elementary	33	30	21	27.06	24.6	17.22
Lafayette	Lafayette Elementary	44	13	8	39.6	11.7	7.2
Lake	Eustis Elementary	43	31	6	36.12	26.04	5.04

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Lee	Alva Elementary	39	20	5	31.98	16.4	4.1
Leon	Woodville Elementary	32	10	3	20.16	6.3	1.89
Alachua	Alachua Elementary	40	17	3	55.6	23.63	4.17
Baker	MacClenny Elementary						
Bay	Lucille Moore Elementary	45	24	5	35.1	18.72	3.9
Bradford	Lawtey Community School	35	20	2	17.85	10.2	1.02
Brevard	Coquina Elementary	51	16	6	24.99	7.84	2.94
Broward	Dania Elementary School	39	16	4	29.64	12.16	3.04
Charlotte	Peace River Elementary School	34	24	4	25.84	18.24	3.04
Citrus	Homosassa Elementary School	35	38	15	14	15.2	6
Clay	Clay Hill Elementary School	44	41	1	32.12	29.93	0.73
Collier	Avalon Elementary School	39	16	3	30.03	12.32	2.31
Columbia	Niblack Elementary School	31	11	0	11.16	3.96	0

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Dixie	James M. Anderson Elem.	32	25	4	21.76	17	2.72
Duval	Arlington Heights Elem.	35	12	1	25.9	8.88	0.74
Escambia	Allie Yniestra Elementary School	22	11	2	9.9	4.95	0.9
Gadsden	Greensboro Elementary School	44	8	2	22.88	4.16	1.04
Glades	Moore Haven Elementary School	43	28	3	25.8	16.8	1.8
Hamilton	Central Hamilton Elementary	30	0	0	17.1	0	0
Hardee	Wauchula Elementary	41	27	11	40.59	26.73	10.89
Hendry	Eastside Elementary	45	28	4	45	28	4
Highlands	Lake Country Elementary	44	13	5	41.36	12.22	4.7
Hillsborough	Broward Elementary	26	31	13	47.32	56.42	23.66
Holmes	Ponce De Leon Elementary	42	11	8	26.04	6.82	4.96
Indian River	Thompson Elementary	32	3	0	18.88	1.77	0
Dade	Lakeview Elementary	46	16	0	40.02	13.92	0

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Gulf	Port St. Joe Elementary	50	28	11	41	22.96	9.02
Jackson	Sneads Elementary	46	31	4	34.04	22.94	2.96

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Alachua	C.W. Norton Elementary	34	33	12	36.38	35.31	12.84
Baker	J Franklyn Keller Elementary	37	18	5	124.69	60.66	16.85
Bay	Patronis Elementary	36	39	15	54.72	59.28	22.8
Bradford	Southside Elementary	34	25	5	29.92	22	4.4
Brevard	Discovery Elementary	43	20	7	52.89	24.6	8.61
Broward	Challenger Elementary School	39	16	4	29.64	12.16	3.04
Calhoun	Blountstown Elementary School	55	18	9	46.75	15.3	7.65
Charlotte	Vineland Elementary School	37	24	8	56.61	36.72	12.24
Citrus	Citrus Springs Elementary School	39	29	10	70.59	52.49	18.1
Clay	Lake Asbury Elementary School	45	19	5	83.7	35.34	9.3
Collier	Laurel Oak Elementary School	37	32	16	68.45	59.2	29.6
Columbia	Summers Elementary School	42	23	5	50.4	27.6	6

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
DeSoto	Memorial Elementary School	29	21	4	37.7	27.3	5.2
Duval	Sabal Palm Elementary School	39	34	8	71.37	62.22	14.64
Escambia	Hellen Caro Elementary School	35	24	8	63.35	43.44	14.48
Flagler	Belle Terre Elementary School	41	20	5	101.27	49.4	12.35
Gadsden	George W. Munroe Elem.	29	4	0	27.55	3.8	0
Gilchrist	Trenton Elementary School	48	27	8	52.8	29.7	8.8
Hendry	Country Oaks Elementary	43	22	2	58.48	29.92	2.72
Hernando	John D. Floyd Elementary	40	29	4	92	66.7	9.2
Highlands	Sun 'N Lake Elementary	33	23	9	43.56	30.36	11.88
Hillsborough	Boyette Springs Elementary	26	31	13	47.32	56.42	23.66
Holmes	Bonifay Elementary	34	19	5	43.86	24.51	6.45
Indian River	Glendale Elementary	33	23	11	32.67	22.77	10.89
Volusia	Deltona Lakes Elementary	37	24	3	68.82	44.64	5.58

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Wakulla	Crawfordville Elementary	41	18	2	51.25	22.5	2.5
Walton	Maude Saunders Elementary	41	27	9	41.82	27.54	9.18
Washington	Kate M. Smith Elementary	41	21	7	62.32	31.92	10.64
St. Johns	Mill Creek Elementary	46	28	8	83.26	50.68	14.48
St. Lucie	Rivers Edge Elementary	37	26	5	51.43	36.14	6.95
Sumter	Bushnell Elementary	39	20	5	44.85	23	5.75
Suwannee	Suwannee Elementary						
Taylor	Taylor County Elementary	47	19	4	102.46	41.42	8.72
Polk	Alta Vista Elementary	39	17	3	58.89	25.67	4.53
Putnam	Interlachen Elementary	50	18	4	57	20.52	4.56
Santa Rosa	Berryhill Elementary	34	34	16	52.36	52.36	24.64
Sarasota	Ashton Elementary	34	41	10	53.38	64.37	15.7
Seminole	Bear Lake Elementary	35	32	16	66.5	60.8	30.4

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Orange	Palmetto Elementary	32	10	3	57.28	17.9	5.37
Palm Beach	Binks Forest Elementary	27	37	28	63.99	87.69	66.36
Pasco	Sand Pine Elementary	40	28	4	71.2	49.84	7.12
Pinellas	Cypress Woods Elementary	29	51	9	33.93	59.67	10.53
Martin	Palm City Elementary	30	37	22	47.1	58.09	34.54
Nassau	Hilliard Elementary	42	34	11	51.24	41.48	13.42
Okaloosa	Antioch Elementary	40	35	18	50	43.75	22.5
Okeechobee	Everglades Elementary	41	23	0	51.25	28.75	0
Levy	Chiefland Elementary	44	15	5	50.16	17.1	5.7
Madison	Madison County Central School	43	5	0	56.33	6.55	0
Manatee	Freedom Elementary	52	18	3	58.76	20.34	3.39
Marion	Maplewood Elementary	44	25	11	55.44	31.5	13.86
Jefferson	Jefferson County Elementary	42	9	0	28.14	6.03	0

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Lake	Lost Lake Elementary	41	29	13	97.99	69.31	31.07
Lee	Gulf Elementary	37	26	12	85.1	59.8	27.6
Leon	Gilchrist Elementary	20	47	28	25.8	60.63	36.12
Dade	Ernest R Graham Elementary	35	33	12	112.7	106.26	38.64
Union	Lake Butler Elementary School	39	29	7	67.08	49.88	12.04

APPENDIX G
FCAT MATH DATA FOR GRADE 5

Table 9

FCAT Math data for Grade 5

District	School Name – Group 1	FCAT Math 5th grade Percent Level 3	FCAT Math 5th grade Percent Level 4	FCAT Math 5th grade Percent Level 5	Total # of students FCAT Math5 L3	Total # of students FCAT Math5 L4	Total # of students FCAT Math5 L5
Alachua	Chester Shell Elementary	20	9	6	7.00	3.15	2.10
Bradford	Hampton Elementary	16	16	0	7.04	7.04	0.00
Brevard	Robert L. Stevenson Elem	24	52	21	14.88	32.24	13.02
Calhoun	Carr Elementary School	24	24	4	6.00	6.00	1.00
Dade	Liberty City Elementary	11	5	0	4.18	1.90	0.00
Duval	Arlington Elementary School	20	20	0	8.20	8.20	0.00
Escambia	George S. Hallmark Elementary	20	2	2	8.80	0.88	0.88
Franklin	H.G. Brown Elementary School	23	13	3	7.13	4.03	0.93
Gadsden	Gadsden Elementary School	33	22	6	5.94	3.96	1.08
Glades	West Glades Elementary	12	3	3	4.08	1.02	1.02
Hamilton	South Hamilton Elementary	18	18	18	1.98	1.98	1.98

District	School Name – Group 1	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Holmes	Poplar School	38	8	0	9.12	1.92	0.00
Walton	Bay Elementary	24	32	11	8.88	11.84	4.07
Volusia	Ortona Elementary	32	14	11	11.84	5.18	4.07
St. Lucie	Ft. Pierce Magnet	20	20	0	10.80	10.80	0.00
Sumter	North Sumter Intermediate	32	14	3	37.76	16.52	3.54
Santa Rosa	Chumuckla Elementary	24	43	3	8.88	15.91	1.11
Sarasota	Sarasota Suncost Academy						
Orange	Hungerford Elementary	24	5	5	5.04	1.05	1.05
Pasco	DaySpring Academy	23	15	8	11.04	7.20	3.84
Pinellas	North Ward Elementary	46	24	8	17.02	8.88	2.96
Monroe	Sigsbee Elementary	19	31	6	6.08	9.92	1.92
Nassau	Bryceville Elementary	28	39	6	15.12	21.06	3.24
Okaloosa	Laurel Hill School	27	19	0	9.99	7.03	0.00

District	School Name – Group 1	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Liberty	Hosford Elementary Jr. High	36	28	0	9.00	7.00	0.00
Madison	Lee Elementary	0	22	0	0.00	3.96	0.00
Marion	Marion Charter	32	9	9	7.04	1.98	1.98
Lake	Altonna School	36	0	0	3.96	0.00	0.00
Lee	Ft. Myers Beach Elementary	40	31	3	14.00	10.85	1.05

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Volusia	Bonner Elementary	30	2	5	18.30	1.22	3.05
Walton	Freeport Elementary	26	20	4	22.10	17.00	3.40
Washington	Vernon Elementary						
St. Johns	Crookshank Elementary	24	13	1	16.32	8.84	0.68
St. Lucie	Parkway Elementary	19	26	1	13.30	18.20	0.70
Sumter	Lake Panasoffkee	26	28	11	22.62	24.36	9.57
Polk	Berkley Elementary	39	32	6	34.32	28.16	5.28
Santa Rosa	Bagdad Elementary	32	17	2	28.16	14.96	1.76
Sarasota	Englewood Elementary	29	33	7	23.78	27.06	5.74
Seminole	Geneva Elementary	33	33	11	31.68	31.68	10.56
Orange	Aloma Elementary	28	27	3	18.76	18.09	2.01
Osceola	P.M. Wells Charter Academy	24	15	4	17.04	10.65	2.84
Palm Beach	Allamanda Elementary	26	32	12	20.28	24.96	9.36

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Pinellas	Azalea Elementary	28	22	11	27.16	21.34	10.67
Martin	Hobe Sound Elementary	33	31	6	29.37	27.59	5.34
Nassau	Atlantic Elementary						
Okaloosa	Annette P. Edwins Elementary	33	28	5	25.08	21.28	3.80
Levy	Williston Elementary	32	20	0	51.52	32.20	0.00
Liberty	W.R. Tolar K-8	36	18	0	20.16	10.08	0.00
Manatee	Ballard Elementary	42	28	1	29.82	19.88	0.71
Marion	South Ocala Elementary	31	36	1	24.18	28.08	0.78
Lafayette	Lafayette Elementary	29	25	8	22.04	19.00	6.08
Lake	Eustis Elementary	26	29	12	23.14	25.81	10.68
Lee	Alva Elementary	22	17	14	14.30	11.05	9.10
Leon	Woodville Elementary	25	13	5	16.00	8.32	3.20
Alachua	Alachua Elementary	28	27	3	35.00	33.75	3.75

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Bradford	Lawtey Community School	16	16	0	7.04	7.04	0.00
Brevard	Coquina Elementary	30	26	4	13.80	11.96	1.84
Broward	Dania Elementary School	23	21	9	17.94	16.38	7.02
Charlotte	Peace River Elementary School	41	17	3	35.26	14.62	2.58
Citrus	Homosassa Elementary School	37	27	8	18.87	13.77	4.08
Clay	Clay Hill Elementary School	35	25	4	24.85	17.75	2.84
Collier	Avalon Elementary School	33	14	4	23.76	10.08	2.88
Columbia	Niblack Elementary School	11	2	0	4.95	0.90	0.00
Dixie	James M. Anderson Elem.	24	20	4	12.24	10.20	2.04
Duval	Arlington Heights Elem.	28	6	2	29.12	6.24	2.08
Escambia	Allie Yniestra Elementary School	14	14	0	7.00	7.00	0.00
Gadsden	Greensboro Elementary School	18	35	2	11.16	21.70	1.24
Glades	Moore Haven Elementary School	32	22	0	19.20	13.20	0.00

District	School Name – Group 2	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Hardee	Wauchula Elementary	28	29	7	20.16	20.88	5.04
Hendry	Eastside Elementary	31	14	1	22.32	10.08	0.72
Highlands	Lake Country Elementary	25	37	13	23.25	34.41	12.09
Hillsborough	Broward Elementary	22	7	0	18.04	5.74	0.00
Holmes	Ponce De Leon Elementary	32	17	1	22.08	11.73	0.69
Indian River	Thompson Elementary	23	13	5	14.03	7.93	3.05
Dade	Lakeview Elementary	21	19	2	13.02	11.78	1.24
Jackson	Sneads Elementary	23	38	10	18.40	30.40	8.00

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Alachua	C.W. Norton Elementary	27	26	3	35.91	34.58	3.99
Baker	J Franklyn Keller Elementary	22	21	2	78.10	74.55	7.10
Bay	Patronis Elementary	25	39	17	31.50	49.14	21.42
Bradford	Southside Elementary	28	16	6	28.00	16.00	6.00
Brevard	Discovery Elementary	26	27	6	36.14	37.53	8.34
Broward	Challenger Elementary School	23	21	9	17.94	16.38	7.02
Calhoun	Blountstown Elementary School	30	38	12	23.10	29.26	9.24
Charlotte	Vineland Elementary School	30	28	6	45.60	42.56	9.12
Citrus	Citrus Springs Elementary School	26	23	4	42.64	37.72	6.56
Clay	Lake Asbury Elementary School	28	25	3	55.44	49.50	5.94
Collier	Laurel Oak Elementary School	26	37	11	57.20	81.40	24.20
Columbia	Summers Elementary School	27	22	1	34.56	28.16	1.28
DeSoto	Memorial Elementary School	18	14	1	23.22	18.06	1.29

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Escambia	Hellen Caro Elementary School	32	25	5	50.56	39.50	7.90
Flagler	Belle Terre Elementary School	29	19	6	67.86	44.46	14.04
Gadsden	George W. Munroe Elem.	15	3	2	13.80	2.76	1.84
Gilchrist	Trenton Elementary School						
Hendry	Country Oaks Elementary	25	20	3	29.00	23.20	3.48
Hernando	John D. Floyd Elementary	28	18	3	52.08	33.48	5.58
Hillsborough	Boyette Springs Elementary	24	28	8	46.80	54.60	15.60
Holmes	Bonifay Elementary						
Indian River	Glendale Elementary	28	25	7	30.80	27.50	7.70
Volusia	Deltona Lakes Elementary	14	20	7	24.78	35.40	12.39
Wakulla	Crawfordville Elementary	22	29	8	31.02	40.89	11.28
Walton	Maude Saunders Elementary	26	20	4	29.12	22.40	4.48
Washington	Kate M. Smith Elementary				0.00	0.00	0.00

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
St. Johns	Mill Creek Elementary	27	26	8	41.04	39.52	12.16
St. Lucie	Rivers Edge Elementary	33	25	6	45.21	34.25	8.22
Sumter	Bushnell Elementary	15	20	1	18.30	24.40	1.22
Suwannee	Suwannee Elementary						
Taylor	Taylor County Elementary	25	23	6	53.00	48.76	12.72
Polk	Alta Vista Elementary	22	22	5	29.48	29.48	6.70
Putnam	Interlachen Elementary	31	22	4	38.75	27.50	5.00
Santa Rosa	Berryhill Elementary	35	35	9	54.25	54.25	13.95
Sarasota	Ashton Elementary	26	37	17	40.30	57.35	26.35
Seminole	Bear Lake Elementary	31	32	11	66.03	68.16	23.43
Orange	Palmetto Elementary	19	7	2	33.25	12.25	3.50
Palm Beach	Binks Forest Elementary	16	44	25	33.76	92.84	52.75
Pasco	Sand Pine Elementary	34	21	5	54.74	33.81	8.05

District	School Name – Group 3	FCAT Math 4th grade Percent Level 3	FCAT Math 4th grade Percent Level 4	FCAT Math 4th grade Percent Level 5	Total # of students FCAT Math4 L3	Total # of students FCAT Math4 L4	Total # of students FCAT Math4 L5
Nassau	Hilliard Elementary	32	38	6	38.08	45.22	7.14
Okaloosa	Antioch Elementary	32	35	12	41.60	45.50	15.60
Okeechobee	Everglades Elementary	32	13	1	26.88	10.92	0.84
Levy	Chiefland Elementary	32	21	1	43.52	28.56	1.36
Madison	Madison County Central School	13	8	0	15.60	9.60	0.00
Manatee	Freedom Elementary	27	26	8	29.16	28.08	8.64
Marion	Maplewood Elementary	21	26	13	21.42	26.52	13.26
Jefferson	Jefferson County Elementary	26	13	1	18.72	9.36	0.72
Lake	Lost Lake Elementary	28	34	12	72.52	88.06	31.08
Lee	Gulf Elementary	30	42	11	67.50	94.50	24.75
Leon	Gilchrist Elementary	15	42	34	21.75	60.90	49.30
Dade	Ernest R Graham Elementary	25	18	7	73.75	53.10	20.65
Union	Lake Butler Elementary School						

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