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*The final copy of this dissertation has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above mentioned discipline.*
Dedication

To my mother, who taught me how to eat an elephant, one bite at a time. To my father for always having high expectations for his daughters. To my sister, for always keeping look-out. To my daughter for inspiring me to be better than I was yesterday. To my husband, who always puts my education and career first.
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Abstract

In 2003-2004 approximately 23,000 third graders were retained in Florida under the third grade retention mandate outlined in the A+ Plan. Researchers in previous studies found students who were retained faced difficulty in catching up to their peers, achieving academically, and obtaining a high school diploma (Anderson, Jimerson, & Whipple, 2005; Andrew, 2014; Fine & Davis, 2003; Jimerson, 1999; Moser, West & Hughes, 2012; Nagaoka, 2005; and Ou & Reynolds, 2010). In this study I examined educational outcomes of students retained in a large southwest Florida school district under the A+ Plan in 2003-2004. I used a match control group, consisting of similarly non-retained students, who scored at level one on the Grade 3 Reading FCAT. I then compared the control group to the retained group. I also compared achievement levels on the Grade 10 Reading FCAT of the retained and non-retained group. I evaluated longitudinal data, for both the retained and non-retained students, and found 93% of the retained students continued to score below proficiency (below a level 3) seven years after retention on the Grade 10 Reading FCAT as compared with the 85.8% of the non-retained students. I also compared standard diploma acquisition of the retained and non-retained group. The non-retained group was 14.7% more likely to obtain a standard high school diploma than the retained group. Finally, I used data from previous studies to extrapolate economic outcomes.

Keywords: Third-grade retention, standard diploma acquisition, Florida A+ Plan, education policy, accountability.
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CHAPTER I

INTRODUCTION

Background

In a study of first, third, and sixth graders, researchers gave students a list of 20 life events. The researchers then asked students to rate the events based on stress level. Researchers found students, across grade levels, rated the experiences according to stress in this order: losing a parent, going blind, and being retained in school (Anderson, Jimerson, and Whipple 2005; Andrew, 2014). Sixth grade students rated grade retention as the most stressful life event, rating retention more stressful than losing a parent or going blind. (Anderson, Jimerson, and Whipple 2005).

In terms of academic achievement, several studies have outlined the negative impact grade retention had on students’ reading and mathematics achievement, increased dropout rates, and decreased participation in postsecondary education (Fine & Davis, 2003; Hong & Raudenbush, 2006; Hong & Yu 2007; Jimerson, Anderson & Whipple, 2002; Ou & Reynolds, 2010; Roderick, 1994; and Xia and Kirby, 2009).

Despite the research, in 2003-2004, educational leaders in Florida retained 23,348 third graders (Florida Department of Education, 2016) when mandatory retention was signed into law by former Governor Jeb Bush under his A+ Plan. Under the A+ Plan, students were required to earn a level two or higher on the Grade 3 Reading FCAT test to be promoted to 4th grade. After the A+ Plan was signed into law, educational leaders in 16 states, plus the District of Columbia, mandated third grade retention for students who did not meet grade-level expectations in state reading tests (Workman, 2014).
In addition to the stress retention caused students, mandatory retention policies negatively affected students’ careers, especially when it came to graduation rates. Grade retention was associated with outcomes such as dropping out of high school (Jimerson 2001; Jimerson, Anderson, and Whipple, 2002; Penfield, 2010; and Rumberger & Larson 1998). Students who don’t graduate were less likely to attend postsecondary education (Fine & Davis, 2003; Ou & Reynolds, 2010). According to the National Center for Education Statistics (2016), students who dropped out were five times more likely to have been retained sometime in their academics careers than those who graduated.

By 2020, 65% of all available jobs will demand some postsecondary training, often a two- or four-year degree (Hyslop, 2014). Only 12% of the jobs in 2020 will be available to people without a high school diploma (Carnevale, Smith & Strohl, 2013). According to the National Center for Education Statistics (2016), students without a high school diploma, confronted numerous labor market problems in their late teens and early 20s. Dropouts were less likely to be active labor force participants than their better educated peers, and they frequently experienced considerably higher unemployment rates when they sought work. In 2011, 25- to 34-year-olds with a college degree earned over twice as much as high school dropouts (National Center for Education Statistics, 2013).

**Florida and Mandatory Third Grade Retention**

During the late 1990’s, Florida faced uneven academic performance and high dropout rates. Consequently, intense criticism for Florida schools followed. To combat the scrutiny, Florida Governor Jeb Bush made education reform a pillar of his administration, and in 1999, he signed into state law The A+ Plan. The governor’s A+ plan had four key factors: standards, assessment, public reporting and consequences (Herrington, 2005).
A signature component of the A+ Plan was its consequences in the form of test-based promotion using student reading scores on the Florida Comprehensive Assessment Test (FCAT). Lawmakers set a benchmark for reading proficiency as measured by the FCAT reading test and promoted or retained students based on their scores. The FCAT was soon characterized as a high-stakes assessment: a test through which the outcomes were used to make important, often life altering decisions in a student’s academic career (Heubert & Hauser, 1999). In 2002-2003, school personnel began administering the Grade 3 Reading FCAT to all Florida third graders and, subsequently, retained thousands of students based on their reading scores. In 2014-2015 the FCAT was replaced with the English Language Arts Florida Standards Assessment (ELA FSA). The same third grade retention policy was applied to the ELA FSA scores.

Since the A+ Plan was implemented, many states and districts moved toward test-based promotion at key transitional points in students’ schooling, such as third grade (Workman, 2014). This ended the practice of social promotion: promoting students with their peers regardless of test scores out of concern for their long-term social adjustment and self-esteem. (Roderick & Nagaoka, 2005).

**Number of Students Retained**

According to the Florida Department of Education (2016a) from 2003-2013, approximately 160,000 third grade students were retained in Florida. Retention numbers varied from year to year. In Florida, third grade retentions increased to over 23,000 in 2003-2004. However, retentions fell steadily in the six years following the introduction of its test-based promotion policy. Retentions were the lowest in 2009, with fewer than 13,000 third graders, but that number has been on the rise since.
Definition of Terms

1. *Early Grade Retention* - a policy of repetition, or giving students an additional year to repeat a grade to go over the same academic content, often taught the same way, that they failed to master the previous year (Riley, 1998).

2. *Florida Comprehensive Assessment Test (FCAT)* - an assessment given to students from 1998-2015. When in full implementation, the FCAT was administered to students in grades 3-11 and consisted of criterion-referenced assessments in mathematics, reading, science, and writing, which measured student progress toward meeting the Sunshine State Standards (SSS) benchmarks (Florida Department of Education, n.d).

3. *Grade 3 Reading FCAT* - the assessment, given in grade 3, used to measure student success on the Florida Sunshine State Standards in reading (Florida Department of Education, n.d).

4. *Grade 10 Reading FCAT* - the assessment, given in grade 10, used to measure student success with the Florida Sunshine State Standards in reading (Florida Department of Education, n.d).

5. *Good Cause Exemption* - part of the grade 3 retention mandate that allows for students to be promoted to fourth grade despite scoring below a level 2. According to the Good Cause Exemption, children who demonstrate the required reading level through the approved alternate test (the Stanford Achievement Test [SAT]) or through a student portfolio, can be granted a “good cause exemption” and be promoted to fourth grade. Students with disabilities, students with limited English proficiency, and students who have already been retained twice can receive a “good cause exemption” and be promoted, although they are not reading at the required level (Florida Department of Education, 2006).
6. *High-Stakes Assessments* - the process of using test outcomes to make important decisions in a students’ academic careers, such as whether or not to promote students to the next grade or to grant students standard high school diplomas (Heubert & Hauser, 1999).

7. *Proficiency* - scoring a level 3 or higher on the Grade 3 and Grade 10 Reading FCAT (Florida Department of Education, 2014).

8. *Social Promotion* - the practice of passing students to the next grade even if they have not satisfied academic requirements or met performance standards (Riley, 1998).

9. *Standard Diploma* - a diploma earned only after achieving at least a 2.0 grade point average on a 4.0 scale, achieving passing scores on the Grade 10 Reading FCAT, and meeting specific end-of-course (EOC) assessment requirements (Florida Department of Education 2012).

10. *Test-Based Promotion* - promoting students to the next grade-level only when they score proficiently on high-stakes assessments.
A Brief Review of the Literature

The use of high-stakes assessments by way of educational policy has been ongoing in Florida since the 1970s. In 1976, under the Education Accountability Act, students were required to pass a functional literacy exam to obtain a high school diploma. Later in 1991, BluePrint 2000 was enacted in Florida, which required standards, assessments, and public reporting of performance data. In 1999, the A+ Plan was signed into Florida Statute. The A+ Plan expanded the statewide high-stakes assessment program to cover grades 3 through 10, and required the use of test scores in the establishment of performance grades for schools, and mandatory retention for third grade students who did not pass the Grade 3 Reading FCAT (The Florida Senate, 2004).

Proponents of Florida’s third grade retention policy, under the A+ Plan, argued reading proficiently by the end of third grade was a pivotal marker in a child’s educational development; failure to read proficiently in third grade was linked to higher school dropout rates (Anne E. Casey Foundation, 2010). Other researchers asserted that giving third graders another year to catch up would benefit them in the long run (Greene & Winters, 2006).

After examining scores for reading and mathematics however, no significant relationship existed between the growth performance of students who were retained and those who were not retained (Pylant, 2011). Grade retention decreased the growth rate of mathematical skills but had no significant effect on reading skills (Wu, West and Hughes, 2008). In addition, retained students had a harder time catching up to their promoted peers (Roderick & Nagaoka, 2005; Ou & Reynolds, 2010). Moser, West, and Hughes (2012) found students retained in the first grade showed no improvement in reading or mathematics later in their academic years. Several studies
outlined students achieved at lower rates than their comparable, promoted peers (Hong & Raudenbush, 2006; Hong & Yu 2007; Xia and Kirby, 2009).

In addition to affecting academic performance negatively, there were economic consequences of mandated retention policy. Retention was costly in terms of foregone earnings and time, when students were required to stay in school an additional year rather than working (Schwerdt & West, 2013). Eide and Showalter (2001) analyzed the 1980 sophomore cohort and reported a statistically significant negative association between retention and post–high school labor market earnings. Jimerson (1999) conducted a 21-year longitudinal study and found retained students had poorer employment outcomes through age 20 than their academically similarly promoted peers who were not retained. Specifically, retained students were paid less per hour and received poorer employment competence ratings at age 20 than did their promoted peers who were also lower achieving. Jimerson (1999) found the low-achieving but promoted group was comparable to the control group of regularly promoted students in all employment outcomes at age 20.

According to the literature, high school students who dropped out were more likely than graduates to have been retained in a grade prior to high school (Jimerson, Anderson & Whipple, 2002; Roderick, 1994). Consequently, students who did not earn diplomas were less likely to be employed than their better educated peers across the nation, and gaps typically widened as national labor markets deteriorated, as in during a recession (Sum, Khatiwada, McLaughlin & Palma, 2009). According to The Alliance for Excellent Education (2011), recessions hit high school dropouts much harder than their graduated peers. Despite this decline in the value of a high school diploma relative to a college degree, the most vulnerable of all workers were individuals who did not have a high school diploma (McDaniel & Kuehn, 2013). In 2010, the
employment and earnings gaps between workers with and without a high school diploma were larger than the employment and earnings gaps separating workers with a high school diploma and an associate’s degree (US Bureau of Labor Statistics, 2011).

**Statement of the Problem**

Education experts and researchers have expressed concerns about the way accountability systems, particularly test-based promotion, have long-term, negative effects on students. Researchers have shown that students who were retained did not catch up (Roderick & Nagaoka, 2005; Ou & Reynolds, 2010; and Moser, West & Hughes, 2012). Students also had a higher risk of dropping out of school than students who were not retained. Dropout rates were also associated with poor social and economic outcomes (Fine & Davis, 2003).

In 2003-2004 approximately 23,348 third graders were retained in Florida (Florida Department of Education, 2016). Students who were retained faced difficulty in catching up to their peers, achieving academically, obtaining a high school diploma and participating in postsecondary education (Fine & Davis, 2003; Hong & Raudenbush, 2006; Hong & Yu 2007; Jimerson, Anderson & Whipple, 2002; Ou & Reynolds, 2010; Roderick, 1994; and Xia and Kirby, 2009). Therefore, test-based promotion and mandatory retentions used over the last decade in Florida could have negatively impacted student achievement and standard diploma acquisition.

Outlined in this study is an investigation of the 2003-2004 cohort of students who were retained in third grade. Those students were tracked using longitudinal data to see if they obtained a standard high school diploma by their graduation date. The 2003-2004 retained cohort was compared to a group of students similar in academic achievement who were not retained.
The similar group scored the same level (level 1) on their Grade 3 Reading FCAT but were not retained in the third grade. Both groups were similar, academically.

**Research Questions**

1. How did state-mandated third grade retention policies, under the A+ Plan, impact standard diploma acquisition in retained students as compared to academically similar non-retained students?

2. How did the retained group compare to the similar non-retained group on the Grade 10 FCAT Reading?

3. How did socioeconomic status and ethnicity impact retention rates of certain groups?

4. Based on the data, what was extrapolated, in terms of economic outcomes, when evaluating consequences of students who were unable to acquire a standard high school diploma as a result of the A+ Plan?

**Research Hypotheses**

1. Students who were retained in Florida during the school year 2003-2004 as a result of the A+ Plan were less likely to acquire a standard diploma than academically similar students who were not retained.

2. Students who were retained in Florida during the school year 2003-2004 as a result of the A+ Plan were less likely to score at proficiency (level 3) on the Grade 10 Reading FCAT than academically similar students who were not retained.

3. Students who are from low socioeconomic backgrounds were more likely to be retained than students who were not from low socioeconomic backgrounds. Students of color were more likely to be retained than white students.

4. There were negative economic outcomes because of students who were unable to acquire a standard diploma as a result of the A+ Plan.
Proponents of Florida’s grade retention policy asserted reading proficiently by the end of third grade was a pivotal marker in a child’s educational development. Failure to read proficiently in third grade was linked to higher school dropout rates, which suppressed individual earning potential as well as the nation’s competitiveness and general productivity (Anne E. Casey Foundation, 2010). Giving third graders another year to catch up would benefit them in the long run (Greene & Winters, 2006). However, researchers have outlined how early grade retention negatively affected the academic careers and postsecondary pursuits of students who were retained (Ou & Reynolds, 2010; Schwerdt & West, 2013). Students who were retained in early grades had low self-esteem, which impacted their academic careers and beyond (Andrew, 2014). This study will serve as a policy analysis to determine if the A+ Plan, specifically the third-grade retention mandate, helped or hurt students in a retained cohort in 2003-2004.

Outline of the Study

This study was quantitative and was conducted by analyzing state data for third grade retentions. The sample consisted of students retained in third grade in 2003-2004. Data from a large school district in southwest Florida was analyzed, specifically, longitudinal data from the retention year to graduation year. I evaluated whether or not students, who were retained, acquired a standard high school diploma. I also examined students’ mean scale scores on the Grade 10 Reading FCAT to determine if the retained group did, in fact, catch up and score at proficiency (level 3). A control group, composed of similar students who scored at a level one on their Grade 3 Reading FCAT and who were not retained in 2003-2004 was compared to the retained cohort. I evaluated longitudinal data to determine how the non-retained students fared compared to the retained students over time was examined.
CHAPTER II

A REVIEW OF THE RELATED LITERATURE

This chapter includes a review of literature related to the history of education reform, the end of social promotion, and early grade retention policies that followed. This literature review also includes an evaluation of the subsequent impact early grade retention had on groups of students. Addressed in the review are short and long-term effects of early grade retention on self-esteem, and academic achievement outcomes. Importantly, the impact early grade retentions had on drop-out and graduation rates is closely examined. Research regarding early grade retention policies, dropout rates, and postsecondary education pursuits is also reviewed. Grade retention’s effect on drop-out rates and overall impact on the economy are discussed. Finally, Florida’s A+ Plan and its accompanying third grade retention policy is reviewed and discussed.

Mandatory Grade Retention

Fixing American public schools has been a priority for policy makers for the last 40 years. The Reagan administration’s publication of *A Nation at Risk: The Imperative for Educational Reform* (National Commission on Excellence in Education, 1983) outlined the deficits in American public schools, and emphasized public schools were failing. Later, in the 1990s, President Clinton was responsible for regenerating interest in ending social promotion - the practice of promoting students to the next grade, regardless of test scores, out of concern for their long-term social adjustment and self-esteem (Roderick & Nagaoka, 2005). He encouraged governors to mandate test-based promotion, requiring students to pass specific examinations to be promoted to the next grade (Cannon, 1996; Huddleston, 2014).

In 1996, under the direction of Mayor Richard M. Daley, officials in Chicago Public Schools implemented a test-based retention policy to end social promotion. President Clinton
showcased the Chicago policy as a model for what other cities and states could accomplish (Russo, 2005). Clinton then issued a report for educators, state, and local leaders (Riley, 1998) that included guidelines for ending social promotion. Since then, several states including Florida, Georgia, Louisiana, North Carolina, and Texas, have restricted the practice of social promotion by enacting policies requiring students to pass a standardized test to move onto the next grade (Marsh, Gershwin, Kirby, & Xia, 2009).

According to Huddleston (2014), Chicago Public Schools had aggressive grade retention policies requiring third, sixth, and eighth graders reach a cutoff score on the state test for promotion. The only exceptions were students in special education and students who were in bilingual education for three years or less. The policy was amended in 2000-2001, due to a civil rights complaint. Chicago Public Schools leaders decided to use a range of cutoff scores rather than a strict standard for promotion. Leaders also allowed for consideration of students’ grades, attendance, and teacher recommendations for retention decisions (Huddleston, 2014).

According to the Education Commission of States (ECS), 16 states, plus the District of Columbia, required the retention of third grade students who do not meet grade level expectations in reading. According to McCoy and Reynolds (1999), of the states with mandatory third grade retention, 12 allowed students to be promoted if they participated in reading intervention programs in the form of intensive reading programs and summer school. Interventions were more effective than retentions when examining academic achievement (McCoy & Reynolds, 1999).

In 2003, Florida leaders began to enforce mandatory retention policies in Governor Jeb Bush’s A+ Plan. Third graders were required to score at a level 2 (of five levels) or higher, on the reading portion of the Florida Comprehensive Assessment Test (FCAT) for promotion to fourth
grade (Peterson, 2006). That same year New York City’s Department of Education required students in grades 3, 5, 7, and 8 score at least level 2 (out of four levels) or higher, on the New York State English language arts and mathematics exams to be promoted to the next grade level. Georgia, Texas, Wisconsin and Louisiana implemented similar mandated retention policies, requiring students to pass high-stakes assessments before being promoted to the next grade level (Huddlestone, 2014). Since the increase in mandatory retention around the country, many researchers have examined early grade retention and how these policies affected students’ self-esteem, short and long-term academic achievement, graduation rates, postsecondary pursuits, and employment opportunities (Anderson, Jimerson, & Whipple, 2005; Andrew, 2014; Jimerson, 1999).

**Retention and Self-esteem**

Researchers found early grade retention was stressful on students in terms of their self-esteem (Andrew, 2014). In a study of 1st, 3rd and 6th graders, students were surveyed and asked to rate what they thought were the most stressful life experiences; students rated the top three most stressful events in this order: losing a parent, going blind, and being retained in school (Anderson, Jimerson, & Whipple, 2005). Smith and Shepard (1987) contended that children viewed retention as punishment with experienced emotions such as fear, anger, and sadness when not promoted. Andrew (2014) found retention had negative effects on students because it categorized students into a low-value status, defined by cultural beliefs in the academic hierarchy.

Negative effects of grade retention were connected to Labeling Theory (Vandecandelaere, Vansteelandt, De Fraine & Van Damme, 2016). Labeling Theory outlines how people’s identity and behavior were influenced by how they were classified (Becker, 1963;
Lemert, 1967). Grade retention was harmful because of the negative connotation of the label “repeater,” and repeaters were more likely to withdraw from social activities and to have lower levels of self-esteem than non-repeaters (Hong & Yu, 2007).

These findings were consistent with Social Stratification Theory (Andrew, 2014). According to Social Stratification Theory, status-dependent triggering events, such as grade promotion, graduation and other social milestones could impact a person during the course of a lifetime (Weber, 1964; DiPrete and Eirich 2006). Vandecandelaeire et al. (2016) found kindergarten retention to be more positive for children's psychosocial development and less harmful for their academic performance when they compared to first-grade retention. However, compared to promotion, Vandecandelaeire et al. (2016) asserted grade retention might be too drastic an intervention, thereby creating further distance from the child's zone of proximal development (Vygotsky, 1978).

Some researchers found grade retention was beneficial to students based on Festinger’s (1954) social development, social comparison theory. According to the theory, children create self-knowledge based on others' opinions and cues in their environment (Festinger, 1954). Social development, social comparison theory happened when students compared themselves to their classmates. Buunk and Gibbons (2007) asserted students believed they were better off when they were retained because they had the advantage of being older and more experienced than the incoming non-retained students. According to Buunk and Gibbons (2007) the retained students’ reference group changed and the new group was younger. Therefore, the retained child had an extra year of education, maturation, and experience in socializing with peers, which showed a positive effect on well-being when students perceived themselves as slightly better off than the others (Buunk & Gibbons, 2007).
However, in a study of four middle school students who experienced retention, Rand (2013) found students displayed an internal conflict as to whether grade retention was helpful or harmful. Grade retention could not be described as good or bad, and the researchers discovered students’ failure was not the result of academic struggles as much as it was the result of a combination of students’ place as well as their emotional and mental maturity (Rand, 2013).

**Retention and Academic Achievement**

Proponents of mandatory grade retention policies, such as those in Florida’s A+ Plan, maintained that reading proficiently by the end of third grade was a pivotal marker in a child’s educational development, and failure to read proficiently in third grade was linked to higher school dropout rates, which suppressed individual earning potential as well as the nation’s competitiveness and general productivity (Anne E. Casey Foundation, 2010). Giving third graders another year to catch up would benefit them in the long run (Greene & Winters, 2006).

In a study of California students in the Los Angeles Unified School District (LAUSD) researchers found short-term achievement gain among students who experienced early grade retention (Cannon, Lipscomb & Public Policy Institute of California, 2011). Retained students caught up to the levels of students who had repeated earlier grades, but retained students appeared more likely to experience declines in academic achievement latter on than students who had not repeated a grade. Although researchers identified academic gains, they could not attribute them exclusively to retention, because the performance of students should have improved after repeating a year of the same content, material, and familiarity with the the test-taking process (Cannon, Lipscomb & Public Policy Institute of California, 2011).

Other researchers found retention had negative effects on student achievement (Hong & Raudenbush, 2006; and Hong & Yu, 2007). Students who were retained continued to achieve...
lower scores on tests than their comparably promoted students, and students continued to perform at lower levels three and five years after retention (Hong & Yu 2007). Students who were retained continued to fall behind and widen their achievement gaps relative to comparably promoted students. This negative effect lasted throughout the elementary years, which suggested that being even one year older may be enough to solidify the disadvantages of retention (Hong & Raudenbush, 2006). In several studies, promoted students consistently outperformed retained students of the same age (Johnson, 2006; Xia & Kirby, 2009). According to Vandecandelaere et al. (2016) continuous promotion, rather than first-grade retention, led to higher scores throughout the entire subsequent grades. This difference was maintained until the end of primary school in the total group and the initially lower achieving at-risk group (Vandecandelaere et al., 2016). Elementary grade retention was an ineffective intervention for both achievement and adjustment according to Jimerson, Carlson, Rotert, Egeland and Sroufe (1997).

When examining reading and mathematics skills, some researchers found retention had a negative effect or no effect at all regarding growth in mathematics (Moser, West, & Hughes; Vandecandelaere et al 2016; Wu West & Hughes, 2008). Some found retention had no significant effect on reading skills (Wu West & Hughes, 2008). McCoy and Reynolds (1999) found grade retention was a consistent predictor of low reading and mathematics achievement. Retained children scored 24.2 points lower in reading achievement than their same-age, non-retained peers and 8.9 points lower in mathematics than their same age non-retained peers (McCoy & Reynolds, 1999). In addition, retained students had a difficult time catching up once they were retained, and an even more difficult time graduating when compared to their promoted peers (Roderick & Nagaoka, 2005; Ou & Reynolds, 2010).
The research outlined above was limited in terms of students’ academic careers over time because low-performing students, who were promoted or retained in the target grade, may have been retained in a later grade or assigned to special education. These interventions potentially represented additional treatment, complicating the interpretation of observed post-retention differences (Moser, West, & Hughes, 2012). Researchers ultimately found neither grade retention nor social promotion would adequately address the needs of students; instead, evidence-based interventions, specific for each student’s needs, were needed to promote the cognitive and social competence of students (Silbergliit, Jimerson, Burns, & Appleton, 2006).

**Retention and Outcomes over Time**

In several studies, the effects of retention were more positive immediately following retention (Green & Winters 2006) than they were three or more years post-retention (Allen, Chen, Willson, & Hughes, 2009). In another study, researchers found that retention led to drops in achievement among retained students compared to a similar sample of students who were promoted, across the elementary school period of grades one through five (Moser, West, & Hughes, 2012).

Schwerdt and West (2012) used statewide administrative data examining all students in Florida public schools in grades three to nine to determine the causal effects of third grade retention and remediation on future student outcomes up to six years later. The researchers chose the Florida database because of three key factors. First, 2003 Florida law, specifically the A+ Plan, required schools to retain third grade students failing to demonstrate basic proficiency on the state reading test unless students were eligible for one of the specified set of exemptions. Second, the Florida database contained vertically scaled test scores in reading and mathematics, which made it possible to compare the achievement of students tested in different grades.
Finally, the availability of annual test scores for six full years after the retention decision, made it possible to determine the extent to which changes over time were driven by grade-specific effects on achievement (Schwerdt & West, 2012).

Based on same-age comparisons, Schwert and West (2012) found evidence of substantial short-term gains in both mathematics and reading achievement. However, these positive effects dissipated over time and became statistically insignificant within five years. For example, the effects of third grade retention on reading achievement were reduced after years three and four and became statistically insignificant during years five and six (Schwerdt & West, 2012). In the case of mathematics achievement, the estimated effects became negative in years four and five but were statistically insignificant after six (Schwerdt & West, 2012). In addition, Schwerdt and West (2012) found students impacted by Florida's test-based promotion policy were 0.74 grade levels behind comparable promoted peers six years later.

**Retention and Dropouts**

Motivation to complete high school was measured at the beginning of high school and was considered to be a proximal indicator of leaving school before graduation (Cham, Hughes, West, & Im, 2015). Several researchers found students who experienced academic difficulties, such as grade retention, were less academically motivated and more likely to drop out than high achieving peers (Astone & McLanahan 1991; Barro & Kolstad, 1987; Garnier, Stein, & Jacobs, 1997; Goldschmidt & Wang, 1999, Zvoch, 2006). Academically motivated and engaged students received higher levels of teacher support which, in turn, promoted students’ academic effort and motivation (Hughes, Luo, Kwok & Loyd, 2008).

While Buunk and Gibbons (2007) asserted students felt better when they were retained because the retained child had an advantage in being older and more experienced, other
researchers found the opposite. Guyton (1995) found several students were bothered by the fact that because of retention they were now a year older than their grade-level peers, and occasionally retained students considered dropping out of school. Martin (2009) found students who were not retained were more motivated academically than students who were retained and older than other students in the class.

According to the literature, high school students who dropped out were more likely than graduates to be older than other students in the grade or to have repeated grades prior to high school (Jimerson, Ferguson, Whipple, Anderson, & Dalton, 2002; Roderick, 1994). In a study titled *The Youth in Transition Study* (1971), researchers found that being retained once increases the risk of dropping out by 40% to 50%, and being two grades behind increases the risk by 90% (Bachman, Green, & Wirtanen, 1971). In a survey, sophomores who reported repeating at least one previous grade were twice as likely to drop out as students who reported never repeating a grade (Barro & Kolstad, 1987). Grade retention was one of the most powerful predictors of school dropout status (Jimerson et al., 2002). Spears (2011) supported Jimerson's et al. (2002) assertion that retention influenced students’ levels of engagement in high school, their academic performance in high school, and whether they eventually graduated from high school or dropped out.

While some researchers found that retention increased educational outcomes (Beebe-Frankenberger, Bocian, MacMillan, & Gresham, 2004; Greene & Winters, 2006), others found that those positive effects were lost because those students later dropped out (Ou & Reynolds, 2010). Several researchers found positive correlations between grade retention and high school dropout rates (Alexander, Entwisle, Dauber, & Kabbani, 2004; Eide & Showalter, 2001; Guèvremont, Roos, & Brownell, 2007; Jimerson, 1999; Jimerson, Anderson, & Whipple, 2002;

**Retention and Postsecondary Education**

Several researchers found retained students were less likely to pursue postsecondary education than students who were not retained (Ou & Reynolds, 2010). Jimerson (1999) found retained students were not only more likely to drop out of high school and less likely to receive a diploma by age 20 than non-retained students, but they were also less likely to enroll in a postsecondary educational program than non-retained students. Fine and Davis (2003) found that retention decreased the odds of postsecondary attendance by 16% to 75%. Some researchers claimed retention caused students to view themselves negatively and incapable of going onto college (Ou & Reynolds, 2010; and Roderick & Nagaoka, 2005). In addition, the experience of grade retention depressed self-esteem and triggered a set of school experiences and adult expectations that led to an increased risk of school dropout, and then lead to lower rates of postsecondary education (Ou & Reynolds, 2010).

Ou and Reynolds (2010) studied 1,367 retained students in and outside of the Chicago Public Schools to determine whether or not these students went on to postsecondary education. Researchers measured postsecondary education by three dichotomous measures: (a) college attendance, (b) 2-year college attendance, and (c) 4-year college attendance. With the exception of early retention and 4-year college attendance, both early and late retention were consistently associated with lower rates of college attendance. The late retention (grades 4-8) group had the lowest rates of college attendance among the three groups and had larger marginal effects on college attendance than the early retention group (Ou & Reynolds, 2010).
Retention and the Economy

Retention was costly in terms of foregone earnings and time; taking an additional year in full-time public education, rather than working, was expensive (Schwerdt & West, 2013). Eide and Showalter (2001) analyzed the 1980 sophomore cohort and reported a statistically significant negative association between retention and post-high school labor market earnings. Jimerson (1999) conducted a 21-year longitudinal study and found retained students had poorer employment outcomes through age 20 than their non-retained, low-achieving peers. Specifically, when retained students were compared to academically similar, non-retained students, retained students were paid less per hour and received poorer employment competence ratings at age 20 than the non-retained students.

According to the literature, high school students who dropped out were more likely than graduates to be older than other students in the grade or to have repeated grades prior to high school (Jimerson et al., 2002; Roderick, 1994). Consequently, students who did not earn diplomas were much less likely to be employed than their better educated peers across the nation; those gaps widened as national labor markets deteriorated during a recession (Sum, Khatiwada, McLaughlin & Palma, 2009). According to The Alliance for Excellent Education, recessions hit high school dropouts much harder than their graduated peers (2011). The most vulnerable of all workers were individuals who did not have a high school diploma (McDaniel & Kuehn, 2013). In 2010, the employment and earnings gaps between workers with and without a high school diploma was larger than the employment and earnings gaps separating workers with a high school diploma and an associate’s degree (U.S. Bureau of Labor Statistic, 2011).

According to the U.S. Census Bureau (2010), students without a high school diploma earned an average of $21,023, compared to $31,283 for a high school graduate, and $58,613 for
someone with a postsecondary education. Researchers for the Alliance for Excellent Education (2011) found the economy of the United States would grow by more than $325 billion per year if every student graduated from high school. A team of economists from Columbia University also found that each new high school graduate would contribute an additional $139,100 in income tax revenue, would save $40,500 in public health care costs, and would reduce crime-related costs by $26,600 over a lifetime (Weaver, 2007).

According to the Alliance for Excellent Education (2011), 1.3 million students dropped out of the class of 2010. This had a significant impact on the national economy. If half of those 1.3 million who dropped out graduated with a standard high school diploma, the results would have been:

- $7.6 billion in increased earnings;
- $5.6 billion in increased spending with $2 billion in increased investments;
- $19 billion in increased home sales;
- $741 million in increased auto sales;
- 54,000 new jobs giving the nation $9.6 billion in economic growth; and,
- $713 million in increased tax revenue.

At the state level, if 1,000 students who dropped out graduated from high school with a standard diploma in each state, 51,000 additional graduates nationwide, the result would be $554 million per year in additional earnings with an additional $57 million per year in additional spending. By the time these 51,000 graduates reached the midpoints of their careers, they would likely spend $1.4 billion more on homes than they would without their high school diplomas (Alliance for Excellent Education, 2011).
Florida was below the national average with respect to college graduates with approximately 75% graduating in Florida compared to the approximately 80% nationwide (Alliance for Excellent Education, 2011). In December 2015, Florida’s unemployment rate was 5.1%. However, for people without a high school diploma, unemployment was 13.9%. For high school graduates with a bachelor’s degree, unemployment was 4.3%. According to the Alliance for Excellent Education (2013), Florida’s graduation rate increased by 6.5 % points from 2011 to 2012. The 14,100 graduates represent gains of as much as $2.9 billion in increased lifetime earnings and $7.5 million in annual state and local tax revenues.

According to National Center for Education Statistics (NCES) (2010), retention rates are highest among African American males; Black students were retained more than twice as much as White students. Dropout percentages of African American and American Indians/Alaska Natives were higher than the percentages of White dropouts. McDaniel and Kuehn (2013) compared the employment of African American and White youth as they transitioned to adulthood from age 18 to 22, and focused on high school graduates and high school dropouts who did not attend college. McDaniel and Kuehn (2013) compared White high school graduates to White dropouts, and found it took the white dropouts over six months longer to secure employment for six consecutive months than it took the white high school graduates. Also according to McDaniel and Kuehn (2013), it took African American dropouts a year and a half longer to secure consecutive employment for six months than it did non-dropouts.

Ou and Reynolds (2010) studied retention and public aid receipt, such as welfare. Public aid receipt was measured using dichotomous measures: participation in Temporary Assistance for Needy Families (TANF), participation in food stamps, and participation in Medicaid. Public aid receipt was measured from February 1999 to January 2004. By January 2004 (age 24), 26%
of the study sample reported TANF participation; 53.2% of the study sample reported food stamp participation; and 46.9% of the study sample participated in Medicaid. Approximately 60% of the study sample participated in some public assistance programs (Ou & Reynolds, 2010). Through the State Family Assistant grant (SFAG) and a smaller funding mechanism called the contingency fund, the federal government spent $17 billion on TANF in 2013 (Congressional Budget Office, 2015).

Retentions were costly in Florida. According to the Florida Senate (2005), in 2004-2005 the mean base student allocation was $3,670.26. According to the Florida Department of Education (2016a), third grade retentions increased to more than 23,000 in 2003-2004. The cost to the state of Florida was over $84 million in 2003-2004 retentions. Also according to the Florida Department of Education (2016a), from 2003-2013, approximately 160,000 third grade students were retained in Florida. The cost was approximately $587 million in additional full-time equivalent (FTE) funds spent on the students retained in Florida from 2003-2013.

**Third Grade Retention and Crime**

Researchers examined the relationship between early grade retentions and crime. According to Katsiyannis, Thompson, Barrett and Kingree (2012), students retained in elementary school, were 1.5 times more likely than non-retained students to be charged with a violent crime in adulthood. Students retained in middle or high school, were 3.5 times more likely to be charged with a violent crime in adulthood compared with students who were not retained. The researchers found grade retention was significantly related to violent criminal activity in adulthood (Katsiyannis, et al., 2012).

The school-to-prison preparation can begin as early as elementary school, when some students begin to believe that they are not part of the school’s culture (Cramer, Gonzalez, &
Pellegrini-Lafont, 2014). According to the U.S. Department of Justice (2003), 68% of inmates did not receive a high school diploma while in public school. Researchers Martin and Halperin (2006) for the American Youth Policy Forum, found increasing the high school completion rate by 1% percent for all men, ages 20 to 60, would reduce costs in the criminal justice system by $1.4 billion a year.

**Retention and Demographics**

In the late 1990s, during the onset of retention policies in Chicago Public Schools, approximately 7,000 to 10,000 students were retained per year (Roderick & Nagaoka, 2005; Russo, 2005). After receiving a civil rights complaint about the policy, Chicago Public Schools softened the promotion requirements in 2000-2001 and retained a much smaller percentage of students thereafter (Huddleston, 2014). In New York City, approximately 2% to 3% of fifth graders were retained in the first two cohorts and only 1% in the third cohort (McCombs, Kirby & Mariano, 2009). Similarly, in Georgia, 61% to 68% of third graders in 2003-2004 who failed both administrations of the Criterion-Referenced Competency Tests (CRCT) in third grade were placed in the next grade through an appeals procedure (Henry, Rickman, Fortner, & Henrick, 2005; and Mordica, 2006). In Florida, 12-14% of third graders were retained during the initial years of the retention policy (Greene & Winters, 2006).

Researchers identified familial demographic attributes associated with early grade retention and found retention rates were higher among ethnic minorities, especially Black and Hispanic students, and students from low socioeconomic backgrounds (Cosden & Zimmer, 1993; Grantham, 2004; Jimerson & Kaufman, 2003). According to the NCES (2012), public schools retained more often than private schools, boys were retained more often than girls, and Black students were retained more often than students of other races. Also, poor children from mothers
with less than a high school education had a greater chance of being retained than non-poor or near-poor children with educated mothers. Finally, more children were retained in the South than any other region of the United States (NCES 2012).

According to retention reports from the Florida Department of Education (2016a) for 2013-2014, the total number of students retained for all grades was 107,378. The total number of white students retained was 36,003, the total of black students was 36,369, and the total number of Hispanic students was 29,942. Out of that total, 33.6% of students retained were white, 34.1% of students retained were black, and 27.9% of students retained were Hispanic. According to the Florida Department of Education (2016b) the total enrollment for all districts in the state of Florida in 2014-2015 was approximately 877,251. Out of those students, 365,560, or 41%, were white, 201,234, or 22%, were Black, and 258,350 or 29% were Hispanic (Florida Department of Education, 2016b). Even though Black students make up 19% less of the enrollment population than white students, and the Hispanic Students make up to 12% less of the enrollment population than white students, Black and Hispanic students make up similar percentages in retentions as white students. According to this data, Black and Hispanic students are disproportionately represented in terms of retention in the state of Florida (Florida Department of Education, 2016a).

**Retention and Good Cause Exemption**

In 16 out of the 26 states in which there are third grade retention policies, good cause exemptions can be used. According to Workman (2014) good cause exemptions make it possible for students to be promoted even if they do not meet the minimum score on the state reading test for following reasons:

- students received special education services;
• students previously retained on the basis of a reading deficiency;
• English language learners; principal or teacher recommendation; and
• or parental appeal.

In 2002, Florida legislators revised the Florida School Code to include a third grade proficiency benchmark of a level 2 on the Grade 3 Reading FCAT. According to the Florida Department of Education (2015), some students could be promoted, regardless of their score on the FCAT if they fell under good cause exemption. Florida Statutes Section 1008.25(6), outlined the good cause exemption and described it as limited to the following:

• Limited English proficient students who have had less than 2 years of instruction in an English for Speakers of Other Languages (ESOL) program based on the initial date of entry into a school in the United States;
• Students with disabilities whose individual education plan indicates that participation in the statewide assessment program is not appropriate, consistent with the requirements of s. 1008.212;
• Students who demonstrate an acceptable level of performance on an alternative standardized reading or English Language Arts assessment approved by the State Board of Education;
• Students who demonstrate, through a student portfolio, that they are performing at least at a level 2 on the statewide, standardized English Language Arts assessment;
• Students with disabilities who take the statewide, standardized English Language Arts assessment and who have an individual education plan or a Section 504 plan that reflects that the student has received intensive instruction in reading or English Language Arts
for more than 2 years but still demonstrates a deficiency and was previously retained in kindergarten, grade 1, grade 2, or grade 3;

• Students who have received intensive reading intervention for 2 or more years but still demonstrate a deficiency in reading and who were previously retained in kindergarten, grade 1, grade 2, or grade 3 for a total of 2 years. A student may not be retained more than once in grade 3; and

• Students who have received intensive remediation in reading or English Language Arts for 2 or more years but still demonstrate a deficiency and who were previously retained in kindergarten, grade 1, grade 2, or grade 3 for a total of 2 years. Intensive instruction for students promoted, must include an altered instructional day that includes specialized diagnostic information and specific reading strategies for each student. The district school board shall assist schools and teachers to implement reading strategies that research has shown to be successful in improving reading among low-performing readers.

Retentions and the A+ Plan

During 1999, Florida Governor Jeb Bush signed into state law Chapter 99-398, known as the A+ Plan. The A+ Plan expanded the statewide high-stakes assessment program to include grades 3 through 10, and required the use of test scores in the establishment of performance grades for schools (The Florida Senate, 2004). The plan also prohibited the promotion of students based on age or other factors that constituted social promotion. Students were not promoted from third to fourth grade unless they passed the reading portion of the FCAT (Florida Senate, 2004). Since the A+ Plan was implemented, additional states enacted test-based
promotion policies that required that students who did not demonstrate basic reading proficiency at the end of third grade be retained and provided with remedial services (Rose, 2012).

The consequences of the A+ Plan’s third grade retention mandate had a considerable impact on third graders. According to the data acquired from Miami-Dade Public Schools (M-DPS), for example, third grade retentions in 2001-2002 increased significantly from 3% to 24%. In 2001-2002, 757 third graders were retained in all of M-DPS. In the following year, 2002-2003, 6,622 third graders were retained. That same year, twelve elementary schools in M-DPS had more than 50% of third graders retained in one year (Miami - Dade Public Schools Department of Research Services, 2003). In 2003-2004, 5,311 third graders were retained in M-DPS (Miami-Dade Public Schools Department of Research Services, 2003). According to the Florida Department of Education (2016a) 23,348 third grade students were retained in Florida and Miami-Dade third graders made up approximately 23% of all Florida third grade retentions.

At the end of the 2002-2003 school year, 208,296 Florida students were retained in pre-kindergarten through twelfth grade, costing the state of Florida approximately $1 billion. In 2003-2004, approximately 23,000 third graders in Florida were retained. The Florida Department of Education incurred approximately $153 million in retention costs (Florida Association of School Psychologists, 2006).

According to the Florida Department of Education (2016b) retention numbers varied from year to year. In Florida, third grade retentions increased to more than 23,000 in 2003-2004. However, retentions were reduced steadily during the six years following the introduction of its test-based promotion policy. Retentions were the lowest in 2009, with fewer than 13,000 third graders, but that number has been on the rise since (The Florida Department of Education, 2016a).
CHAPTER III

RESEARCH METHODS

Overview of Research

The purpose of this study was to examine the impact third grade retention policies in Florida’s A+ Plan had on standard diploma acquisition and Grade 10 Reading FCAT mean scale scores. The focus of the study was a cohort of 686 students, from a large southwest Florida school district, who scored at level one on the Grade 3 Reading FCAT. Of those students, approximately 466 were retained to repeat the third grade during 2003-2004. However, 220 of the students, who also scored at a level 1, were not retained. I compared longitudinal data of the two groups. First, I examined the data to determine how many of the retained students acquired a standard diploma compared to how many of the non-retained students acquired a standard diploma. In addition, I evaluated longitudinal data to compare Grade 10 Reading FCAT mean scale scores of the retained students and of the non-retained students. Because the retention policies in the A+ Plan were said to increase reading levels in students over time (Green and Winters, 2006), I used data to see whether or not retained third grade students and non-retained third grade students were able to score proficiently (level 3) on the Grade 10 Reading FCAT. In this study there were more than one independent variable. Therefore, I conducted a 2x3x2 factorial ANOVA to compare between the two variables. This made it possible to see if interaction between variable statistically significant.

Standard Diploma Definition

According to the Florida Department of Education (2015-2016) a standard diploma was awarded to adult students, enrolled in a school district adult high school program, who have earned passing scores on the state approved graduation tests, successfully completed the
minimum number of academic credits as identified in s. 1003.4282 (6)(b) F.S., and achieved a cumulative grade point average of 2.0 on a 4.0 scale. In this study, the state approved graduation test is the Grade 10 Reading FCAT. Students were required to score at a level two or higher to earn a passing score on the Grade 10 Reading FCAT and receive a standard high school diploma.

According to the Florida Department of Education (2013), Grade 3 Reading Achievement Levels are 1-5; Level 1 was the lowest and level 5 was the highest. Level 3, was considered proficient. According to the Florida Department of Education (2013) students who scored at a level 3 were able to:

- use context clues to determine the meaning of an unfamiliar word;
- determine the meanings of complex words by using the meaning of familiar base words and affixes;
- use knowledge of antonyms or synonyms to determine meanings of words;
- analyze the context surrounding a word with multiple meanings to determine the correct meaning of the word; and
- analyze the word or phrase to determine small or subtle differences in meanings between related words.

According to the Florida Department of Education (2013), students who scored at a level one were performing significantly inadequately and were not successful with the challenging content of the Next Generation Sunshine State Standards for reading. Students who scored at a level one in 2003-2004 were retained in accordance with the mandated retention policies in the A+ Plan. Students who scored at a level one and who were not retained, were promoted using the Good Cause Exemption.
Florida Statutes Section 1008.25(6), outlined the good cause exemption and described it as limited to the following:

- Limited English proficient students who have had less than 2 years of instruction in an English for Speakers of Other Languages program based on the initial date of entry into a school in the United States;
- Students with disabilities whose individual education plan indicates that participation in the statewide assessment program is not appropriate, consistent with the requirements of s. 1008.212;
- Students who demonstrate an acceptable level of performance on an alternative standardized reading or English Language Arts assessment approved by the State Board of Education;
- A student who demonstrates through a student portfolio that he or she is performing at least at Level 2 on the statewide, standardized English Language Arts assessment;
- Students with disabilities who take the statewide, standardized English Language Arts assessment and who have an individual education plan or a Section 504 plan that reflects that the student has received intensive instruction in reading or English Language Arts for more than 2 years but still demonstrates a deficiency and was previously retained in kindergarten, grade 1, grade 2, or grade 3;
- Students who have received intensive reading intervention for 2 or more years but still demonstrate a deficiency in reading and who were previously retained in kindergarten, grade 1, grade 2, or grade 3 for a total of 2 years. A student may not be retained more than once in grade 3; and
• Students who have received intensive remediation in reading or English Language Arts for 2 or more years but still demonstrate a deficiency and who were previously retained in kindergarten, grade 1, grade 2, or grade 3 for a total of 2 years. Intensive instruction for students promoted must include an altered instructional day that includes specialized diagnostic information and specific reading strategies for each student. The district school board shall assist schools and teachers to implement reading strategies that research has shown to be successful in improving reading among low-performing readers.

Research Questions

1. How do state-mandated, third grade retention policies, under the A+ Plan impact standard diploma acquisition in retained students as compared to academically similar non-retained students?

2. How did the retained group compare to the similar non-retained group on the Grade 10 Reading FCAT?

3. How do socioeconomic status and ethnicity impact retention rates of certain groups?

4. Based on the data, what was extrapolated, in terms of economic outcomes, when evaluating consequences of students who were unable to acquire a standard high school diploma as a result of the A+ Plan?

Research Hypotheses

1. Students who were retained in Florida during the school year 2003-2004 as a result of the A+ Plan were less likely to acquire a standard diploma than academically similar students who were not retained.
2. Students who were retained in Florida during the school year 2003-2004 as a result of the A+ Plan were less likely to score at proficiency (level 3) on the Grade 10 Reading FCAT than academically similar students who were not retained.

3. Students who are from low socioeconomic backgrounds were more likely to be retained than students who were not from low socioeconomic backgrounds. Students of color were more likely to be retained than white students.

4. There were negative economic outcomes because of students who were unable to acquire a standard diploma as a result of the A+ Plan.

Research Methods

According to Creswell (2013) a theory in quantitative research is a set of interrelated constructs or variables formed into propositions or hypotheses which define the relationship among the constructs or variables. In this study, the relationship between third grade retention and academic outcomes in terms of standard diploma acquisition and reading achievement, as measured on the Grade 10 Reading FCAT, was examined. For this study a longitudinal matched group design was used, and preexisting data from a large southwest Florida school district were collected and analyzed. Analyzed in this study were longitudinal data of the two groups: a retained cohort of third graders and a non-retained cohort of similar third graders. The matched, non-retained cohort served as a control group.

Sampling

For this study, I used a single stage sampling procedure because I had access to specific student information over a fixed period of time (Creswell, 2013). A convenience sample of all third-grade students, from a large school district in southwest Florida, who were retained in the third grade in the school year 2003-2004, was also used. I stratified the data according to Creswell (2013) to ensure the sample had certain characteristics: retained in third grade during
the year 2003-2004. I selected a match control group, consisting of students who scored a level one on the Grade 3 Reading FCAT, who were not retained because of the good cause exemption.

I selected a match control group to compare academic progress between the retained and non-retained group. I also matched the control group to ensure it had specific characteristics so that both the control group and the experimental group were similar. The match group consisted of third-grade students who were not retained in 2003-2004, but they had similar Grade 3 FCAT Reading scores, socioeconomic status, and demographics of the retained group.

**Data Collection**

Before collecting these data, permission was obtained from the IRB in the Office of Research and Graduate Studies (ORGS) at Florida Gulf Coast University. The IRB approved the study and the research methods used to analyze district data from the large southwest Florida school district. I partnered with personnel in the district responsible for data management to acquire the necessary data.

Longitudinal data were evaluated to examine scores from 2003 and scores in 2009-2010. Demographic data, ethnicity, and socioeconomic status, were also collected. All students who were retained in third grade in 2003-2004 were identified using a score of level one or two on the Grade 3 Reading FCAT as the criterion. Outcome data were collected on Grade 3 Reading FCAT scaled scores and levels, Grade 10 Reading FCAT scaled scores and levels and standard diploma acquisition for the respective graduation years of the retained, with a graduation date in 2013, and non-retained, with a graduation date in 2012. The experimental group (retained students) was used as the base and a matched group of third grade students with similar characteristics who were not retained, was evaluated. These data were collected at the student level.
Data Analysis

Descriptive statistics and a factorial ANOVA were used to evaluate the data. Once all data sets were merged and matched, all student identifiable information was redacted.

Variables

The following categorical independent variables were examined:

- Group - retained or not retained;
- Socioeconomic status - free and reduced lunch (FRL) or not FRL; and,
- Ethnicity – Black, Hispanic, and White,

The following continuous dependent variables were examined:

- Diploma Acquisition; and,
- Grade 10 Reading FCAT scale scores.

In this study, the effect of two independent categorical variables on the dependent variables were examined. Therefore, a factorial ANOVA was chosen. The two categorical independent variables were retained or not retained, and the dependent variables were diploma acquisition and Grade 10 Reading FCAT mean scale scores. By using a factorial ANOVA, the main effect of each independent variable (retained or not retained) was determined. Also tested was the effect of one of the independent variables (retained or not retained) on one of the dependent variables (diploma acquisition or Grade 10 Reading FCAT scale scores).

A 2x3x2 factorial ANOVA was used to examine the following independent variables: group (retained and non-retained), ethnicity (White, Black and Hispanic), and socioeconomic status (FRL or Non-FRL). Standard diploma acquisition was the dependent variable. A Bonferoni post hoc test was computed because there were more than two groups for the ethnicity variable. These analyses were used to address questions 1, 3 and 4.
A 2x3x2 factorial ANOVA was used to examine the following variables: group (retained and non-retained, ethnicity (White, Black, and Hispanic), and socioeconomic status (FRL and Non-FRL) as the independent variables. Grade 10 Reading FCAT scale scores as the dependent variable. A Bonferoni post hoc test was computed because there were more than two groups for the ethnicity variable. These analyses answered questions 2.

**Economic Impact Extrapolation**

Economic impact was extrapolated by examining standard diploma acquisition of retained students and comparing those rates to studies outlining economic outcomes of non-graduates. Also evaluated was the economic impact on the school district based on full-time equivalent (FTE) calculations and base allocations for the district. Millage rates were evaluated and applied to average home prices in Florida. The loss in taxable revenue was calculated using the U.S. Census data and Florida millage rate data to extrapolate loses in home sales and taxes for the students evaluated in the study.

**Reliability**

According to the Florida Department of Education (2004) internal consistency reliabilities for FCAT are reported using two methods: Cronbach’s Alpha and Item Response Theory (IRT) marginal reliabilities (Florida Department of Education, 2004). Reliability measures help users generalize student performances from one time to another. Four kinds of reliability coefficients can be used in relation to FCAT:

- internal consistency;
- test-retest reliability;
- inter-rater reliability; and,
- reliability of classifications.
Validity

According to the Florida Department of Education (2004) the FCAT was designed to assess Sunshine State Standards (SSS) that were developed with involvement of instructional specialists. Annual reports of participation of Florida educators in this process were available upon request. To ensure high content validity of FCAT, the Department of Education implemented the following steps for all of the items included on FCAT:

- Educators and citizens judged the standards and skills acceptable;
- Item specifications were written;
- Test items were written according to the guidelines provided by the item specifications;
- The items were pilot tested using randomly selected groups of students at appropriate grade levels;
- All items were reviewed for cultural, ethnic, language, and gender bias and for issues of general concern to Florida citizens;
- Instructional specialists and practicing teachers reviewed the items;
- The items were field tested to determine their psychometric properties;
- The tests were carefully constructed with items that met specific psychometric standards; and,
- The constructed tests were equated to the base test to match both content coverage and test statistics.

Because the FCAT was used to assess the content of the standards and was developed using credible and trustworthy methods, the content validity of the test was substantiated (Florida Department of Education, 2004).
Limitations

This study had limitations because of its design. While third grade retention can be isolated as a variable, other circumstances in students’ lives could not be controlled. For example, a student may not have scored at proficiency or acquired a standard diploma because of another circumstance other than retention, such as a death in the family or other traumatic event that may have taken place after the student was retained. Because the sample sizes are large, most of these limitations will be mitigated across groups.
CHAPTER IV
FINDINGS AND ANALYSIS OF RESULTS

Setting

Data were collected from a large southwest Florida school district. Descriptive statistics and two factorial ANOVAs were used to evaluate the data. In accordance with the A+ Plan and its mandatory retention policy, students scoring at level one on the 2003 Grade 3 Reading FCAT were retained and required to repeat third grade. In this study the experimental group was the retained students. In addition to the retained group, there were 220 students who scored at level one on the 2003 Grade 3 Reading FCAT, who were not retained in 2003-2004. These students comprised the match control group. Students in this group scored at level one on the Grade 3 Reading FCAT but were promoted to the fourth grade in 2003-2004 based on good cause exemption. See Table 1 for the academic progression for retained and non-retained students.

Table 1
Retained vs Non-retained Student Progression from 2002-2013

<table>
<thead>
<tr>
<th>Retained (1)</th>
<th>Non-retained (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002 - 2003</td>
<td>3rd Grade - Test Year</td>
</tr>
<tr>
<td>2003 - 2004</td>
<td>Retention year. Repeat 3rd grade</td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>9th Grade</td>
</tr>
<tr>
<td>2010 - 2011</td>
<td>10th Grade</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>11th Grade</td>
</tr>
<tr>
<td>2012 - 2013</td>
<td>12th Grade/Graduation</td>
</tr>
<tr>
<td>2002 - 2003</td>
<td>3rd Grade - Test Year</td>
</tr>
<tr>
<td>2009 - 2010</td>
<td>10th Grade</td>
</tr>
<tr>
<td>2010 - 2011</td>
<td>11th Grade</td>
</tr>
<tr>
<td>2011 - 2012</td>
<td>12th Grade/ Graduation</td>
</tr>
</tbody>
</table>
Approximately 4,290 third grade students took the 2002-2003 Grade 3 Reading FCAT. Of those students, approximately 466 or 11% were retained in third grade, and 3,799 or 88.6% were promoted to fourth grade. See Table 2. The 466 students who scored at a level one were the experimental group in this study.

The 220 students who scored at level one, but were not retained, became the match control group. The non-retained, level one students (control group) were academically similar to the retained level one students (experimental group) because both groups were similar in demographics and Grade 3 Reading FCAT mean scale scores. See Table 2.

Table 2

Reading Achievement levels in Year 2002-2003 and Subsequent Grade 3 Retentions

(Yes = 1, No =0) Cross-tabulation

<table>
<thead>
<tr>
<th>Reading Level</th>
<th>Non-retained</th>
<th>Retained</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>220</td>
<td>466</td>
<td>686</td>
</tr>
<tr>
<td>2</td>
<td>611</td>
<td>19</td>
<td>630</td>
</tr>
<tr>
<td>3</td>
<td>1609</td>
<td>4</td>
<td>1613</td>
</tr>
<tr>
<td>4</td>
<td>1134</td>
<td>2</td>
<td>1136</td>
</tr>
<tr>
<td>5</td>
<td>225</td>
<td>0</td>
<td>225</td>
</tr>
<tr>
<td>Total</td>
<td>3799</td>
<td>491</td>
<td>4290</td>
</tr>
</tbody>
</table>

The data, as they pertain to the four research questions, is presented. Along with research questions are the hypotheses for each question. Each research question is presented, followed by a summary of the data, the frequency tables representing the data, and an explanation of whether the hypothesis is supported or not supported.
**Research Question 1:** How do state-mandated third grade retention policies under the A+ Plan impact standard diploma acquisition in retained students as compared to academically similar non-retained students?

**Hypothesis 1:** Students who were retained in Florida during the school year 2003-2004 as a result of the A+ Plan, were less likely to acquire a standard diploma than academically similar students who were not retained.

The non-retained match control group's graduation date was spring of 2012. As shown in Table 3, 105 students of the original non-retained sample were missing from the sample. Of the remaining 115 non-retained students in the sample, 79 or 69% graduated with a standard diploma. In this same group, 1.7% dropped out of school, 4.3% received a certificate of completion (not a standard high school diploma), and 13.9% were classified as other non-graduates. In addition, 7.8% were labeled *other transferred*, which is not an indication of whether or not those students received a standard diploma. Approximately 23.5% of non-retained students did not receive a standard high school diploma. See Table 3.
Table 3

*Graduation Status for Non-Retained Students 2011-2012*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADULTTRANS</td>
<td>3</td>
<td>1.4</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>CERTCOMP</td>
<td>5</td>
<td>2.3</td>
<td>4.3</td>
<td>7.0</td>
</tr>
<tr>
<td>DJJNGD</td>
<td>1</td>
<td>.5</td>
<td>.9</td>
<td>7.8</td>
</tr>
<tr>
<td>DROPOUT</td>
<td>2</td>
<td>.9</td>
<td>1.7</td>
<td>9.6</td>
</tr>
<tr>
<td>OTHERNGD</td>
<td>16</td>
<td>7.3</td>
<td>13.9</td>
<td>23.5</td>
</tr>
<tr>
<td>OTHERTRANS</td>
<td>9</td>
<td>4.1</td>
<td>7.8</td>
<td>31.3</td>
</tr>
<tr>
<td>STANDIP</td>
<td>79</td>
<td>35.9</td>
<td>68.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>115</td>
<td>52.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>105</td>
<td>47.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>220</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note:*

ADULTGED - adult GED

ADULTTRANS - adult transferred - Students are transferred out of school once they turn 21.

CERTCOMP - certificate of completion - Students receive this when they finish all the requirements of high school but do not pass the Grade 10 Reading FCAT. It is not a diploma.

DJJNGD - juvenile detention non-graduate.

DROPOUT - drop out

OTHERNGD - other non-graduate

OTHERTRANS - other transferred

SPDIP - special diploma (not a standard diploma)
The retained students’ graduation date was spring 2013. As shown in the table below, 199 students of the original retained sample were missing. Of the remaining 267 retained students in the sample, 110 or 41.2% graduated with a standard diploma. In the same group, 5.2% dropped out of school, 4.1% received a certificate of completion (not a standard high school diploma), 1.9% received a special diploma (not a standard high school diploma), and 16.5% were classified as other non-graduates. In addition, 19.1% were other transferred, which is not an indication of whether or not those students received a standard diploma. Approximately 38.2% of retained students did not receive a standard high school diploma.

The non-retained group were 14.7% more likely to graduate with a standard diploma than the retained group. See Table 4. Hypothesis one was supported by the findings in this study.
Table 4

*Graduation Status for Retained Students 2012 - 2013*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>ADULTGED</td>
<td>3</td>
<td>.6</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>ADULTTRANS</td>
<td>20</td>
<td>4.3</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td>CERTCOMP</td>
<td>19</td>
<td>4.1</td>
<td>7.1</td>
</tr>
<tr>
<td></td>
<td>DJJNGD</td>
<td>1</td>
<td>.2</td>
<td>.4</td>
</tr>
<tr>
<td></td>
<td>DROPOUT</td>
<td>14</td>
<td>3.0</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td>OTHERNGD</td>
<td>44</td>
<td>9.4</td>
<td>16.5</td>
</tr>
<tr>
<td></td>
<td>OTHERTRANS</td>
<td>51</td>
<td>10.9</td>
<td>19.1</td>
</tr>
<tr>
<td></td>
<td>SPDIP</td>
<td>5</td>
<td>1.1</td>
<td>1.9</td>
</tr>
<tr>
<td></td>
<td>STANDIP</td>
<td>110</td>
<td>23.6</td>
<td>41.2</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>267</td>
<td>57.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>199</td>
<td>42.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>466</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

*Note:*

ADULTGED - adult GED

ADULTTRANS - adult transferred - Students were transferred out of school once they turn 21.

CERTCOMP - certificate of completion (not a standard diploma) - Students did not pass the Grade 10 Reading FCAT.

DJJNGD - Juvenile detention non-graduate.

DROPOUT - drop out

OTHERNGD - other non-graduate

OTHERTRANS - other transferred
SPDIP - special diploma (not a standard diploma)

STANDDIP - standard diploma

Univariate Analysis of Variance—Retention, Socioeconomic Status, and Diploma Acquisition.

There was a statistically significant difference between retained students and non-retained students regarding standard diploma acquisition (.006). However, there was not a statistically significant difference in the relationship between socioeconomic status and standard diploma acquisition (.120). There was not a statistically significant interaction among the variables, retained and non-retained and poverty regarding standard diploma acquisition (.085). See Table 5.

Table 5

Factorial ANOVA Tests Between-Subjects Effects: Independent Variable—Retention, Socioeconomic Status; Dependent Variable—Diploma Acquisition

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>.764</td>
<td>3</td>
<td>.255</td>
<td>2.597</td>
<td>.052</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.434</td>
<td>1</td>
<td>4.434</td>
<td>45.217</td>
<td>.000</td>
</tr>
<tr>
<td>RetainedGr3Yes1No0</td>
<td>.755</td>
<td>1</td>
<td>.755</td>
<td>7.695</td>
<td>.006</td>
</tr>
<tr>
<td>SES</td>
<td>.238</td>
<td>1</td>
<td>.238</td>
<td>2.430</td>
<td>.120</td>
</tr>
<tr>
<td>RetainedGr3Yes1No0 * SES</td>
<td>.293</td>
<td>1</td>
<td>.293</td>
<td>2.990</td>
<td>.085</td>
</tr>
<tr>
<td>Error</td>
<td>39.224</td>
<td>400</td>
<td>.098</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>45.000</td>
<td>404</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>39.988</td>
<td>403</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Univariate Analysis of Variance—Retention and Ethnicity

In terms of retention, ethnicity, and diploma acquisition, 12% of Black students in the non-retained group, and 11% of Hispanic students in the non-retained group, received a standard diploma. For the non-retained white students, 6% received a standard diploma. Among students who were retained, 24% of the retained Black students received a standard diploma, compared to 6% of retained Hispanic students. In the retained White group 16% received a standard diploma. See Table 6.

Table 6

*Descriptive Statistics: Independent Variable—Retention and Ethnicity; Dependent Variable—Diploma Acquisition*

<table>
<thead>
<tr>
<th>RetainedGr3 (Yes = 1, No = 0)</th>
<th>Ethnic3</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0</td>
<td>Black</td>
<td>.12</td>
<td>.32525</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>.11</td>
<td>.30903</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.06</td>
<td>.24667</td>
<td>124</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.09</td>
<td>.28965</td>
<td>304</td>
</tr>
<tr>
<td>1.0</td>
<td>Black</td>
<td>.24</td>
<td>.43477</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>.06</td>
<td>.24593</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.16</td>
<td>.36890</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.16</td>
<td>.37013</td>
<td>105</td>
</tr>
<tr>
<td>Total</td>
<td>Black</td>
<td>.16</td>
<td>.37040</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>.10</td>
<td>.29511</td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.08</td>
<td>.27728</td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.11</td>
<td>.31330</td>
<td>409</td>
</tr>
</tbody>
</table>
**Post Hoc Test**

There was not a statistically significant interaction (.127) among variables—retained/non-retained, and ethnicity. After conducting a Bonferoni post hoc test, no statistically significant difference was observed among ethnicities: Black, White and Hispanic. The mean difference between Black and Hispanic students’ diploma acquisition was approximately 7%. Between Black and White students the mean difference was 8%. Between White and Hispanic students, the mean difference was 1%. See Table 7.

Table 7

*Bonferoni Post Hoc Test: Multiple Comparisons – Ethnicity*

<table>
<thead>
<tr>
<th>Bonferroni</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>(I) Ethnic3</td>
<td>(J) Ethnic3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>Hispanic</td>
<td>.07</td>
<td>.03918</td>
<td>.267</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.08</td>
<td>.03800</td>
<td>.114</td>
</tr>
<tr>
<td>Hispanic</td>
<td>Black</td>
<td>-.07</td>
<td>.03918</td>
<td>.267</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>.01</td>
<td>.03645</td>
<td>1.000</td>
</tr>
<tr>
<td>White</td>
<td>Black</td>
<td>-.08</td>
<td>.03800</td>
<td>.114</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>-.01</td>
<td>.03645</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Research Question 2:** How did the retained group compare to the similar non-retained group on the Grade 10 FCAT Reading?

**Hypothesis 2:** Students who were retained in Florida during the school year 2003-2004 as a result of the A+ Plan were less likely to score at proficiency (level 3) on the Grade 10 Reading FCAT than academically similar students who were not retained.
During 2003-2004, retained students repeated the third grade, and retook the Grade 3 Reading FCAT. Immediately after the retention year, during the spring 2004 administration of the Grade 3 Reading FCAT, 25% of retained students remained at level one on the Grade 3 Reading FCAT, and 20% of students improved to level two. Of the retained students, 45% remained below proficiency (level 3) on the Grade 3 Reading FCAT, immediately following retention. See Table 8.

Table 8

*Reading Achievement Levels of Retained Students on the 2003-2004 Grade 3 Reading FCAT*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>105</td>
<td>22.5</td>
<td>25.1</td>
<td>25.1</td>
</tr>
<tr>
<td>2.0</td>
<td>83</td>
<td>17.8</td>
<td>19.9</td>
<td>45.0</td>
</tr>
<tr>
<td>3.0</td>
<td>187</td>
<td>40.1</td>
<td>44.7</td>
<td>89.7</td>
</tr>
<tr>
<td>4.0</td>
<td>41</td>
<td>8.8</td>
<td>9.8</td>
<td>99.5</td>
</tr>
<tr>
<td>5.0</td>
<td>2</td>
<td>.4</td>
<td>.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>418</td>
<td>89.7</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>48</td>
<td>10.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>466</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Between the retention year (2003-2004) and the Grade 10 Reading FCAT (2011), 230 students were missing from the original sample; possible causes for the missing students are, but not limited to, students moving out of the district (mobility), students dropping out before 2011, or death. However, during spring of 2011, 236 students, who remained in the retained group, took the Grade 10 Reading FCAT. The percentage of students scoring at level one was approximately 67%, and the percentage of students scoring at a level two was approximately
26%. In this study, 93% of the remaining students who were retained in the third grade, were below proficiency in 2011; only 6.6% met proficiency. See Table 9.

Table 9

*Reading Achievement Levels of Retained Students on the 2010-2011 Grade 10 Reading FCAT*

<table>
<thead>
<tr>
<th>Reading Level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td>158</td>
<td>33.9</td>
<td>66.9</td>
<td>66.9</td>
</tr>
<tr>
<td>2.0</td>
<td>62</td>
<td>13.3</td>
<td>26.3</td>
<td>93.2</td>
</tr>
<tr>
<td>3.0</td>
<td>11</td>
<td>2.4</td>
<td>4.7</td>
<td>97.9</td>
</tr>
<tr>
<td>4.0</td>
<td>4</td>
<td>.9</td>
<td>1.7</td>
<td>99.6</td>
</tr>
<tr>
<td>5.0</td>
<td>1</td>
<td>.2</td>
<td>.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>236</td>
<td>50.6</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System</td>
<td>230</td>
<td>49.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>466</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The non-retained group took the Grade 10 reading FCAT in spring 2010, and 85.8% were below proficiency. In that group 59.7% of students scored at level one and 26.1% scored at level two. According to the data, approximately 86% remained non-proficient into their tenth grade year. See Table 10.
Table 10

*Reading Achievement Levels of Non-retained Students on 2009-2010 Grade 10 Reading FCAT.*

<table>
<thead>
<tr>
<th>Reading Level</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>1.0</td>
<td>80</td>
<td>36.4</td>
<td>59.7</td>
</tr>
<tr>
<td></td>
<td>2.0</td>
<td>35</td>
<td>15.9</td>
<td>85.8</td>
</tr>
<tr>
<td></td>
<td>3.0</td>
<td>10</td>
<td>4.5</td>
<td>93.3</td>
</tr>
<tr>
<td></td>
<td>4.0</td>
<td>7</td>
<td>3.2</td>
<td>98.5</td>
</tr>
<tr>
<td></td>
<td>5.0</td>
<td>2</td>
<td>.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>134</td>
<td>60.9</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>86</td>
<td>39.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>220</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

On the Grade 10 Reading FCAT, 7% of the retained group scored at or above proficiency, while 14.2% of the non-retained group scored at or above proficiency.

**Univariate Analysis of Variance—Grade 10 Reading FCAT**

There was a statistically significant difference between retained students and non-retained students regarding Grade 10 Reading FCAT mean scale scores (.000). There was also a statistically significant difference between ethnicity and Grade 10 Reading FCAT scores (.003). There was not a statistically significant interaction among the variables *retained in grade three* and *ethnicity* regarding Grade 10 Reading FCAT scores (.760). Non-retained students scored higher on the Grade 10 Reading FCAT than retained students. See Table 11-12.
Table 11

*Descriptive Statistics: Independent Variables—Retention, Ethnicity; Dependent Variable—
Grade 10 FCAT Reading Mean Scale Scores*

<table>
<thead>
<tr>
<th>RetainedGr3 (Yes = 1, No = 0)</th>
<th>Ethnicity</th>
<th>Mean Scale Scores</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0</td>
<td>Black</td>
<td>1767</td>
<td>230.2228</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>1813</td>
<td>269.6930</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>1892</td>
<td>315.7399</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1840</td>
<td>288.0043</td>
<td>180</td>
</tr>
<tr>
<td>1.0</td>
<td>Black</td>
<td>1663</td>
<td>271.3197</td>
<td>69</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>1739</td>
<td>272.3966</td>
<td>91</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>1772</td>
<td>269.5682</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1730</td>
<td>273.4966</td>
<td>248</td>
</tr>
<tr>
<td>Total</td>
<td>Black</td>
<td>1702</td>
<td>260.8899</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>1767</td>
<td>272.8122</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>1831</td>
<td>298.4668</td>
<td>173</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1776</td>
<td>284.6637</td>
<td>428</td>
</tr>
</tbody>
</table>

Table 12

Factorial ANOVA Test Between-Subjects: Retention, ethnicity and Grade 10 Reading FCAT

Mean Scale Scores

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>2226616.861*</td>
<td>5</td>
<td>445323.372</td>
<td>5.805</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>1234926272.000</td>
<td>1</td>
<td>1234926272.000</td>
<td>16097.127</td>
<td>.000</td>
</tr>
<tr>
<td>RetainedGr3Yes1 No0</td>
<td>972703.551</td>
<td>1</td>
<td>972703.551</td>
<td>12.679</td>
<td>.000</td>
</tr>
<tr>
<td>Ethnic3</td>
<td>880474.477</td>
<td>2</td>
<td>440237.238</td>
<td>5.738</td>
<td>.003</td>
</tr>
<tr>
<td>RetainedGr3Yes1 No0 * Ethnicity</td>
<td>42067.185</td>
<td>2</td>
<td>21033.592</td>
<td>.274</td>
<td>.760</td>
</tr>
<tr>
<td>Error</td>
<td>32374652.550</td>
<td>422</td>
<td>76717.186</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1384791069.000</td>
<td>428</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>34601269.410</td>
<td>427</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post Hoc Test

There was not a statistically significant difference between Black and Hispanic students’ scores on the Grade 10 Reading FCAT (.187). Similarly, there was no statistically significant difference between White and Hispanic students’ Grade 10 Reading FCAT scores (.123). However, there was a statistically significant difference between Black and White (.000) students’ scores on the Grade 10 Reading FCAT. See Table 13.
Table 13

*Bonferroni Post Hoc Test - Multiple Comparisons*

<table>
<thead>
<tr>
<th>(I) Ethnic</th>
<th>(J) Ethnic</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>Hispanic</td>
<td>-65.504</td>
<td>35.0612</td>
<td>.187</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>-129.304*</td>
<td>33.8715</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>Black</td>
<td>65.504</td>
<td>35.0612</td>
<td>.187</td>
<td>-18.767</td>
<td>149.776</td>
</tr>
<tr>
<td>White</td>
<td>-63.799</td>
<td>31.1274</td>
<td>.123</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>Black</td>
<td>129.304*</td>
<td>33.8715</td>
<td>.000</td>
<td>47.891</td>
<td>210.716</td>
</tr>
<tr>
<td>Hispanic</td>
<td>63.799</td>
<td>31.1274</td>
<td>.123</td>
<td></td>
<td>-11.017</td>
<td>138.616</td>
</tr>
</tbody>
</table>

*Univariate Analysis of Variance - SES, Retained, and Grade 10 Reading FCAT Mean Scale Scores*

There was a statistically significant difference between low socioeconomic status (students who participated in the FRL program and students who did not participate in the FRL program) in terms of their Grade 10 Reading FCAT scores (.005). There was also a statistically significant interaction (.012) among variables: retained and non-retained, and low socioeconomic status. See Table 14.
Table 14

*Descriptive Statistics: Retention, Socioeconomic Status, Grade 10 Reading FCAT Mean Scale Scores*

<table>
<thead>
<tr>
<th>RetainedGr3 (Yes = 1, No =0)</th>
<th>SES</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0</td>
<td>.00</td>
<td>1953</td>
<td>264.7830</td>
<td>53</td>
</tr>
<tr>
<td>1.00</td>
<td>1793</td>
<td>285.0767</td>
<td></td>
<td>127</td>
</tr>
<tr>
<td>Total</td>
<td>1840</td>
<td>288.0043</td>
<td></td>
<td>180</td>
</tr>
<tr>
<td>1.0</td>
<td>.00</td>
<td>1736</td>
<td>282.4448</td>
<td>66</td>
</tr>
<tr>
<td>1.00</td>
<td>1727</td>
<td>270.9387</td>
<td></td>
<td>182</td>
</tr>
<tr>
<td>Total</td>
<td>1730</td>
<td>273.4966</td>
<td></td>
<td>248</td>
</tr>
<tr>
<td>Total</td>
<td>.00</td>
<td>1833</td>
<td>294.3414</td>
<td>119</td>
</tr>
<tr>
<td>1.00</td>
<td>1754</td>
<td>278.2714</td>
<td></td>
<td>309</td>
</tr>
<tr>
<td>Total</td>
<td>1776</td>
<td>284.6637</td>
<td></td>
<td>428</td>
</tr>
</tbody>
</table>

There was a statistically significant difference between students who were retained and low socioeconomic students in terms of their Grade 10 Reading FCAT scores (.005). There was also a statistically significant interaction (.012) among variables: retained and non-retained, and low socioeconomic status. See Table 15.
Table 15

*Factorial ANOVA Test Between-subject Effects: Retention and Socioeconomic Status*

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>2243498.809a</td>
<td>3</td>
<td>747832.936</td>
<td>9.799</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>1096874101.000</td>
<td>1</td>
<td>1096874101.000</td>
<td>14372.888</td>
<td>.000</td>
</tr>
<tr>
<td>RetainedGr3Yes1No0</td>
<td>1694345.805</td>
<td>1</td>
<td>1694345.805</td>
<td>22.202</td>
<td>.000</td>
</tr>
<tr>
<td>SES</td>
<td>601877.578</td>
<td>1</td>
<td>601877.578</td>
<td>7.887</td>
<td>.005</td>
</tr>
<tr>
<td>RetainedGr3Yes1No0*SES</td>
<td>486741.054</td>
<td>1</td>
<td>486741.054</td>
<td>6.378</td>
<td>.012</td>
</tr>
<tr>
<td>Error</td>
<td>32357770.600</td>
<td>424</td>
<td>76315.497</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1384791069.000</td>
<td>428</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>34601269.410</td>
<td>427</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Research Question 3:** How do socioeconomic status and ethnicity impact retention rates of certain groups?

**Hypothesis 3:** Students of color and students who are from low socioeconomic backgrounds are more likely to be retained than students who are white and who are not from low socioeconomic backgrounds.

In this study, 64.8% of the retained group was nonwhite. During 2003-2004, there were approximately 1529 nonwhite students in third grade and approximately 2527 white students in third grade. Approximately 6% of white students were retained while 20% of nonwhite students were retained. See Table 16. Of the students retained in 2003-2004, 69.8% were on free or reduced price lunch. See Table 17. Hypothesis 3 was supported through these findings.
Table 16

Retained Students by Ethnicity

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>19</td>
<td>4.1</td>
<td>4.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Asian</td>
<td>2</td>
<td>.4</td>
<td>.4</td>
<td>4.5</td>
</tr>
<tr>
<td>Black</td>
<td>121</td>
<td>26.0</td>
<td>26.0</td>
<td>30.5</td>
</tr>
<tr>
<td>Hispanic</td>
<td>148</td>
<td>31.8</td>
<td>31.8</td>
<td>62.2</td>
</tr>
<tr>
<td>Am. Indian</td>
<td>2</td>
<td>.4</td>
<td>.4</td>
<td>62.7</td>
</tr>
<tr>
<td>Multiracial</td>
<td>10</td>
<td>2.1</td>
<td>2.1</td>
<td>64.8</td>
</tr>
<tr>
<td>White</td>
<td>164</td>
<td>35.2</td>
<td>35.2</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>466</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 17

Retained Students by Lunch Status (Socioeconomic Status)

<table>
<thead>
<tr>
<th>Lunch Status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retained Gr3 - 1.0 Valid</td>
<td>25</td>
<td>5.4</td>
<td>5.4</td>
<td>5.4</td>
</tr>
<tr>
<td>0 - No FRL</td>
<td>116</td>
<td>24.8</td>
<td>24.8</td>
<td>53.9</td>
</tr>
<tr>
<td>1 - Free</td>
<td>280</td>
<td>60.1</td>
<td>60.1</td>
<td>90.3</td>
</tr>
<tr>
<td>2 - Reduced</td>
<td>45</td>
<td>9.7</td>
<td>9.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>466</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Note:

0 - No FRL - Not on Free or Reduced Lunch
1 - Free - Free Lunch
2 - Reduced - Reduced Lunch

**Research Question 4:** Based on the data, what can be extrapolated, in terms of economic outcomes, when evaluating consequences of students who were unable to acquire a standard high school diploma as a result of the A+ Plan?

**Hypothesis 4:** There were negative economic outcomes because of students who were unable to receive a standard diploma as a result of the A+ Plan.

Approximately 41% of the retained students graduated from high school with a standard high school diploma in 2012-2013. However, 58.8% of the remaining retained students in the sample did not receive a standard high school diploma. According to the U.S. Census Bureau (2010), students without a high school diploma earned an average of $21,023, compared to $31,283 for a high school graduate. If the national income earnings average were applied to the 157 who did not earn a standard high school diploma, the non-graduates’ combined total earnings would be $3,300,611 per year instead of $4,911,431. The difference in lost wages was $1,610,820 per year or approximately 33%.

In the United States, unmarried U.S. workers, without children, paid an average tax rate of 31.5% in 2014 (OECD, 2015). When the average tax rate is applied to the potential earnings of the retained students, the total approximate loss in taxes for the retained group would be $4016 per student, per year. There was an estimated $630,000 in lost taxes per year for the 157 students. According to the U.S. Census Bureau (2010) the national average retirement age is 63 years old. If the retained students enter the workforce at age 20 and retire at age 63, the loss of taxable revenue for the retained students over their lifetimes is approximately $27 million.

The full-time equivalent (FTE) was used to allocate funds to schools based on how many students are enrolled in school. FTE was generally defined as one student in membership in a
program or a group of programs for 1,500 minutes (25 hours a week) for a 180-day school year. The FTE calculation is based on two 90-day terms. Each student in membership and in attendance will earn one half (.50) FTE during each of two survey periods. The first survey is in October and the second survey is in 3 February (The Florida Department of Education, 2016c). According to the Florida Senate (2005), during 2004-2005 the base student allocation was $3,670.26. According to the Florida Department of Education (2016a), third grade retentions increased to more than 23,000 during 2003-2004. The cost to the state of Florida, because of the 2003-2004 retentions, was more than $84 million.

According to the Florida Department of Revenue (2016a) the millage rate — rate in dollars, per $1,000 of taxable value, set by each taxing authority based upon tax revenue required in their annual budget— in Florida was .007 for school taxes and .011 for non-school taxes, which was a total of .018 or 1.8% (Florida Department of Revenue, 2016b). According to Bogin, Doerner and Larson (2016), the Federal Housing Finance Agency uses value measures such the American Community Survey, the Decennial Census, or Zillow’s home value index. According to Zillow, the median home value in Florida is $192,600 (Zillow, 2016). If the 13,730 did not buy homes, the loss was approximately $2.6 billion in home sales. The loss in combined millage was approximately $47.6 million per year.

Incarceration costs can also be extrapolated using the data found in this study. According to the Department of Justice (2003), from 1991-1997, 68% of inmates did not receive a high school diploma while in public school. According to the Florida Department of Corrections (2016), on December 31, 2014, the Florida Department of Corrections housed 100,873, and supervised almost 142,159 active offenders on community supervision. It cost the state $18,064 per inmate, per year. Using the findings in my study, 68% of the 100,873, or 68,593 inmates did
not receive their diploma while they were in high school. Those inmates cost the state of Florida $1.2 billion per year. It can be extrapolated that the mandatory retention policy in the A+ Plan contributed to the cost of housing those inmates in Florida prisons.

The cost in terms of public assistance can also be extrapolated from this study. Approximately 60% of retained students in 2004 participated in some public assistance programs according to Ou and Reynolds (2010). According to the Center on Budget and Policy Priorities (2016), in 2014, Florida spent $999 million total in Temporary Assistance for Needy Families (TANF) spending. If the findings in the Ou and Reynolds (2010) study were applied to my study, 60% of the 23,348, or approximately 14,000 students received some form of public assistance in Florida.

The above analysis is an extrapolation based on previous economic studies. The findings in this study, combined with the findings of the economic studies above support hypothesis four.
CHAPTER V
CONCLUSIONS

Overview

The purpose of this study was to examine the impact third grade retention policies in Florida’s A+ Plan had on standard diploma acquisition and Grade 10 Reading FCAT mean scale scores. I also evaluated data in this study to extrapolate the economic consequences of mandatory third grade retentions. The sample used in the study was a cohort of 686 students, from a large southwest Florida school district, who scored at level one on the Grade 3 Reading FCAT. Of those students, approximately 466 were retained to repeat the third grade during 2003-2004. However, 220 of the students who scored at a level one were not retained. Data were collected from a large southwest Florida school district, and descriptive statistics and two factorial ANOVAs were used to evaluate that data. I compared longitudinal data of the two groups to address the following questions:

1. How did state-mandated, third grade retention policies, under the A+ Plan impact standard diploma acquisition in retained students as compared to academically similar non-retained students?

2. How did the retained group compare to the similar non-retained group on the Grade 10 Reading FCAT?

3. How did socioeconomic status and ethnicity impact retention rates of certain groups?

4. Based on the data, what was extrapolated, in terms of economic outcomes, when evaluating consequences of students who were unable to acquire a standard high school diploma as a result of the A+ Plan?
Standard Diploma Acquisition

The non-retained match control group's graduation date was spring of 2012. Of the remaining 115 non-retained students in the sample, 79 or 69% graduated with a standard diploma. In this same group, 1.7% dropped out of school, 4.3% received a certificate of completion (not a standard high school diploma), and 13.9% were classified as other non-graduates. In addition, 7.8% were labeled *other transferred*, which is not an indication of whether or not those students received a standard diploma. Approximately 23.5% of non-retained students did not receive a standard high school diploma.

The retained students' graduation date was spring 2013. Of the remaining 267 retained students in the sample, 110 or 41.2% graduated with a standard diploma. In the same group, 5.2% dropped out of school, 4.1% received a certificate of completion (not a standard high school diploma), 1.9% received a special diploma (not a standard high school diploma), and 16.5% were classified as other non-graduates. In addition, 19.1% were *other transferred*, which is not an indication of whether or not those students received a standard diploma. Approximately 38.2% of retained students did not receive a standard high school diploma.

Researchers in previous studies found retained students were less likely to obtain a diploma than non-retained students (Jimerson, 1999; Ou & Reynolds, 2010). Not receiving a standard diploma impacted the retained students' abilities to pursue postsecondary education (Fine & Davis, 2003). In this study, 23.5% of non-retained students did not receive a standard high school diploma compared to 38.2% of retained students who did not receive a standard high school diploma. The non-retained group was 14.7% more likely to graduate with a standard high school diploma than the retained group. These findings in this study were consistent with other findings; students who were retained faced difficulty catching up to their peers, achieving
academically, and obtaining a high school diploma (Anderson, Jimerson, & Whipple, 2005; Andrew, 2014; Fine & Davis, 2003; Jimerson, 1999; Moser, West & Hughes, 2012; Nagaoka, 2005; and Ou & Reynolds, 2010).

Reading Gains over Time

Greene and Winters (2006) touted the A+ Plan and its mandatory retention policy as having immediate positive impact on reading gains for retained students. I found 45% of retained students scored at a level 3 on their second attempt at the Grade 3 Reading FCAT, which supported Greene and Winters (2006) findings. However, when longitudinal data were evaluated, those gains disappeared. As the retained students progressed through school, their reading scores dropped and remained below proficiency; 65% of retained students scored at level one, 28% scored a level two on the 2010-2011 Grade 10 Reading FCAT. In 2010-2011, 93% were of the retained students were still below proficiency. Schwert and West (2012) found a similar circumstance in their study where there were substantial short-term gains in both mathematics and reading achievement immediately following retention. However, they also found those gains disappeared over time (Schwert & West, 2012).

The second question of this research was, how did the retained group compare to the similar non-retained group on the Grade 10 FCAT Reading? I found a statistically significant difference between retained students and non-retained students regarding Grade 10 Reading FCAT mean scale scores (p < .000). There was also a statistically significant difference between ethnicity and Grade 10 Reading FCAT scores (.003), with non-retained students scored higher on the Grade 10 Reading FCAT than to retained students.

These findings support previous findings: no significant relationship existed between the growth performance and retention (Pylant, 2011); grade retention decreased the growth rate of
mathematical skills but had no significant effect on reading skills (Wu, West and Hughes, 2008); and retained students had a harder time catching up to their promoted peers (Roderick & Nagaoka, 2005; Ou & Reynolds, 2010). My findings paralleled Moser, West, and Hughes (2012) findings, in that we both found retained students showed no improvement in reading or mathematics later in their academic years (Moser, West & Hughes, 2012).

**Demographics**

The third research question of the study was, how do socioeconomic status and ethnicity impact retention rates of certain groups? According to the data, 64.8% of the retained group was nonwhite. After controlling for the difference in white and nonwhite students in the district, 6% of white students were retained while 20% of nonwhite students were retained (there were approximately 1529 nonwhite students in third grade and approximately 2527 white students in third grade). One of every five nonwhite students was retained, while three of 50 white students were retained in the district. According to the Bonferroni post hoc test, the difference between Black and White (.000) students’ scores on the Grade 10 Reading FCAT was statistically significant.

In addition, of the students retained in 2003-2004, 69.8% were identified as low socioeconomic status. There was a statistically significant difference between low socioeconomic status and performance on Grade 10 Reading FCAT (.005). Students retained, who were also from low socioeconomic backgrounds, scored lower on Grade 10 Reading FCAT than did students who were not retained and not from low socioeconomic backgrounds.

Retention rates were higher among ethnic minorities, especially Black and Hispanic students, as well as students from low socioeconomic backgrounds (Cosden & Zimmer, 1993;
Grantham, 2004; Jimerson & Kaufman, 2003). When I conducted this study, I found evidence to support the above findings.

**Economy**

The final research question in this study was, based on the data, what can be extrapolated, in terms of economic outcomes, when evaluating consequences of students who were unable to acquire a standard high school diploma as a result of the A+ Plan? For this question, I extrapolated economic outcomes by using the data from my study and comparing that data to previous research regarding economic consequences when people did not acquire a standard high school diploma.

The estimated cost to the state of Florida, because of the 2003-2004 retentions, was more than $84 million. Also, according to the Florida Department of Education (2016), from 2003-2013, approximately 160,000 third grade students were retained in Florida. The impact amounts to approximately $587 million in additional FTE dollars spent for retained students in Florida.

If the averages used in my study were applied to the 23,348 retained students in 2003-2004, 41% of the 23,348, did not graduate with a standard diploma; approximately 13,730 did not receive a standard high school diploma. These students’ failure to receive a standard diploma resulted in loss of wages. After evaluating the 13,730 who did not receive a standard-diploma and using the 2010 U.S. Census employment by education level data, I found Florida students earned 33% less than they would have if they had obtained a high school diploma. The total difference in total combined loss in earnings was approximately $141 million per year.

According to the Alliance for Excellent Education (2011), people without a high school diploma were less likely to buy homes. If the 13,730 retained students who did not earn a
standard diploma did not buy homes, the loss was approximately $2.6 billion in home sales. The loss in combined millage was approximately $47.6 million per year.

Incarceration and public assistance costs can also be extrapolated using the data found in this study. According to the Florida Department of Corrections (2016) it cost the state of Florida $18,064 per inmate, per year. Using the findings in my study, if 68% of the 100,873, or 68,593 inmates did not receive their diploma (U.S. Department of Justice, 2003) while they were in high school, the cost was $1.2 billion per year. According to the Center on Budget and Policy Priorities (2016), Florida spent $999 million total in 2014 in Temporary Assistance for Needy Families (TANF) spending. If the findings in the Ou and Reynolds (2010) study were applied to the findings in my study, 60% of the 23,348, or approximately 14,000 students received some form of public assistance in Florida.

Limitations

There are certain limitations to this study. First, not all students who were retained were tracked because 199 students were dropped from the retained sample, and 105 students were dropped from the match control group sample. This could have been because they moved, died, or dropped out earlier than their graduation years (2011-2012 and 2012-2013).

Second, there were threats to internal validity in terms of causal inferences. For example, the reason why retained students continued to test at level one on the FCAT even after retention could be linked to other factors, such as an unstable home life, poverty, or having an ineffective teacher. While I found retention to have affected reading levels and graduation rates negatively, there may have been other causes of this phenomenon.

The third limitation concerns standard diploma acquisition. I only looked at the year students graduated for standard diploma acquisition. Students who did not acquire a standard
diploma during their graduation year may have acquired their GED in subsequent years. That could have affected their earning potential over time.

**Implications for Practice**

This study would be helpful for educational leaders at the building level and at the district level. For example, building-level administrators could review the data related to students who were retained and continued to read at level one year later, and use that evidence to advocate promoting the students through the Good Cause Exemption (see Appendix A). At the district level, this data can be used to help district leaders evaluate the long-term academic and financial risks of the mandatory retention policy.

In terms of policy, this study would be beneficial to state officials including the governors, chief state school officers, and legislators who support laws such as the mandatory retention policy in the A+ Plan. In addition, policy makers can examine the costs of retaining 10-15% of students, and weigh whether it is worth the money to retain students, only to find seven years later, they are still reading below desired reading levels.

In terms of the economy, this study can help economists calculate the cost of early retentions throughout the country. In addition, policy makers can use the conclusions in this study to inform decisions through cost/benefits analysis. Policy makers can decide whether the cost of retention is worth the results of retention.

**Future Research**

A follow up study using qualitative research in the form of interviews would be helpful to determine how retention affected students in 2003-2004. Qualitative research would help to identify if students, who dropped out, did so because of being retained, because of other circumstances, or because of a combination of both. Further qualitative research might outline
how students who were retained viewed themselves throughout their academic years and how retention affected them.

A follow-up study through which the retained students, who dropped from the sample in this study, were tracked past graduation year would be beneficial. Precise numbers, figures and costs to the state of Florida could be calculated.

**Conclusions**

According to Greene and Winters (2006), students who were retained in third grade showed gains in reading early immediately after retention occurred. These researchers implied that students were approaching proficiency because of the end of social promotion and mandatory retention in the A+ Plan. However, after further study, I found that students who stayed behind continued to stay behind, never reaching proficiency. In fact, 93% of the remaining retained students in the sample were below proficiency in 2010-2011.

The cost is something that should be evaluated closely. Is it worth the $1.8 million in additional funding per year to retain students when they never reach proficiency? Perhaps that $1.8 million would be better spent on additional teachers, additional interventions and programs that yield better results.

In addition, the incarceration costs and public assistance costs could possibly be reduced if retentions were reduced. Supporting students to progress though school and receive a diploma could help home sales increase in Florida. In addition, if students were able to earn back the 33% in lost wages, approximately $140 million additional dollars per year could be added to the Florida economy in terms of goods and services.

The aforementioned findings can serve policy analysts to determine whether or not the A+ Plan was effective in helping students achieve in school. There is still additional research to
be conducted in this area. For example, Miami-Dade Public Schools was most affected, in terms of number of retentions, by the A+ Plan and mandated retention. Further analysis, using data from Miami-Dade, would be helpful in understanding the scope of impact mandated retention had on that district and other districts in Florida. The cost to Miami-Dade could also be further investigated. Because there were elementary schools in Miami-Dade Public Schools with more than 50% of the third-grade population retained, an analysis of the cost of the A+ Plan, in terms of logistics, would be beneficial in further analyzing the A+ Plan’s effectiveness.
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