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## A Correlational Study Between The Amount Of Property Wealth Behind Each Student Attending Florida District Schools And The Acade

Willie Saenz  
*University of Central Florida*



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A CORRELATIONAL STUDY BETWEEN THE AMOUNT OF  
PROPERTY WEALTH BEHIND EACH STUDENT ATTENDING  
FLORIDA DISTRICT SCHOOLS AND THE ACADEMIC PROFICIENCY  
AMONG 5TH GRADE WHITE, BLACK, AND HISPANIC STUDENTS IN  
READING WITHIN THE 67 COUNTIES OF FLORIDA

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  
at the University of Central Florida  
Orlando, Florida

Spring Term  
2010

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Barbara A. Murray

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## ABSTRACT

As the concern for standardized testing continues to rise, so to does the concern for providing students with an appropriate and equal educational opportunity. The goal of this research was to investigate relevant data to determine if there is a relationship between the wealth behind each student and the academic proficiency amongst 5<sup>th</sup> grade white, black, and Hispanic students within the 67 counties of Florida. The desired outcome of this study was to produce information relevant to political leaders, educational leaders, and teachers in Florida public school districts with influential strategies necessary to increase the proportion of 5<sup>th</sup> grade students achieving academic proficiency.

The review of literature and analysis of the data gathered from the Florida Department of Education for the school year 2006-2007 and the Florida Department of Revenue, 2007 revealed the following findings: (1) there is a statistically significant correlation between reading scores among white and black students in grade 5 as measured by the FCAT and the wealth behind each student within the state of Florida; (2) there is no statistically significant correlation between reading scores among Hispanic students in grade 5 as measured by the FCAT and the wealth behind each student within the state of Florida.

In other words, as school districts are deemed more wealthy, white and black students in grade 5 tend to do better in reading than their white and black counterparts in poorer districts. In contrast, Hispanic students in wealthy school districts do not do better in reading than their Hispanic counterparts in poor districts.

This dissertation is dedicated to my daughters,

Ruby May Saenz and Jade April Saenz.

Ruby and Jade, you were the inspiration of this work.  
I love you young ladies more than life itself. Always believe in yourselves.  
May you always be happy, and may you go far in life.  
Always be patient and accept others.

Mah, your unconditional love, your guidance, and your belief in me have proven  
invaluable to me. For that, I am eternally grateful,  
and I will always be indebted to you.  
You are the reason I am who I am. Te Amo!

Chris, thank you for always believing in me, and a very special thank you for  
always making me laugh, even when times were tough and the tears were  
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I would also like to extend my sincere love and appreciation to my  
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I love each and every one of you. Thank You!

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## LIST OF ACRONYMS/ABBREVIATIONS

CRT	Criterion-Referenced Test
DOE	Department of Education
EEOA	Equal Employment Opportunity Act
ELL	English-Language Learner
ESEA	Elementary and Secondary Education Act
ESL	English as a Second Language
ESOL	English for Speakers of Other Languages
FCAT	Florida Comprehensive Assessment Test
FCERA	Florida Commission on Education Reform and Accountability
FEFP	Florida Education Finance Plan
FTE	Full-Time Equivalency
IDEA	Individuals with Disabilities Act
LEP	Limited English Proficient
NAEP	National Assessment of Education Progress
NCLB	No Child Left Behind
OCR	Office of Civil Rights
SES	Socio-Economic Status
SLL	Second-Language Learner

## CHAPTER 1 INTRODUCTION

### Introduction

In 2001, congress enacted and began implementation of the No Child Left Behind Act (NCLB), which was subsequently signed into law in January, 2002 (National Education Association, 2010). This act required every state to have an instrument of assessment in place to monitor and report student performance. In Florida, the assessment tool is the Florida Comprehensive Assessment Test (FCAT). The FCAT is Florida's solution to improve and measure student academic performance (FCAT Testing, 2009).

The FCAT, a criterion-referenced test, is administered to students in grades 3-11 across the state. It measures Sunshine State Standards benchmarks in reading, mathematics, writing, and science (FCAT Testing, 2009). Every year since its inception, the Florida Comprehensive Assessment Test has been administered to students in order to measure the achievement of the Sunshine State Standards (Florida Department of Education, 2007). Integrated in the students' general curriculum are the benchmarks mandated by the Sunshine State Standards. While local school leaders embrace the idea of more rigorous standards for the FCAT, they fear that a more difficult FCAT could spell trouble, especially at some low socioeconomic schools, where lower assessment scores could lead to a reduction in special programs.

The Florida Comprehensive Assessment Test, although primarily used to set standards for accountability, sparks numerous debates as to its "fairness" among students.

Since the FCAT is administered in all sixty-seven counties in the state of Florida, some researchers say that there may be inequality among students who live in poor, small, rural districts versus students who live in wealthy, suburban districts. An excerpt from a doctoral dissertation, written by Richard Marchman, notes that children who attend schools in wealthier districts receive increasingly more money each year than students who live in low socioeconomic or “poor” areas, a trend that could jeopardize some of the most "needy" students' opportunities for a fair and equal education (University of Florida, 2004).

Analysis of the data retrieved from the Florida Department of Education database for school year 2006 - 2007 and the Florida Department of Revenue database (2007 Tax Rolls) will lead to the following findings: (1) socioeconomic status (SES) of school districts will have no statistically significant effect on the achievement of academic proficiency in reading among white, black, and Hispanic students in grade 5; (2) as the property wealth behind each student rises, there will be no significant likelihood that the achievement in academic proficiency in reading grade 5 will also rise; (3) neither white, black, nor Hispanic students in grade 5 will have a statistically significant likelihood of not achieving academic proficiency in reading in low SES school districts.

### Purpose of the Study

The purpose of this study is to investigate relevant data to determine if there is a correlation between the wealth behind each student and the academic proficiency

amongst white, black, and Hispanic students in grade 5 within the 67 public school districts of Florida.

### Research Questions

1. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among white students, as measured by their performance on the grade 5 FCAT in reading?
2. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among black students, as measured by their performance on the grade 5 FCAT in reading?
3. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among Hispanic students, as measured by their performance on the grade 5 FCAT in reading?

### Research Hypotheses

Based upon a review of the literature, the following hypotheses were formulated to study the research questions above:



Hypothesis 1: There is no statistically significant relationship between the wealth behind each public school student and the academic achievement in reading as measured by the 2007 FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida.

Hypothesis 2: There is no statistically significant relationship between the wealth behind each public school student and the academic achievement in reading as measured by the 2007 FCAT among black students in reading, in grade 5, within the 67 public school districts in Florida.

Hypothesis 3: There is no statistically significant relationship between the wealth behind each public school student and the academic achievement in reading as measured by the 2007 FCAT among Hispanic students in reading, in grade 5, within the 67 public school districts in Florida.

### Definitions of Terms

The following definitions are provided for terms that have application in this study.

Academic proficiency: a student scoring a Level 3, 4, or 5 on the Florida Comprehensive Assessment Test.

Achievement gap: the disparity in academic performance between groups of students (Education Week, 2004).

Bilingual: a person who speaks two languages fluently (American Heritage Dictionary of the English Language, 2000).

Bilingual Education: “a program of instruction in which eligible children are placed until such time as such children attain a level of proficiency in English which is sufficient to assure equal educational opportunity in the regular school program” (Danbury Public Schools, 2004)

Black: “a non-white, non-Hispanic person having origin in any of the black racial groups in Africa” (Florida Department of Education, 1994).

Florida Comprehensive Assessment Test: a standardized test used in the primary and secondary public schools of Florida.

Funding Equity: an equitable way to fund education, and/or to ensure that every child receives an "adequate," "efficient," or "effective" education.

Hispanic: a person of Mexican, Puerto Rican, Cuban, or South or Central American origin or other Spanish culture or origin, regardless of race (Florida Department of Education, 1994).

Limited English Proficient: “a student who: was not born in the U.S. and whose native language is other than English; or Was born in the U.S. but who comes from a home in which a language other than English is most relied upon for communication; or Is an American Indian or Alaskan Native and comes from a home in which a language other than English has had a significant impact on his or her level of English Language Proficiency; and Who as a result of the above, has sufficient difficulty speaking, reading, writing, or understanding the English language to deny him or her the opportunity to learn successfully in classrooms in which the language of instruction is English” (Florida Department of Education, 2001).

School district: a public school district.

School district wealth: non-exempt, assessed valuation of property divided by the total student enrollment within a specific public school district.

Socio-economic status: an indicator measured by the percentage of enrolled students who are receiving free or reduced lunch as reported by the Florida Department of Education database.

Special Education: “specially designed instruction, provided at no cost to the parent, to meet the unique needs of a child with a disability, particularly a child with mental handicap” (Harper & Harper, 1998).

White: “a non-Hispanic person having origin in any of the original peoples of Europe, North Africa, or the Middle East” (Florida Department of Education, 1994).

### Limitations

This study was limited to the accuracy of the data provided by the Florida Department of Education and the Florida Department of Revenue.

### Delimitations

The FCAT data collected from the Florida Department of Education were delimited to the scores from 5<sup>th</sup> grade students who took the reading portion of the FCAT, administered in the spring 2007. This study relied solely on the data gathered from the

Florida Department of Education database and the Florida Department of Revenue. The study was delimited to include all 67 public school districts within the state of Florida.

### Methodology

Data were collected from the 67 school districts in Florida as reported to the Florida Department of Education database for the school year 2006 – 2007. Data were also collected from the 2007 Florida Property Valuations and Tax Data as provided by the Florida Department of Revenue. The Statistical Package for Social Science (SPSS) Graduate Package (version 17.0) was used to analyze data. Other calculations were also performed to analyze the school districts' variables measured in this research. These variables included, but were not limited to, taxable school property, student enrollment, and school district wealth. The wealth behind each public school student in Florida was based on non-exempt, assessed valuation of property divided by the total public school student enrollment within each school district.

### Description of the Population

The sample in this study consisted of 63 counties comprising of approximately 51,223 white, black, and Hispanic 5<sup>th</sup> grade students who took the reading section of the FCAT during the spring 2007 in the state of Florida and scored either a Level 1 or Level 2. The participants, on average, were between the ages of ten and twelve.

### Significance of the Study

From the data that were collected from the Florida Department of Education (2006-2007) and from the Florida Department of Revenue (2007), a determination was made as to whether or not there was a correlation between the wealth behind each public school student in Florida and the level of academic proficiency in reading among white, black, and Hispanic 5<sup>th</sup> grade students as measured by the Florida Comprehensive Assessment Test. The findings of this study may produce information relevant to political and education in the state of Florida in regard to equitable funding of public schools as measured by the performance of 5<sup>th</sup> grade students' proficiency.

### Organization of the Dissertation

Chapter 1 contains the general background of the study, purpose of the study, definitions of terms, hypotheses, research questions, study population, delimitations, limitations, significance of the study, and organization of the study. Chapter 2 presents a review of the related literature and research relevant to the problem. Chapter 3 describes the methods and procedures that will be used in the collection of data. Chapter 4 includes the analysis of the data with an emphasis on the results obtained from the study. Chapter 5 includes an overview of the purpose statement, methodology, instrumentation, and data analysis. Also, a discussion of findings regarding each research question is included along with conclusions, implications, and recommendations for future research.

The methods used to conduct this study will include data collection and data analysis that will determine the outcome of the study. FCAT data will be collected from each of the 67 school districts in Florida that has been reported to the Florida Department of Education database for the 2006–2007 school year. Data will also be collected from the Florida Department of Revenue’s 2007 Florida Property Valuations and Tax Data Book. This data will be used to calculate the wealth behind each student among Florida’s 67 public school districts. This calculation will be discussed in chapter three.

## CHAPTER 2 REVIEW OF THE LITERATURE

### Introduction

The ongoing process of statewide assessment and accountability in the state of Florida began in the early 1970s with an assessment program that assessed students' understanding and mastery of minimum competency skills. In 1977, Florida implemented and required, with the approval of legislation, the country's first high school graduation examination (Florida Association of School Psychologists, 2003). This graduation exam, deemed controversial by many, laid the foundation of a landmark federal case known as *Debra P. v. Turlington* (Florida Association of School Psychologists, 2003). This, and other notable cases, will be discussed further in this chapter.

Since 1983, in order for Florida's students to obtain a high school diploma, they have been required to pass a wide array of state mandated competency tests (Florida Department of Education, 2001). In 1994, the curriculum standards in Florida, currently known as the Sunshine State Standards, were established and accepted by the Florida Department of Education (Florida Association of School Psychologists, 2003). Beginning in 1995, the Florida Commission on Education Reform and Accountability (FCERA) recommended steps necessary for assessing student progress with the expectation of making educational gains and ensuring that Florida's high school graduates possessed the skills necessary to compete with graduates of other states for jobs in the world's marketplace (Florida Association of School Psychologists, 2003).

In 1998, the FCAT was designed to meet the requirements of the aforementioned recommendations, known simply as the Comprehensive Assessment Design and the content of the Sunshine State Standards (Fischer & Dougherty, 1999). Since implementation of the FCAT, Florida legislature has continuously supported evaluation and assessment in the state's public school system. Each year, the Florida Comprehensive Assessment Test assesses approximately 1.7 million students in grades 3 – 10 (Florida Department of Education, 2008). Students in the aforementioned grades take the FCAT Reading Test each spring. Since the FCAT is part of Florida's plan to improve student achievement, it allows parents, teachers, principals, superintendents, and other educators to ensure that students are meeting the Florida Sunshine State Standards. On the FCAT Reading, the test questions are designed to measure comprehension skills that students need while reading. In order to ensure that students' skills are developing on pace, each year the test questions become slightly more difficult (Florida Department of Education, 2008).

Also, the FCAT allows educators and political leaders to identify students' learning deficiencies and successes. Presently, the cost of the FCAT is approximately 13 dollars per student, which is less than one-third of one percent (0.3%) of the state's K-12 education budget (Florida Department of Education, 2008). The three subgroups that will be researched in this study will be white, black, and Hispanic students in grade 5 who took the reading section of the 2007 FCAT.



### Achievement Gap

A large number of students in this country graduate high school with a minimal ability to write and read. Unfortunately, the failures of the schools are not distributed evenly. They fall disproportionately on students of color (Berlak, 2001). As mentioned in the definitions of terms, Education Week (2004) defines the achievement gap in education as "the disparity in academic performance between groups of students." In the forefront, performance "gaps" between Hispanic and black students, who are at the bottom end of the academic achievement scale, with their white peers are of major concern. Similarly, academic disparity between high-income family students and low-income family students is also an issue. The achievement gap is evident in students' FCAT scores, school grades, high school dropout rates, and college-completion rates. This gap is a very important issue of school reform efforts (Education Week, 2004).

In 2003, while close to 40 percent of white students achieved academic proficiency on the 4th grade reading exam portion, only 14 percent of Hispanic students and 12 percent of black students achieved scores of academic proficiency (U.S. Department of Education, 2003). However, a study by the National Assessment of Educational Progress (NAEP) has shown that, over time, Hispanic students and black students are narrowing the achievement gap (Education Week, 2004).

### Funding Equity

The FCAT, also dubbed as "high stakes" assessment, is used to determine many things, including what "grade" a school earns and whether students are able to graduate with a regular diploma. The FCAT is a crucial component of the State of Florida's

System of School Improvement and Accountability (Kelly, 2009). Schools are graded using various measures including, but not limited to, FCAT scores, and each year, a grade of “A,” “B,” “C,” “D,” or “F” is given to every public school in the state of Florida, according to student performance on the FCAT (along with other minimal factors). Schools earning a letter grade of “A” receive more funding than “B,” “C,” “D,” and “F” schools (Kelly, 2009). This plan allows the state and its school districts to achieve some accountability and semblance. However, the stakes have been raised so high that many schools and districts are taking desperate measures to have their students show up for the FCAT and pass the exam (exam attendance is also calculated in the final grade for the school) (Kelly, 2009).

The state of Florida sets forth the criteria by which schools are graded. Public schools within the state of Florida earn their grades based on: (1) learning gains in students' reading and math scores during the past year; (2) overall student scores on the FCAT in math and reading (grades 3-10), in science (grades 5, 8, and 11), and in writing (grades 4, 8, and 10); and (3) improvement in reading and math among the bottom twenty-five percent of students in the school (Daily Press, 2007). Schools earn points based on how well they do in each of the aforementioned categories. The state has an 800-point scoring rubric, and based on how many points they earn, they earn letter grades of "A", "B", "C", "D" or "F." Florida also meshes school letter grades to the percentage of eligible students who are tested every year. Schools earning a letter grade "A" are required to have tested at least ninety-five percent of their student population. In order to

earn at least a "B", "C", or "D," schools must have tested at least ninety percent of their students (Daily Press, 2007).

In 1998, Florida voters passed an amendment to the state constitution mandating the state to make “adequate provision for a uniform, efficient, safe, secure, and high quality system of free public schools,” according to a study conducted at Arizona State University (2004). During the 1999-2000 school year, Florida ranked 38th among the fifty states in educational funding, spending a little over \$5,800 per pupil in K–12, reports Douglas Harris of Arizona State University (2004).

Although, Florida's funding is distributed equitably across their 67 school districts, their funding method is not as equitable as it appears (Arizona State, 2004). Traditionally, equity standards consider whether all schools receive comparable funding. Florida's adequacy standard of funding focuses on whether or not students' needs are being met (Arizona State, 2004). This has raised some debate as to the interpretation of the disbursement of monies, which has led to several lawsuits.

In 1999, former Florida Governor Jeb Bush initiated a strategic method of accountability from the top-down through rigorous assessment and the bottom-up with extensive parental choice (Goldwater Institute, 2009). Florida lawmakers also reduced social promotion and reformed reading instruction, among other things. In 1998, about half of all Florida students in grade 4 could read at a basic fourth-grade level (Newsvine Inc., 2009). In 2007, that figure went up to 70 percent of Florida's fourth graders who were academically proficient in reading at the fourth-grade level. The number of Florida students achieving academic proficiency in basic literacy improved by 36 percent in just

nine years (Newsvine Inc., 2009). Most importantly, improvements among black students and Hispanic students helped push the overall results. Hispanic students in Florida now have the second-highest reading scores in the country and African Americans achieve fourth-highest, compared to their peers (Goldwater Institute, 2009). Moreover, according to the Goldwater Institute (2009), the average Hispanic student in Florida scores higher than the average student in 15 states on the National Assessment of Education Progress (NAEP) reading test, which is conducted in English.

Florida's black students are also beginning to outperform other states (Goldwater Institute, 2009). As it stands, these students already exceed or are tied with two states, and many other states are well within reach. Still, Florida is near the bottom of states in per-pupil spending (Goldwater Institute, 2009).

It has been documented that the manner in which schools are funded, along with other factors, directly affects student academic achievement. A study of about 40,000 students conducted by the U.S. Department of Education found that students attending wealthy school districts perform with much more success than do students in poor schools, even when students in poor schools came from middle-class or wealthy families (NavSurf, 2000). On average, the discrepancy among these students are 2 grade levels lower in mathematics and 4 grade levels lower in reading (NavSurf, 2000).

In 1997, the U.S. General Accounting Office conducted a study and found that the average school in a poor district receives about 25% less funding than does a school in a wealthy district (NavSurf, 2000). Despite many states' efforts, funding disparities continue to be a very serious issue. In fact, wealthy school districts receive more total

funding than poor school districts in 41 states, and in almost 30% of all states, the minimum funding per student in poor school districts is less than half of their state's average. In school districts that lack adequate funding in education, Hispanic and black students are consistently over-represented (NavSurf, 2000).

On average, a school district's budget is comprised of approximately nine percent federal funds. Each state and local school district make up the difference (Center for Public Education, 2008). The percentage of federal funds the government supplies flows into school districts through a wide array of programs and laws such as school lunch programs, Individual with Disabilities Education Act, Title I, and Reading First. Traditionally, states and local communities provide the majority of K-12 education revenue. The revenues allotted to local school districts are determined by the state; Florida currently contributes 40.2% to its schools (Florida Department of Education, 2008).

The Florida Education Finance Program (FEFP), enacted in 1973 by the Florida Legislature, established Florida's policy on equalized funding and aimed to guarantee every public student in the state the availability of services and programs appropriate to their educational need, regardless of local economic factors and/or geographic location. Although there are several sources of funding, the FEFP is the primary mechanism for funding the operating costs of Florida's K-12 educational programs in every public school district. Florida's Finance Plan bases its financial support for education upon the need of each individual student participating in a particular educational program rather than upon the number of teachers or classrooms. The Florida Legislature determines the

program cost factors and represent relative cost differences among the FEFP programs (Florida Department of Education, 2009). A study conducted by the Thomas B. Fordham Institute (2006) found that in order to enhance student achievement, provide students with equal opportunity, and ensure America's economic and academic competitiveness, the United States has to transform its approach to financing its public schools.

#### Relationship Between Academic Proficiency and Academic Funding

This transformation is beginning to occur in several states. Research studies in Maryland have shown that academic funding has a direct impact on student academic performance (Hernandez, 2009). Maryland has invested billions of dollars more on public education over the last six year and it has led to their schools being the best in the country (Hernandez, 2009). A 2009 report released by MGT of America, Inc. (MGT) found that student proficiency rates rose 4 percent for every \$1,000 spent per each student in elementary schools (Hernandez, 2009). MGT is a national management research and consulting firm.

Hernandez (2009) also reported that student performance on standardized tests has steadily improved over the past six years. He goes on to note that annual education spending in Maryland is up \$4.6 billion a year, up 80% from 2002. The report by Hernandez (2009) found that "proficiency levels statewide have improved dramatically for all students," especially in elementary schools. In fact, students in elementary schools have narrowed the achievement gap by 50% from where they were in 2004 (Hernandez, 2009).

Another study published in Education Week found that Massachusetts also showed gains in student academic proficiency due to an increase of state funding in education. The legal case of *McDuffy v. Secretary, of the Executive Office of Education* (1993) led to education reforms in Massachusetts and declared its system of education unconstitutional. The *McDuffy* outcome found that Massachusetts' education clause required the state to provide an adequate education to all students. The courts ruled that the state was not meeting that duty. The court also determined certain factors as to whether or not the state was providing their students an adequate education (*McDuffy v. Secretary, of the Executive Office of Education, 1993*). Over the next decade, Massachusetts legislature tripled the state's public school funding from \$3 billion to \$10 billion. The state also adopted a number of other strong reform measures including "a rigorous regimen of academic standards, graduation exams, and accountability" (Thomas, 2009)

. Over the course of these remedies, the achievement scores of white and Hispanic students in Massachusetts have outpaced the comparable national scores (Hanushek & Lindseth, 2009).

Because of these findings, other states such as New York, New Jersey, Pennsylvania, and other large states are investing more money into their educational systems. In April, 2008, Governor David A. Paterson announced that New York's Enacted Budget would include a \$1.75 billion increase for school districts across the state (State Department of New York, 2008). The \$1.75 billion increase included in the Enacted Budget will bring total school funding, statewide, to \$21.4 billion, an 8.9 percent

increase (State Department of New York, 2008). New York will also continue its Contracts for Excellence accountability initiative which ensures that school districts with low performing schools receive the largest funding increases. In turn, these school districts will invest in methods that are proven to narrow the achievement gap and improve student achievement (State Department of New York, 2008).

Similarly, in May, 2008, Pennsylvania Governor Edward Rendell urged the state for a proposed school funding law that would focus on long-term investment in student achievement. This school funding plan would invest over \$2.5 billion over the next six years. A report by the Pennsylvania General Assembly for the first time ever, set a per-student goal to provide a high-quality education in every school district (Reuters, 2008).

For the five years preceding Governor Rendell's proposal, state investments have resulted in gains in student achievement throughout Pennsylvania. Pennsylvania is only one of nine states that has shown gains in student achievement in elementary school reading over the past four years (Reuters, 2008). Another study in Pennsylvania also found that the impact of school funding not only affects student performance, but also their state's schools and communities (Good Schools Pennsylvania, 2009). The following were some of their findings:

#### Impact of Funding on Student Performance

1. Academic achievement improves when students have access to skilled teachers, safe facilities, small class sizes, and up-to-date technology. Struggling or disadvantaged students need extra help and costly support services.



2. When schools cannot afford these things. As a result, students in different communities often do not have an equal opportunity to receive a quality education and learn the information and skills required for success in life.
3. On average, the highest test scores come from the schools spending the most money.
4. There is a significant relationship between school funding levels and closing the achievement gap.

#### Impact of Funding on Schools

1. Studies since 1985 show that public schools with better teachers, funding, and academic programs can help all students to reach higher levels of achievement.
2. Quality public schools have played an important part in closing the achievement gap between wealthy and poor students and between white students and students of color.

#### Impact of Funding on Communities

1. All communities deserve and need excellent public schools. Quality schools help communities to enjoy a stronger work force, more stable employment, less poverty, improved public health, lower crime rates, and robust civic participation.
2. In 2005-06, the school districts with the highest overall standardized testing passing rates spent an average of nearly \$2,000 more per student than the average school district.

3. Local wealth often determines whether communities can afford strong public schools. Communities with higher property values and family income can tax themselves at a lower rate and still generate more revenue than low-wealth areas.
4. This significant tax difference shows that many low-performing school districts are making significant a tax effort in order to close achievement gaps. Local taxes in these struggling school districts often cannot be raised any further without creating hardships for families and businesses.

In twenty states, court judges have the ability to derive their authority from the education clauses in their own state's constitution, and since the late 1980s these judges have deemed their school finance systems as inadequate (Hanushek & Lindseth, 2009). They claimed that when children are provided sufficient resources, all children can learn. They substantiated their decisions based on student achievement scores, especially students which are disadvantaged and poor. Court intervention advocates claim that with additional funding, student outcomes will increase (Hanushek & Lindseth, 2009). Unfortunately, these judicial interventions alone do not enhance student performance.

A study in 2002, by the RAND Corporation found that Texas schools, despite a steady increase in federal, state, and local funding for schools, found only minor increases in student achievement on standardized tests. The researchers stated: "It is difficult to attribute an increase in student learning to any one factor because so many

forces influence student learning, including factors outside the school environment (RAND Corporation, 2002).”

Nationally, spending per pupil has almost quadrupled since 1960; unfortunately achievement levels have remained stagnant, raising the question as to whether or not states and their students are getting their money’s worth (Hanushek & Lindseth, 2009). The problem with most state education finance policies, those in existence and proposed, is that education policy is separated from funding. At the very least, this eliminates the huge incentive a properly designed school finance system can offer for achieving higher student performance (Hanushek & Lindseth, 2009).

#### Education Stimulus Package

Since this study began, congress signed into effect the American Recovery and Reinvestment Act of 2009 (ARRA) (U.S. Congress, 2009). The overall goals of the ARRA are to stimulate the country's economy and to invest in education and other essential public services to secure the nation’s long-term economic health (U.S. Department of Education, 2009). The success of the education part of the ARRA will depend on the shared responsibility and commitment of parents, students, teachers, and other education decision makers. This Act, signed on February 19<sup>th</sup>, 2009, is expected to put over \$787 billion back into the U.S. economy. In the K-12 arena, the bulk of the funds will be provided for programs such as the renovation and modernization of schools,

Title I (grants) and IDEA (special education). Funds will also be appropriated for school technology, teacher incentive funds, and disability research (Dillon, 2009).

The stimulus money will help states avoid some of the cutbacks in education for the 2009-10 school year resulting from state budget shortfalls that currently total over \$130 billion (Dillon, 2009). California for example, is facing a budget deficit of over \$40 billion, much of it in school spending, but will receive approximately \$11 billion in education money from the stimulus package (Dillon, 2009). Funds from the economic-stimulus aid for education began flowing out to states in March, 2009, along with new teacher-quality reporting requirements for states and school districts, and significantly more spending flexibility on school construction than many educational leaders had expected (Dillon, 2009). The U.S. Department of Education has detailed how states and their districts will receive their money under the State Fiscal Stabilization Fund, as well as how they may use it. The State Fiscal Stabilization Fund was designed to help local government and state budgets avoid and minimize reductions in education and other essential public service (U.S. Department of Education, 2009).

Locally, Florida's K-12 public schools stand to gain over \$3.5 billion over the next two years. According to Ron Matus (2009), a staff writer for the St. Petersburg Times, Florida schools will receive approximately "\$622 million in special education grants; \$509 million for high-poverty schools; \$148 million in school improvement grants; \$75 million for the Head Start program; \$109 million in child care and development grants; \$31 million for technology" (Matus, 2009).

### Minority Students

Low levels of education, income, and other social factors are interconnected and typically contribute to a cycle of poverty among black students. Research shows that, in society, as well as in the classroom, the higher up the socioeconomic “ladder” one stands, the more educational opportunities they are likely to receive (Beale, 1996). According to the U.S. Census, minorities comprise a large proportion of the lower socioeconomic class. A correlation is present between socioeconomic status and retention rates, which generally indicate poor performance in school (Beale, 1996). While the achievement gap narrowed considerably through the late 1980s, particularly between white students and black students, progress since then has been marginal. The fact is that the lack of academic proficiency among minority students remains one of the most pressing issues in this country (Education Commission of the States, 2009).

As expected, children whose parents are of a higher socioeconomic status (SES) are more likely to test better, have higher IQs, and further their education than those of a lower socioeconomic status (Levitt & Dubner, 2005). This is due to two main factors. First of all, there is the family influence: if a child's parent(s) received a higher education, they are more likely to be intelligent and therefore pass that on to their children. Said parents are more likely to value education because of their own personal experience in the higher education arena (Levitt & Dubner, 2005). Secondly, students whose parents did pursue a higher education, typically, have the money or time to spend on helping their children advance to a higher level. Thus, a cycle is created where those in lower and middle classes generally stay in those classes (Levitt & Dubner, 2005).

Enhancing educational opportunities among black students (and Hispanic students and other minority students) should be a primary goal of any policy initiative aiming to aid development of the racially diverse counties (Mykerezzi, Mills, & Gomes 2003). Furthermore, individuals wishing to pursue a college education depend on social factors, its expected returns, costs of education, and the perceived costs and benefits of college education to individuals (Mykerezzi, Mills, & Gomes, 2003). Although black students are making great strides in attaining more college degrees, as a group, they still lag behind white students, in all subject areas and at all grade levels tested (Florida Department of Education, 2007). “Legacies of segregation and continuing discrimination in labor markets are contributing factors to persistent differences in economic well-being (Darity and Mason, 1998).”

Among the 10 largest states, English-language learner students attending public school districts are often inappropriately served by their state's bilingual education laws. Most of these students are typically placed in educational settings where they spend nearly all school day listening to their teachers teach in languages other than English (Amselle, 2002). This was not the original intention of the bilingual education programs enacted over 30 years ago. The aim of bilingual education then was to help Hispanic students learn to read, write, and to speak in English as effectively and quickly as possible (Amselle, 2002).

The Equal Employment Opportunity Act (EEOA) of 1974 prohibits segregating students on the basis of color, national origin, or race as well as discrimination against faculty and staff (Texas Education Agency, 2009). In fact, the U.S. Department of Justice

(2002) states that the EEOA requires school districts to take action to overcome any student's language barriers that prohibit equal participation in an educational program. This is imperative, since blacks and Hispanics comprise a large percentage of the low social classes in the United States, and its school systems. Socioeconomic status is influenced by social class, and it is driven by two specific factors: geographic location and race (Darity and Mason, 1998). Racial and ethnic disparities, in the United States, in economic well-being have been well documented. Like black students, Hispanic students have lower levels of academic achievement than white students (Florida Department of Education, 2007).

Many Hispanic students are also second-language learners. There are several learning characteristics that exist between the typical English speaker and that of a second language learner. Most notably, and most importantly, is the fact that English speakers do just that, speak (and understand) the English language. This a tremendous advantage and one that is typically taken for granted. Second language learner (SLL) students, who arrive at school with various levels of language proficiency in English, need to be given the same educational opportunities as other students (New Jersey Department of Education, 2009). These students are held to the same accountability level for mastery as their English-speaking counterparts, and thus, school districts, nationwide must set high expectations for their LEP students (Genesee & Cloud, 1998).

Limited English Proficient students are typically placed in an ESOL program (English for Speakers of Other Languages). ESOL is an intensive literacy instruction for students who are non-English speakers (School District of Philadelphia, 2002). The goal

of every ESOL program is to move their English language learner (ELL) students into the mainstream classroom with English proficiency necessary to be successful in the regular classroom. According to the Wisconsin Literacy Education and Reading Network Source (2006), students who are ELL have learning characteristics similar to native English speakers:

1. Second language learners experience low literacy due to lack of education in their own language.
2. Continuous exposure to the English language is necessary to advance language proficiency in second language learners.
3. Accurate assessment is necessary for proper placement in second language learner programs.
4. Second language learning materials must be pertinent to the student's immediate language needs.
5. Cultural values and beliefs often inhibit SLL learning objectives
6. Second language learners are often proud of their classes, compared with native language learners, who are often reluctant for others to know of their language difficulties.
7. Second language learners need a substantial amount of conversation in the target language in order to ensure retention and production.
8. Second language learners can have learning disabilities, which are harder to diagnose. For example, a second language learner can be



experiencing difficulties simply because of an inability to understand the language rather than because of a learning disability.

Students who do not speak English as their primary language, and are in a regular classroom, are, more often than not, sitting in classrooms in states confusion, shyness, and embarrassment. It is very difficult for an ELL student to feel successful in a classroom, when he has feelings of being handicapped by the very language he speaks. Also, for the non-English speaker, learning consists of not only learning and memorizing the academic material at hand, but also having to learn and memorize the English language (especially secondary students), a task English speakers, for obvious reasons, are not required to do (Phillips, 1972). Children, by nature, learn the rules of discourse naturally in their home environment. This allows them to participate socially in an appropriate manner with friends and family. These constant interactions with others in their environment are how children learn. The discourse and rules in American public schools are rather different than that of a minority culture families' homes (Phillips, 1972). Phillips (1972) found that if the school environment accommodates the rules of discourse, learning is more likely to occur naturally.

Genesse & Cloud (1998) state:

“Educational programs for both language-majority and language-minority students that develop their home language along with a second language, or even a third language, are feasible and effective. These programs have the value-added benefit of developing second language and cross-cultural skills at no cost to other educational goals. These skills open employment opportunities and extend access to people, places, and information that are available only in other languages.”

Every state demands that LEP students respond appropriately to the class task demands when instruction is primarily in English. As a measure to monitor the education of English language learners through their native language and through English education, the Bilingual Education Act was enacted in 1968 (Ovando, 2002). This Act is also referred to Title VII of the Elementary and Secondary Education Act. School districts that receive and use federal funds are required by law to show compliance with the law to address the needs of English language learners (Ovando, 2002).

#### Case Law and Legislation

In 1974, the landmark case, *Lau v Nichols* had an influence on education laws all across the country. The unanimous *Lau* case was a class action suit representing approximately 1,800 Chinese students allegedly stating that they could not receive an appropriate education on the grounds that they could not understand their English speaking teachers (*Lau v. Nichols*, 1974). This case had an enormous effect on programs serving language-minority students. The outcome of this case, which was based primarily on the 1964 Civil Rights Act, concluded that equal treatment of non-English-speaking and English-speaking students did not constitute an equal educational opportunity (*Lau v. Nichols*, 1974).

Speaking on behalf of the court, Chief Justice Douglas (1974) stated:

“There is no equality of treatment merely by providing students with the same facilities, textbooks, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education. . . . We know that those who do not understand English are certain

to find their classroom experiences wholly incomprehensible and in no way meaningful.”

For many parents and educators in favor of bilingual education in the school systems, the *Lau* ruling appeared to be a strong force in their favor. Those opposed to teaching ELLs in their native language however, viewed the legal ramifications of *Lau v. Nichols* with indifference. The *Lau* case did not specify a specific curricular content for the students in question. Therefore, a wide variety of curricula could satisfy the "spirit of the law." Nonetheless, the decision of this case has had a tremendous impact on the development of bilingual education in the United States. Teitelbaum and Hiller (1977) stated the *Lau* decision legitimized and gave way to the movement for an equal educational opportunity for students who do not speak English by making the country aware of the need for bilingual education.

Another notable court case, ruled in the Fifth Circuit Court of Appeals, *Castañeda v. Pickard* (1981), helped to formulate a method to determine school district compliance with the Equal Education Opportunities Act of 1974. *Castañeda* (1981) noted that the segregation of limited English proficiency (LEP) students shall only be permitted when the educational benefits that place these non-English student speakers in a setting where they are not able to learn because of language barriers, outweigh the adverse effects of such segregation. Although court decisions have often served as a major force behind implementing initiatives in bilingual education, the programs that have in fact been implemented during the last 30 years have varied greatly. Programs differ tremendously

as to how much, if any, non-English instruction teachers use. In general, programs can be classified into three categories.

The first is English as a second language (ESL). The main focus of the ESL program is to teach students the English language. These classes typically include students of various languages, all receiving intensive instruction. The language of instruction in the classroom is rarely that of the ELLs native language and almost all English. ESL instruction is typically taught during a specific school period, and students are integrated in other mainstream classes during the school day.

The second category is transitional bilingual education. Transitional bilingual education is often “coined” as an early-exit program. Grade promotion and high school graduation requirements encourage LEP students to learn English-language skills and join classrooms with their English-speaking peers as quickly as possible. Although, both the ELLs native language and English are used during classroom instruction, programs vary in the amount of time each language is used.

The final category is dual-language immersion. These classes typically house students who are English-proficient along with students who are ELLs. The classes are structured so that instruction is taught in both English and the students’ native language. In a dual-language immersion setting, a teacher might teach science in Spanish one week and in English the next. All students are expected to learn both languages. This program also might be described as two-way bilingual education (Education Commission of the States, 2009).

Convincing the public and politicians that bilingual education is an effective way to educate both ELL students and English speaking students, has been very difficult (Hubpages, 2009). Research at the national and international level already exists proving that quality bilingual programs promote academic success. In the meantime, language-minority students exposed to the English language become bilingual (August & Hakuta, 1997). Crawford (1999) writes that “language-minority children are achieving at, or near, grade level by the time they leave well-designed bilingual programs, even in urban schools where failure was once the norm.”

*Debra P. v. Turlington* (1983) found that black students who had failed a statewide test required for high school graduation in Florida challenged the testing requirement as racially based. It was claimed that the State Student Assessment Test, Part II (SSAT-II), was designed to resegregate black students into remedial classes (North Central Regional Educational Laboratory, 2003). The test was a multiple-choice test of mathematics skills and basic real-world communication skills. In 1979, after the SSAT-II had been administered three times, results showed that approximately 78 percent of black seniors passed, compared to a nearly perfect 98 percent of white seniors (*Debra P. v. Turlington*, 1979). Florida's position, a decision which was upheld by the federal court, was that assessments such as the SSAT-II can improve their students' academic performance. Furthermore, these assessments also allowed Florida public school districts to identify those students requiring learning assistance, and evaluate the attainment of state learning objectives (*Debra P. v. Turlington*, 1979).

*Debra P. v Turlington* established two necessary requirements for diploma sanction testing: curricular validity and adequate notice. Curricular validity simply means that the schools are required to teach the students what is being tested; under *Debra P.*, the state must collect and analyze data to demonstrate curricular validity. Adequate notice requires that schools advise their students of material that will be assessed several years before it is implemented (North Central Regional Educational Laboratory 2003).

The Office for Civil Rights (OCR) bears the responsibility of enforcing Title VI of the Civil Rights Act of 1964 (U.S. Department of Education, 2000). Title VI states that persons in the United States shall, on the grounds of color, national origin, or race, not be denied the benefits of, be excluded from participation in, or be otherwise discriminated under any activity or program receiving federal financial assistance from the Department of Education (U.S. Department of Health and Human Services, 2009). Title VI requirements prohibit denial of equal access to education as a direct result of a student's limited proficiency in English. Therefore, Title VI protects those students limited in their English language skills and allows them to participate in, or benefit from, regular or special education school instructional programs (U.S. Department of Health and Human Services, 2009). The federal government has sought to build upon students' languages, home cultures, and prior experiences in such a way that children could start learning without first being proficient in English. According to the U.S. Department of Education (1970), the following are some of the major areas of concern that relate to compliance with Title VI:

1. "Where inability to speak and understand the English language excludes national origin-minority group children from effective participation in

the educational program offered by a school district, the district must take affirmative steps to rectify the language deficiency in order to open its instructional program to these students.

2. School districts must not assign national origin group students to classes for the mentally retarded on the basis of criteria which essentially measure or evaluate English language skills; nor may school districts deny national origin-minority group children access to college preparatory courses on a basis directly related to the failure of the school system to inculcate English language skills.
3. Any ability grouping or tracking system employed by the school system to deal with the special language skill needs of national origin-minority group children must be designed to meet such language skill needs as soon as possible and must not operate as an educational dead-end or permanent track.”
4. School districts have the responsibility to adequately notify national origin-minority group parents of school activities that are called to the attention of other parents. Such notice in order to be adequate may have to be provided in a language other than English (Department of Health, 1970).”

In 1968, the Bilingual Education Act merged into the Bilingual Education Act or Title VII of the Elementary and Secondary Education Act (ESEA). Regrettably, Title VII of the ESEA, which transformed the way language-minority children were taught in the United States by training educators, promoting equal access to curricula, and fostering achievement among students expired on January 8, 2002. The Bilingual Education Act was eliminated in 2002 as part of a larger "school reform" measure known presently as No Child Left Behind (Crawford, 2002). According to the United States Department of Education (2004), the purpose and mission of the No Child Left Behind Act of 2001, is to “ensure that all children have a fair, equal, and significant opportunity to obtain a high-quality education and reach, at a minimum, proficiency on challenging State academic achievement standards and state academic assessments.”

In 2006, Florida Statute 1008.22 stated the purpose for student assessment programs in the public schools. The statute states that the primary purposes for student assessment are to provide information and data needed to improve the public school districts by enhancing the learning gains of all students and to inform parents of the educational progress of their children. The program must be designed to assess the yearly gains of all students toward meeting the Sunshine State Standards appropriate for their grade levels (Florida Senate, 2009). At the same time, the statute provides educators and lawmakers data for making decisions regarding school recognition and accountability. Finally, along with identifying the needs of students and the educational strengths necessary to graduate high school or to be promoted to the next grade level, it assess how well performance standards and educational goals are met at the state, district, and school level (Florida Senate, 2009).



## CHAPTER 3 METHODOLOGY

### Introduction

This chapter describes the methodology and procedures utilized in analyzing the data and relationships stated in the research questions in Chapter 1. The statistical procedures chosen for data analysis were also included. The chapter is divided into the following sections: (1) problem statement, (2) research questions, (3) research hypotheses, (4) sample of the population, (5) methodology, (6) data analysis, and (7) summary.

### Problem Statement

The United States' education system provides a free and appropriate public education (FAPE) to all students. However, research shows that the proportions of students who benefit most from FAPE are white, affluent students (Florida Department of Education, 2007). Unfortunately, children who arrive at school with the greatest educational need, tend to receive the least amount of services in school. Minority students and low socioeconomic students, in particular, get the least of what matters most. These students get the fewest experienced and well-educated teachers, the lowest quality facilities (schools), and the least rigorous curriculum (The Education Trust, 2009).

At the core of these inequities is a set of school finance policy choices that systematically shortchange minority and low-income students and the public schools and

public school districts that serve them. As a society, a lot of time, money, and effort are invested in fixing problems but not enough in preventing them in the first place. Students ultimately suffer when an adequate investment in education systems and their policies is not achieved (Arnold, 2006).

The manner in which schools distribute funding is the real obstacle to our nation's children receiving a proper education. Nationwide, during the 2005-2006 school year, nearly 11,000 public schools had failed to make Adequate Yearly Progress for two or more years under No Child Left Behind provisions, and thus faced federal sanctions (Education Matters, 2007). The students in these schools will face even greater challenges in the coming years as standardized testing requirements go into full effect (Education Matters, 2007).

For this reason, personal accountability and competition needs to be implemented. Instead of funding the "system," we need to begin funding each student. This forces all schools (including failing schools) to be held financially accountable to their respective local community, parents, and most importantly, the students (Education Matters, 2007). The NCLB is under-funded and is thereby failing "to ensure that 100 percent of eligible children are served."

### Research Questions

The study was guided by the following three research questions:

1. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic

achievement among white students, as measured by their performance on the grade 5 FCAT in Reading?

2. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among black students, as measured by their performance on the grade 5 FCAT in Reading?
3. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among Hispanic students, as measured by their performance on the grade 5 FCAT in Reading?

### Research Hypotheses

Hypothesis 1: There is no statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida.

Hypothesis 2: There is no statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among black students in reading, in grade 5, within the 67 public school districts in Florida.

Hypothesis 3: There is no statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured

by the 2007 FCAT among Hispanic students in reading, in grade 5, within the 67 public school districts in Florida.

### Description of the Population

The sample in this study consisted of approximately 51,223 white, black, and Hispanic students in grade 5 who took the reading section of the FCAT during the spring of 2007 in the state of Florida and scored either a Level 1 or Level 2. The participants, on average, were between the ages of ten and twelve.

### Methodology

Data were collected from selected school districts in Florida as reported to the Florida Department of Education database for the 2006-2007 school year. Data were also collected from the 2007 Florida Property Valuations and Tax Data as provided by the Florida Department of Revenue. The Statistical Package for Social Science (SPSS) Graduate Package (version 17.0) was used to analyze data. A regression analysis was used to analyze the school districts' variables measured in this research. These variables included, but were not limited to, taxable school property, student enrollment, and the wealth behind each student in Florida.

The wealth behind each public school student in Florida shall be based on non-exempt, assessed valuation of property divided by the total public school student enrollment within each school district as calculated by the 2006-2007 weighted FTE (Third Calculation) (See Tables 20, 21, and 22 in the Appendix).

### Data Analysis

SPSS Graduate Package (version 17.0) was the main statistical tool used to analyze the data that were collected from the Florida Department of Education and the Florida Department of Revenue. A regression analysis was used to determine the correlation between the amount of property wealth behind each student attending Florida district schools and 5<sup>th</sup> grade Reading scores among white, black, and Hispanic students as measured by the Florida Comprehensive Assessment Test.

### Summary

Chapter 3 presented the methodology used in the data collection for this dissertation. The methods of analysis and research design are also explained. Chapter 4 of this dissertation contains quantitative data gathered, data analyses, and their interpretations. Chapter 5 includes an overview of the purpose statement, methodology, instrumentation, and data analysis. Also, a discussion of findings regarding each research question is included along with conclusions, implications, and recommendations for future research.

## CHAPTER 4 ANALYSIS OF THE DATA

### Introduction

This study examined to what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among white, black, and Hispanic students, on the 2007 FCAT Reading Sunshine Standards test, in grade 5.

Using SPSS (version 17.0), the data gathered were used to run a regression analysis to determine the correlation between two numerical values (wealth and percent not proficient) and a grouping value (ethnicity) for all three subgroups (white students, black students, and Hispanic students).

After preliminary review of the regression analysis, visual inspection of the scatterplots revealed problems with individual values as well as possible non-linear relationships. The plots were examined to determine if any points on the scatterplot were considered overly influential. Influential points are points that have an inordinate amount of influence (control) over the position of the line through the data. Four points were considered to be outliers and were considered for removal in order to run a regression analysis. The assumptions associated with omitting these points is appropriate when using regression models to understand the relationship between wealth and percent not proficient. The decision of removing these four points comes after theoretical review of these counties. After visual inspection of the data, it was determined that some

counties were very influential and were removed from the analysis because they were outliers and skewed the data. Outliers may be influential points but they also may be points that are separate from most of the observed data values. If the four counties would have been included in this study, the assumptions of this study would not be valid. The counties included: Collier, Franklin, Monroe, and Walton. With the counties removed, new scatterplots were produced. Unfortunately, the data values still had normality problems.

A transformation of the wealth variable was used to normalize the data prior to correlation calculations. New scatterplots were constructed using log (wealth) and percentage not proficient. Visual inspection shows that these plots look fine as far as the assumption of bivariate normality. Pearson correlation values were calculated using the transformed data. The results showed that both the white and black subgroup percentage of not proficient is related (statistically significant correlation) to the log (wealth) variable.

For this study, the quantity  $r$ , called the *linear correlation coefficient*, measures the strength and the direction of a linear relationship between two numeric variables. The linear correlation coefficient is sometimes also referred to as the *Pearson product moment correlation coefficient* and has a range of -1 to 1. An  $r$  value near positive 1 indicates a strong positive linear correlation. A strong negative linear correlation is present when  $r$  is close to -1. An  $r$  value of exactly 1 or -1 indicates a perfect positive or negative fit, respectively. The closer  $r$  is to 0, the weaker the correlation. In fact, a value near zero means that there is nonlinear relationship or random relationship between the

two variables. In essence, The Pearson Correlation Coefficient ranges from -1 to 1, where larger absolute values are indicative of statistical significance. In this regression model, the significance will be noted as the  $p$ -value for the correlation value. If the  $p$ -value is less than 0.05 then we conclude that there is a statistically significant relationship between the variables. Table 1 indicates the size of correlation and its interpretation.

Table 1. Table of  $r$  Values

Size of Correlation	Interpretation
.9 to 1	Very High
.7 to .9	High
.5 to .7	Moderate
.3 to .5	Low
0 to .3	Little

Note: Data sets with large sample sizes may show statistical significance due to the large  $N$ .



### Research Question 1

To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among white students, as measured by their performance on the grade 5 FCAT in reading?

For this research question, the sample consisted of 63 Florida school districts comprising of 15,888 white students. A regression analysis and an analysis of variance were used to analyze the data. It was hypothesized that there would be no statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida. A significance level of .05 was selected.

Four counties were excluded from this correlation (as they were considered outliers). If the four counties would have been included, the regression assumptions of this study would not be valid. The counties considered as outliers were: Collier County, Franklin County, Monroe County, and Walton County. These outliers were influential points that were separate from most of the observed data values. Sixty-three counties were included in the analysis.

Table 2. Case Processing Summary for Shapiro-Wilks for White Students

		Cases					
		<u>Valid</u>		<u>Missing</u>		<u>Total</u>	
<u>Ethnicity</u>		N	Percent	N	Percent	N	Percent
White	Wealth	63	100.0%	0	.0%	63	100%
	Not Proficient	63	100.0%	0	.0%	63	100%

Table 2 shows that there are no missing data values for this subgroup of students (N = 63). The percentage not proficient by ethnic group was normally distributed for each ethnic group but the wealth variable was not normally distributed (See Table 2). A Test of Normality shows the significance level of the Shapiro-Wilks test (See Table 3). The test for Normality, Shapiro-Wilks informs whether or not the data is normally distributed. When the p-value is less than 0.05 then the data is not normally shaped. Thus for wealth (because it is not normal and that is an assumption for correlation) it needed to be transformed.

Table 3. Tests of Normality (Shapiro-Wilks) for White Students

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilks		
<u>Ethnicity</u>		<u>Statistic</u>	<u>Df</u>	<u>Sig.</u>	<u>Statistic</u>	<u>df</u>	<u>Sig.</u>
White	Wealth	.112	63	.050	.902	63	.000
	Not Proficient	.122	63	.020	.970	63	.121

<sup>a</sup> Lilliefors Significance Correction

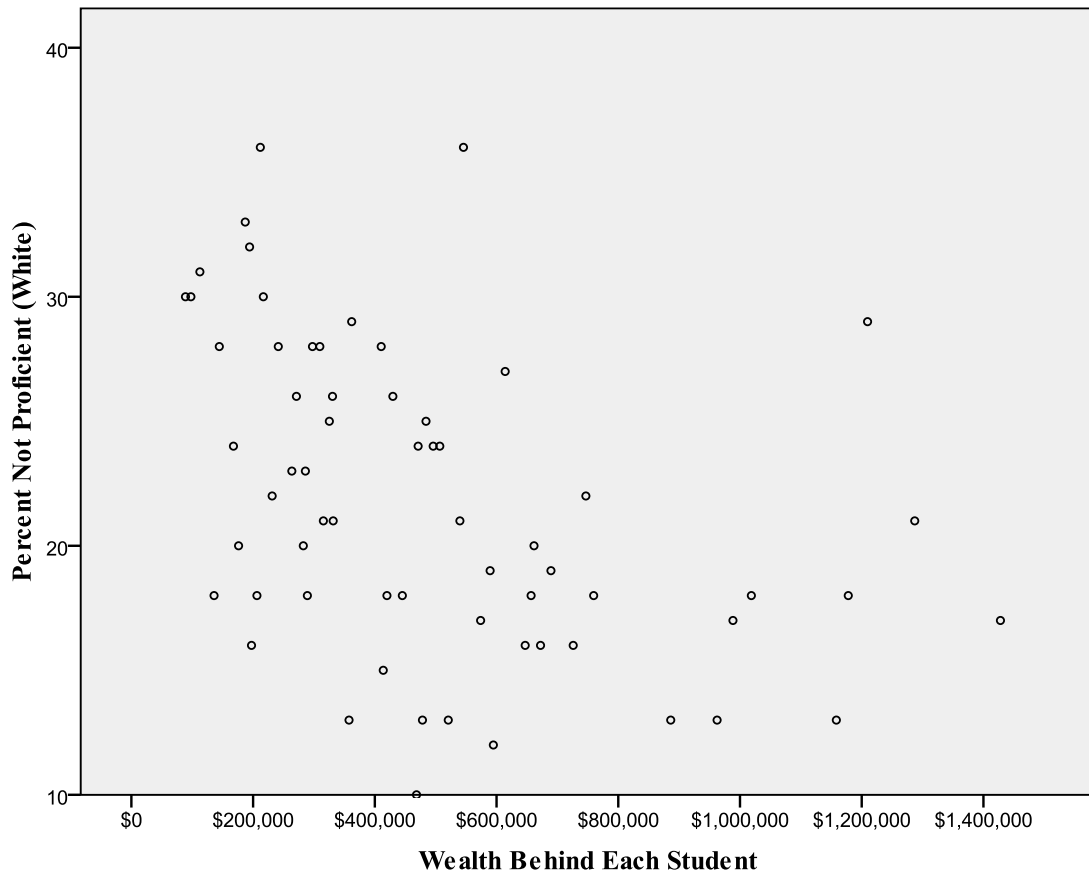


Figure 1: Percent Not Proficient (White) and Wealth Behind Each Student

Figure 1 illustrates the original values which were checked for potential outlier points or other problems related to dispersion. A transformation of the wealth variable was used to normalize the data prior to correlation calculations. Table 4 shows the correlation values between white students (not proficient) and the wealth behind each student. With all 63 counties included, it is evident that at this juncture there is a correlation among the two variables ( $p = .001$ ). In order to obtain a more accurate correlation, a log of wealth was created (See Table 4).

Table 4. Correlation of District Wealth and Not Proficient (White)

Correlations			
		<u>Wealth</u>	<u>Not Proficient</u>
Wealth	Pearson	1	-.420**
	Correlation		
	Sig. (2-tailed)		.001
	N	63	63
Not Proficient	Pearson	-.420**	1
	Correlation		
	Sig. (2-tailed)	.001	
	N	63	63

\*\* Correlation is significant at the 0.01 level (2-tailed)

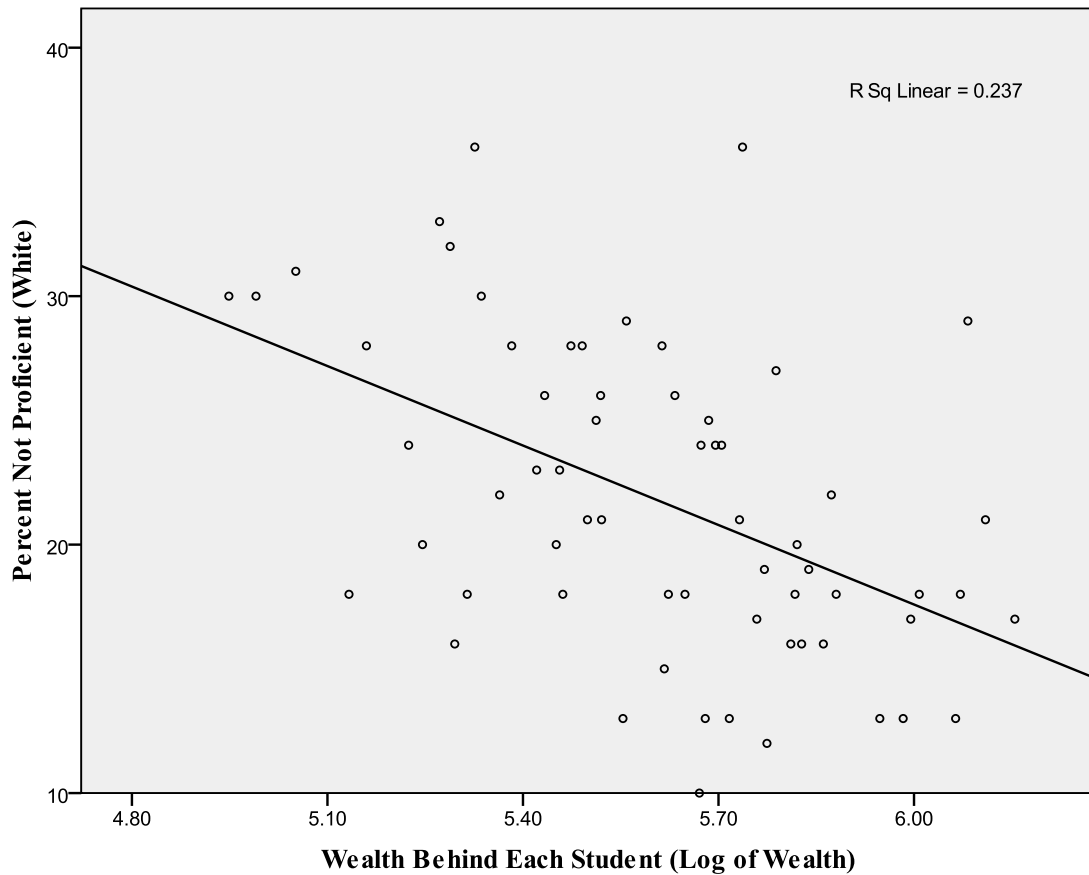


Figure 2: Regression of Percent Not Proficient (White) and Wealth Behind Each Student (Log of Wealth)

The *coefficient of determination*,  $r^2$ , is a measure that determines the certainty in making predictions from a certain model or graph. In Figure 2,  $r^2 = 0.237$ , which means that 23.7% of the total variation in y can be explained by the linear relationship between x and y. The other 76.3% of the total variation in y remains unexplained. In other words, the wealth behind each public school student explains 23.7% of student academic proficiency.

Table 5. Correlation of White Not Proficient and Log of Wealth

Ethnicity		Not Proficient	Log of Wealth
<u>White Not Proficient</u>	Pearson Correlation	1	-.487*
	Sig. (2-Tailed)		.000
	N	63	63
Log of Wealth	Pearson Correlation	-.487*	1
	Sig. (2-Tailed)	.000	
	N	63	63

$p < 0.01$ .

\* Correlation is significant at the 0.01 level (2-Tailed).

The pearson correlation coefficient for percent not proficient (white) and log of wealth is -.487 which is considered low based on Table 1 interpretation (See Table 5). Even though there is considerable variation remaining, the correlation value ( $p < .001$ ) is statistically significant and thus informative (See Table 5). Based on the data, grouped

by county, there was a statistically significant correlation between the wealth behind each public school student in Florida and their 2007 FCAT Reading score for 5<sup>th</sup> grade white students;  $p < .01$  (See Table 5). Table 6 simply shows that  $t = -4.354$ ,  $p < .001$  and thus significant.

Table 6. Unstandardized and Standardized Coefficients (White)

<u>Ethnicity</u>	<u>Model</u>	Unstandardized Coefficients <u>B</u>	Standardized Coefficients <u>Standard of Error</u>	<u>Beta</u>	<u>t</u>	<u>Significance</u>
White	Constant	81.572	13.756		5.930	.000
	Log of Wealth	-10.664	2.449	-.487	-4.354	.000

The model results for the white subgroup ( $t = -4.354$ ,  $p < 0.01$ ) show a statistical significant correlation.

Table 7. Analysis of Variance (White)<sup>b</sup>

	Sum of Squares	df	Mean Square	F	Sig.
Regression	579.702	1	579.702	18.953	.000 <sup>a</sup>
Residual	1865.727	61	30.586		
Total	2445.429	62			

a. Predictors: (Constant), log of wealth

b. Dependent Variable: Not Proficient

The test of within-subjects effects showed that  $F(1, 61) = 18.953, p < .001$  (See Table 7); therefore we can reject Hypothesis 1 and conclude that there is a statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida.

### Research Question 2

To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among black students, as measured by their performance on the grade 5 FCAT in reading?

For this research question, the sample consisted of 59 Florida school districts comprising of 19,154 black students. A regression analysis and an analysis of variance were used to analyze the data. It was hypothesized that there would be no statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among black students in reading, in grade 5, within the 67 public school districts in Florida. A significance level of .05 was selected. Four counties were excluded from this correlation (as they were considered outliers). If the four counties would have been included, the assumptions of this study would not be valid. The counties included: Collier County, Franklin County, Monroe County, and Walton County.

Table 8. Case Processing Summary for Shapiro-Wilks for Black Students

		Cases					
		<u>Valid</u>		<u>Missing</u>		<u>Total</u>	
<u>Ethnicity</u>		N	Percent	N	Percent	N	Percent
Black	Wealth	59	93.7%	4	6.3%	63	100%
	Not Proficient	59	93.7%	4	6.3%	63	100%

Along with the four original outliers, Table 8 shows that four additional counties were not included in this correlation (N = 59) because there were less than 10 students in each of these counties and thus no data was provided by the Florida Department of Education. These counties included: Gilchrist, Holmes, Lafayette, and Liberty. The percentage not proficient by ethnic group was normally distributed for each ethnic group but the wealth variable was not normally distributed (see Table 8). A Test of Normality shows the significance level of the Shapiro-Wilks test (See Table 9).

Table 9. Tests of Normality (Shapiro-Wilks) for Black Students

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilks		
<u>Ethnicity</u>		<u>Statistic</u>	<u>Df</u>	<u>Sig.</u>	<u>Statistic</u>	<u>df</u>	<u>Sig.</u>
Black	Wealth	.112	59	.063	.905	59	.000
	Not Proficient	.099	59	.200*	.977	59	.320

<sup>a</sup> Lilliefors Significance Correction

\* This is a lower bound of the true significance



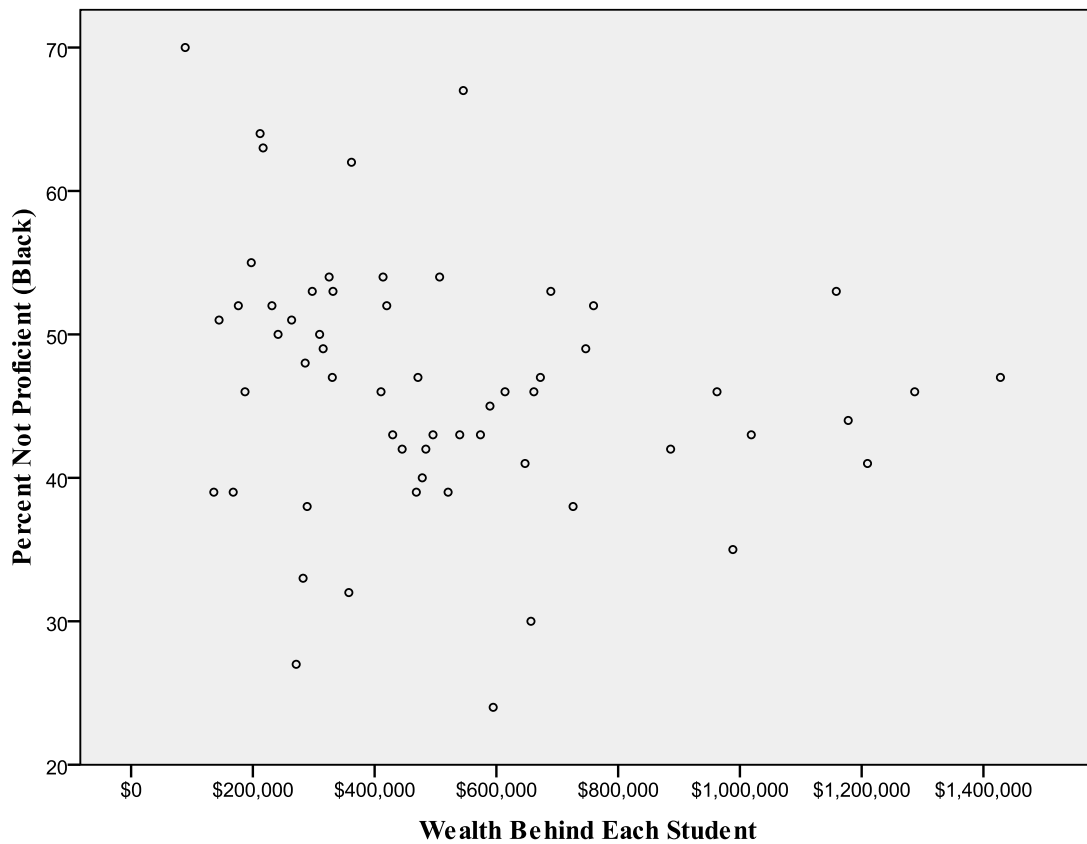


Figure 3: Percent Not Proficient (Black) and Wealth Behind Each Student

Figure 3 illustrates the original values which were checked for potential outlier points or other problems related to dispersion. A transformation of the wealth variable was used to normalize the data prior to correlation calculations. Table 10 shows the correlation values between black students (not proficient) and the wealth behind each student. It is evident that at this juncture there is no correlation among the two variables ( $p = .114$ ). In order to obtain a more accurate correlation, a log of wealth was created (See Table 10).

Table 10. Correlation of District Wealth and Not Proficient (Black)

		Correlations	
		<u>Wealth</u>	<u>Not Proficient</u>
Wealth	Pearson	1	-.208
	Correlation		
	Sig. (2-tailed)		.114
	N	63	59
Not Proficient	Pearson	-.208	1
	Correlation		
	Sig. (2-tailed)	.114	
	N	59	59

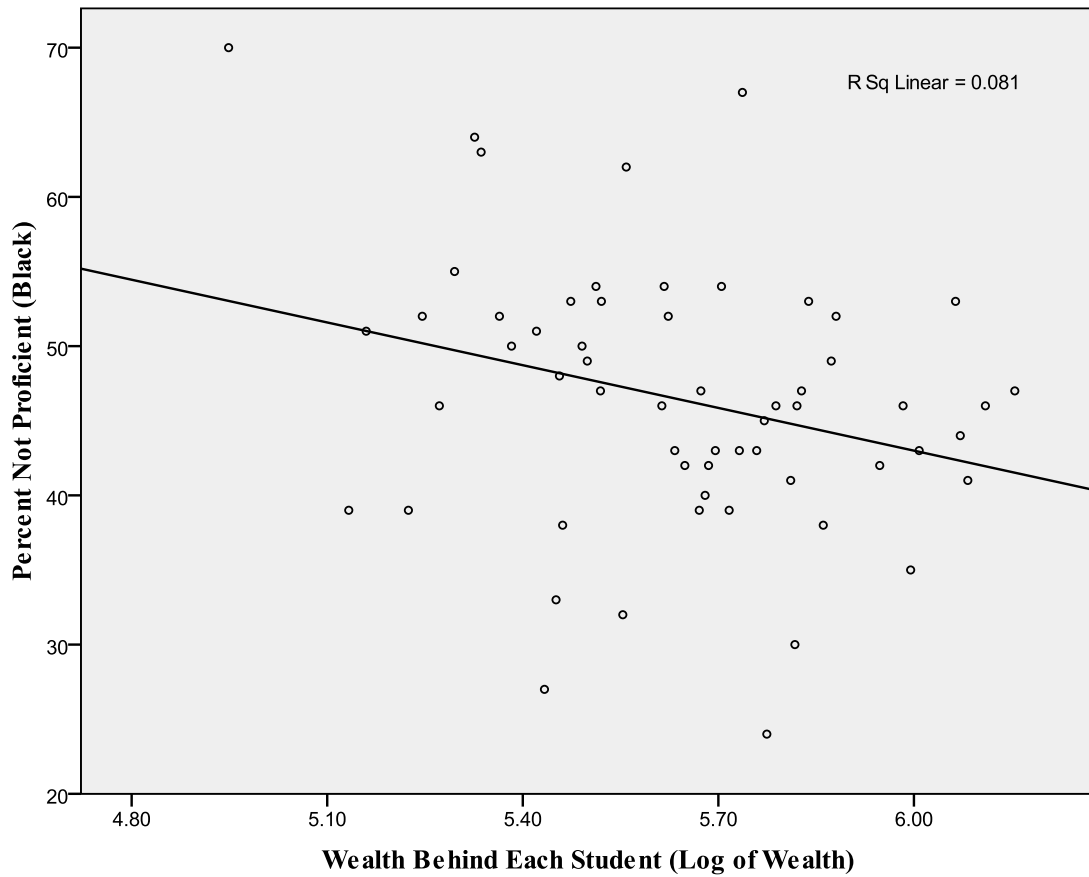


Figure 4: Regression of Percent Not Proficient (Black) and Wealth Behind Each Student (Log of Wealth)

The *coefficient of determination*,  $r^2 = 0.081$  means that 8.1% of the total variation in y can be explained by the linear relationship between x and y (See Figure 4). The other 91.9% of the total variation in y remains unexplained. In other words, the wealth behind each public school student explains 8.1% of student academic proficiency.

Table 11. Correlation of Black Not Proficient and Log of Wealth

Ethnicity		Not Proficient	Log of Wealth
<u>Black Not Procient</u>	Pearson Correlation	1	-.284*
	Sig. (2-Tailed)		.029
	N	59	59
Log of Wealth	Pearson Correlation	-.284*	1
	Sig. (2-Tailed)	.029	
	N	59	59

p = 0.029

\*Correlation is significant at the 0.05 level (2-Tailed).

The pearson correlation coefficient for percent not proficient (black) and log of wealth is -.284 which is considered little based on Table 1 interpretation (See Table 11). Even though there is considerable variation remaining, the correlation value (p = .029) is statistically significant and thus informative. Based on the data, grouped by county, there was a statistically significant correlation between the wealth behind each public school student in Florida and their 2007 FCAT Reading score for 5<sup>th</sup> grade black students; p < .05 (See Table 11). Table 12 simply shows that t = -2.239, p = .029 and thus significant.

Table 12. Unstandardized and Standardized Coefficients (Black)

<u>Ethnicity</u>	<u>Model</u>	Unstandardized Coefficients		Standardized Coefficients		<u>Significance</u>
		<u>B</u>	<u>Standard of Error</u>	<u>Beta</u>	<u>T</u>	
Black	Constant	100.264	24.069		4.166	.000
	Log of Wealth	-9.545	4.263	-.284	-2.239	.029

The model results for the black subgroup ( $t = -2.239$ ,  $p = 0.029$ ) show a statistical significant correlation.

Table 13. Analysis of Variance (Black)<sup>b</sup>

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	379.096	1	379.096	5.012	.029 <sup>a</sup>
Residual	4311.447	57	75.639		
Total	4690.542	58			

<sup>a</sup> Predictors: (Constant), log of wealth

<sup>b</sup> Dependent Variable: Not Proficient

The test of within-subjects effects showed that  $F(1, 57) = 5.012$ ,  $p = .029$  (See Table 13); therefore we can reject Hypothesis 2 and conclude that there is a statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among black students in reading, in grade 5, within the 67 public school districts in Florida.

### Research Question 3

To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among Hispanic students, as measured by their performance on the grade 5 FCAT in reading?

For this research question, the sample consisted of 49 Florida school districts comprising of 16,181 Hispanic students. A regression analysis and an analysis of variance were used to analyze the data. It was hypothesized that there would be no statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among Hispanic students in reading, in grade 5, within the 67 public school districts in Florida. A significance level of .05 was selected. Four counties were excluded from this correlation (as they were considered outliers). If the four counties would have been included, the assumptions of this study would not be valid. The counties included: Collier County, Franklin County, Monroe County, and Walton County.

Along with the four original outliers, Table 14 shows that fourteen additional counties were not included in this correlation (N = 49) because less than 10 students in each of these counties and thus no data was provided by the Florida Department of Education. These counties included: Baker, Bradford, Calhoun, Dixie, Gilchrist, Gulf, Holmes, Jefferson, Liberty, Madison, Taylor, Union, Wakulla, and Washington. The percentage not proficient by ethnic group was normally distributed for each ethnic group

but the wealth variable was not normally distributed (see Table 14). A Test of Normality shows the significance level of the Shapiro-Wilks test (see Table 15).

Table 14. Case Processing Summary for Shapiro-Wilks for Hispanic Students

		Cases					
		<u>Valid</u>		<u>Missing</u>		<u>Total</u>	
<u>Ethnicity</u>		N	Percent	N	Percent	N	Percent
Hispanic	Wealth	49	77.8%	14	22.2%	63	100%
	Not Proficient	49	77.8%	14	22.2%	63	100%

Table 15. Tests of Normality (Shapiro-Wilks) for Hispanic Students

		Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilks		
<u>Ethnicity</u>		<u>Statistic</u>	<u>Df</u>	<u>Sig.</u>	<u>Statistic</u>	<u>Df</u>	<u>Sig.</u>
Hispanic	Wealth	.108	49	.200*	.914	49	.002
	Not Proficient	.102	49	.200*	.983	49	.705

<sup>a</sup> Lilliefors Significance Correction

\* This is a lower bound of the true significance

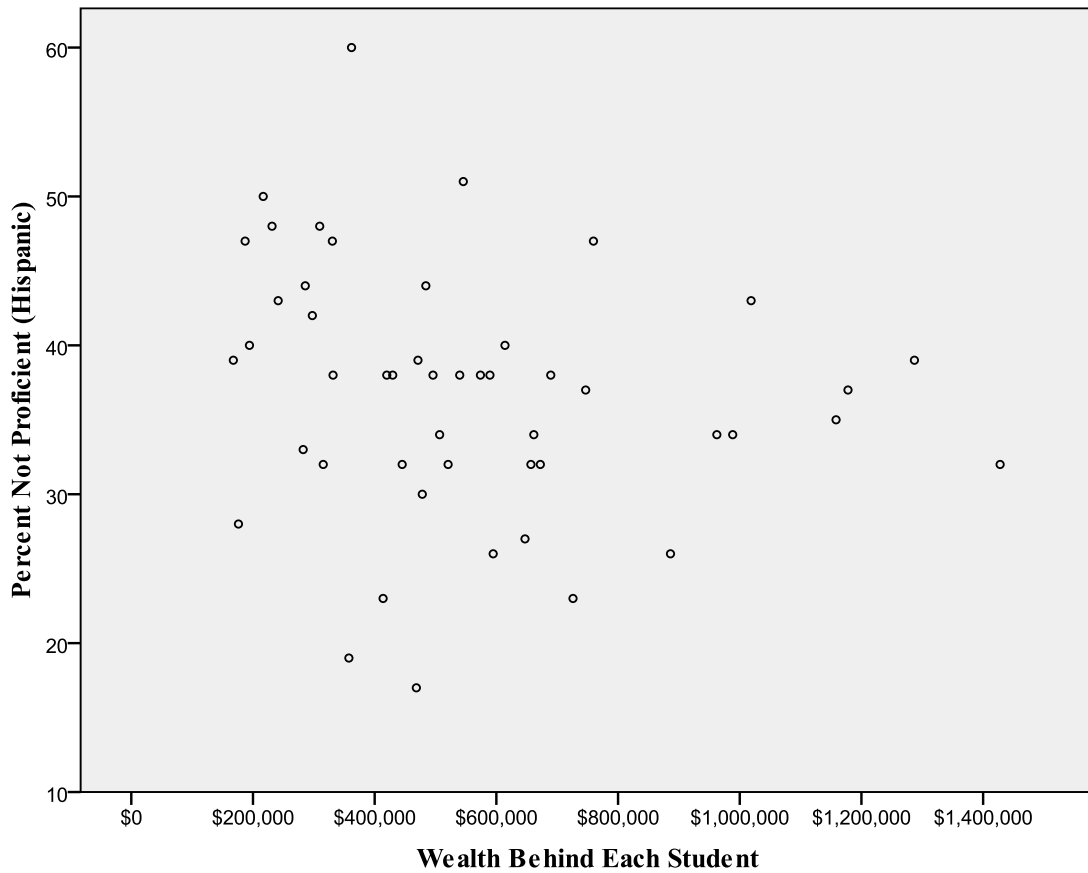


Figure 5: Percent Not Proficient (Hispanic) and Wealth Behind Each Student

Figure 1 illustrates the original values which were checked for potential outlier points or other problems related to dispersion. A transformation of the wealth variable was used to normalize the data prior to correlation calculations. Table 16 shows the correlation values between Hispanic students (not proficient) and the wealth behind each student. It is evident that at this juncture there is no correlation among the two variables ( $p = .160$ ). In order to obtain a more accurate correlation, a log of wealth was created (See Table 16).



Table 16. Correlation of District Wealth and Not Proficient (Hispanic)

		Correlations	
		<u>Wealth</u>	<u>Not Proficient</u>
Wealth	Pearson	1	-.204
	Correlation		
	Sig. (2-tailed)		.160
	N	63	49
Not Proficient	Pearson	-.204	1
	Correlation		
	Sig. (2-tailed)	.160	
	N	49	49

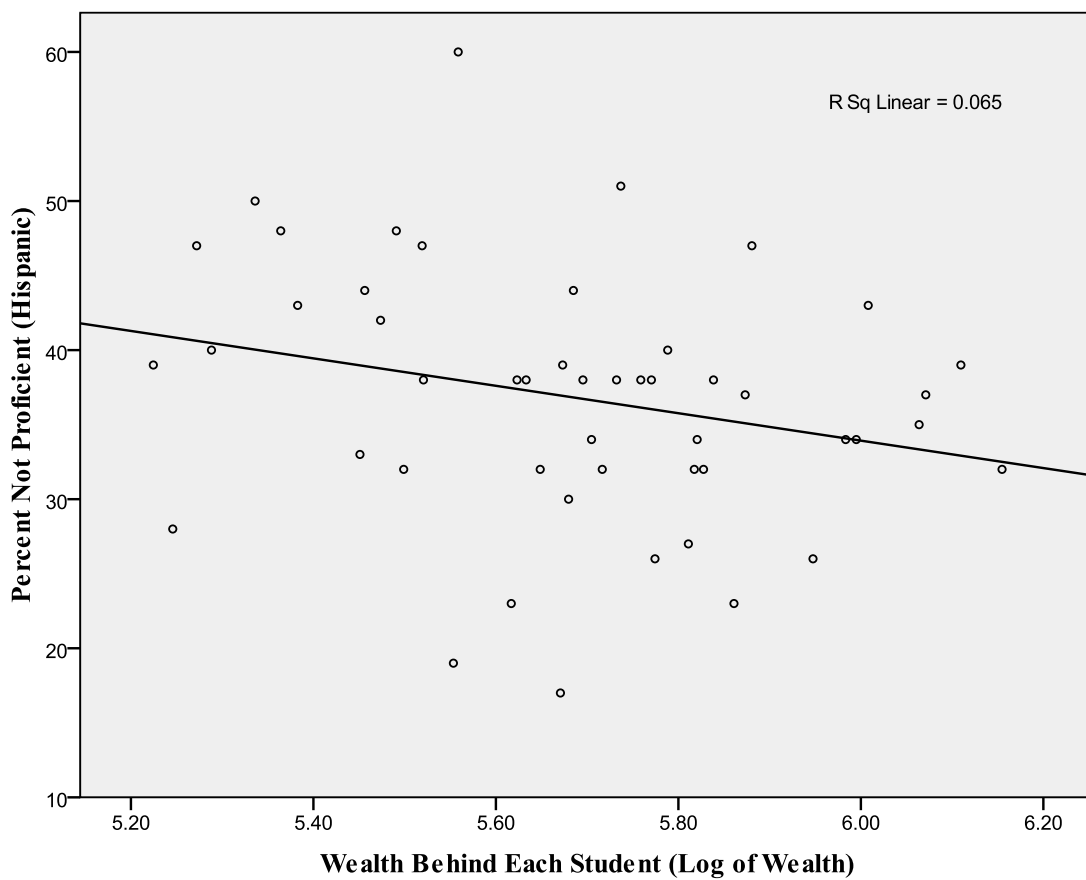


Figure 6: Regression of Percent Not Proficient (Hispanic) and Wealth Behind Each Student (Log of Wealth)

The *coefficient of determination*,  $r^2 = 0.065$ , which means that 6.5% of the total variation in y can be explained by the linear relationship between x and y (See Figure 6). The other 93.5% of the total variation in y remains unexplained. In other words, the wealth behind each public school student explains 6.5% of student academic proficiency.

Table 17. Correlation of Hispanic Not Proficient to Log of Wealth

Ethnicity		Not Proficient	Log of Wealth
<u>Hispanic Not Proficient</u>	Pearson Correlation	1	-.255
	Sig. (2-Tailed)		.077
	N	49	49
Log of Wealth	Pearson Correlation	-.255	1
	Sig. (2-Tailed)	.077	
	N	49	63

p = .077

The pearson correlation coefficient for percent not proficient (Hispanic) and log of wealth is -.255 which is considered little based on Table 1 interpretation (See Table 17). In this case, the correlation value (p = .077) is not statistically significant and thus not informative. Based on the data, grouped by county, there was no statistically significant correlation between the wealth behind each public school student in Florida and the 2007 FCAT Reading score for 5<sup>th</sup> grade Hispanic students. Table 18 simply shows that t = -1.809, p = .077 and thus inconclusive.

Table 18. Unstandardized and Standardized Coefficients (Hispanic)

<u>Ethnicity</u>	<u>Model</u>	Unstandardized Coefficients		Standardized Coefficients		<u>Significance</u>
		<u>B</u>	<u>Standard of Error</u>	<u>Beta</u>	<u>T</u>	
Hispanic	Constant	89.113	28.933		3.080	.003
	Log of Wealth	-9.198	5.084	-.255	-1.809	.077

The model results for the Hispanic subgroup ( $t = -1.809$ ,  $p = .077$ ) show there is no statistical significant correlation.

Table 19. Analysis of Variance (Hispanic)<sup>b</sup>

	Sum of Squares	df	Mean Square	F	Sig.
Regression	225.325	1	225.325	3.273	.077 <sup>a</sup>
Residual	3236.021	47	68.852		
Total	3461.347	48			

a. Predictors: (Constant), log of wealth

b. Dependent Variable: Not Proficient

The test of within-subjects effects showed that  $F(1, 47) = 3.273$ ,  $p = .077$  (See Table 13); therefore we can accept Hypothesis 3 and conclude that there is no statistically significant relationship between the wealth behind each public school student and the

academic achievement in Reading as measured by the 2007 FCAT among Hispanic students in reading, in grade 5, within the 67 public school districts in Florida.

### Summary

This chapter discussed the research design of this study which attempted to discern if there was a correlation between the wealth behind each district in Florida and the academic proficiency in reading among white, black, and Hispanic students in grade 5. The findings of this study suggest that there was a statistically significant correlation between white ( $p < 0.001$ ) and black ( $p = 0.029$ ) student academic performance of students in grade 5 of the reading section of the 2007 FCAT and the wealth behind each school district within the 67 school districts of Florida. Among Hispanic ( $p = 0.077$ ) students in grade 5, there was no statistically significant correlation between the wealth behind each student and the academic proficiency of the 2007 FCAT within the 67 districts of Florida.

## CHAPTER 5 SUMMARY, CONCLUSIONS, AND RECCOMENDATIONS

### Introduction

This chapter provides an overview of the purpose statement, methodology, instrumentation, and data analysis. Also, a discussion of findings regarding each research question is included along with conclusions, implications, and recommendations for future research.

### Purpose Statement

The purpose of this study was to investigate relevant data to determine if there was a relationship between the wealth behind each student and the academic proficiency amongst 5<sup>th</sup> grade white, black, and Hispanic students within the 67 counties of Florida. The outcome of this study produced information relevant to educational leaders and teachers in the Florida public school districts with influential strategies necessary to increase the proportion of 5<sup>th</sup> grade students achieving academic proficiency.

The following questions guided this study:

1. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among white students, as measured by their performance on the grade 5 FCAT in reading?

2. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among black students, as measured by their performance on the grade 5 FCAT in reading?
3. To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among Hispanic students, as measured by their performance on the grade 5 FCAT in reading?

### Methodology

Data were collected from selected school districts in Florida as reported to the Florida Department of Education database for the 2006-2007 school year. Data were also collected from the 2007 Florida Property Valuations and Tax Data as provided by the Florida Department of Revenue. The Statistical Package for Social Science (SPSS) Graduate Package (version 17.0) was used to analyze the data. A regression analysis was performed to analyze the school districts' variables measured in this research. These variables included, but were not be limited to, taxable school property, student enrollment, and the wealth behind each student in Florida.

The wealth behind each public school student in Florida was based on non-exempt, assessed valuation of property divided by the total public school student enrollment within each Florida school district.

## Discussion of the Findings

### Research Question 1

To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among white students, as measured by their performance on the grade 5 FCAT in reading?

The findings of this study suggest that there is a statistically significant correlation between white students' academic performance in grade 5 and the wealth behind each public school student in Florida ( $p < .001$ ). The Pearson correlation coefficient for percent not proficient (white) and log of wealth is  $-.487$ . Even though there is considerable variation remaining, the correlation value is statistically significant and thus informative. These findings were consistent with the report released by MGT of America, Inc. They found that as school funding increases, so does academic proficiency (Hernandez, 2009).

For this research question, the *coefficient of determination* represents the percent of the data that is the closest to the line of best fit.  $r^2 = 0.237$ , which means that 23.7% of the total variation in  $y$  can be explained by the linear relationship between  $x$  and  $y$ . The other 76.3% of the total variation in  $y$  remains unexplained. The test of within-subjects effects showed that  $F(1, 61) = 18.953, p < .001$ ; therefore we can reject Hypothesis 1 and conclude that there is a statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007

FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida.

Based on the literature, with the implementation of the education stimulus plan, it is expected that student proficiency should continue to rise as school districts begin disbursing funds to their schools accordingly. This should help students in all public school districts across Florida become better prepared for the FCAT, and in turn, should also increase the proportion of students achieving academic proficiency.

#### Research Question 2

To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among black students, as measured by their performance on the grade 5 FCAT in reading?

The findings of this study suggest that there is a statistically significant correlation between black students' academic performance in grade 5 and the wealth behind each public school student in Florida ( $p = 0.029$ ). The Pearson correlation coefficient for percent not proficient (black) and log of wealth is  $-.284$ . Even though there is considerable variation remaining, the correlation value ( $p = .029$ ) is statistically significant and thus informative. For this research question, the *coefficient of determination*,  $r^2 = 0.081$  means that 8.1% of the total variation in  $y$  can be explained by the linear relationship between  $x$  and  $y$  (See Figure 4). The other 91.9% of the total variation in  $y$  remains unexplained. The test of within-subjects effects showed that  $F(1, 61) = 18.953, p < .001$ ; therefore we can reject Hypothesis 2 and conclude that there is a



statistically significant relationship between the wealth behind each public school student and the academic achievement in Reading as measured by the 2007 FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida.

Over the past many years, standardized test scores have risen, and the number of African Americans living below the poverty level has decreased (Education Commission of the States, 2009). Despite this progress, there still continues to be persistent achievement gaps between white students and black students. Blacks still score lower on standardized tests and have higher retention and dropout rates than do white students. Fortunately, based on the research, as with whites, it is to be expected that black students will continue to make gains in their academics and narrow the achievement gap with the monies of the education stimulus.

### Research Question 3

To what extent, if any, is the relationship between the wealth behind each public school student in Florida and the level of academic achievement among Hispanic students, as measured by their performance on the grade 5 FCAT in reading?

A study in 2002, by the RAND Corporation found that Texas schools, despite a steady increase in federal, state, and local funding for schools, found only minor increases in student achievement on standardized tests (RAND Corporation, 2002). The findings of this study suggest that there is no statistically significant correlation between Hispanic students' academic performance in grade 5 and the wealth behind each public school student in Florida ( $p = 0.077$ ).

The Pearson correlation coefficient for percent not proficient (Hispanic) and log of wealth is  $-.255$ . In this case, the correlation value ( $p = .077$ ) is not statistically significant and thus not informative. These findings are in line with the research by NewWest (2005) that states Hispanic students continue to have the largest achievement gaps. Hispanic students on average score 30 percentage points or more behind white students in nearly every grade and subject. Presently, the average Hispanic high school student currently achieves at about the same level as the average white student in the lowest 25% of white achievement.

For this research question, the *coefficient of determination*,  $r^2 = 0.065$ , which means that 6.5% of the total variation in  $y$  can be explained by the linear relationship between  $x$  and  $y$ . The other 93.5% of the total variation in  $y$  remains unexplained. The test of within-subjects effects showed that  $F(1, 61) = 18.953, p < .001$ ; therefore we can accept Hypothesis 3 and conclude that there is no statistically significant relationship between the wealth behind each public school student and the academic achievement in reading as measured by the 2007 FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida.

While the student achievement gap between whites and Hispanics has continued to narrow considerably since the late 1980s, progress among Hispanics is still marginal. This “gap” and lack of academic achievement among minority students remains one of the most pertinent issues in the K-12 arena (Education Commission of the States, 2009).

## Conclusions

This study sought out to determine if there was a relationship between the wealth behind each public school student in Florida and the level of academic achievement among white, black, and Hispanic students in grade 5. Based on a review of literature and the analyses of data generated by the study, the following conclusions were drawn:

1. It was found that there is a statistically significant relationship between the wealth behind each public school student and the academic achievement in reading as measured by the 2007 FCAT among white students in reading, in grade 5, within the 67 public school districts in Florida.
2. It was found that there is a statistically significant relationship between the wealth behind each public school student and the academic achievement in reading as measured by the 2007 FCAT among black students in reading, in grade 5, within the 67 public school districts in Florida.
3. It was found that there is no statistically significant relationship between the wealth behind each public school student and the academic achievement in reading as measured by the 2007 FCAT among Hispanic students in reading, in grade 5, within the 67 public school districts in Florida.

## Implications

Based on the review of research, conclusions, and limitations of this study, there are a few implications to consider. This researcher believes that it is necessary to produce

information relevant to political leaders, educational leaders, and teachers in Florida public school districts with influential strategies necessary to increase the proportion of 5th grade students achieving academic proficiency. Also, an in-depth analysis should also take place in order to find methods to narrow the achievement gap between white students and black students as well as white students and Hispanic students.

As mentioned in the review of the literature, children who attend schools in wealthier districts receive increasingly more money each year than students who live in low socioeconomic or “poor” areas, a trend that could jeopardize some of the most "needy" students' opportunities for a fair and equal education (University of Florida, 2004). Florida leaders and policy makers should also be identifying and measuring ways to eliminate any funding gaps between white students, black students, and Hispanic students. Moreover, it is recommended that Florida establish a commission of financial and educational experts to manage and oversee a Florida public school system cost study with regard to this study.

### Recommendations for Future Research

This study analyzed the relationship between the wealth behind each public school student in Florida and the academic achievement among white, black, and Hispanic students, as measured by their performance on the grade 5 FCAT in reading.

The following suggestions are made for further research:

1. This study could be replicated to include grade levels other than grade 5 to see if there is a relationship between the wealth behind each public school student in Florida and their academic proficiency in reading as measured by the FCAT.
2. This study could be replicated to include all grade levels, 3 through 10, to see if there is a relationship between the wealth behind each public school student in Florida and their academic proficiency in reading as measured by the FCAT.
3. This study could be replicated to include white students, black students, and Hispanic students that have been in, completed, and exited the ESOL program to see if there is a relationship between the wealth behind each public school student in Florida and their academic proficiency in reading as measured by the FCAT.
4. A national study should be conducted to include other states to see if there is a relationship between the wealth behind each public school student and

their academic proficiency in reading as measured by their state's criterion-based yearly assessment.

5. A study should be conducted to investigate the manner in which funds are disbursed to public school districts, and their schools, within the state of Florida.
6. A longitudinal study should be performed to determine the trends of public school students' proficiency in reading and the effects of the new education stimulus package.

## DATABASE TABLES

Table 20. 2007 FCAT District Results (Proficient)

<u>County</u> <u>Ethnicity</u>	<u>Grade</u>	<u>Number of</u> <u>Students</u>	<u>% Level – 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Alachua	5	2046	14	15	71
White		1030	7	8	86
Black		709	26	28	46
Hispanic		118	12	11	77
Baker	5	357	17	15	68
White		294	13	15	72
Black		59	36	15	49
Hispanic		2	*	*	*
Bay	5	1937	11	14	76
White		1434	8	12	80
Black		296	21	25	55
Hispanic		78	19	15	65
Bradford	5	260	20	23	58
White		191	17	19	64
Black		60	32	32	37
Hispanic		4	*	*	*
Brevard	5	5173	9	9	82
White		3723	6	7	87
Black		712	20	19	61
Hispanic		348	16	16	68
Broward	5	18725	13	14	73
White		6150	7	9	84
Black		6418	20	21	59
Hispanic		4841	13	14	73
Calhoun	5	144	8	13	80
White		119	7	11	82
Black		18	11	28	61
Hispanic		4	*	*	*



<u>County</u> <u>Ethnicity</u>	<u>Grade</u>	<u>Number of</u> <u>Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Charlotte	5	1265	12	12	75
White		990	9	12	79
Black		102	31	15	54
Hispanic		93	24	15	61
Citrus	5	1132	8	12	80
White		970	7	11	82
Black		43	21	9	70
Hispanic		53	13	19	68
Clay	5	2568	10	12	78
White		1958	9	11	80
Black		310	15	18	67
Hispanic		174	20	13	68
Collier	5	3054	14	14	72
White		1323	5	10	85
Black		322	21	22	57
Hispanic		1252	22	18	60
Columbia	5	721	11	18	71
White		515	8	14	78
Black		139	17	35	48
Hispanic		33	33	15	52
Miami Dade	5	25781	17	17	66
White		2560	7	9	84
Black		6644	23	24	53
Hispanic		15844	16	16	68
Desoto	5	325	18	22	61
White		152	14	14	71
Black		44	27	23	50
Hispanic		124	18	30	52

<u>County</u> <u>Ethnicity</u>	<u>Grade</u>	<u>Number of</u> <u>Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Dixie	5	129	16	11	74
White		114	15	11	74
Black		11	18	9	73
Hispanic		2	*	*	*
Duval	5	9270	14	15	71
White		4009	8	10	83
Black		3883	20	22	58
Hispanic		624	17	15	68
Escambia	5	2981	17	16	67
White		1650	11	10	79
Black		1035	28	25	48
Hispanic		96	19	19	63
Flagler	5	877	9	12	79
White		626	7	10	83
Black		114	17	18	65
Hispanic		74	15	19	66
Franklin	5	86	27	12	62
White		69	26	12	62
Black		11	36	9	55
Hispanic		4	*	*	*
Gadsden	5	443	25	21	54
White		18	11	22	67
Black		336	25	21	53
Hispanic		82	27	20	54
Gilchrist	5	225	10	9	81
White		208	10	8	83
Black		8	*	*	*
Hispanic		5	*	*	*

<u>County Ethnicity</u>	<u>Grade</u>	<u>Number of Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Glades	5	94	28	18	54
White		41	29	7	63
Black		12	25	42	33
Hispanic		37	27	24	49
Gulf	5	145	10	21	68
White		113	7	22	71
Black		27	19	22	59
Hispanic		2	*	*	*
Hamilton	5	144	24	19	56
White		77	14	16	70
Black		53	40	23	38
Hispanic		14	21	29	50
Hardee	5	406	14	19	67
White		165	12	12	76
Black		26	12	27	62
Hispanic		210	16	23	61
Hendry	5	476	16	15	69
White		123	11	10	80
Black		69	23	26	51
Hispanic		272	17	15	69
Hernando	5	1654	13	14	73
White		1263	11	13	76
Black		117	23	24	53
Hispanic		167	22	17	62
Highlands	5	935	17	15	68
White		504	11	13	76
Black		161	30	24	47
Hispanic		232	21	13	66

<u>County Ethnicity</u>	<u>Grade</u>	<u>Number of Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Hillsborough	5	14246	16	15	69
White		6104	8	10	82
Black		3044	28	24	48
Hispanic		3846	20	18	62
Holmes	5	242	14	17	69
White		235	14	17	69
Black		1	*	*	*
Hispanic		2	*	*	*
Indian River	5	1293	12	14	74
White		821	8	10	82
Black		200	20	23	58
Hispanic		202	20	23	57
Jackson	5	522	12	17	71
White		346	7	13	80
Black		136	26	26	48
Hispanic		18	17	11	72
Jefferson	5	73	19	21	60
White		14	14	14	71
Black		51	22	24	55
Hispanic		5	*	*	*
Lafayette	5	75	23	12	65
White		56	23	9	68
Black		4	*	*	*
Hispanic		15	20	20	60
Lake	5	2843	13	14	73
White		1807	9	12	79
Black		390	20	23	57
Hispanic		479	22	16	62

<u>County</u> <u>Ethnicity</u>	<u>Grade</u>	<u>Number of</u> <u>Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Lee	5	5663	13	14	73
White		3027	8	10	82
Black		773	22	22	56
Hispanic		1524	19	18	63
Leon	5	2320	8	13	79
White		1227	3	7	90
Black		880	17	22	61
Hispanic		63	14	3	83
Levy	5	466	18	18	64
White		349	14	15	71
Black		65	34	28	38
Hispanic		40	30	30	40
Liberty	5	81	16	14	70
White		75	17	13	69
Black		2	*	*	*
Hispanic		2	*	*	*
Madison	5	173	20	18	61
White		71	8	8	83
Black		96	29	26	45
Hispanic		2	*	*	*
Manatee	5	3068	14	16	70
White		1799	8	10	82
Black		423	25	27	48
Hispanic		684	24	23	53
Marion	5	3061	14	15	71
White		1846	11	13	76
Black		571	21	22	56
Hispanic		448	21	17	62

<u>County Ethnicity</u>	<u>Grade</u>	<u>Number of Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Martin	5	1250	9	11	80
White		879	5	8	87
Black		81	36	17	47
Hispanic		207	17	18	65
Monroe	5	567	10	12	78
White		357	7	9	84
Black		53	21	19	60
Hispanic		115	16	18	66
Nassau	5	776	8	10	82
White		678	7	9	84
Black		65	20	18	62
Hispanic		13	8	15	77
Okaloosa	5	2072	5	8	86
White		1528	4	8	88
Black		225	9	15	76
Hispanic		106	15	11	74
Okeechobee	5	500	15	19	66
White		292	13	15	72
Black		32	25	28	47
Hispanic		146	17	25	58
Orange	5	12967	15	15	70
White		4526	8	9	84
Black		3426	21	22	56
Hispanic		4061	20	18	63
Osceola	5	3800	20	17	64
White		1156	11	14	75
Black		366	20	22	57
Hispanic		1970	26	18	56

<u>County Ethnicity</u>	<u>Grade</u>	<u>Number of Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Palm Beach	5	12224	13	14	72
White		5061	5	8	87
Black		3220	24	22	53
Hispanic		2957	17	17	66
Pasco	5	4958	13	15	72
White		3798	12	14	74
Black		216	19	24	56
Hispanic		618	18	20	62
Pinellas	5	7694	13	14	72
White		4902	8	11	81
Black		1425	28	25	47
Hispanic		719	22	16	62
Polk	5	6678	17	18	65
White		3457	11	15	74
Black		1364	23	24	53
Hispanic		1551	26	21	53
Putnam	5	867	15	18	67
White		504	10	13	77
Black		223	21	27	52
Hispanic		104	25	19	56
St Johns	5	2084	6	9	84
White		1768	5	8	87
Black		144	22	20	58
Hispanic		83	14	12	73
St Lucie	5	2872	17	18	65
White		1262	12	15	73
Black		732	25	21	53
Hispanic		674	19	21	60

<u>County</u> <u>Ethnicity</u>	<u>Grade</u>	<u>Number of</u> <u>Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Santa Rosa	5	1768	6	8	86
White		1519	5	8	87
Black		94	14	18	68
Hispanic		57	7	12	81
Sarasota	5	3187	10	12	78
White		2234	7	10	83
Black		308	25	22	53
Hispanic		416	19	13	68
Seminole	5	4781	9	11	80
White		2826	5	8	87
Black		634	18	22	60
Hispanic		871	15	15	70
Sumter	5	557	13	15	73
White		394	10	12	78
Black		92	20	29	51
Hispanic		59	22	15	63
Suwannee	5	373	14	18	68
White		296	11	17	72
Black		46	30	20	50
Hispanic		28	18	25	57
Taylor	5	226	13	16	71
White		182	11	14	75
Black		33	27	27	45
Hispanic		3	*	*	*
Union	5	170	16	18	65
White		146	12	18	70
Black		20	50	20	30
Hispanic		2	*	*	*



<u>County Ethnicity</u>	<u>Grade</u>	<u>Number of Students</u>	<u>% Level - 1</u>	<u>% Level - 2</u>	<u>% &gt; Level 3</u>
Volusia	5	4870	12	14	74
White		3143	8	11	80
Black		642	20	25	56
Hispanic		788	20	18	62
Wakulla	5	347	11	10	79
White		291	9	9	81
Black		32	16	22	63
Hispanic		2	*	*	*
Walton	5	499	9	11	80
White		427	7	10	83
Black		37	27	14	59
Hispanic		22	14	18	68
Washington	5	265	15	12	72
White		201	13	10	77
Black		43	28	23	49
Hispanic		9	*	*	*

\*Less than 10 students tested in this cell

Table 21. Wealth Behind Each Student by District

<u>District</u>	<u>Wealth Behind Each Student (\$)</u>
Monroe	3,472,535.11
Franklin	3,202,368.44
Walton	2,559,798.27
Collier	1,893,778.26
Sarasota	1,427,942.27
Charlotte	1,287,103.12
Gulf	1,209,602.43
Lee	1,177,910.43
Martin	1,158,314.13
Indian River	1,018,678.09
Flagler	989,436.36
Palm Beach	962,371.72
St. Johns	886,193.13
Manatee	759,556.07
Sumter	746,770.98
Nassau	725,960.90
Pinellas	689,392.71
Miami-Dade	672,278.26
Bay	661,549.78
Citrus	656,767.79
Broward	647,066.38
St. Lucie	614,166.15
Okaloosa	594,758.62
Volusia	589,445.92
Orange	573,832.63
Glades	545,634.34
Lake	539,783.69
Brevard	520,686.10
Highlands	506,747.98
Marion	495,871.63
Osceola	484,098.06
Seminole	478,262.73
Hernando	471,155.08
Leon	468,512.27

<u>District</u>	<u>Wealth Behind Each Student (\$)</u>
Duval	445,210.92
Pasco	429,652.03
Hillsborough	419,893.17
Alachua	413,839.40
Jefferson	410,487.66
Levy	361,976.26
Santa Rosa	357,620.58
Escambia	331,590.12
Polk	330,482.56
Taylor	325,275.40
Hendry	315,453.36
Desoto	309,646.76
Okeechobee	297,567.58
Wakulla	289,158.40
Putnam	285,914.84
Clay	282,489.40
Dixie	271,175.33
Washington	263,631.62
Suwannee	241,386.09
Columbia	231,306.27
Hamilton	216,813.89
Bradford	211,884.70
Gilchrist	206,276.59
Madison	197,394.60
Lafayette	194,215.34
Gadsden	187,076.69
Jackson	176,131.73
Hardee	167,707.05
Baker	144,476.01
Calhoun	135,840.72
Holmes	112,561.37
Liberty	97,803.57
Union	88,864.91

Table 22. 2006-2007 Weighted FTE (Third Calculation)

<u>District</u>	<u>2007 FTE Calculation</u>
Alachua	28,313
Baker	4,800
Bay	26,377
Bradford	3,511
Brevard	73,742
Broward	260,682
Calhoun	2,194
Charlotte	17,546
Citrus	15,808
Clay	35,671
Collier	42,592
Columbia	10,119
Miami-Dade	350,435
Desoto	5,041
Dixie	2,146
Duval	125,845
Escambia	41,943
Flagler	12,065
Franklin	1,232
Gadsden	6,128
Gilchrist	2,781
Glades	1,145
Gulf	2,159
Hamilton	1,933
Hardee	5,117
Hendry	7,384
Hernando	22,377
Highlands	12,406
Hillsborough	191,141
Holmes	3,313
Indian River	17,549
Jackson	7,144
Jefferson	1,193
Lafayette	1,051
Lake	38,923
Lee	78,273
Leon	32,287
Levy	6,149
Liberty	1,421

<u>District</u>	<u>2007 FTE Calculation</u>
Madison	2,929
Manatee	41,815
Marion	42,015
Martin	17,857
Monroe	8,058
Nassau	10,897
Okaloosa	30,220
Okeechobee	7,278
Orange	173,032
Osceola	51,087
Palm Beach	169,824
Pasco	64,033
Pinellas	109,517
Polk	92,272
Putnam	11,759
St. Johns	26,811
St. Lucie	38,634
Santa Rosa	24,738
Sarasota	42,394
Seminole	66,088
Sumter	7,212
Suwannee	5,835
Taylor	3,083
Union	2,234
Volusia	65,216
Wakulla	5,002
Walton	6,631
Washington	3,545

Table 23. 2007 School Taxable Values by District

<u>County</u>	<u>School Taxable Value (\$)</u>
Alachua	11,717,034,992
Baker	693,484,857
Bay	17,449,698,419
Bradford	743,927,174
Brevard	38,396,434,705
Broward	168,678,558,755
Calhoun	298,034,545
Charlotte	22,583,511,418
Citrus	10,382,185,243
Clay	10,076,679,545
Collier	80,659,803,810
Columbia	2,340,588,153
Dade	235,589,830,345
DeSoto	1,560,929,305
Dixie	581,942,253
Duval	56,027,568,339
Escambia	13,907,884,363
Flagler	11,937,549,665
Franklin	3,945,317,916
Gadsden	1,146,405,955
Gilchrist	573,655,193
Glades	624,751,319
Gulf	2,611,531,647
Hamilton	419,101,248
Hardee	858,156,995
Hendry	2,329,307,600
Hernando	10,543,037,306
Highlands	6,286,715,450
Hillsborough	80,258,800,188
Holmes	372,915,829

<u>County</u>	<u>School Taxable Value (\$)</u>
Indian River	17,876,781,820
Jackson	1,258,285,053
Jefferson	489,711,781
Lafayette	204,120,325
Lake	21,010,000,759
Lee	92,198,582,710
Leon	15,126,855,738
Levy	2,225,792,026
Liberty	138,978,878
Madison	578,168,794
Manatee	31,760,837,072
Marion	20,834,046,441
Martin	20,684,015,488
Monroe	27,981,687,883
Nassau	7,910,795,957
Okaloosa	17,973,605,396
Okeechobee	2,165,696,815
Orange	99,291,407,000
Osceola	24,731,117,584
Palm Beach	163,433,815,424
Pasco	27,511,908,333
Pinellas	75,500,221,537
Polk	30,494,286,359
Putnam	3,362,072,596
Saint Johns	23,759,724,070
Saint Lucie	23,727,695,050
Santa Rosa	8,846,817,985
Sarasota	60,536,184,695
Seminole	31,607,427,352
Sumter	5,385,712,279
Suwannee	1,408,487,847
Taylor	1,002,824,072

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<u>County</u>	<u>School Taxable Value (\$)</u>
Union	198,524,198
Volusia	38,441,305,057
Wakulla	1,446,370,307
Walton	16,974,022,296
Washington	934,574,098

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## APPENDIX A: IRB APPROVAL LETTER



University of Central Florida Institutional Review Board  
Office of Research & Commercialization  
12201 Research Parkway, Suite 501  
Orlando, Florida 32826-3246  
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276  
[www.research.ucf.edu/compliance/irb.html](http://www.research.ucf.edu/compliance/irb.html)

### Notice of Exempt Review Status

From: **UCF Institutional Review Board**  
**FWA00000351, Exp. 5/07/10, IRB00001138**

To: **Willie Saenz**

Date: **January 02, 2008**

IRB Number: **SBE-07-05367**

Study Title: **A correlational study between the wealth of a school district and the lack of academic proficiency in Reading among 5th grade, black, white, and Hispanic students within the 67 counties in Florida.**

Dear Researcher:

Your research protocol was reviewed by the IRB Vice-chair on 12/28/2007. Per federal regulations, 45 CFR 46.101, your study has been determined to be **minimal risk for human subjects and exempt** from 45 CFR 46 federal regulations and further IRB review or renewal unless you later wish to add the use of identifiers or change the protocol procedures in a way that might increase risk to participants. Before making any changes to your study, call the IRB office to discuss the changes. **A change which incorporates the use of identifiers may mean the study is no longer exempt, thus requiring the submission of a new application to change the classification to expedited if the risk is still minimal.** Please submit the Termination/Final Report form when the study has been completed. All forms may be completed and submitted online at <https://iris.research.ucf.edu>.

The category for which exempt status has been determined for this protocol is as follows:

2. Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey or interview procedures, or the observation of public behavior, so long as confidentiality is maintained.
  - (i) Information obtained is recorded in such a manner that the subject cannot be identified, directly or through identifiers linked to the subject, **and/or**
  - (ii) Subject's responses, if known outside the research would not reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability or reputation.

All data, which may include signed consent form documents, must be retained in a locked file cabinet for a minimum of three years (six if HIPAA applies) past the completion of this research. Any links to the identification of participants should be maintained on a password-protected computer if electronic information is used. Additional requirements may be imposed by your funding agency, your department, or other entities. Access to data is limited to authorized individuals listed as key study personnel.

On behalf of Tracy Dietz, Ph.D., UCF IRB Chair, this letter is signed by:

Signature applied by Janice Turchin on 01/02/2008 09:19:56 AM EST

A handwritten signature in cursive script that reads 'Janice Turchin'.

IRB Coordinator

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