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CONSIDERING THE DISPARATE IMPACT OF TEST-BASED RETENTION POLICY ON LOW-INCOME, MINORITY, AND ENGLISH LANGUAGE LEARNER CHILDREN IN TEXAS

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Dedicated to my beloved parents,

Ivory Lee Smith

and

Rulia J. Smith

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Considering the Disparate Impact of Test-Based Retention Policy on Low-income, Minority, and English Language Learner Children in Texas

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The University of Texas at Austin, 2011

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This dissertation evaluates disparate impact of test-based retention (TBR) policy on historically disadvantaged student groups in the State of Texas, and determines school characteristics that statistically predict retention and may contribute to disparate impact. The research literature on TBR is limited, as most grade retention research precedes the increase in use of TBR policy across the United States.

Based on descriptive analysis, there were considerable increases in retention rates for low-income, African American, Latino, and English Language Learner (ELL) children compared to their less-disadvantaged counterparts, after TBR was implemented. Using multiple regression analysis, schools with higher percentages of low-income students, ELL students, beginning teachers, and higher percentages of low-income students in their school district were found to have higher retention rates while schools with higher percentages of White students, White teachers, and Latino teachers were found to have lower retention rates. Additionally, school retention rates were found to vary according to accountability rating.

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CHAPTER I: INTRODUCTION

"Grade retention" refers to requiring students who have not met certain academic criteria to repeat the grade the following academic year. "Social promotion," an alternative to grade retention, involves promoting a student to the next grade along with same-age peers despite deficits in academic achievement. Grade retention policy was largely local to schools, and decisions to retain a student were generally left to teacher discretion prior to the late 1990s. In this era of standards-based reform, national, state, and local governments have exerted influence on grade retention decisions and a number of states and school systems have test-based retention (TBR) policies, which require elementary and middle school students to pass a standardized test in order to be promoted to the next grade. At issue in this dissertation, is the disproportionate impact of grade retention and TBR policy on historically disadvantaged children. The underlying theory of this dissertation is that disproportionate rates of retention for low-income and minority children are not solely attributable to lower student performance, as is usually assumed. A key assertion is that school characteristics such as student body demographic composition, teacher experience, and school size influence retention rates and contribute to disproportionate and inequitable effects of retention and TBR policy.

TBR policy, which is a stricter form of grade retention policy, is in use across the nation. With TBR policies concentrated in states with large minority populations and in urban school systems, a larger proportion of minority students are subject to TBR policies than are White students (Heubert, 2003). In addition to the State of Texas, at least ten other states (including Florida, California, and Louisiana) and a number of urban school

systems (including the District of Columbia, Chicago, and New York City) have enacted "no social promotion policies" aligned with high-stakes tests, and retain children in gateway grades primarily on the basis of performance on standardized tests (Table 1). To advance to the next grade, students are typically required to pass tests in reading in third or fourth grade; in reading/English language arts and mathematics in fifth or sixth grade; and in reading/English language arts and mathematics in eighth grade.

(Table 1 about here)

In the remainder of this Introduction, these sections on Grade Retention and Standards-Based Reform, Grade Retention as Problematic Policy, and TBR Policy in Texas set the stage for an examination of disproportionate impact of Texas' TBR Policy on low-income, minority, and English Language Learner (ELL) children, and on how school characteristics potentially influence retention rates and result in increased retention for these children irrespective of student performance. After which, the Statement of the Problem is elaborated. Then the Purpose of the Study, Research Questions, and Significance of the Study address specific questions that will be addressed in this dissertation, as well as the significance or importance of exploring these questions.

Grade Retention and Standards-Based Reform

The complex policy issue of grade retention versus social promotion and, more recently TBR, is highly relevant as schools and policymakers wrestle to balance concerns of high standards and high expectations for all students while keeping academically struggling students in school through graduation. The theory of action that underlies TBR is that in order for standards-based reform and accountability to be successful in improving student achievement, standards must exist and students must be held accountable for meeting those academic standards (Clinton, 1998; Riley, 1998). A clear set of standards delineate what is to be taught and learned at each grade in order for students to be prepared for and successful in the preceding grade—end-of-year state tests are closely aligned with the standards and assess whether students have met minimum standards.

For school systems that require students to pass an exit test in order to graduate from high school, some believe that TBR in elementary and middle school grades serves as an important academic checkpoint along the way (Heubert & Hauser, 1999). The idea is that learning deficiencies are identified and addressed early on, having students repeat a grade if necessary, so that they do not end up in high school unprepared for rigorous curriculum and unable to pass batteries of exit testing required for graduation. Twenty-six states have exit tests and these states enroll a disproportionate percentage of minority students—74% of all U.S. students are enrolled in states that require exit tests, while 84% of the country's African American and Latino students attend school in these states (Center on Educational Policy, 2010). As school districts, school administrators, and

teachers are increasingly being held accountable for student performance, inherent in standards-based reform is high-stakes student accountability (Mintrop & Trujillo, 2007; Vasquez Heilig & Darling-Hammond, 2008). As high school exit tests become the norm, policymakers are driven towards TBR at elementary and middle school levels.

Grade Retention as Problematic Policy

Opponents of grade retention argue that there is no evidence that retention helps students. A preponderance of research on grade retention finds that most retained students do not catch up and that in the long term socially promoted students have considerably better academic outcomes than retained students (Holmes, 2000; Jimerson, 2001; Roderick & Nagaoka, 2005; Shepard & Smith, 1989). The research literature demonstrates a relationship between grade retention and dropping out of school (Alexander, Entwistle, & Dauber, 2003; Allensworth, 2005; Holmes 1989; Holmes & Matthews, 1984; Jacobs & Lefgren, 2009; Shepard & Smith, 1989). This finding is especially salient as schools continue to struggle to keep students in school and are being held accountable for doing so through state and national accountability systems. Additionally, research indicates that retention causes irreparable socio-emotional harm to students, which leads to problematic behaviors and disengagement from school (Jimerson, 2001).

Low-Income and Minority Children Disproportionately Affected

The National Center for Educational Statistics (NCES) reported in 2010 that minority and low-income students are disproportionately affected by grade retention, and there is a considerable gap in retention rates across race/ethnicity groups and

socioeconomic status (SES). Retention rates are generally reported as either an annual rate or as a cumulative annual rate, which takes into account all students who have ever been retained at a particular point in time. As of 2007, NCES cumulative retention rates show that 9.8% of about 30 million K-8 students (about 3 million students) in the U.S. were retained. The African American retention rate (16%) was double the rate for White students (8%), while 11% of Latino students were retained (NCES, 2010). Additionally, the retention rate for low-income students was 23%, while the rate for higher-income students was only 5% (NCES, 2010).

The State of Texas reports annual retention rates, which also show a marked retention gap between minority and White and low-income and higher-income students. In 2009, the retention rates for African American and Latino students were 5.9% and 5.7%, respectively; more than double the 2.7% rate of White students. In 2002-2003, the first year TBR took effect in Texas, about 43% of third-grade students were Latino; yet, Latinos made up 62% of retained students. Clearly, African Americans and Latinos are overrepresented relative to the number of White students retained in the State of Texas.[1]

TBR policies add another layer of controversy onto the debate over grade retention and disproportionate effects on minority and low-income children in Texas and elsewhere. Given the well-documented achievement gap between minority and White and low-income and higher-income students, TBR has a disparate impact. Minority and low-

[1]It is important to note that annual retention rates, like annual dropout rates, can be misleading and may not adequately capture impact on students. For example, Texas' 2009 annual dropout rate was 2.9%, but the cohort dropout rate for the Class of 2009 was 9.4%. The 9.4% figure provides a better idea of the number of students who end up dropping out of school. Similarly cohort retention rates would likely provide a more complete accounting of the impact of retention. Texas does not report cohort retention rates.

income students are more likely to not meet cut-scores on standardized tests and are therefore more likely to be retained under TBR policies.

Cost of Grade Retention

The cost of grade retention to schools, taxpayers, and affected students is also of concern. The point is often made that money spent on requiring students to repeat grades would be better spent on more proven interventions such as early childhood education, quality teachers, and individualized instruction for struggling learners (Darling-Hammond, 1998, 2004; Levin, 2009). When students repeat a grade, the cost for an additional year of schooling is incurred by schools and taxpayers (Xia & Glennie, 2005). According to NCES (2010), the average education expenditure per pupil was estimated to be $11,839. If an estimated 15% (National Association of School Psychologists, 1998) of 34.2 million K-8 students (NCES, 2010) are retained each year, the annual cost for grade retention at the national level is about $40 billion. In Texas, the state's retention of 73,655 K-8 students in 2008-2009 (Texas Education Agency (TEA) Grade Retention, 2010) and annual per pupil expenditure amount of $8,572 (TEA Snapshot, 2010) leads to an estimated cost of $631 million each year. Both the national and Texas examples provide somewhat crude estimates, but make the point that retention is an expensive policy.

As previously stated, grade retention is correlated with dropping out of school. Thus, the ultimate cost of retention for affected students is decreased employability and life chances. In turn, costs to the taxpayer for large numbers of retained students who end up dropping out of school include lower tax revenues and high costs for criminal justice,

public health, and public assistance (Levin, 2009). The Alliance for Excellent Education (2007) estimates that more than 12 million students will drop out of school over the next ten years, resulting in a loss to taxpayers of $3 trillion. In summary, the preponderance of the research demonstrates the costs of grade retention are not only academic, but also financial—calling into question the efficacy of the policy. Despite these limitations, test-based retention has been continually advanced as a solution in the State of Texas to improve low-income and minority student achievement.

Test-Based Retention Policy in Texas

In 1999, along with the introduction of a more rigorous state assessment—the Texas Assessment of Knowledge and Skills (TAKS), Texas legislators instituted TBR for elementary and middle school grades (Texas Education Code §28.0211, 1999); specifically, promotion gates in third, fifth and eighth grade. In 2002-2003, the requirement for third-grade students to pass the state reading test in order to be promoted to fourth grade became effective. Starting in 2004-2005, fifth-grade students were required to pass the (TAKS) reading and mathematics tests to be promoted to sixth grade. Then, in 2008, eighth-grade students were required to pass the TAKS reading and mathematics tests in order to be promoted to the ninth grade.

TBR repealed for third graders. In 2009, after six cohorts of third graders were subsumed under TBR amid concerns raised by teachers and parents—including that third graders were developmentally too young to deal with the pressure and stress of failure due to the policy (Embry, 2009)—Texas legislators made significant revisions to the TBR policy and altogether eliminated TBR requirements for third graders. The state also

backed away from single criteria retention by requiring that promotion for all K-8 graders be based on a combination of factors; with test scores being only one of a number of factors to be considered. TEC § 28.021(c) (2009) (enacted) requires school districts to consider the following factors when making promotion/retention decisions: (a) the recommendation of the student's teacher, (b) the student's grade in each subject or course, (c) the student's score on the state test, and (d) any other academic information as determined by the school district.

TBR remains in place for fifth and eighth graders. TEC § 28.0211 (1999) (enacted) continues to require the following:

> A student may not be promoted to: (1) the sixth grade program to which the student would otherwise be assigned if the student does not perform satisfactorily on the fifth grade mathematics and reading assessment instruments under Section 39.023; or (2) the ninth grade program to which the student would otherwise be assigned if the student does not perform satisfactorily on the eighth grade mathematics and reading assessment instruments under Section 39.023.

However, the requirement that school districts consider multiple factors in addition to state tests when making promotion/retention decisions largely mitigated state-mandated TBR requirements for elementary and middle school grades.

Test-failed students must be assigned to a qualified teacher. Another key amendment to TBR policy requires that test-failed students who are promoted to sixth or ninth grade must be assigned in the requisite subject area to a qualified teacher, in accordance with state and federal teacher qualification standards (TEC § 28.021(n)

(2009). Essentially, these students must be taught by teachers fully certified in Texas to teach in the subject area at the designated grade level. In Texas, elementary school (K-6th grade) teachers must be certified in elementary education; middle school (7th and 8th grades) teachers must be certified in either elementary education or in secondary education for the subject taught; and high school teachers must be certified in secondary education for the subject taught. Federal No Child Left Behind (NCLB) legislation generally considers teachers qualified if they receive state certification and demonstrate content knowledge of the material they teach either by passing a subject-area exam or by having an undergraduate major in that subject, or both (NCLB Act of 2001: Qualifications for Teachers and Professionals, 2003; United States Department of Education, 2005).

The Grade Placement Committee and parent involvement. An important component of the initial TBR policy that remains in place is that students that are unable to pass the required test by the third try are considered automatically retained, except a campus grade placement committee (GPC) consisting of the student's principal, teacher and parent can decide to exempt the student and advance the student to the next grade (TEC § 28.0211(e) (1999) (enacted). Critically, in order to enact the GPC process after automatic retention, the student's parent or guardian must make a formal request to the student's school. Schools are required to make a good faith effort to ensure that the parent is notified about the automatic retention and GPC process in person or by mail and that the information provided is easy to understand and written in English or in the parent's native language. Parents can waive participation in the GPC and also have the option to

designate another individual to serve on the committee in their place. If the parent or guardian cannot be located, the school can designate an individual to serve on the committee on behalf of the student.

A decision made by the GPC to socially promote a student must be unanimous; the teacher, principal and parent must all agree. To be clear, a unanimous decision is required in order to promote a failed test student, but a unanimous decision is not needed to retain the student. The unanimous GPC requirement is critical because it essentially gives schools the authority to make promotion or retention decisions. The statute further requires that "the grade placement committee may decide in favor of a student's promotion only if the committee concludes that if promoted and given additional and intensive support, the student is likely to perform at grade level by the end of the next school year" (TEC§28.0211(e) (1999) (enacted). The GPC requirements force deliberate, careful, and parent-involved promotion/retention decisions.

Statement of the Problem

While it is generally agreed that grade retention policy is having a disparate impact on low-income and minority students, it is unknown whether school characteristics are related to grade retention. At issue is whether school characteristics such as student body demographic composition, teacher experience, and school size influence retention rates and contribute to higher retention rates for low-income and minority children beyond differences in retention rates attributable to lower student performance for low-income and minority children; for example, low-income and minority children are more likely to attend schools that have fewer experienced teachers

(Darling-Hammond, 2004). If schools with fewer experienced teachers are found to retain more students, then such school characteristics may interrelate with individual student characteristics and circumstances to compound the likelihood that low-income and minority struggling learners are more likely to be retained at their school than higher-income and White struggling learners at their school.

There is evidence that, under TBR policy, African American and Latino test failers are more likely to be retained than White test failers. Under Florida's TBR policy, even controlling for baseline academic proficiency, minority third graders were found to have a higher likelihood of being retained than their White counterparts (Green & Winters, 2009). Since grade retention has repeatedly been found to lead to lower student achievement and dropping out of school, the impact of inequitably retaining low-income and minority struggling learners likely has a profoundly negative impact on individual students and on historically disadvantaged student groups.

Purpose of Study and Research Questions

Thus, the main purpose of this dissertation was to determine in the midst of TBR policy whether school characteristics are associated with grade retention. If school characteristics influence retention, then differences in characteristics across schools have the potential to exacerbate disparate impact of retention on historically disadvantaged children. A statewide analysis of Texas' school-level third grade retention rates were analyzed to determine the effect of school characteristics such as student body demographic composition, teacher experience, and school size on retention. First, in order to more definitively establish and document differential impact of TBR policy on

disadvantaged children a descriptive analysis of third-grade retention rates pre- and post-TBR are provided. Also, descriptive statistical trends for K-6 retention in the state are provided for context. The research questions are as follows:

1. Does TBR have a disparate impact on low-income, minority, and ELL children?
2. Do school characteristics influence grade retention?

Significance of Study

The bulk of grade retention research was conducted prior to the advent of TBR policies and focused on teacher-initiated grade retention. Exceptions included a series of studies conducted on Chicago's implementation of TBR and a pair of studies examining short-term student achievement effects of retention under Florida's third-grade TBR policy (Green & Winters, 2007, 2009). Other than an analysis of possible adverse effects of Texas TBR policy based on pre-TBR data (Valencia & Villareal, 2004), Texas' TBR policy has received minimal attention in grade retention literature.

Retention under TBR is substantively different than teacher-initiated retention. TBR is based on more "objective" criteria—generally a cut-off score on a standardized test—and the retention is mandated by state or other governing entities. Also, TBR policies often incorporate strict adherence to curriculum standards, early identification of learning difficulties, and ongoing monitoring for students at risk of not meeting performance standards. Although, TBR policies across states are similar in a number of ways, there are also important differences, and each system warrants its own evaluation. For example, the appeals process differs across systems. As mentioned, in Texas when a

test-failed student is automatically retained, the parent has to initiate an appeal, but in the states of Florida and California, the student's teacher initiates the appeal and can use a portfolio of student work to justify advancing a student who might otherwise be retained.

In addition to largely being based on teacher-initiated retention, most grade retention research focuses on the effects of retention on student outcomes. Few studies have examined school characteristics that are associated with grade retention. Schwager, Mitchell, Mitchell, and Hecht (1992) studied the effect of district policy on retention, but this was pre-TBR and within the context of teacher-initiated retention. Bali, Anagnostopoulos, and Roberts (2005) used statewide data to examine district-level characteristics that affect third-grade retention rates in Texas, but this research was based on retention in 2000-2001, prior to when TBR took effect. This dissertation addressed both gaps mentioned—limited research on TBR and the paucity of studies examining school characteristics that influence grade retention. Moreover, both the Bali et al. (2005) and Schwager et al.'s (1992) studies focused on the district (rather than school) as the unit of analysis for grade retention. This dissertation, instead, used the school as the unit of analysis. The school is an important level of analysis when examining educator responses to policy input and impact on students; data aggregated at the district (rather than school) level can mask marked demographic, organizational, and cultural differences within districts (Heilig & Darling-Hammond, 2008). For example, there can be major differences in teacher quality at schools within the same districts and there are often low-SES and high-SES schools within districts. Moreover, although retention policies are formally district-driven and may have influence on schools, retention decisions are

ultimately made at the school level and not at the district level. Examining the relationship between school characteristics and retention may shed light on the issue of disproportionate rates of disadvantaged students being affected by grade retention. It is important to understand unintended outcomes and any discriminatory effects of TBR policy in order to inform future policy.

TBR has been repealed for third graders in Texas, but it continues to apply to third graders in other states and to Texas' fifth and eighth graders. Also, some school districts in Texas continue to retain third grade test-failed students and have formalized the requirement as school district policy. Moreover, just as the policy was initiated and then later repealed by the state, policymakers have been known to swing back and forth on TBR policies in some U.S. states. For example, New York City initiated TBR in elementary and middle school grades in 1980 only to abandon it a few years later and then reinstituted the policy 15 years later. Additionally, Texas' promotion/retention policy, which has repeatedly changed direction and repeatedly been tweaked over the past 30 years (TEA, Grade Retention, 2010), reflects the ever-debated and unresolved nature of the issue.

Summary

Despite a comprehensive body of research showing that grade retention does not improve student achievement, disproportionately affects low-income and minority students, and leads to dropping out of school, Texas and a number of states and urban school systems in the United States have instituted TBR policies and are retaining more students. TBR for Texas' third graders was instituted in 1999, became effective in 2002-

2003, and was discontinued after 2007-2008, providing a unique opportunity to examine TBR within a state considered to be a leader in high-stakes testing and school and student accountability. The main hypothesis of this dissertation was that school-level characteristics (i.e., student demographics, teacher quality, and school size) influences retention and potentially contribute to higher retention rates for low-income and minority children. In order to test this hypothesis, this dissertation first provided a descriptive analysis of K-6 grade retention in the State of Texas, and examined descriptive trends of third-grade TBR policy on low-income, African American, Latino, and ELL students in Texas. Then, an inferential analysis of all schools in the state serving third grade determined school characteristics that influence school-level grade retention. Findings from this dissertation is expected to inform future policy decisions by helping policymakers specifically understand if TBR impacts schools and students in disparate ways and provide insight into how these differential impacts may be related to school characteristics. The unfolding of TBR implementation in Texas, subsequent repeal of the third-grade requirement, and preliminary analysis of retention rates under TBR point to important lessons to be learned and documented.

CHAPTER II: LITERATURE REVIEW

A brief historical review of the promotion/retention issue provides context for understanding the nexus and intractability of the issue. A review of the effects of grade retention on student outcomes and on disparate impact by race/ethnicity provided context for understanding why the issue of inequitable impact of retention is so important. The literature review also covers school characteristics that have been found or theorized to influence retention.

Historical Background on Grade Retention

National historical background. The promotion/retention issue dates back as far as the early 19th century and the advent of the common school system as the country shifted from educating a few students to educating large numbers of students (Anderson, 1969; Ayers, 1909; Labaree, 1984; Rury, 2009; Shepard & Smith, 1989). School administrators wanted to emulate efficiency of early factories and cohorts or grades of students of similar age being taught the same material at the same pace provided an efficient means for teaching larger numbers of students (Rury, 2009, Shepard & Smith, 1989). Remarkably, current arguments and debate around grade retention remain largely similar to arguments made as far back as the early 1900s. Anderson (1969) refers to a study conducted in 1941 that, "demonstrated that children, as a general rule, do not learn more by repeating grades" (p. 1042). In a book titled *Laggards in Our Schools*, Ayers (1909) wrote about the large numbers of grade repeaters and implications for schools, including overcrowding and high cost of education:

> It cannot be denied that we are spending money in teaching large numbers of children the same things over again. . . .When a boy or girl fails of promotion and repeats the work, the city has to pay for the term's schooling twice over. Nor is money waste the only serious result of repeating grades. Attention has already been called to the fact that the child who spends much more than the normal amount of time in doing the work in the lower grades finds himself at the age of fourteen, say in the fifth grade instead of eighth, and seeing that the prospect of promotion is still remote, drops out of school. (p. 91)

Ayers (1909) argued that it was unfair to hold average students to a standard set for the highest achieving students, those few students intended to go on to high school. Ayers also argued that with 30% of students being retained annually, the practice was extremely expensive and wasteful.

Labaree (1984) explained that grade retention worked well during the early part of the 19th century because of the limited numbers of high schools and competition for available slots. However, in the late 1800s as high school became the natural culmination of children's education and compulsory attendance laws were being passed, grade retention became seen as overly rigid, and accordingly, policies needed to change (Labaree, 1984). The large number of immigrants to the United States in the 1900s and the view of school as the major institution for socializing youth also contributed to policies changing to try and keep students in school rather than push them out (Shepard & Smith, 1989).

Retention rates declined steadily between 1918 and 1952, and tracking and grouping within grades became the solution for addressing varying levels of student performance (Anderson, 1969). During the 1960s and 1970s, a period of open education and child-centered curriculum, social promotion continued to be widely practiced (Shepard & Smith, 1989) amid educators' concerns that grade retention negatively impacted the socio-emotional and cognitive development of children.

Then, in 1983, the publication of the report "A Nation at Risk" served as a major catalyst for calls for a systemic reform and overhaul of K-12 education (Rury, 2009). The report detailed declining achievement in U.S. schools and ascribed a host of the country's social and economic problems to below par schooling. Additionally, the decline of manufacturing jobs put pressure on schools to graduate more students prepared for college and a high-technology society (Rury, 2009).

In the 1990s, the standards movement rose to prominence (Cohen, 1996). President Clinton's administration is credited with leading the standards-based reform movement. Clinton (1998) pushed ending social promotion as a key component of his education agenda and as a critical component of school reform. Then, President George W. Bush, through the Elementary and Secondary Education Act of 2001, also known as No Child Left Behind (NCLB), reinforced ending social promotion. NCLB required *all* states to implement standards-based statewide testing systems and to indentify and be held accountable for students who were behind grade level and were unable to pass state tests. As a result, currently all 50 states have some form of state-level testing and

accountability, and as previously mentioned, 26 states require high school students to pass an exit test in order to earn a diploma.

Texas historical background. Texas' promotion/retention policy has repeatedly changed direction and has been tweaked over the years reflecting the unresolved nature of grade retention in educational policy. In 1984, Texas legislation expressly prohibited social promotion and required retention for students with an overall core subjects grade average below 70 (TEA Grade Retention, 2010). However, schools were not allowed to retain a student more than once in elementary school or retain more than once in middle school (TEA Grade Retention, 2010). In 1987, the policy was further tweaked to limit retention by altogether prohibiting retention of students in kindergarten and first grade (TEA Grade Retention, 2010).

In 1991, reversal of earlier pro-retention polices went even further with the elimination of the core subject grade average requirement. Also, education code expressly directed school districts to consider alternatives to retention. Retention Reduction Grants and the Optional Extended Year Programs were implemented in order to provide summer school programs for elementary students who would otherwise have been retained. Only a few years later, the pendulum swung in the other direction favoring retention. In 1995, with the review and readoption of the Texas Education Code, statute requiring that students could only be promoted on the basis of demonstrated on-grade level academic achievement, was reinforced (Texas Education Agency, 2010). Additionally, requirements mandating local promotion/retention policies, including

limitations on the number of times a student could be retained, were repealed (Texas Education Agency, 2010).

Leading up to the current state of affairs, after about 20 years of steadily ratcheting up school and student accountability in Texas, in 2002-2003 a new state assessment, the TAKS was introduced along with TBR requirements for elementary and middle school grades. TBR requirements were instituted for third-, fifth-, and sixth-grade students.

Impact of Grade Retention on Student Outcomes

Effect on academic achievement. Despite the long-standing use of grade retention as a codified intervention in educational policy, a comprehensive body of past research, including several key meta-analyses (Holmes 1989; Holmes & Matthews 1984; Jackson, 1975; Jimerson 2001; Roderick & Nagaoka, 2005), found that grade retention relative to social promotion did not provide a greater academic benefit for struggling learners. Researchers have also found retention to lead to worsening academic achievement (Alexander et al., 1994; Holmes 1989; Hong & Raudenbush, 2005; Jimerson, 2001; Jimerson, Carlson, Rotert, Egeland, & Sroufe, 1997), and established broad consensus that the practice is strongly correlated with dropping out of school (Allensworth, 2005; Grissom & Shepard 1989; Jacob & Lefgren, 2009; Jimerson 2001; Roderick & Nagaoka, 2005). Jimerson (2001) addressed criticisms about methodological limitations of prior studies with a meta-analysis of studies conducted between 1990 and 1999 that included carefully constructed comparison groups and measures for academic achievement. Jimerson determined that averaging across language arts, reading, and

mathematics retained students scored 39% of a standard deviation below promoted comparison group students.

Hong and Raudenbush (2005) used data from the Early Childhood Longitudinal Study, and after controlling for variables including prior achievement and socioeconomic status, found that retention in kindergarten led to an average loss of about half a year's expected growth. A study by Roderick and Nagaoka (2005) on the effect of retention under Chicago Public School's TBR policy is one of few studies conducted on test-based rather than teacher-based retention. The authors investigated the effects of third- and sixth-grade retention on reading achievement, comparing the achievement growth of a group of students who had just missed the cut-off score and were retained to a group of students who narrowly passed and were promoted. Roderick and Nagoaka found no evidence that retention lead to greater academic achievement for third graders of two years post-retention. For sixth graders, one year post-retention was associated with lower achievement growth; with learning gains that were 31% lower than comparable students who were not retained (Roderick & Nagoaka, 2005).

For third-grade students retained under Florida's TBR policy, Green and Winters (2009) found that retained third graders made greater gains on the state reading assessment than comparably matched students who received exemptions and were promoted under the policy. However, numerous studies have found that any gains in student achievement made after retention are only temporary, lasting one to two years post-retention (Alexander et al., 2003; Holmes, 1989; Jacob, Stone, & Roderick, 2004; Jimerson et al., 1997).

Effect on dropping out of school. Studies on teacher-initiated retention (Alexander et al., 2003; Grissom & Shepard, 1989; Holmes, 1989; Jimerson, 2001) and studies on test-based retention (Allensworth, 2005; Jacob & Lefgren, 2009; Roderick & Nagaoka, 2005) provide overwhelming evidence that retention is strongly correlated with dropping out of school. Grissom and Shepard (1989) analyzed data from two large urban school systems with large numbers of low-income students (Austin and Chicago) and a high SES suburban school system in the Northeast U.S. Controlling for achievement and SES and overage status, all three school systems demonstrated strong effects of retention in Grades 7-12 on dropping out.

Most TBR policies have not been in place long enough to determine longer-term effects such as correlations with dropping out of school; however, Chicago's school system, which began requiring a cut-off score on the Iowa Test of Basic Skills (ITBS) for third-, sixth-, and eighth-graders in 1996, provides an exception. Both Allensworth (2005) and Jacob and Lefgren (2009) made use of large samples of students and carefully controlled for relevant variables, reaffirming the repeatedly found correlation between grade retention and dropping out whether retention is based on teacher—or on test-based criteria. Allensworth (2005) determined that for students with similar demographics and achievement, retention at the eighth-grade promotion gate increased the likelihood of dropping out by age 17 by about 8 percentage points (26%), and increased the likelihood of dropping out by age 19 by about 13 percentage points (30%). Using later cohort years, Jacob and Lefgren (2009) found that retention among younger eighth graders increased the likelihood of dropping out by 22%. The fact that older eighth graders were allowed to

move on to special campuses and participate in credit recovery programming, and were not actually held back at the eighth grade campus as were younger eighth graders may have contributed to lower dropout rates for older eighth-grade students (Jacob & Lefgren, 2009). Jacob and Lefgren explained that the "nature of the retention experience" may have been " less demoralizing than that for the younger eighth graders" and "transition centers offered more opportunities for students to catch up to their peers" (p. 29). Of note, Jacob and Lefgren also found that retention appeared to affect African American students, particularly African American females, more dramatically than it did Latino students.

Effect on motivation and whole-school improvement. In examining how state legislators in the State of Wisconsin understood the need to implement a TBR policy, Brown (2007) determined that policymakers did not see retention as a tool for individual students, but rather as "a tool to focus the education establishment as a whole on improving the academic skills and knowledge of all students" (p. 17). Proponents of grade retention believe that the threat of grade retention motivates students to work harder and forces educators and parents to direct the energy and resources needed to support struggling learners. In support of this belief, Allensworth (2005) found that overall student performance on the ITBS for Chicago students rose for the first cohort of students subject to TBR and continued to climb in subsequent years. A qualitative study conducted by Roderick and Engel (2001) showed that Chicago's TBR policy had a positive motivational effect on a majority of a sample of 102 students who were substantially at risk of not meeting the test score cut-off. Most students reported a desire

to pass the test with concern about being retained and were willing to work harder in order to pass; 80% of these motivated students passed the test by the end of the school year or during summer school. Roderick and Engel (2001), however, found no motivational effect and only a 34% pass rate for the lowest achieving students, who represented nearly one-third of the sample of 102 students, despite these students' desire to not be retained.

Teachers and administrators in Chicago posited that the threat of retention motivates some students and teachers report making an extra effort to support struggling learners in response to TBR (Jacobs et al., 2004). Jacobs et al. found that 67% of teachers and 72% of administrators agreed or strongly agreed that the threat of grade retention leads students to work harder. Moreover, 85% of teachers and nearly 90% of principals believed that the TBR policy lead to teachers feeling more responsible in helping struggling students to meet required standards (Jacobs et al., 2004).

On the other hand, Amrein and Berliner (2003) make the case that high-stakes tests linked to sanctions such as grade retention decrease students' intrinsic motivation and leads to higher retention and dropout rates. Amrein and Berliner posited that increasing scores on state assessments can be made by narrowing the curriculum and teaching to the test, but that does not necessarily mean student achievement will improve. The authors, instead, examined Scholastic Assessment Test (SAT), American College Test (ACT), National Assessment of Educational Progress (NAEP) and Advanced Placement (AP) scores for 18 states with exit tests as independent measures of student achievement. Amrein and Berliner also found, for example, that New York students lost 6

points on the SAT after exit tests were implemented, that in 67% of the states ACT performance decreased, and that 57% of the states showed losses in the percentage of students passing AP exams.

Differential Impact of Grade Retention by Race/Ethnicity

In addition to previously mentioned national and Texas trend data on retention, studies have also addressed that African American, Latino, and low-income students are retained disproportionately to White and non-low-income students (Green & Winters, 2009; Jacobs & Lefgren, 2004; Vasquez Heilig & Darling-Hammond, 2008). Vasquez Heilig and Darling-Hammond (2008) examined longitudinal student progress under high-stakes testing in an urban Texas school district. Vasquez Heilig and Darling-Hammond demonstrated that "gaming strategies" to boost schools' accountability ratings resulted in 50% to 55% of African American and Latino ninth-grade students being held back compared to 30% to 35% of White and Asian American students.

During the first two years after TBR implementation in Florida, the percent of third graders retained increased to 17.2% for African-American and Latino students compared to an increase to 11.7% for all students (Green & Winters, 2009). In Chicago, between 1997 and 2002, while 69% of third graders subject to TBR were African American, 85% of retained students were African American (Nagoaka & Roderick, 2004). After TBR became effective in Louisiana, the retention rate for African American fourth graders increased from 5.6% three years prior to TBR to an astonishing 27.4% (Valencia & Villarreal, 2004). During this same period, the rate for White students increased from 3.2% to 7.6% (Valencia & Villarreal, 2004).

School Characteristics that Effect Grade Retention

A review of the literature supports that grade retention has been shown to have a negative effect on student outcomes and disproportionately affects disadvantaged children. Moreover, in a number of states that have implemented TBR policies, disparate impact by race/ethnicity has been demonstrated. The finding that minority students were more likely to be retained under Florida's TBR policy than similarly performing White students (Green & Winters, 2009) supports the idea that differences in student achievement may not fully account for the disproportionate numbers of disadvantaged children being retained, and that school characteristics may interrelate with individual student characteristics to contribute to high retention rates for low-income and minority children.

As a result, a variety of social and organizational school-level factors are hypothesized to influence retention, and will be tested in this dissertation to determine whether they foretell retention. Research on school characteristics, other than student demographics, that specifically predict grade retention is limited (Bali et al., 2005; Schwager et al., 1992). This dissertation sought to remedy this paucity in the literature.

Student body demographic composition and retention. Bali et al. (2005) conducted an analysis of 2000-2001 K-12 retention rates for 1,039 school districts in Texas to determine political and organizational variables that predicted grade retention. Holding constant other demographic and organizational variables, including student achievement, school size, and percent ELL students, districts with a higher percentage of minority and low-income students retained more students than districts with fewer

minority and low-income students. In fact, the authors determined that districts' percentage of minority and low-income students more strongly affected retention rates than did districts' average academic achievement. The effect of percentage of low-income students was particularly strong compared to the effect of academic achievement. While a two-standard deviation increase in student achievement decreased retention by 14%, a two-standard deviation increase in the percentage of low-income students increased retention rates 51% (Bali et al., 2005). Schwager et al. (1992) also found increases in the percentage of low-income students to be a significant predictor of retention.

Regarding ELLs, conflicting evidence is reported in the literature. Bali et al. (2005) found that Texas districts with more ELL students had significantly lower retention rates, which the authors attributed to exemptions from the state test for recent immigrants. While research conducted more than a decade prior found California districts with more ELLs to have significantly higher retention rates (Schwager et al., 1992). This dissertation moved beyond the current findings in the literature and examined the relationship between the proportion of ELL students and retention rates on the school-level.

Teacher race/ethnicity and grade retention. Differential effects on retention rates have been determined based on teacher race/ethnicity. In Texas, districts with increased minority students and more minority teachers appear to retain fewer minority students (Bali et al., 2005). Moreover, districts with a high percentage of Latino students and a Latino superintendent retain fewer Latino students but, districts with a high

percentage of African American students and an African American superintendent retain more African American students (Bali et al., 2005). Based on these intriguing findings, schools' percentage of teachers by race/ethnicity was considered in the analysis.

Teacher quality and grade retention. Darling-Hammond (1998) explained that, "skilled teachers who know how to use a wide range of successful teaching strategies adapted to diverse learners are, of course, the most important alternative to grade retention" and "neither standards nor assessments can help students achieve if they do not have competent teachers to support them in their learning" (p. 2). Undoubtedly, as Darling-Hammond pointed out, retention results from low-income academic achievement. Thus, school-level factors that influence student achievement are highly relevant to how they affect grade retention. A number of studies support that teacher quality has a significant effect on student achievement (Alexander & Fuller, 2004; Darling-Hammond, 2000; Fuller, 2010; Nield, Farley-Ripple, & Byrnes, 2009; Rivkin, Hanushek, & Kain, 2005). Teacher quality indicators found to predict student achievement include certification, years of experience, class size, and turnover (Alexander & Fuller, 2004; Darling-Hammond, 2000; Fuller, 2010; Nield et al., 2009; Rivkin et al., 2005).

Teacher certification. There is convincing evidence that teacher certification matters in improving student achievement. Darling-Hammond (2000) determined that certified teachers with a major in their subject area had a positive effect on NAEP elementary reading and math scores. States' average NAEP scores in mathematics were negatively associated with the percentage of less than fully certified teachers for both

beginning and newly hired teachers (Darling-Hammond, 2000). Alexander and Fuller (2004) examined students in Grades 3 through early high school years from a sample of Texas school districts and determined that students with certified teachers had greater gains on the state math assessment. Nield et al. (2009) found that middle school teachers with secondary certification in science outperformed uncertified teachers and teachers with certifications in elementary education or in special education.

Teacher experience. Research shows that teachers become more effective with experience. In particular, first-year, and to a lesser extent second-year teachers, do not perform as well as more experienced teachers (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2007; Clotfelter, Ladd, & Vigdor, 2007; Rivkin et al., 2005). For Grades 3, 4 and 5, Clotfelter et al. (2007) analyzed data on all teachers and students in North Carolina over a 10-year period, in years 1995–2004. The authors concluded that teacher experience had a positive effect on student test gains and on their current test scores in both mathematics and reading. Strengthening their findings on teacher experience, the authors further demonstrated that teachers who stay more than two years are less effective than teachers who leave the school system. This means positive effects for teachers staying more than two years were attributable to increased experience, not to the attrition of less effective teachers, as some had theorized. Bali et al. (2005) did not find teacher experience to have a statistical effect on retention. However, the authors only used percentage of teachers with five or fewer years of experience as an indicator. In this dissertation, the percentage of first-year teachers was tested as well.

Class size. Class size appears to affect academic achievement, particularly for low-income students (Ehrenberg, Brewer, Gamoran, & Willams, 2001; Rivkin et al., 2005). Examining math and reading achievement for Texas, Rivkin et al. (2005) found a negative relationship between class size and math and reading achievement for low-income students in fourth and fifth grades. In a comprehensive review on the topic, Ehrenberg (2001) explained that class size affected student achievement in that smaller classes tended to allow teachers to provide more individualized instruction to students, develop more personal relationships with students, and develop more frequent and meaningful contact with parents (Ehrenberg, 2001). Of note, class size refers to the actual number of students taught by a teacher at a particular point in time and is different from the student/teacher ratio, which captures the overall school ratio of students compared to individuals classified as teachers. However, student/teacher ratio has been found to have a significant effect on grade retention; in fact, Bali et al. (2005) used student/teacher ratio as a proxy for class size and found the factor to be second only to SES in the level of influence on grade retention on the district-level. School class size and student/teacher ratio was tested in this study. Class size specifically for third-grade students was also included as a control variable.

School size and grade retention. Studies conducted on grade retention have found that identical policy inputs lead to different staff behavior according to school size (Bali et al., 2005; Schwager et al., 1992). Schwager et al. studied district policies and retention rates for 100 K-6 schools in California, stratified by number of students (500, 501-1500, 1501-25,000, and over 25,000). Larger districts had more comprehensive and

elaborated retention policies and retained more students (Schwager et al., 1992). In this dissertation, school size was evaluated as a continuous rather than categorical variable.

In Schwager et al.'s (1992) study on how district policy affects retention in schools, policy variables only explained 3%-16% of the variation in retention rates across districts. On the other hand, district context (i.e., size, achievement, and demographics), which explained up to 35% of variation, was the most significant predictor of retention. Schwager et al. suggest that district cultural beliefs and organizational structures contribute to differences in retention rates and that policy rather than directly controlling staff behavior provide signals that are interpreted through organizational structures and cultural beliefs. In consideration of district influence on school retention rates, district size and student body demographic composition are controlled for in the regression analyses.

The wide range in Texas third-grade test-failer retention rates seems to support Schwager et al.'s finding that school organizational structures and cultural factors influence retention rates. All Texas schools were subject to the state's TBR policy. However each year during TBR, schools' test-failer retention rates ranged from 0% to 100% (Table 2). Even as overall state retention rates steadily decreased during the latter years of TBR, there was a wide range in third-grade test-failed student retention rates across schools. As shown in Table 2, test-failed student retention rates decreased from 56.6% in 2004-2005 (mid-TBR implementation) to 37.0% in 2007-2008 (the last year of third grade TBR). These decreasing test-failer retention rates indicate that over time school implementers, as a whole, may have become less willing to retain students based

on a test cut score. However, even in 2007-08, the last year of TBR when retention rates were lowest, some schools retained all test failers; while others retained some test-failers; and a number of schools promoted all test failers. In line with the Schwager et al. assertion that school cultural and organizational environment have a considerable influence on retention rates, a central hypothesis of this dissertation is that school characteristics may influence schools' response to and implementation of TBR. In conjunction with mediating schools' response to TBR, school characteristics may also contribute to disparate impact of the policy on historically disadvantaged children.

(Table 2 about here)

Conceptual Framework

Implementation Theory. Implementation theory or what McLaughlin (1990) referred to as the "implementation perspective", which seeks to examine and explain local variation in schools' response to policy inputs, provides a useful body of knowledge and set of corollaries for considering the wide variation in third-grade retention rates (p. 12). A common theme throughout implementation research is a realization that in the interest of improving educational policies and practices, there is much to be gained from examining the *how* and *why* of local variation in policy implementation and outcomes (Berman & McLaughlin ,1978; Furhman and Elmore, 1988; McLaughlin,1990 & 2006; Elmore, 1995; O'Day, 2002; Spillane, 1998). Accordingly, examining school characteristics that influence retention within the context of TBR policy may provide important lessons learned about the nuances of grade retention, particularly with regard to disparate impact on historically disadvantaged student groups.

Seminal qualitative research (Berman & McLaughlin, 1978; Datnow, Hubbard, & Mehan, 2002; Honig 2003; Honig, 2006; McLaughlin, 1990; and Wells & Serna, 1996), in the field of implementation research, has described how school structural and socio-cultural characteristics are interconnected and relate to variations in local responses to policy inputs. As shown in Figure 1, a conceptual framework tying in implementation theory and Lareau's (2000) cultural capital theory was developed to demonstrate the relationship between TBR policy input, school organizational and cultural influences, and TBR policy outcomes. Bi-directional arrows between three categories of school characteristics —familial characteristics, school capacity characteristics, and socio-cultural and race/ethnicity characteristics—depict the interrelatedness of school characteristic variables.

(Figure 1 about here)

The importance of considering local context in implementation research stemmed from the Berman and McLaughlin (1978) RAND Change Agent study of four federally funded programs meant to engender educational innovations in the areas of career education, bilingual education, and improved literacy. McLaughlin (1990) lists three key findings of the Rand Change Agent study as holding true, even as policy making and evaluation has evolved over the years from a focus on single-issue programs (i.e., vocational education) to a school reform approach (Fuhrman, Clune, & Elmore, 1988; Honig 2006). According to McLaughlin, these three key findings are corollary to the relationship between macro-level policies and micro-level behavior as follows: (1) Local choices about how to implement policy are more important to policy outcomes than

policy features; (2) What matters most to policy outcomes are local capacity and will; and (3) Local variability is inevitable. In explaining local variability as inevitable, McLaughlin used an example that raised the issue of differences in school socio-cultural characteristics, which is also a central concern in this dissertation regarding school characteristics that influence retention. McLaughlin stated:

> Although classrooms, schools, and school districts share common features . . . they also differ in fundamental and consequential ways. A high school English course in a wealthy suburban classroom differs from a course offered under the same title in an inner-city school (p. 13).

As policy goals have become more complex and more reform and systemic intensive a more contemporary form of implementation research has emerged (Honig, 2006). Honig provided that policy tools have expanded to include threat and high stakes (as with TBR policy) and policy targets have expanded beyond school actors to also target parents and other actors outside of the formal education system (again, as with Texas' TBR policy, regarding the requirement that parents initiate and participate in the appeal of the automatic retention of test failers). Honig referred to the "interconnected" and "multidimensional arena" in which educational policy is implemented (p. 2). The author offered, "Whereas past implementation research generally revealed that policy, people, and places affected implementation, contemporary implementation research specifically aims to uncover their various dimensions and how and why interactions among these dimensions shape implementation in particular ways (p. 14)."

An institutional perspective is interlaced throughout implementation research and school culture/climate as a key component of institutional context is considered critical to policy implementation and outcomes (Datnow et al., 2006, Honig, 2009; McLaughlin, 1990). Normative institutionalism, a field of New Institutionalism theory which seeks to shed light on the role of institutions in the determination of social and political outcomes, advocates that even the most seemingly strategic and rationally-driven organizational responses can be attributed to cultural influences (Hall &Taylor, 1996; Maanen & Schein, 1979). Maanen & Schein (1979) assert that the culture of an organization is composed of the rules of thumb and a collective ideology that help to interpret member's daily experiences within the organization. The authors refer to members' "matter-of-fact prejudices" that suggest how members are to relate to and interact with peers, subordinates, superiors, and individuals external to the organization's membership. More specific to organizational culture as it applies to schools, Stewart (2007) described school culture as the "unwritten beliefs, values, attitudes, and various forms of interactions among students, teachers, and administrators" (p. 22). Sweetland and Hoy (2000) posited school culture as derivative of "a stable set of organizational characteristics that capture the distinctive tone or atmosphere of a school" (p. 4). In the paragraphs below, familial characteristics, school capacity, and socio-cultural and race/ethnicity factors, as representative of a stable set of organizational factors that capture school culture are discussed in terms of how these factors may bear on a school's collective response to TBR policy and collective decision making on retention decisions.

Implementation theory, Lareau's cultural capital theory, and familial characteristics. According to implementation theory, educator ideologies about ability, race, and social class mediate policy implementation (Datnow et al., 2002). Moreover, the issue of school and student SES is prevalent in grade retention literature as being associated with higher retention rates. Critically, as discussed in Chapter II of this dissertation, school SES has been found to be more highly associated with higher retention rates than prior academic performance. A consideration for why school SES might be particularly influential under Texas' TBR policy has to do with the critical role of the parent in the formal appeal and waiver process, and can be viewed through Lareau's (1987) interpretation of cultural capital. Lareau (2000) held that a family's SES will largely determine the extent and manner in which parents will engage with a school and asserts that although both middle and working class parents greatly value education, middle-class parents generally have greater cultural capital (i.e., educational background, social networks, and time and money) that works to their advantage when interacting with schools. Consequently, low-SES parents may feel less empowered than middle-class parents to advocate on behalf of their children in promotion/retention decisions. Recall that test failers are automatically retained, and the student's parent has to initiate an appeal. Then the GPC, which is comprised of the student's principal, teacher, and parent, decides whether the student receives a waiver to be advanced to the next grade. If low-SES parents feel less empowered than higher-SES parents to advocate for their children in promotion/retention decisions, schools with more low-SES students may meet with less resistance to automatic retention. Educators in high-SES schools may operate within

a culture of high sensitivity and responsiveness to parental involvement, opinion, and power, whereas, educators in low-SES schools may operate within a culture of low sensitivity and responsiveness to parental influence. As previously discussed, the retention gap between low-SES and high-SES students increased after TBR was implemented in Texas. It is possible that formally allowing parents to have a critical role in the appeal and waiver process may have contributed to the disparate effect of TBR policy on low-SES students. Schools with a higher percentage of low-income students are hypothesized to have higher rates of retention. Schools located in districts with a higher percentage of low-income students are also hypothesized to have higher retention rates.

Implementation theory and school capacity. School capacity characteristics have been defined as structures, practices and perceptions that support improved student achievement (Goddard; Hoy, W. K., & Hoy, A. W., 2000). School cultural and climate have also been incorporated in the definition of school capacity (Goddard et al., 2000). Valenzuela, Fuller and Vasquez Heilig (2006) referred to school and teacher capacity as possibly impacting school responses to accountability policies. As discussed in the literature review of this dissertation, teacher quality is a critical factor that varies across schools and higher proportions of first-year, and uncertified teachers have been found to be related to higher retention rates (Bali et al., 2005). School organizational factors and culture loop into the issue of teacher supply and demand. Teachers have cited poor working conditions such as large classes, overcrowding of facilities, low morale, and poor school leadership, all of which are more often characteristic of schools attended by high percentages of low-income and minority children, as reasons for transferring out of

such schools (Darling-Hammond, 2004). Moreover, as offered by Stewart (2008) in applying Bronfenbrenner's (1979) ecological theory to teacher quality:

> Factors, such as percent minority enrollment and percent students receiving free/reduced price lunch, that contribute to the school environment affect student-teacher relationships through the quality of teachers hired into schools; and these school structural conditions in turn are linked to youth's academic success (p. 19).

Retention rates are hypothesized to be higher in schools with a higher percentage of first-year teachers. Teacher certification is predominant in the literature as a critical teacher quality concern, but in the State of Texas may be more of a concern for secondary rather than elementary schools (Fuller, 2010). Student/teacher ratio was also an important school capacity factor to consider. Texas limits class size to 22 students for kindergarten through fourth grade, but school districts are often granted waivers to exceed the requirement.

School size is also a critical organizational consideration in school reform implementation. Researchers have hypothesized that larger school size is associated with less personal attention and increased anonymity for students (Lee & Smith, 1996). Therefore, larger schools may have less capacity for making individualized retention decisions. Lending credence to researchers' linking of larger schools to less individualized retention decisions (Bali et al., 2005; Schwager et al., 1992), after TBR for Texas third graders was discontinued as state policy, several of the largest school districts in Texas (including Houston Independent School District (ISD), Dallas ISD, and Aldine ISD) continued TBR for third graders by incorporating the requirement into school

district retention policy. Larger districts have been more inclined to use more formal and objective criteria in making retention decisions, unlike smaller rural districts which tend to base decisions on informal interaction processes (Schwager et al., 1992). Moreover, when both large and small districts use highly objectified retention criteria, such as test cut scores, the criteria results in less retention for small districts but in more retention for large districts (Schwager et al., 1992). Larger schools are hypothesized to have higher retention rates. The size of the school district in which the school is located might also influence retention. Schools located in larger districts are also hypothesized to have higher retention rates.

Implementation theory and socio-cultural and race/ethnicity context. Implementation theory addresses how differences in socio-cultural and organizational characteristics of individual schools can influence implementation of school reform policies and policy outcomes (Datnow, 2006; Honig, 2006, McLaughlin 1990). In consideration of race/ethnicity as a central aspect of socio-cultural context, race/ethnicity for both students and teachers was considered in the predictive analysis. Schools with higher percentages of African American and Latino students are hypothesized to have higher retention rates. The Bali et al. study found that increased percentages of minority teachers resulted in fewer minority students being retained. However, this was only one district-level study and in this dissertation the teacher race analysis was largely exploratory.

Except for California, Texas has more ELL students than any other state. About 17% or 815,998 of Texas' students are ELLs, and 91% of these students are Spanish

speakers (TEA Website, 2010). With a steadily increasing ELL population in Texas and across the U.S., much attention has been placed on the provision of adequate services for ELLs and inclusion in the accountability system. Strong advocacy in Texas on behalf of ELLs, as well as model school programs for ELLs in the state were hypothesized to result in lower retention rates for schools with high percentages of ELLs. Moreover, in the aforementioned Bali et al. study, school districts with higher percentages of ELLs were found to have lower retention rates.

Summary

A historical perspective of grade retention shows the promotion/retention issue to be a long-debated and unresolved problem that dates back to when schools first began grouping students in grades with same-age peers. President Clinton's administration advocated for no social promotion policies as a central component of standards-based reform, and served as an impetus for TBR policies at the state and local levels. Research on TBR is somewhat limited, although Chicago's policy, which was instituted in 1996, has been well evaluated, and there are two key studies on Florida's third-grade TBR policy. With studies on both teacher- and test-based retention, there is general consensus that struggling learners who are promoted have better academic outcomes than similarly-performing retained students, and that retained students are considerably more likely to drop out of school. Research also supports that TBR has a disparate impact on low-income and minority students. In support of a central premise of this dissertation that differences in student achievement across SES and race/ethnicity groups may not fully explain disparate impact of retention on disadvantaged children, larger schools, schools

with increasing rates of low-income and minority students, and schools with higher student-teacher ratios have been found to have higher retention rates.

Implementation theory conjoined with Normative Institutionalism and Lareau's cultural capital theory provide a conceptual framework for considering how school organizational characteristics and culture may mediate educators' response to TBR and contribute to differences in grade retention rates across schools. Manifestations of the influence of school organizational factors may result in such cultural forms as deficit-thinking and racially-based stereotypes that lead to higher retention rates for low-income and minority struggling learners irrespective of student performance. Culturally-based perspectives may be so entrenched in the collective experiences and subconscious of educators that they may hardly be aware of the effect on resultant behaviors and actions (Van Maanen & Schein, 1979). Thus, school organizational characteristics feed into school culture that is sustained over time and may recurrently contribute to disparate impact of retention policy on disadvantaged children.

CHAPTER III: DESIGN AND METHOD

In this chapter, the data, research design, and methodological approach that were used to answer the two research questions set out in Chapter I are discussed. A quantitative research design is proposed in order to (a) descriptively discern disparate impact of TBR on historically disadvantaged groups of children, and (b) identify school characteristics that influence grade retention and therefore have the potential to contribute to disparate impact.

Overview of Data

This dissertation used Public Education Information Management System (PEIMS) data provided by the Texas Education Agency (TEA). PEIMS data consist of all data collected by TEA, including student demographic and academic performance and school personnel, financial, and organizational information. PEIMS data cover information on 1,200 districts (including charter school groups/districts), 8,435 schools, and 4.8 million students. Of these 4.8 million students, 59% were low-income. About 14% of Texas students were African American, 40% were Latino, 42% White, and about 4.0% other races/ethnicities. As mentioned in a previous chapter of this dissertation, 17% of Texas students were ELLs.

Academic Excellence Information System (AEIS) data, which is a subset of PEIMS data, are available via the TEA AEIS Data Download website. The following school-level AEIS data files were provided by TEA via the AEIS site: Campus Reference, Student Statistics, Staff Statistics, Financial Statistics, and Student Success Initiative Grade Three. The data for the independent variables (i.e., such as % low-

income students, % beginning teachers, and number of students enrolled), which are described later in this chapter, were drawn from AEIS data files. The data for the dependent variables, school-level all student and test-failer retention rates were provided by TEA in response to an ad hoc data request.

State-level retention data used for the descriptive analysis of K-6 retention rates and disparate impact of TBR were culled from a series of TEA annually-produced grade retention reports—specifically, the TEA (2010) report, Grade Retention in Texas Public Schools, 2008-2009; and the TEA (2006) report, Grade Retention in Texas Public Schools, 2004-05.

TEA determines retention rates by comparing target school year attendance records to the following school year's fall enrollment records. Students found to have been enrolled in the same grade both years were counted as retained, and students located in a higher grade in fall of the following school year were considered to be promoted.

Methods for Research Questions

Research Question 1. Does TBR have a disparate impact on historically disadvantaged student groups? First, in order to contextually situate analysis of Texas Grade 3 retention rates with the elementary (K-6) school environment, descriptive analysis of retention across elementary grades was provided. Gravetter and Wallnau (2009) offer that descriptive statistics help to summarize, organize, and simplify data. Typically, and in this dissertation, grade retention refers to requiring students to repeat an entire year of curriculum. In high school and to some extent Grades 7 and 8, students who fail to earn credit in a particular course or subject may be classified at the same grade

level for more than one year, but are generally not required to repeat a full year's curriculum. Accordingly, retention in Grade 3 was only comparable to retention in other elementary grades.

After looking more broadly at K-6 grade retention, the descriptive analysis then turned to third grade and on comparing retention rates pre- and post-TBR implementation. Retention rates were compared across SES, race/ethnicity, and ELL status. A series of charts facilitated the descriptive analysis. Similarly, Valencia and Villarreal (2004) used descriptive analysis to examine disparate impact of Louisiana's TBR policy on African American children. The authors stated that, "the ideal methodology to examine adverse impact would be to compare retention rates prior to the [TBR] policy implementation to retention rates after the assessment program has been implemented" (p. 136).

Research Question 2. Do school characteristics influence grade retention? Multiple regression was conducted to address this research question. Regression is a statistical procedure used to evaluate how well one or more independent control variables predict an outcome variable (Gravetter & Wallnau, 2009). Regression also allows for computing an equation that provides a precise mathematical model of the relationship, where Y is the predicted score on the outcome variable, X represents the control variables, a is the value of Y when all $Xs = 0$, and b is the regression coefficient for the first through ith predictors as follows: $Y=a + b_1X_1 + b_2X_2 + \ldots + b_iX_i$.

Regression Model 1 (all-student retention). In determining factors that predict retention, it was important to separately examine two different indicators of retention—

the all-student retention rate and the test-failer retention rate. The all-student retention rate reflected retention that occurred for all reasons, whereas, the test-failer retention rate was only concerned with students reported by schools as being retained for failing the third-grade reading test. For Model 1, the outcome variable was the all-student retention rate. In addition to being retained for failing the state reading test, third graders could be retained for other reasons, including attendance and grades. Students could also be retained for not passing the state mathematics test. Passing the state mathematics test was not a state requirement for promotion; however, some schools have promotion/retention policies that go beyond state requirements and require third graders to pass both the reading and math tests as a condition for promotion.

In 2004-2005, 10,366 third-grade students were retained for all reasons. This was the number of students counted as retained in the all-student retention rate. Another critical reason to examine both the all-student and test-failer retention rates was because the all-student retention rate was likely a more reliable and accurate accounting of retention than the test-failer rate. The all-student retention rate is determined by TEA electronically matching student records across school years. On the other hand, the test-failer retention rate was based on school-reported data, where schools are depended upon to individually identify and report on students who are retained as a result of failing the reading test. In other words, the test-failer retention rate may possibly be an underrepresentation of the number of students retained as a result of failing the state reading test. To be clear, the all student retention rate includes the following categories of students: students retained for failing the reading test; students failed for failing the math

test; students retained for failing the reading test but not reported by their school as such; and students retained for other reasons, such as low-income attendance and grades.

Regression Model 2 (test-failer retention). Model 2 used the same predictor variables as Model 1. However, the outcome variable was the test-failer retention rate. Of the 10,366 third graders counted in the all-student retention rate, 6,332 of these students were reported by their school as being retained for failing the reading test. The test-failer retention rate provides the official TEA record of percentage of students retained as a result of failing the reading test. If accurately reported by schools, the test-failer retention rate was more directly attributable to Texas' TBR policy and its requirement to automatically retain students who did not meet the cut score on the state reading test. For these students, parents were required to initiate an appeal and participate as a member of the GPC to decide whether the student would receive a waiver and be advanced to fourth grade. A critical aspect of the hypothesis driving this dissertation was that schools with more low-SES students might meet with less parental resistance to automatic retention, and in turn, would have higher retention rates. Another critical benefit of using the test-failer retention rate for the inferential analysis was that it inherently controlled for the percentage of struggling learners at a school—again, only students who failed the reading test were counted in the test-failer retention rate.

Description of School Characteristic Variables (the Independent Variables for the Regression Analyses). For both regression analyses (all-student and test-failer) the same unordered set of predictor variables listed below were used. These predictor variables were drawn from categories of variables found in the literature to be related to grade retention and/or student achievement. The selection of predictor variables was also guided by implementation theory and Lareau's cultural capital theory in consideration of how school social/cultural and structural organizational factors might affect school culture/climate, and in turn, effect a school's retention decisions. The variables were categorized and defined as follows:

Familial Characteristics

- Percent Low-Income Students—students eligible for free or reduced-price meals under the National School Lunch and Child Nutrition Program
- District % Low-Income Students—Percent Low-Income Students—students eligible for free or reduced-price meals under the National School Lunch and Child Nutrition Program;

Socio-Cultural and Race/Ethnicity

- Percent African American Students—self-explanatory;
- Percent Latino Students—self-explanatory;
- Percent White Students—self-explanatory;
- Percent ELL Students—students identified by the Language Proficiency Assessment Committee according to established criteria, as not proficient in

English. Most ELLs receive bilingual or English as a second language instruction. TEA refers to ELLs as limited English proficient.

- District % Minority Students—African American and Latino
- Percent African American teachers—self-explanatory;
- Percent Latino Teachers—self-explanatory;
- Percent White teachers—self-explanatory.

School Capacity Variables

- Percent Beginning Teachers—teachers with no prior teaching experience;
- Student/Teacher Ratio—total number of students divided by the total teacher FTE count.
- School Size—number of students enrolled;
- School Grade 3 Size—number of Grade 3 students enrolled
- District Size—number of students enrolled;
- District Wealth—market value of all property, divided by number of students.

Year of Analysis and Schools Included in the Regression Analysis

School year 2004-2005 retention rates were used for the regression analysis. School year 2004-2005 represented the mid-point of the six years that TBR applied to third graders. Additionally, this was the school year that state third-grade retention rates reached their highest level. In 2004-2005, the percentage of third graders retained was higher than any year since TEA began reporting retention rates in 1994-1995.

All non-charter school elementary campuses in the state serving third grade were included in the regression analysis. Charter schools were excluded because they, in

general, were not subject to the same state laws as other schools. For example, charter schools in Texas are not subject to teacher certification or class size requirements. Charter schools also have different governing structures and requirements than other public schools.

Schools serving third grade have a variety of grade spans. The majority of schools are traditional elementary campuses covering grades PK-4, PK-5, and PK-6. Some campuses span elementary through middle and elementary through high school. Others serve only a few grades, such as KG-03 and 01–03.

In order to adjust for outliers resulting from schools with small numbers of Grade 3 students enrolled, only schools with more than five Grade 3 students enrolled were included in the all-student retention rate and test-failer retention rate regression analyses. Additionally, one other outlier school (a school with six Grade 3 students enrolled) with a retention rate of 63.6%, was excluded from the all student analysis. As shown in Table 3, 3,697schools were included in the all-student retention rate analysis. School retention rates for all students ranged from 0% to 36.4%, and the average all-student retention rate was 3.27%. As shown in Table 4, the number of schools with a reported test-failer retention rate and with more than five Grade 3 students was 2,866. School retention rates for test failers ranged from 0% to 100%, and the average test-failer retention rate was 41.3%.

[Tables 3 and 4 about here]

Multivariate analysis of variance (MANOVA) to determine whether retention differed according to school accountability rating. In addition to the

independent variables selected for use in the regression analysis, school accountability rating was later hypothesized as a school capacity factor related to retention. MANOVA was conducted as a follow-up to the regression analyses in order to determine whether retention rates differed according to school's prior year accountability rating, which was not included in the regression analyses as a predictor variable. The idea was to conduct pairwise comparisons across the four levels of accountability ratings, in order to provide a detailed examination of the relationship between accountability rating and retention. For example, retention rates for schools rated *Academically Acceptable* could be compared individually to retention for schools rated *Acceptable, Recognized,* and *Exemplary*, and retention rates for schools rated *Acceptable* could be compared individually to schools rated *Recognized* and *Exemplary*. An additional benefit of ANOVA is that it provides a valid test with samples of different sizes (Gravetter and Wallnau, 2009). Statistical adjustments allowing for discrepancies in sample size are needed for the accountability ratings comparisons because the number of schools rated Academically Unacceptable (25 schools) are relatively low compared to the number of schools rated *Academically Acceptable* (1401 schools), *Recognized* (1170 schools), and *Exemplary* (219 schools). The dependent variables used for the MANOVA were the all-student and test-failer retention rates.

Schools with non-standard accountability ratings (i.e., Not Rated: Alternative Education) were not included in the analysis. A total of 2,816 schools were included in the MANOVA. Schools' prior year accountability rating (the 2003-04 rating) was used to evaluate its influence on schools' 2004-05 retention rate. For the 2003-2004

accountability year, elementary campuses were evaluated on all students' performance on the TAKS, as well as the performance for African American, Latino, White, and low-income students. Possible ratings were as follows: *Exemplary*, at least 90% of students passed both reading and math tests; *Recognized*, at least 70% of students passed both reading and math tests; *Academically Acceptable*, at least 50% passed reading test, at least 35% passed math test; *Academically Unacceptable*, at least one student group had test passing rates below academically acceptable standard.

Summary

First a descriptive analysis of state-level retention rates provided information on the extent of retention in K-6 grades in Texas public schools and established disparate impact of the state's third-grade TBR policy on historically disadvantaged student groups. Subsequently, regression analysis was conducted to determine school characteristics that influenced retention.

The selection of independent variables used to predict and analyze retention was guided by research on school characteristics that influence student academic achievement; on the limited research on school characteristics that influence retention; and on theoretical ideas on normative institutionalism, which provide a framework for considering how school culture/climate have the potential to effect school retention decisions. Included in the analyses are predictor variables that consider schools' student body demographic composition, teacher race, teacher quality, and school size.

It was important to evaluate both the all-student and test-failer retention rates as outcome variables in order to get a more nuanced and complete accounting of school

characteristics associated with retention. The benefit of using the test-failer retention rate is that it only includes students who were specifically reported by schools as being retained for failing the third-grade reading test, and therefore, inherently considers the percentage of struggling learners at a school. The concern about the test-failer retention rate is that it only accounted for 61% of third graders retained in 2004-05, and may be underreported by schools (TEA, 2005). The benefit of the all-student retention rate is that it is based on TEA's matching of electronic student records from one year to the next and is likely a more accurate accounting of retention than the test-failer retention rate. The downside to the all student retention rate is that, for 39% of these students, the reason for retention is unknown. Taken together, the predictive analysis using test-failer and all-student retention rates as outcome variables shed light on school characteristics that influenced retention and had the potential to contribute to higher retention rates for historically disadvantaged children.

CHAPTER IV: RESULTS

The aim of the descriptive analysis in this section was to establish the level of disparate impact of third-grade TBR policy on disadvantaged children. For the establishment of disparate effect, the percentage change in retention rates and number of students retained by SES status, race/ethnicity group, and by ELL status were examined. Retention rates for elementary grades (K-6) provided context. Retention rates are provided from 1994-95 when TEA initially began reporting retention rates to 2008-09, the first year after third grade TBR policy ended.

Descriptive Context for Disparate Impact

Retention in grades K-6 for 1994-2009. As shown in Figure 2, a disproportionate number of K-6 low-income students were retained in all years from 1994-95 through 2008-09 as compared to higher-income students. Retention for low-income students reached its highest level in 2004-05, at around 4.5%; this rate was more than doubled the retention rate for higher-income students (2.0%) in 2004-05. The retention rate for higher-income students only increased 0.5 percentage points from 1994-95 to 2004-05. However, the retention rate for low-income students increased 1.8 percentage points during this period.

(Figure 2 about here)

As shown in Figure 3, K-6 retention rates for both African American (4.4%) and Latino (4.3%) students also reached their highest levels in 2004-05, and rates for both these groups were more than double the rate for White students (2.1%) in this year. The 2.1% rate for White students in 2004-05 was also the highest retention rate for this group

between 1994-95 and 2008-09. Since 2004-05, the retention rate for all race/ethnicity groups has steadily decreased. However, in 2008-09 both the African American-White and Latino-White retention gaps were 1.4%, which is slightly higher than the 1994-95 African American-White gap (1.3%) and 1994-95 Latino-White gap (1.2%). Therefore, even though retention rates have decreased for all race/ethnicity groups in recent years, the retention gap across race/ethnicity groups increased from 1994-95 to 2008-09.

(Figure 3 about here)

ELLs have the highest K-6 retention rate of all student groups (higher than low-income, African American, and Latino students). During the period 1994-95 through 2008-09, like all other student groups, the ELL rate was highest in 2004-05—5.3% (see Figure 4). The retention gap between ELL and non ELL students was more than 3.0 percentage points that year. The non ELL rate in 2008-09 was about 0.3 percentage points higher than the 1994-95 rate, whereas the 2008-09 rate for ELL students was 0.8 points higher than in 1994-95.

(Figure 4 about here)

Retention rates by grade in 2004-2005. Retention rates by grade for 2004-05 provide across-grade context as the focus of the descriptive analysis was narrowed to Grade 3. As shown in Figure 5, the 2004-05 retention rate for low-income students was higher than the rate for higher-income students in first and second grades than in third grade. Reasons for higher retention rates in Grades 1 and 2 may be attributable to (a) a common belief that retention has less of a detrimental effect on children when it occurs in earlier grades, and (b) the fact that third grade is an accountability subset grade (a grade

in which student scores count towards schools' accountability rating) and first and second grades are not accountability subset grades, that is, schools have been found to hold struggling learners back a grade in order to prevent them from entering accountability subset grades and counting towards the accountability rating (Vasquez Heilig & Darling-Hammond, 2008). The accountability subset grades for the elementary school level are Grades 3, 4, 5, and 6.

(Figure 5 about here)

Retention rates across grades for African American and Latino students have a similar pattern, but differ from the pattern for White students (see Figure 6). The highest retention rate for both African American and Latino students was in Grade 1; the rates were 7.6% and 7.8%, respectively. The highest rate for White students (5.3%) was in Grade 5. The lowest rate for both African Americans (2.4%) and Latinos (1.8%) was in Grade 6, while the lowest rate for Whites was in Grade 4 (0.8%). African American and Latino 2004-05 retention rates were higher than White rates in all grades except kindergarten—the kindergarten retention rates for African American, Latino, and White students were 3.5%, 3.6%, and 4.2%, respectively.

As shown in Figure 7, the 2004-05 retention rate for ELL students was higher than non-ELL students across all grades. The ELL rate was highest in first and fifth grade—8.0% in both grades. The largest gap between ELL and non-ELL students was 5.2 percentage points in Grade 5.

(Figures 6 & 7 about here)

Analysis to Determine Disparate Impact

Analysis of Texas third-grade pre- and post-TBR policy implementation retention rates definitively demonstrate disparate impact of TBR on low-income and minority children and on ELLs. Table 5 shows that retention rates for low-income students increased from 3.1% in 1999-2000 (three years prior to TBR) to 4.5% in 2004-2005 (the third year of TBR implementation), which represents a retention rate increase of 45%. During that same period, retention rates for higher-income students increased from just 1.3% to 1.5%, starting out less than half the rate for low-income students and only increasing by 15%. Also shown in Table 5, the difference in the percentage change in the number of students retained was even greater than the percentage change in the retention rate for low-income versus higher-income students. The number of low-income students retained increased by more than 3000 students between 1999-2000 and 2004-05, compared to an increase of only 129 higher-income students. The percentage change in number of low-income students retained was 64%, while the percentage change in number of higher-income students retained was 13%.

Table 5 also provides the percentage change in retention rate and number of students retained by race/ethnicity. Latino students have the highest percentage change in retention rate (45%) and the highest percent change in number of students retained (73%). The percentage change in number of Latino students enrolled in third grade from 1999-2000 to 2004-05 was 19.5% (Table 6), so only a portion of the percentage change in number of Latino students retained can be attributed to population increase for this group. The number of African American students enrolled decreased during this period

by 3.4% (Table 6). However, the number of African American students retained increased by 31% and the percentage change in retention rate for African American students was 32%. White students had the lowest percentage change in their pre-versus post-TBR policy retention rate (18%).

(Tables 5 and 6 about here)

The percentage change in the retention rate for ELLs during this period was 64%, compared to 20% for students who were not an ELL (Table 5). Strikingly, the percentage change in the number of ELLs retained from 2000-01 to 2004-05 was 136%. The percentage change in number of ELLs enrolled in third grade increased 20.2% during this period (Table 6), and does not fully account for the increase in the number of ELLs retained. Changes in other accountability requirements for ELLs during this period may be related to increased retention rates and numbers for this group. These policy changes are discussed in more detail later in this dissertation. At any rate, TBR has had a differential impact on ELLs and other disadvantaged student groups in terms of both retention rate and numbers of students retained.

Analysis to Determine School Characteristics that Influence Retention

The descriptive analysis comparing pre- and post-TBR policy rates clearly demonstrate disparate impact of the policy on low-income, African American, Latino, and ELL children. The next step was to determine whether school characteristics predict retention and have the potential to contribute to disproportionately high rates of retention for low-income, minority, and ELL children.

School characteristics and all-student retention. Stepwise regression was conducted in order to determine the best of the theorized variables for predicting all-student retention. Table 7 and Table 8 show the summary of the stepwise regression. Table 8 shows that the *F* value for the combination of six variables selected by the stepwise regression is significant (F (6, 3691) = 180.053, p = .000). The *R* square is .227 (adjusted *R* square = .225). Based on Table 7, the percentage of low-income students (p=.000); ELL students (p=.000); beginning teachers (p=.000); district low-income students (p=.003); Latino teachers (p=.001), and White teachers (p=.011) are significant predictors of the all-student retention rate. The variable percentage of low-income students contributes, by far, the highest *R* square (20.2%). The percentage of ELLs contributes an *R* square of 1.3%; the percentage of beginning teachers contributes an *R* square of 0.6%; the percentage of school district low-income students contributes an *R* square of 0.2%; and the percentage of Latino teachers and percentage of White teachers both contribute an *R* square of 0.1%.

The best regression model for predicting all-student retention is as follows: % all students retained = 1.986 + .040 % low-income + .021 % ELLs + .024 % beginning teachers + .015 district % low-income - .035 % Latino teachers - .027 % White teachers (Table 10). With all other variables being constant, when the percentage of low-income students increased by one percentage point, the all-student retention rate increased by .04 percentage points; practically put, when the percentage of low-income students at a school increased by 25 percentage points, the all-student retention rate increased by about one percentage point. Since the mean all-student retention rate was only 3.3%, a 1.0

percentage point increase would likely represent a considerable increase in the retention rate for most schools. When the percentage of ELLs increases by one percentage point, the percentage of students retained for all reasons increases by .021 percentage points; when percentage of beginning teachers increases by one percentage point, the percentage of students retained for all reasons increased by .024 percentage points; when the percentage of low-income students in the district in which the school is located increases by one percentage point, the percentage of students retained for all reasons increases by .015 percentage points.

Schools with a higher percentage of Latino teachers and schools with a higher percentage of White teachers both retained fewer students. When the percentage of Latino teachers increases by one percentage point, the percentage of all students retained decreases by .035 percentage points. When the percentage of White teachers increases by one percentage point, the percentage of all students retained decreases by .027 percentage points.

[Tables 7, 8, and 9]

School characteristics and test-failer retention. A second multiple regression was conducted to evaluate how well school characteristics predict grade retention for test-failed students. Again, test-failed students are students who were reported by their school as being retained as a result of failing the third grade reading test. A stepwise regression was conducted in order to determine the best of the theorized predictors for test-failer retention. Table 10 and Table 11 show the summary of the stepwise regression. Based on Table 10, the variables district % low-income and % White students, are the best

predictors of test-failer retention. The *R* square for the combination of the two variables, district % low-income and % White students, is 4.0% (adjusted *R* square = 3.9%), compared to an *R* square for the initial multiple regression with all 17 predictors of 5.0%. Table 11 shows that the *F* value for the selected stepwise model is significant (*F* (2, 2861) = 59.550, *p* = .000). The amount of variance accounted for in the test-failer analysis was considerably lower than the variance accounted for in the all-student analysis.

(Tables 10 & 11 about here)

The variables, district percentage low-income, and percentage of White students, are highly significant predictors of test-failer retention; both with *p* values of .000. With an *R* square of 3.6%, the variable district percentage low-income contributed the highest percentage of the variance accounted for. The percentage of the variance accounted for by percentage of White students was .4%.

The best regression model for predicting % test failers retained is: %Test Failers Retained = 32.563 + .204 district% low-income - .109 % White students (Table 12). With all other independent variables being constant, as percentage of low-income students enrolled in the district in which the school is located increases by one percentage point, the school's percentage of test failers retained increases by .204 percentage points. More practically put, as the percentage of low-income students in the district in which the school is located increases by 5 percentage points, the percentage of test failers retained increases by about 1.0 percentage point.

On the other hand, as a school's percentage of White students increases by one percentage point, the percentage of test failers retained decreases by .109 percentage points. Therefore, as the percentage of White students increases by about 10 percentage points, the percentage of students retained decreases by 1.0 percentage point. This finding is in support of this dissertation's hypothesis that TBR has an inequitable impact on minority children compared to White children and that socio-cultural school characteristics have the potential to contribute to disparate impact. To be clear, while controlling for other confounding variables, particularly SES and percentage of beginning teachers, schools with higher percentages of White students retain fewer struggling learners. Saliently, this finding is based on the test-failer retention rate; it is important to emphasize that the only students included in the test-failer retention rate are students who failed the state reading test.

[Table 12 about here]

Grade retention by Texas accountability rating. As a follow-up to the finding that the predictor variables only accounted for a small amount of schools' variability in the test-failer retention rate, and in considering other variables that might help to explain the wide range in test-failer retention rates, a MANOVA was conducted to determine whether retention rates vary according to school accountability rating. In terms of school capacity, accountability ratings carry considerable weight in Texas and can affect the culture and political environment of the school. Schools with higher accountability ratings may have more clout and more leeway for local control of grade retention decisions.

A one-way MANOVA was conducted to determine the effect of the four types of state accountability ratings (*exemplary, recognized, academically acceptable,* and *academically unacceptable*) on the two dependent variables (all-student retention and all test-failer retention). This analysis was conducted in order to explore the possibility that a school's prior year accountability rating influences school decision making with regard to grade retention.

The results of the MANOVA show a pattern of schools with lower accountability ratings retaining more students than schools with higher accountability ratings. Statistically significant differences were found among the four accountability ratings and the percentage of students retained, Wilk's Lamda = .95, F (6, 5622), p = .000. The multivariate *n* squared = .026 indicates 2.6% of multivariate variance of the dependent variables. Note that, as shown in Table 13, for the all-student retention rate outcome variable, the means are ordered perfectly in alignment with the dissertation's hypothesis that schools with lower accountability ratings retain more students. For schools rated *exemplary*, *recognized*, *academically acceptable,* and *academically unacceptable*, the average all-student retention rates were 1.9%, 3.3%, 4.8%, and 6.8%, respectively.

(Table 13 about here)

Analyses of variances (ANOVA) on the dependent variables were conducted as follow-up tests to the MANOVA. Using the Bonferroni method, each ANOVA was tested at the .025 level. The ANOVA on the all-student retention rate was statistically significant, F (3, 2812) = 852.196, p = .000, n squared = .047. The ANOVA on the test-

failer retention rate was also statistically significant, $F(3, 2812) = 11702.762$, $p = .01$, n square = .010 (Table 14).

(Table 14 about here)

Using the Dunnet C method, post hoc analysis to the univariate ANOVA for all student and test-failer retention consisted of conducting pairwise comparisons in order to compare all combinations of accountability ratings. As shown in Table 15, for the all student dependent variable, the retention rate for the lowest performing schools (schools rated *academically unacceptable*), were significantly higher than schools rated *exemplary* and, but not significantly higher than schools rated *recognized* and *academically acceptable*. However, in line with the dissertation's hypothesis, schools rated *academically acceptable* retained a significantly higher percentage of students than schools rated both *exemplary* and *recognized*. Moreover, schools rated *recognized* retained a significantly higher percentage of students than *exemplary* schools. Using the test-failer retention rate, both *academically acceptable* and *recognize*d schools had statistically significant higher retention rates than *exemplary* schools (Table 15). School accountability ratings appear to affect retention for all students more than test-failer retention.

(Table 15 about here)

CHAPTER V: DISCUSSION

School Characteristics that Influence Retention

The purpose of this dissertation was to determine in the midst of TBR policy whether school characteristics are associated with grade retention. In consideration of an underlying hypothesis of this dissertation that school characteristics have the potential to contribute to disparate impact of TBR on historically disadvantaged children, a first step was to evaluate disparate impact of TBR on low-income, African American, Latino, and ELL students. As demonstrated by comparing changes in the percentage and number of students retained pre- and post-TBR implementation across SES, race/ethnicity, and ELL status, it appears that TBR has had a disparate impact on historically disadvantaged children. Across the board, there were considerable increases in retention rates and in the number of students retained after TBR was implemented, for low-income, African American, Latino, and ELL children compared to their less-disadvantaged counterparts.

Furthermore, this dissertation's hypothesis that school characteristics, including socio-cultural characteristics, are related to higher rates of retention was supported. In both the all student and test-failer regression models, a number of school characteristic variables were found to influence retention. Schools with a higher percentage of low-income students, low-income students in the district in which the school is located, ELLs, and beginning teachers have higher retention rates. Whereas, schools with higher percentages of White students, Latino teachers, and White teachers have lower retention rates.

By far, in an environment of TBR policy, the school characteristic that appears to matter most in predicting retention is the percentage of low-income students enrolled. With all other predictor variables held constant, schools with higher percentages of low-income students at their school and in their school district clearly retain more students. As discussed in the conceptual framework section of this dissertation, low-SES parents may feel less empowered than higher-SES parents to advocate on behalf of their children in promotion/retention decisions (Lareau, 2000). In turn, schools with more low-SES students may simply meet with less resistance to strict retention policies and practices, such as the automatic retention of third grade test failers. This proposition is supported by the fact that the retention gap between low-SES and high-SES third-grade students widened after TBR was implemented in the State of Texas. It is, in fact, possible that formally allowing parents to have a critical role in appealing automatic retention for test failers may have exacerbated disparate effect of TBR policy on low-income students. Of course, increased parental involvement in such a critical educational decision is a laudable policy goal and likely serves the best interest of individual children. It is possible, however, that an unintended consequence of formalizing parental influence in the grade retention decision-making process may have advantaged high-SES children and disadvantaged low-SES children. Recall that for a child who was automatically retained as a result of failing the state reading test, the parent was required to initiate an appeal to the automatic retention. As Lareau's theory on *home advantage* would predict, some low-SES parents may not feel sufficiently empowered to challenge the school and state-required retention policy.

In addition to SES, student body race/ethnicity composition was hypothesized to influence retention. It is not surprising that schools with higher proportions of White students have lower retention rates. The power of institutional elites, as well as racial and culturally-based standards against which students are measured likely work in favor of White students in retention decisions (Oakes & Wells, 1995; Wells & Serna, 1996). Key studies on schools' efforts to discontinue tracking policies and practices describe how well-entrenched stereotypes, culturally-based standards against which students are measured and the power of "institutional elites" support the continuation of unjust policies and treatment of minority students (Oakes & Wells, 1995; Wells & Serna, 1996). Furthermore, Datnow et al. refer to many educators viewing intelligence as "innate, fixed, and race-based" (p. 54). Similar to tracking policy and practices, social and cultural forces may contribute to minority students being disproportionately and negatively affected by grade retention policies and practices. This dissertation's finding that schools with higher percentages of White students have lower retention rates, in fact, supports the notion that school characteristics may influence retention in a manner that disadvantages African American and Latino students—that disparate impact of retention on minority students is not *solely* attributable to student performance.

The analysis of disparate impact of TBR on disadvantaged children also showed that TBR has had a major impact on ELLs. Therefore, it is not surprising that schools with higher proportions of ELLs retain more students. However, the finding is counter to the dissertation's hypothesis that, schools with higher percentages of ELLs would have lower retention rates. The rationale for the hypothesis was that model school district ELL

programs and strong advocacy in the state for ELLs would result in lower retention rates for schools with high percentages of ELLs. However, from 2000-01 through 2004-05, the period of analysis for disparate impact, accountability policy changes were made which limited exemptions for ELLs and resulted in a larger proportion of ELLs being required to take the state test. These policy changes may help to explain the magnitude of the disparate impact of retention on ELLs, and also to some extent the finding that schools with a higher proportion of ELLs retain more students. School percentage of ELLs was categorized in the conceptual framework as a socio-cultural and race/ethnicity variable. However, it is also possible that the home advantage attributed to social class by Lareau may also extend to ELLs and that the striking increases in retention rates for this group are likely related to familial influence as well. Vasquez Heilig (2011) argued that the *confianza* (trust) that the parents of ELLs have in schools makes them less likely to intervene in school processes, and therefore may lead to higher retention for ELL students across the state in a test-based retention environment.

The finding that higher percentages of Latino and White teachers lead to lower school retention rates is notable. Including teacher race as a predictor in this dissertation was explorative and no hypothesis was made concerning teacher race. However, these findings do support the dissertation's hypothesis in general—that socio-cultural and race/ethnicity influences school retention rates. Additionally, there is a related earlier finding in Bali et al. (2006) that Latino teachers and Latino superintendents retain fewer students at schools with more Latino students.

The finding that schools with more beginning teachers retain more students supports the dissertation's hypothesis and also supports general consensus in teacher quality literature that teacher experience critically matters for student achievement (Alexander & Fuller, 2004; Darling-Hammond, 2000; Fuller, 2010; Nield, Farley-Ripple, & Byrnes, 2009; Rivkin, Hanushek, & Kain, 2005). Higher rates of first-year teachers have consistently been found to lead to lower student performance (Alexander & Fuller, 2004; Darling-Hammond, 2000; Fuller, 2010; Nield, Farley-Ripple, & Byrnes, 2009; Rivkin, Hanushek, & Kain, 2005). Darling-Hammond (1998) pointed out that retention results from low academic achievement and specifically posited that high quality and effective teachers are the "most important alternative to grade retention" (p. 2). This dissertation's finding on the relationship between a school's proportion of beginning teachers and rates of retention confirms the importance of teacher quality to student achievement. Moreover, as discussed in the conceptual framework section of this dissertation, beginning teachers may be more susceptible to the influence of organizational culture and therefore may be more influenced by a cyclical culture of low school morale, low-efficacy, and deficit thinking. In accordance with this contention, Maanen and Schein (1979) offered that newcomers to an organization are most susceptible to the influence of organizational culture. The authors explain that it is at the point of entry into an organization that members are most anxious to earn acceptance and fit in. The authors explain that,

> Newcomers must first be tested either informally or formally as to their abilities, motives, and values before being granted inclusionary rights which then permit

> them: 1) to share organizational secrets, 2) to separate the presentational rhetoric used on outsiders to speak of what goes on in the setting from the operational rhetoric used by insiders to communicate with one another as to the matters-at-hand, and/or 3) to understand the unofficial yet recognized norms associated with the actual work going on and the moral conduct expected of people in the particular organizational segment. (p. 21)

So new teachers are particularly susceptible to the influence of school culture, low-income and high-minority schools are more likely to have high proportions of new teachers, and low-income and high-minority schools are more likely to have issues with low morale and low expectations for students. In addition to influencing retention in relation to its influence on student academic achievement, this dissertation's assertion is that the percentage of novice teachers at a school can also potentially influence the nature of school decision making with regard to retention. Novice teachers may be more likely to "go with the flow" and less likely to challenge automatic retention and advocate on behalf of struggling learners in response to TBR policy (Van Maanen & Schein, 1979).

A salient finding in this dissertation was the relatively small amount of variance accounted for by the predictor variables in the test-failer regression analysis. While the amount of variance accounted for by the predictor variables in the all-student regression analysis was high—22.7%, the amount of variance accounted for in the test-failer regression analysis was only 4.0%. As previously discussed, it is possible that the all-student retention rate provides a more accurate representation of the extent of third grade retention in Texas schools, and therefore enables more variance to be accounted for by

the independent variables. Another possibility is that typically-used indicator variables for level of familial characteristics, school capacity, and socio-cultural and race/ethnicity factors are simply unable to account for much of the variation in test-failer retention rates. As previously mentioned school test-failer retention rates ranged from 0% to 100% and averaged 41.6%. The fact that very little variance could be accounted for using the test-failer retention rate as an outcome variable supports concerns raised in this dissertation about the need to better understand schools' response to TBR policy, including the fact that some schools promoted all test failers while other schools retained all test failers. There appears to be some level of haphazardness in schools' response to and implementation of TBR policy. There is clearly a need to better understand how variations in school retention rates may be affecting historically disadvantaged children and other children.

The finding that school retention rates vary according to accountability rating demonstrate accountability rating as a key variable to consider in examining the wide range in retention rates across schools, and supports this dissertation's theoretically-based assertion that school culture/climate may influence schools' collective decision making with regard to retention. School accountability ratings, particularly in Texas, can have a powerful influence on school morale, culture, and climate and can set the tone for educator's interactions with students, parents, and other school stakeholders. McNeil (2005) discusses the prominence of accountability ratings in Texas:

> Every year the major newspaper in each city publishes a special pullout section . . . Improved school ratings based on student scores can earn principals

> up to a $10,000 annual bonus. Superintendents receive bonuses upward of $25,000 for having their school district's overall passing rate go up, or an increase in the number of schools listed as exemplary or recognized. Huge signs are posted outside exemplary and recognized schools so that all going by can see their school rating. These ratings are used by realtors to sell parents on the property values in neighborhoods where the local school is ranked exemplary or recognized (p. 64).

On the other end of the spectrum, schools that are rated academically unacceptable (or low performing, which is the label that was used during the early years of the Texas accountability rating system), are specifically called out in the local newspaper and are required to hold public forums to address the school's low performance. Critically, repeated low performance can lead to principals and teachers being replaced and eventually to a school being closed. Consequently, principals and teachers at low-performing schools may operate within a school culture of low morale, low expectations for students, and feelings of low-efficacy. Within such a culture, educators may be more apt to blame students for low individual and overall school performance and also be more likely to give up on and retain struggling learners. There is undoubtedly strategic motivation to be considered concerning retention decisions in low-performing schools. Indeed, Vasquez Heilig and Darling-Hammond (2008) discussed schools' "gaming" actions in response to high-stakes tests, including retention of struggling learners in an effort to improve school passing rates and accountability ratings. However, normative institutionalists would stress that such behavior by schools is not

fully strategic, but bounded by the cultural interactions and worldview of school decision makers (Hall & Taylor, 1996).

To reiterate, *Exemplary* schools retained fewer students who failed the reading test than both *Academically Acceptable* and *Recognized* schools, and the differences in retention rates were statistically significant. *Exemplary* schools also retained fewer test-failers than *Academically Acceptable* schools; however, the difference was not statistically significant. For all-student retention, in four out of six of the pairwise comparisons of lower-rated and higher-rated schools, lower-rated schools retained a statistically significant higher percentage of students. *Academically Unacceptable* schools retained a significantly higher percentage of all students than *Exemplary* schools; *Academically Acceptable* schools retained a significantly higher percentage of all students than *Recognized* and *Exemplary* schools; and *Recognized* schools retained a significantly higher percentage of all students than *Exemplary* schools. For the two instances in which the difference between lower-rated and higher-rated schools did not achieve statistical significance for all-student retention (*Academically Unacceptable versus Academically Acceptable* and *Academically Unacceptable versus Recognized),* the retention rate was lower for lower-rated schools; the differences were just not statistically significant. Since more low-income and minority children attend schools with low accountability ratings, the accountability rating (a proxy of school capacity) analysis is more evidence of the inequitable retention of historically disadvantaged children.

Limitations of Dissertation

This dissertation used quantitative methods. However, an important qualitative variable that might help account for variance in school test-failer retention rates is level of strictness and specification of school district retention policy. If some school districts strictly require schools to retain test failers and other school districts allow for more local discretion, then school district retention policy would likely be an important predictor of school test-failer retention (Schwager et al., 1992).

Yet the fact that school characteristics (specifically % low-income students and % White students) were found to be statistically significant predictors of test-failer retention is a key finding that is highly supportive of the hypothesis of this dissertation. Again, the only students included in the test-failer retention rate were students who failed the reading test. So even with the possibility that a key predictor variable might not have been considered, there is evidence that a test failer in a low-SES school is more likely to be retained than a test failer in a high-SES school; and that a test failer at a school with a lower percentage of White students is more likely to be retained than a test failer at a school with a higher percentage of White students.

The fact that retention rates were higher in accountability subset TBR grades (Grades 3 and 5) than in non-TBR accountability subset grades (Grades 4 and 6) during the period that TBR was in effect, points to TBR policy as an influence on retention rates. However, there is a limitation in attributing changes in retention rates during TBR implementation solely to TBR policy. A number of other critical policy changes that may have influenced retention rates occurred in concert with TBR policy implementation,

including an increase in the rigor of the state test and in accountability standards for schools. School year 2002-03, which was the first year that TBR took effect for third graders, also marked the start of the new TAKS test, which was more comprehensive and harder to pass than the previous state test, the Texas Assessment of Academic Skills. Then in 2003-04, passing the new and more difficult test became even more challenging as students were required to answer more questions correctly in order to meet the cut-score for passing. In 2004-05, the number of correctly answered questions needed to pass increased even further. This escalation in passing standards that took place between 2002-03 and 2004-05 was intended as a phase-in period for the new more rigorous TAKS test. Specifically, for the Grade 3 Reading TAKS, the numbers of questions students were required to answer correctly increased from 20 out of 36 in 2002-03, to 22 out of 36 in 2003-04, to 24 out of 36 in 2004-05 (TEA). In the year 2004-05 when retention rates were highest in all accountability subset grades, it was likely that retention rates during that period were attributable to a combination of TBR policy and increased difficulty and passing standards for the state test.

A potential indication that retention rates were influenced by changing test passing standards is that retention rates began to decline after 2004-05, as test passing standards began to level off. The state test did not increase in rigor between 2004-05 and 2008-09. For example, the number of correctly answered questions needed to pass the third grade reading TAKS did not increase beyond the 24 questions that were required in 2004-05 (TEA, 2010). In fact, the number of correctly answered questions required decreased to 23 in 2005-06 and 2006-07, and to 22 in 2007-08 (TEA, 2010). So

it appears that retention rates increased between years 2002-03 and 2004-05 as the test became more difficult for students to pass, then declined between the years 2004-05 and 2008-09 as the test became easier to pass (or at least leveled off in its level of difficulty).

Therefore, although the point of this dissertation was stated in terms of examining school characteristics that influence retention within a TBR policy environment, it is important to highlight that other accountability policy inputs occurring during the period of analysis, may need to be considered. In fact, in hindsight, the point of the dissertation should probably be reworded as follows—to examine school characteristics that predict retention within a policy environment of TBR in concert with changes in the rigor of the state test. Regardless of the consideration of other accountability inputs occurring in concert with TBR, this dissertation points to important questions and avenues of investigation about grade retention and disparate impact of TBR and other standards-based reform policies on historically disadvantaged children.

Implications for Researchers, Schools, and Policy

Implications for further research. A number of studies have addressed the effects of grade retention on student outcomes. There appears to be near universal agreement that retention leads to students dropping out of school (Allensworth, 2005; Grissom & Sheppard 1989; Jacob & Lefgren, 2009; Jimerson 2001; Roderick & Nagaoka, 2005). There also appears to be growing consensus that grade retention relative to social promotion does not lead to improved student achievement for many students, and can lead to decreases in academic achievement (Alexander et al., 1994; Holmes 1989; Hong & Raudenbush, 2005; Jimerson, 2001; Jimerson, Carlson, Rotert, Egeland, & Sroufe,

1997). Few studies have, however, examined how schools practice retention. Such research would provide a more comprehensive and constructive understanding of retention. For example, studies that examine how groups of low-SES versus high-SES schools implement and respond to retention policies and decisions might provide important lessons learned for understanding grade retention and other standards-based reform policies. An important avenue for research is how low-SES versus high-SES parents interact with schools on behalf of their children in making grade retention decisions.

Given that ELLs have extremely high retention rates and that the number of ELLs retained increased 136% over only a 5-year period (1999-2000 to 2004-05), research specifically examining retention of ELLs is needed. A critical question, for example, is whether retained ELL test-failers are more likely to drop out of school compared to socially-promoted ELL test-failers. Research looking specifically at ELL student outcomes in terms of grade retention appears to be limited. An exception is the Valenzuela, Fuller & Vasquez Heilig (2006) examination of the frequency in which ELLs disappear from Texas high schools prior to graduating. The authors found a considerable and statistically significant difference between the high school disappearance rate between ELL and non-ELL students; the disappearance rate for ELLs was 25%—double the rate of non-ELLs. As the population of ELL students in Texas and in the United States continues to expand, it is important to specifically examine student outcomes and the impact of policy inputs for this student group (Valenzuela, Fuller, & Vasquez Heilig, 2006).

Race/ethnicity appears to influence retention in the areas of both student body demographic composition and teacher race. Even controlling for percentage of low-income students, percentage beginning teachers, and other relevant variables, schools with a higher percentage of White students have a lower test-failer retention rate. Also, controlling for other possibly confounding variables, schools with a higher percentage of White and Latino teachers have lower retention rates. Further research is needed to better understand how race/ethnicity enters into school-level retention decisions.

Texas repealed its third grade TBR policy after 2007-08. However, six cohorts of third graders went through TBR and thousands of test-failers have been retained under the policy. In 2004-05 alone, at least 6,332 test failers were retained. The first cohort to be subject to TBR, students in third grade in 2002-03, are scheduled to graduate from high school in 2012. Dropout rates for retained versus socially promoted students as these cohorts are scheduled to graduate should be analyzed. Texas' PEIMS data provides a plethora of data for evaluating its TBR policy, which could lead to rich information on the retention issue and important lessons learned.

Equity audits for grade retention. Schools may not be aware about inequities in their retention practices. Skrla, Scheurich, Garcia, and Nolly (2004) explain that,

> Despite a decade or more of working within a context of increasingly high-stakes accountability, particularly in states like Texas, that produces growing amounts of comprehensive data about schools and districts, administrators and teachers we work with overwhelmingly do not have a clear, accurate, or useful understanding of the degree of inequity present in their own schools and school districts (p. 41).

Schools and school districts should conduct what Skrla et al. referred to as "equity audits" for grade retention. The authors provide equity audits as a tool for school leaders in order to "increase the likelihood of equity-positive leadership responses within the context of increasingly high-stakes accountability policy systems" (p. 134). Skrla et al. offered equity audits as a practical tool for schools to use data displayed in a clear and understandable way that reveals levels of equity and inequity in specific delimited areas of school, which can subsequently be used for planning school change. Similar to the ways in which equity audits have been used to monitor overrepresentation of minority students in special education, equity audits could be used to monitor disproportionate retention rates for low-income, minority, and ELL students. Skrla et al. described three categories of types of equity audits: Teacher Quality Equity, Programmatic Equity, and Achievement Equity. Grade retention could fit in either the programmatic or achievement category, or perhaps warrants a separate category—Accountability Policy Impact Equity. Thus, schools, school districts, and states should systematically examine impacts of accountability policies, such as TBR, from a perspective of inequitable and negative impact on historically disadvantaged children. More attention needs to be paid to the disproportionate number of minority and low-income students being retained. Schools with high retention rates should review micro-policies and practices and school culture/climate issues that might be contributing factors. Schools should also ensure that teachers, administrators, parents and others making retention decisions are aware about evidence linking retention to dropping out of school. Particular emphasis should be placed on ensuring all parents are aware about the potential negative effects of grade

retention on children and about avenues and strategies for advocating on behalf of struggling students.

Accelerated instruction as an alternative to grade retention. Proponents of TBR policy believe that the threat of retention motivates students to work harder and motivates teachers and parents to direct the attention and resources needed to support struggling learners. Policymakers have been found to see retention as a tool for whole-school improvement (Brown, 2007). The idea is that any negative consequences for the "few" students retained, outweigh the overall benefit for schools in general, for the many students such policies are intended to support, and for the "common good". Proponents of TBR argue that such policies put pressure on students to pass required tests, and that passing the tests leads to a high school diploma, improved postsecondary opportunities and a better life for individual students, including and perhaps especially minority and low-income students. The community and country benefits as well, by having better educated workers and good citizens.

There is research to support that the threat of grade retention has a positive motivational effect on students and teachers (Allensworth, 2005; Jacobs et al., 2005; Roderick and Engel, 2001). In fact, an additional interesting possibility for future research is the comparison of third grade student test passing rates during TBR years to post-TBR years from the perspective of determining whether students, parents, and teachers were less motivated in test passing efforts after the threat of retention was removed. Recall that TBR policy for third graders in Texas took effect in 2002-2003 and was repealed after 2007-08. At any rate, if the belief is that the threat of retention is an

important motivator, it is possible to structure and implement policy in a manner that both limits retention and at the same time motivates and focuses families and schools toward improved student achievement.

The research overwhelmingly supports that struggling learners fare better when socially promoted rather than retained (Holmes, 2000; Jimerson, 2001; Roderick & Nagaoka, 2005; Shepard & Smith, 1989). However, many believe that neither grade retention nor social promotion benefits struggling learners. Policies and practices encompassed in what is typically referred to as "accelerated instruction" or "accelerated learning" programs have gained wide use as an alternative to both grade retention and social promotion. As implemented in some Texas schools, accelerated instruction both limits retention and provides a continuous, intensive focus on improved student achievement for struggling learners.

The accelerated learning concept, originated from Henry Levin's Accelerated Schools model developed in 1986, and focuses on catching students up while they concurrently learn new material. Accelerated instruction is different from the traditional remediation approach, which involves re-teaching material not previously mastered until the student finally "gets it," and perhaps re-teaching the material using the same ineffective instructional methods previously used, such as drill-and-kill, worksheets, and lecture. Students who experience remediation, particularly in the form of grade retention, are thought to fall further and further behind. After all, retained students are being held back from the next level of coursework and new concepts and skills that might aid in student comprehension of previously taught material, as the student moves forward

through curriculum. Another major problem with retention is that students may end up repeating course work in areas already learned. This is of particular concern for TBR requirements, such as Texas' third grade policy which required retention based on one subject area—reading. A student may have difficulty with reading but may have done well in other subject areas such as math, science, and social studies, but would have to repeat course work in those subjects as well, if retained. To this point of retained students having to repeat course work in subjects already learned, there were 3,721 third grade students who failed the reading TAKS in 2004-05, but passed the mathematics TAKS (TEA, 2006). Of these 3,721 students, 855 (or 23.8%) were retained. Therefore, it is a fact that as a result of TBR policy, some Texas students have been required to repeat course work in subjects already learned. Students having to repeat material they have already learned may likely become bored and disengaged from school (Jimerson, 2001; Shepard & Smith, 1989). Moreover, considering limited educational resources, requiring students to repeat course work already learned is an expensive and wasteful practice.

Accelerated instruction, on the other hand, allows students to continue to progress to the next level or grade while simultaneously and systematically being re-taught missed concepts and engaging with the material to be learned in new and constructive ways. Thompson (2002) described accelerated instruction as "bridging the gap between what learners already know and what they are going to learn" and providing "advanced organizers" and "scaffolding" for new learning. Whereas "pull-out" programs have regularly been used to provide remediation, more and more, acceleration is being provided through afterschool programs, summer school, and specially designated class

periods for struggling learners. A number of Texas schools have restructured their master schedules, borrowing time from the lunch period and between class transition time, for example, in order to implement *intervention/enrichment periods* in which all students participate in either acceleration or enrichment activities (i.e., gifted/talented programming, mentoring and life skills activities). Integrating intervention periods into the regular school day schedule eliminates the need to pull struggling learners out of core classes where they often miss valuable instruction time. It also provides a clearly designated time for accelerated instruction and eliminates the need for schools to provide transportation for after school programs.

The idea of differentiated instruction is central to the essence of accelerated instruction as an alternative to retention. With the graded school system, which as previously discussed dates back more than 200 years, all students are assumed to have the same level of ability and prior knowledge and are expected to learn at the same pace, and teachers simply continue on with the standard curriculum provided over a set time and period. Instead, differentiated instruction meets the individual student (or small groups of students) where they are in the learning process and tailors, enriches, and accelerates instruction accordingly. Formative assessment and using data to pinpoint and target instruction are key strategies used for differentiating and accelerating instruction. An important trend in the provision of accelerated instruction is a focus on ensuring that accelerated instruction is provided by carefully selected high quality teachers who have received specializing training in working with struggling learners and/or demonstrated success teaching in particular subject areas.

In Texas, school districts are required to provide accelerated instruction for students who do not pass state tests whether the student is retained or socially promoted to the next grade. Additionally, all students identified during the year as *at risk* of failing TAKS at a TBR grade level must be provided accelerated instruction services. Accelerated instruction is more specifically defined in Texas as targeted and appropriate intervention intended to enable the student to make the academic progress necessary to do on grade-level work at the next grade (TEA, 2010).

Accelerated instruction often involves requiring struggling learners to attend summer school and other extended learning opportunities and requires continuous parental involvement and participation. Accelerated instruction can also involve pulling students out of extracurricular activities in order to participate in extended learning activities. The extended learning opportunities are typically required as a condition for promotion to the next grade. The threat of retention is therefore leveraged as a motivational tool, and may be a viable option in carefully-reviewed circumstances of non-compliance with required extended learning opportunities. By requiring struggling learners to attend summer school and other extended learning opportunities as a condition for promotion, schools and policymakers can maintain the threat of retention as a motivational tool and still have symbolic and actionable merit-based promotion policies in conjunction with efforts to limit grade retention.

Conclusion

There is disparate impact of TBR policy on low-income, African American, Latino, and ELL children. Disproportionate retention rates for these historically disadvantaged groups of children are likely not fully attributable to lower student performance. School characteristics, including socio-cultural factors influence retention rates and appear to contribute to higher retention rates for historically disadvantaged children. This dissertation's findings speak to unfairness and inequity in retention policies and practices across schools. By examining the relationship between school characteristics and retention, this dissertation provides insight into the nuances of retention and provides an impetus for more research on understanding retention and the inequitable impact of retention and other standards-based accountability policies. Struggling learners enrolled in schools with certain characteristics (i.e., higher proportion of low-income students and beginning teachers, lower proportion of White students, and lower accountability ratings) are more likely to be retained. Such school characteristics may interrelate with individual disadvantaging student circumstances and exacerbate high retention rates for low-income, African American, Latino, and ELL students. Schools and policy makers should consider and evaluate the disparate and inequitable impact of grade retention policy on historically disadvantaged children.

In conclusion, considering the findings presented here, schools and policy makers in Texas and elsewhere must consider ways to continue to motivate and focus children and schools toward improved student achievement while concurrently limiting retention. As standards-based reforms continue to permeate educational policy and as

accountability standards increase in rigor, understanding variations in schools' response to and implementation of retention policy and other standards-based reform policies is a critical endeavor.

TABLES

Table 1

Test-Based Retention Grades and Implementation Years for Key States and School Systems

State/School System	Grade Level and Subject	Implementation Years
Texas	3rd Reading 5th Reading/ELA and Math 8th Reading/ELA and Math	3rd, 2002-03 – 2007-08 5th, 2004-05 – present 8th, 2007-08 – present
Florida	3rd Reading	2002-03 – present
California	6th & 8th, Reading/ELA and Math	1999 – present
Louisiana	4th & 8th, Reading/ELA and Math	2000-01 – present
Chicago	3rd, 6th, & 8th , Reading/ELA and Math	3rd & 6th, 1996-97 - present 8th,1995-96 – present
New York City	3rd, 5th,7th,8th , Reading/ELA and Math	3rd, 2003-04 - present 5th, 2004-05 - present 7th, 2005-06 - present 8th, 2008-09 - present

Table 2

Percentage of Third Grade Reading Test Failers Who Were Retained

	2003	2004	2005	2006	2007	2008
% Test Failers Retained	44.4	46.4	56.6	44.4	42.0	37.0
Range in % Test Failers Retained	0%-100%	0%-100%	0%-100%	0%-100%	0%-100%	0%-100%

Note. Adapted from Texas Education Agency reports, Grade-Level Retention in Texas Public Schools, 2004 through 2009.

Table 3

Descriptive Statistics for Regression Using the All Student Retention Rate as the Independent Variables (Model 1)

	N	Min.	Max.	Mean	Std. Deviation
%Retained for All Reasons	3692	0	36.4	3.273	3.8558
School Size	3692	20	1552	537.54	222.613
Grade 3 Size	3692	6	369	87.40	44.105
% Low-Income	3692	0	100	61.41	27.859
% African American Students	3698	0	99	13.55	19.019
% Latino Student	3692	0	100	46.15	32.524
% White Student	3692	0	100	37.30	31.143
% ELL Student	3692	0	95	20.90	21.238
% African American Teachers	3692	0	100.0	8.055	16.6584
% Latino Teachers	3692	0	100.0	22.433	28.5336
% White Teachers	3692	0	100.0	68.421	31.2797
% Beginning Teachers	3692	0	57.1	7.273	6.7780
Student/Teacher Ratio	3692	3.2	40.3	14.774	2.3109
District Size	3692	20	208454	38862.51	52513.080
District % Low-Income	3692	0	100	55.871	22.445
District % Minority Students	3692	0	100.00	57.9025	28.60337
District Tax Property Value Per Pupil	3692	0	4481872	275044.88	225379.14

Table 4

Descriptive Statistics for Regression Using the Test Failer Retention Rate as the Independent Variables (Model 2)

	N	Min.	Max.	Mean	Std. Deviation
%Reading Test Failers Retained	2866	0	100	41.465	34.9294
School Size	2866	20	1522	566.83	214.669
Grade 3 Size	2866	6	369	92.80	43.363
% Low-Income	2866	0	100	67.48	25.192
% African American Students	2866	0	100	52.25	32.243
% Latino Student	2866	0	99	30.19	28.872
% White Student	2866	.6	100	67.2169	29.86544
% Minority Student	2866	0	95	24.46	22.092
% ELL Student	2862	0	100	9.415	17.9377
% African American Teachers	2862	0	100	26.642	29.9138
% Latino Teachers	2862	0	100	62.780	31.8294
% White Teachers	2862	0	100	36.0571	31.55107
% Beginning Teachers	2862	0	57.1	7.635	6.7705
Student/Teacher Ratio	2862	3.2	40.3	15.007	2.1823
District Size	2866	20	208454	43559.13	55966.751
District % Low-Income	2866	0	100	59.546	21.6714
District % Minority Students	2866	.8	100.	63.4152	27.25227
District Tax Property Value Per Pupil	2866	0	2542163	251639.21	162388.329

Table 5.

Grade Retention Before and After TBR Policy Implementation, Third Grade by SES, Race/Ethnicity, and ELL Status

	3 years prior to policy		3 years under policy		% change in number	% change in retention rate
	#	%	#	%		
Low-income students retained	5,113	3.1	8,388	4.5	64	45
Higher-income students retained	1 ,749	1.3	1,978	1.5	13	15
African American students retained	1,497	3.4	1,955	4.5	31	32
Latino students retained	3,902	3.1	6,758	4.5	73	45
White students retained	1,377	1.1	1,978	1.3	44	18
ELL students retained	1,919	3.6	4,524	5.9	136	64
Non ELL students retained	4,943	2.0	5,842	2.4	18	20

Table 6.

Percentage Change in Number of Grade 3 Students Enrolled

	2000-01	2004-05	%Change
African American	46,114	44,542	-3.41%
Latino	127,236	152,061	19.51%
White	129,565	118,948	-8.19%
ELL	64,330	77,369	20.27%

Table 7

R^2 for the Stepwise Regression for All Student Retention as Dependent Variable

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.449[a]	.202	.201	3.3886
2	.464[b]	.215	.215	3.3606
3	.470[c]	.221	.221	3.3476
4	.472[d]	.223	.222	3.3440
5	.474[e]	.225	.224	3.3413
6	.475[f]	.226	.225	3.3388
7	.476[g]	.227	.225	3.3374
8	.476[h]	.227	.225	3.3374

Note. a. = Predictors: (Constant), % low-income; b= Predictors: (Constant), % low-income, %ELL; c = Predictors: (Constant), % low-income, %ELL, and % beginning teachers, d = Predictors: (Constant), % low-income, %ELL, % beginning teachers, and district % low-income; e = Predictors: (Constant), % low-income, %ELL, % beginning teachers, district % low-income, and % Latino teachers; f = Predictors: (Constant), % low-income, %ELL, % beginning teachers, district % low-income, % Latino teachers, and % White teachers.

Table 8

ANOVA for the Stepwise Regression for All Student Retention as Dependent Variable

Model		Sum of Squares	*df*	Mean Square	*F*	Sig.
1	Regression	10704.114	1	10704.114	932.182	.000[a]
	Residual	42371.757	3690	11.483		
	Total	53075.871	3691			
2	Regression	11412.672	2	5706.336	505.258	.000[b]
	Residual	41663.200	3689	11.294		
	Total	53075.871	3691			
3	Regression	11746.516	3	3915.505	349.398	.000[c]
	Residual	41329.356	3688	11.206		
	Total	53075.871	3691			
4	Regression	11846.654	4	2961.663	264.852	.000[d]
	Residual	41229.217	3687	11.182		
	Total	53075.871	3691			
5	Regression	11925.156	5	2385.031	213.635	.000[e]
	Residual	41150.716	3686	11.164		
	Total	53075.871	3691			
6	Regression	11996.662	6	1999.444	179.360	.000[f]
	Residual	41079.209	3685	11.148		
	Total	53075.871	3691			
7	Regression	12043.380	7	1720.483	154.469	.000[g]
	Residual	41032.491	3684	11.138		
	Total	53075.871	3691			
8	Regression	12032.548	6	2005.425	180.053	.000[h]
	Residual	41043.323	3685	11.138		
	Total	53075.871	3691			

Note. a. = Predictors: (Constant), % low-income; b= Predictors: (Constant), % low-income, %ELL; c = Predictors: (Constant), % low-income, %ELL, and % beginning teachers, d = Predictors: (Constant), % low-income, %ELL, % beginning teachers, and district % low-income; e = Predictors: (Constant), % low-income, %ELL, % beginning teachers, district % low-income, and % Latino teachers; f = Predictors: (Constant), % low-income, %ELL, % beginning teachers, district % low-income, % Latino teachers, and % White teachers

Table 9

Regression for All Student Retention as Dependent Variable

Model		Unstandardized Coefficients		Stand. Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-.495	.135		-3.669	.000
	Low-income Percent	.061	.002	.449	30.532	.000
2	(Constant)	-.371	.135		-2.752	.006
	Low-income Percent	.055	.002	.407	26.248	.000
	Black Teacher Percent	.028	.004	.123	7.921	.000
3	(Constant)	-.212	.137		-1.545	.122
	Low-income Percent	.046	.003	.338	16.958	.000
	Black Teacher Percent	.032	.004	.142	8.943	.000
	LEP Percent	.018	.003	.103	5.458	.000
4	(Constant)	-.346	.144		-2.398	.017
	Low-income Percent	.046	.003	.335	16.802	.000
	Black Teacher Percent	.032	.004	.141	8.894	.000
	LEP Percent	.017	.003	.098	5.182	.000
	Beginning Teachers Percent	.025	.008	.044	2.993	.003
5	(Constant)	-.536	.161		-3.330	.001
	Low-income Percent	.039	.004	.288	10.717	.000
	Black Teacher Percent	.031	.004	.137	8.641	.000
	LEP Percent	.017	.003	.095	5.050	.000
	Beginning Teachers Percent	.026	.008	.046	3.101	.002
	District Percent Low-income Students	.011	.004	.063	2.652	.008
6	(Constant)	-.689	.172		-4.010	.000
	Low-income Percent	.040	.004	.291	10.827	.000
	Black Teacher Percent	.027	.004	.118	6.710	.000
	LEP Percent	.022	.004	.125	5.626	.000
	Beginning Teachers Percent	.024	.008	.044	2.962	.003
	District Percent Low-income Students	.015	.004	.089	3.437	.001
	Latino Teacher Percent	-.008	.003	-.062	-2.533	.011

(table continues)

(Table 9 continued)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
7	(Constant)	4.398	2.490		1.766	.077
	Low-income Percent	.040	.004	.295	10.961	.000
	Black Teacher Percent	-.026	.026	-.112	-.986	.324
	LEP Percent	.021	.004	.116	5.122	.000
	Beginning Teachers Percent	.024	.008	.042	2.864	.004
	District Percent Low-income Students	.015	.004	.087	3.330	.001
	Latino Teacher Percent	-.059	.025	-.443	-2.363	.018
	White Teacher Percent	-.051	.025	-.422	-2.048	.041
8	(Constant)	1.986	.465		4.273	.000
	Low-income Percent	.040	.004	.292	10.920	.000
	LEP Percent	.021	.004	.120	5.394	.000
	Beginning Teachers Percent	.024	.008	.043	2.913	.004
	District Percent Low-income Students	.015	.004	.087	3.343	.001
	Latino Teacher Percent	-.035	.004	-.260	-9.061	.000
	White Teacher Percent	-.027	.004	-.221	-6.949	.000

Table 10

R^2 for the Stepwise Regression for Test Failer Retention as Dependent Variable

Model	*R*	*R* Square	Adjusted *R* Square	Std. Error of the Estimate
1	.189[a]	.036	.035	34.2923
2	.200[b]	.040	.039	34.2229

Note. a = Predictors: (Constant), District Percent Low-income Students; b = Predictors: (Constant), District Percent Low-income Students, White Student Percent.

Table 11

ANOVA for the Stepwise Regression with Test Failer Retention as Dependent Variable

Model		Sum of Squares	*Df*	Mean Square	*F*	Sig.
1	Regression	124727.240	1	124727.240	106.064	.000[a]
	Residual	3363251.739	2860	1175.962		
	Total	3487978.979	2861			
2	Regression	139490.876	2	69745.438	59.550	.000[b]
	Residual	3348488.103	2859	1171.210		
	Total	3487978.979	2861			

Note. a = Predictors: (Constant), District Percent Low-income Students, b = Predictors: (Constant), District Percent Low-income Students, LEP Percent, c = Predictors: (Constant), District Percent Low-income Students, LEP Percent, African American Student Percent.

Table 12

Regression for Test Failer Retention as Dependent Variable

Model		Unstandardized Coefficients		Stand. Coefficients		
		B	Std. Error	*B*	*t*	Sig.
1	(Constant)	23.282	1.874		12.424	.000
	District Percent Low-income Students	.305	.030	.189	10.299	.000
2	(Constant)	32.563	3.214		10.131	.000
	District Percent Low-income Students	.204	.041	.127	4.989	.000
	White Student Percent	-.109	.031	-.090	-3.550	.000

Note. a = Predictors: (Constant), District Percent Low-income Students, b = Predictors: (Constant), District Percent Low-income Students, White Student Percent.

Table 13

MANOVA Descriptive Statistics -- All Student and Test-Failer Retention Rates by School Accountability Rating

	All-Student Retention		Test-Failer Retention	
Rating	*M*	*SD*	*M*	*SD*
Exemplary	1.93	2.60	30.46	38.60
Recognized	3.34	3.43	41.10	36.60
Academically Acceptable	4.80	5.06	43.93	32.50
Academically Unacceptable	6.81	6.80	40.90	33.08

Table 14

MANOVA -- Multivariate Tests for All Student and Test-Failer Retention Rates by School Accountability Rating

Effect		Value	*F*	Hypothesis *df*	Error *df*	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.159	265.976[a]	2	2811	.000	.159
	Wilks' Lambda	.841	265.976[a]	2	2811	.000	.159
	Hotelling's Trace	.189	265.976[a]	2	2811	.000	.159
	Roy's Largest Root	.189	265.976[a]	2	2811	.000	.159
Accountability Rating	Pillai's Trace	.051	24.338	6	5624	.000	.025
	Wilks' Lambda	.950	24.567[a]	6	5622	.000	.026
	Hotelling's Trace	.053	24.796	6	5620	.000	.026
	Roy's Largest Root	.049	46.199[b]	3	2812	.000	.047

Table 15

MANOVA – Pairwise Comparisons for All Student and Test-Failer Retention Rates by School Accountability Rating

Dependent Variable		(I) Rating 2004	(J) Rating 2004	Mean Difference (I-J)	Std. Error	Sig.	97.5% Confidence Interval	
							Lower Bound	Upper Bound
% All Students Retained	Bonferroni	Academically Acceptable	Exemplary	2.880*	.3132	.000	1.982	3.778
			Academically Unacceptable	-2.004	.8697	.128	-.498	.490
			Recognized	1.464*	.1707	.000	.974	1.953
		Exemplary	Academically Acceptable	-2.880*	.3132	.000	-.778	-1.982
			Academically Unacceptable	-4.885*	.9099	.000	-.494	-2.275
			Recognized	-1.417*	.3174	.000	-.327	-.507
		Academically Unacceptable	Academically Acceptable	2.004	.8697	.128	-.490	4.498
			Exemplary	4.885*	.9099	.000	2.275	7.494
			Recognized	3.468*	.8712	.000	.970	5.966
		Recognized	Academically Acceptable	-1.464*	.1707	.000	-.953	-.974
			Exemplary	1.417*	.3174	.000	.507	2.327
			Academically Unacceptable	-3.468*	.8712	.000	-.966	-.970
% All Students Retained	Dunnet C	Academically Acceptable	Exemplary	2.880*	.2207		2.254	3.506
			Academically Unacceptable	-2.004	1.3645		-.195	2.187
			Recognized	1.464*	.1684		.989	1.939
		Exemplary	Academically Acceptable	-2.880*	.2207		-.506	-2.254
			Academically Unacceptable	-4.885*	1.3690		-.088	-.681
			Recognized	-1.417*	.2012		-.988	-.846
		Academically Unacceptable	Academically Acceptable	2.004	1.3645		-.187	6.195
			Exemplary	4.885*	1.3690		.681	9.088
			Recognized	3.468	1.3615		-.715	7.651
		Recognized	Academically Acceptable	-1.464*	.1684		-.939	-.989
			Exemplary	1.417*	.2012		.846	1.988
			Academically Unacceptable	-3.468	1.3615		-.651	.715

(Table continues)

(Table 15 continued)

Dependent Variable		(I) Rating 2004	(J) Rating 2004	Mean Difference (I-J)	Std. Error	Sig.	97.5% Confidence Interval	
							Lower Bound	Upper Bound
% Test Failers Retained	Bonferroni	Academically Acceptable	Exemplary	13.474*	2.5248	.000	6.234	20.714
			Academically Unacceptable	3.046	7.0113	1.000	-.060	23.152
			Recognized	2.839	1.3759	.235	-.106	6.785
		Exemplary	Academically Acceptable	-3.474*	2.5248	.000	-0.714	-6.234
			Academically Unacceptable	-10.428	7.3356	.932	-1.463	10.608
			Recognized	-0.635*	2.5584	.000	-7.971	-3.298
		Academically Unacceptable	Academically Acceptable	-3.046	7.0113	1.000	-3.152	17.060
			Exemplary	10.428	7.3356	.932	-0.608	31.463
			Recognized	-.207	7.0235	1.000	-0.348	19.934
		Recognized	Academically Acceptable	-2.839	1.3759	.235	-.785	1.106
			Exemplary	10.635*	2.5584	.000	3.298	17.971
			Academically Unacceptable	.207	7.0235	1.000	-9.934	20.348
%Test Failers Retained	Dunnet C	Academically Acceptable	Exemplary	13.474*	2.7495		5.661	21.287
			Academically Unacceptable	3.046	6.6718		-7.435	23.527
			Recognized	2.839	1.3774		-1.047	6.726
		Exemplary	Academically Acceptable	-3.474*	2.7495		-21.287	-5.661
			Academically Unacceptable	-10.428	7.1110		-32.067	11.212
			Recognized	-0.635*	2.8196		-18.644	-2.625
		Academically Unacceptable	Academically Acceptable	-3.046	6.6718		-23.527	17.435
			Exemplary	10.428	7.1110		-11.212	32.067
			Recognized	-.207	6.7011		-20.763	20.350
		Recognized	Academically Acceptable	-2.839	1.3774		-6.726	1.047
			Exemplary	10.635*	2.8196		2.625	18.644
			Academically Unacceptable	.207	6.7011		-20.350	20.763

FIGURES

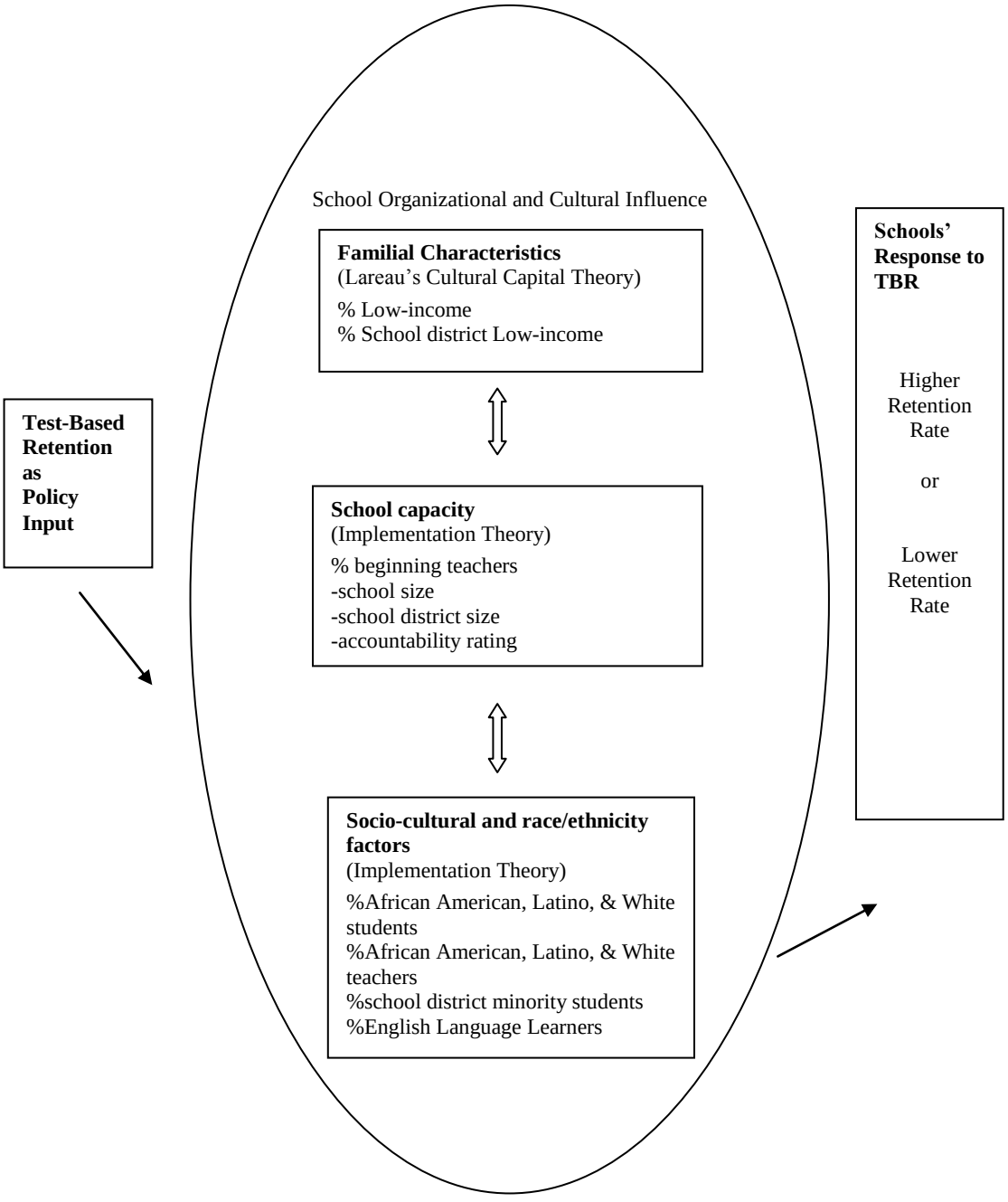

Figure 1. The Influence of School Characteristics on Test-Based Retention Policy. Bi-directional arrows between three categories of school characteristics depict the interrelatedness of school characteristic variables.

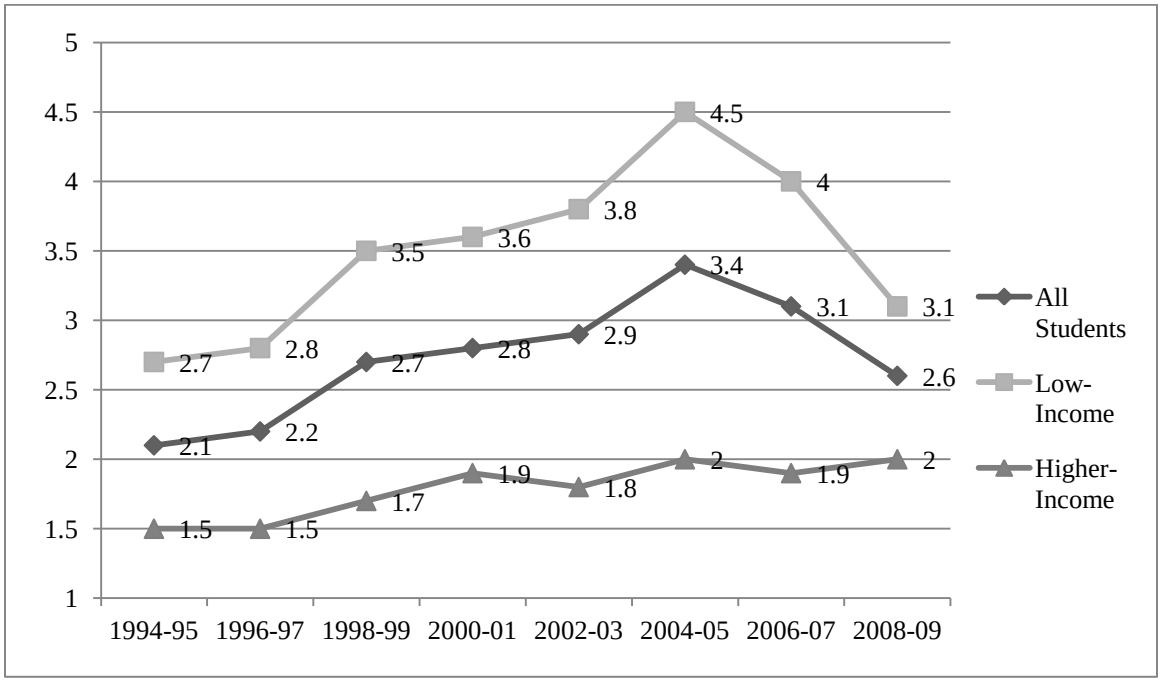

Figure 2. K-6 Retention Rate by SES Status, 1994-95 – 2008-09. Adapted from Texas Education Agency reports, Grade-Level Retention in Texas Public Schools, 2006 and 2009.

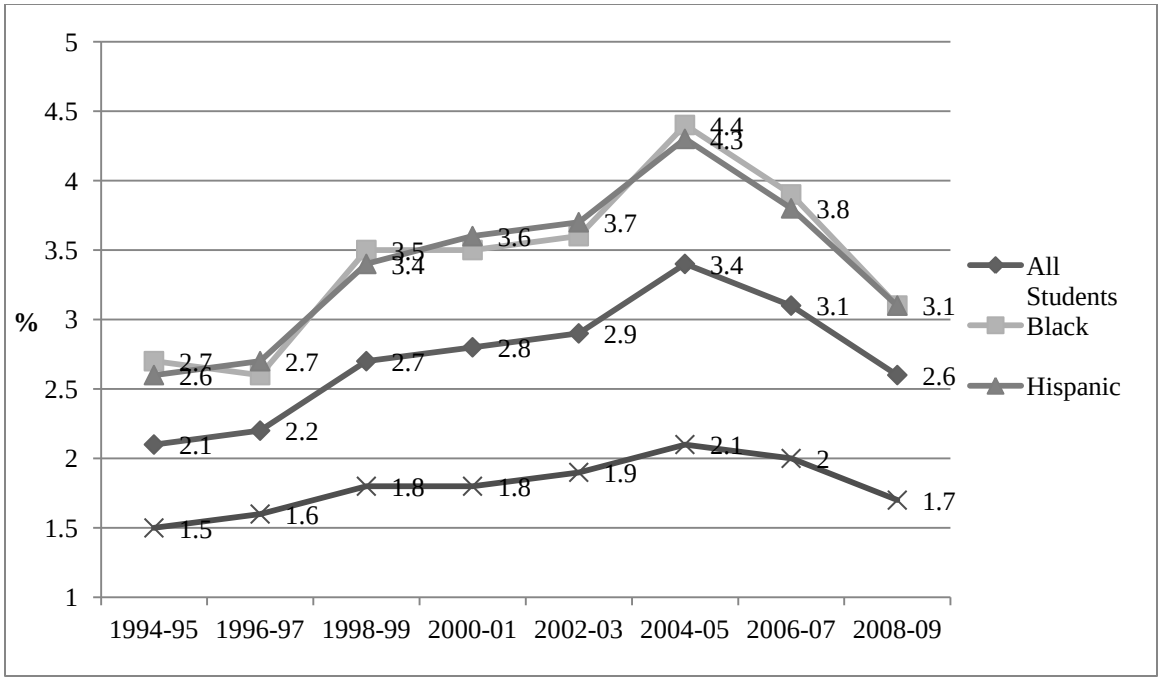

Figure 3. K-6 Retention Rate by Race/Ethnicity, 1994-95 – 2008-09. Adapted from Texas Education Agency reports, Grade-Level Retention in Texas Public Schools, 2006 and 2009.

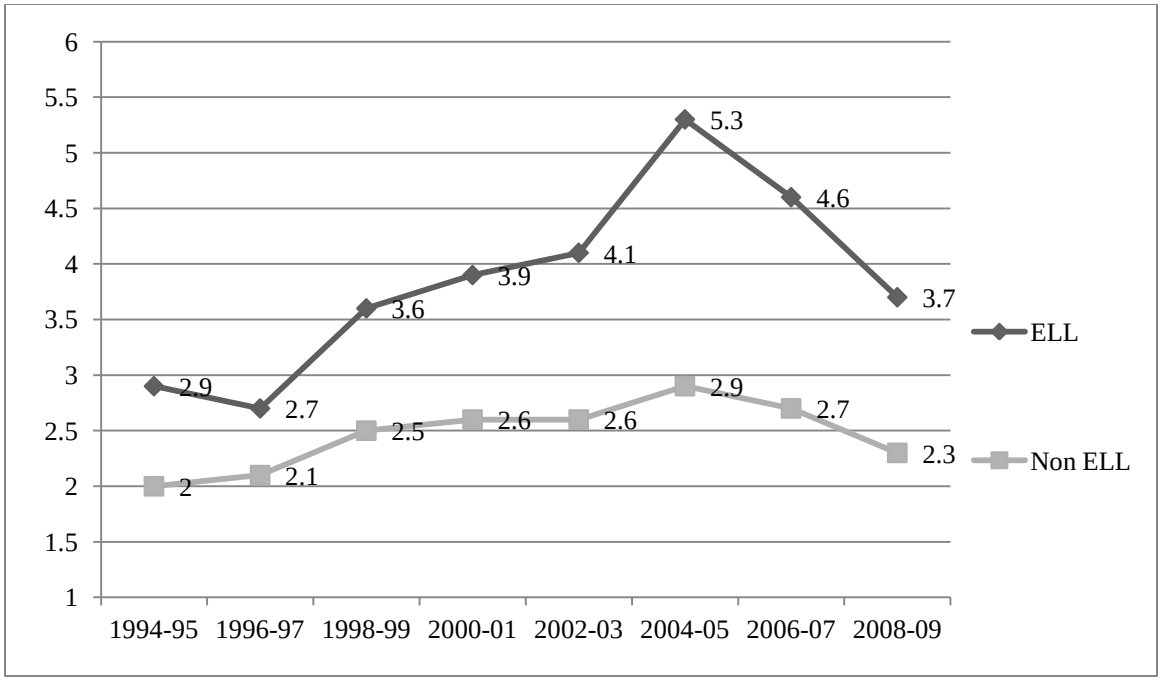

Figure 4. K-6 Retention Rate by ELL Status, 1994-95 – 2008-09. Adapted from Texas Education Agency reports, Grade-Level Retention in Texas Public Schools, 2006 and 2009.

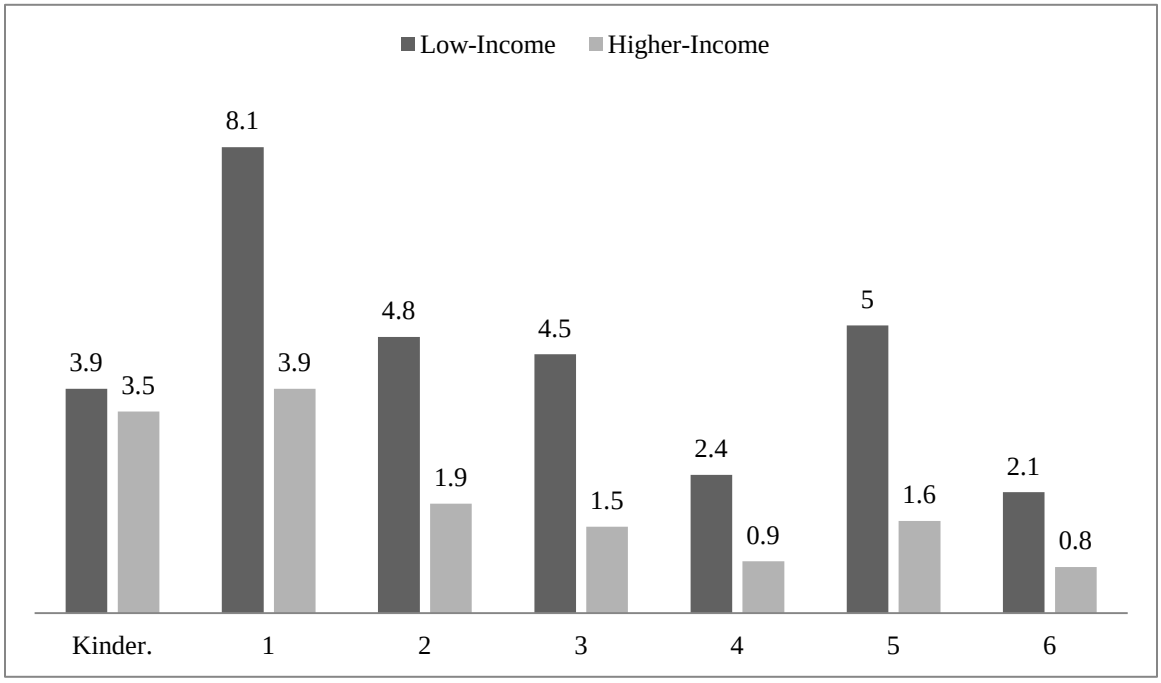

*Figure 5.*Retention Rate by Grade and SES, in 2004-05. Adapted from Texas Education Agency reports, Grade-Level Retention in Texas Public Schools, 2006 and 2009.

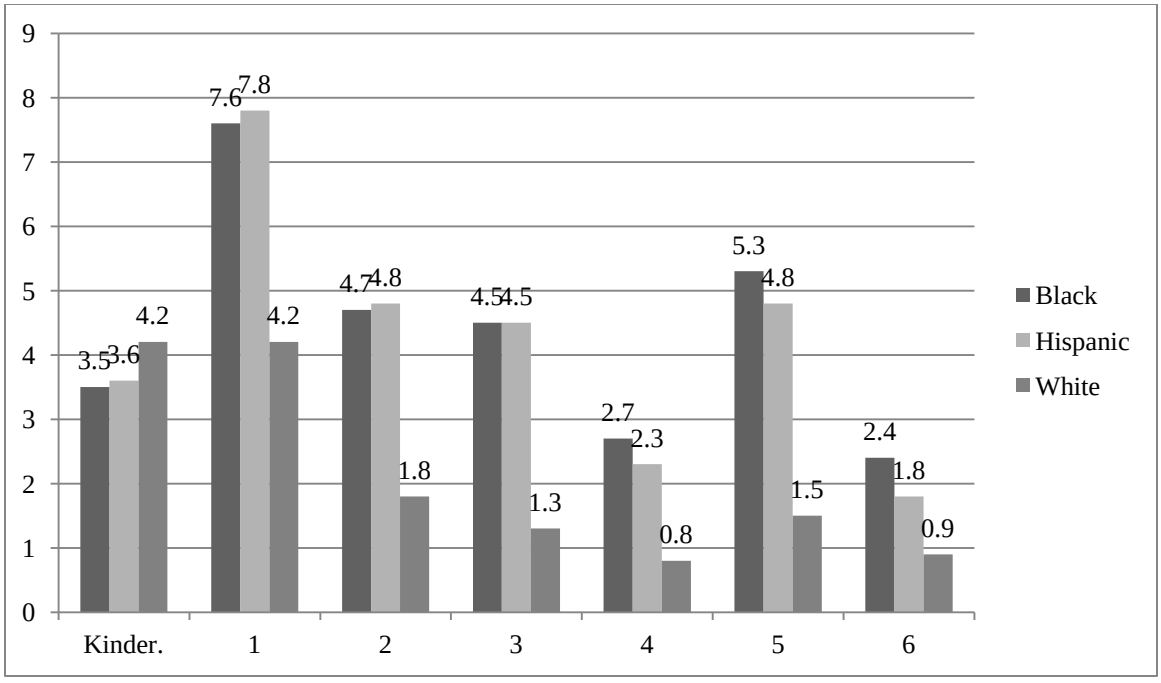

Figure 6. Retention Rate by Grade and Race/Ethnicity, in 2004-05. Adapted from Texas Education Agency reports, Grade-Level Retention in Texas Public Schools, 2006 and 2009.

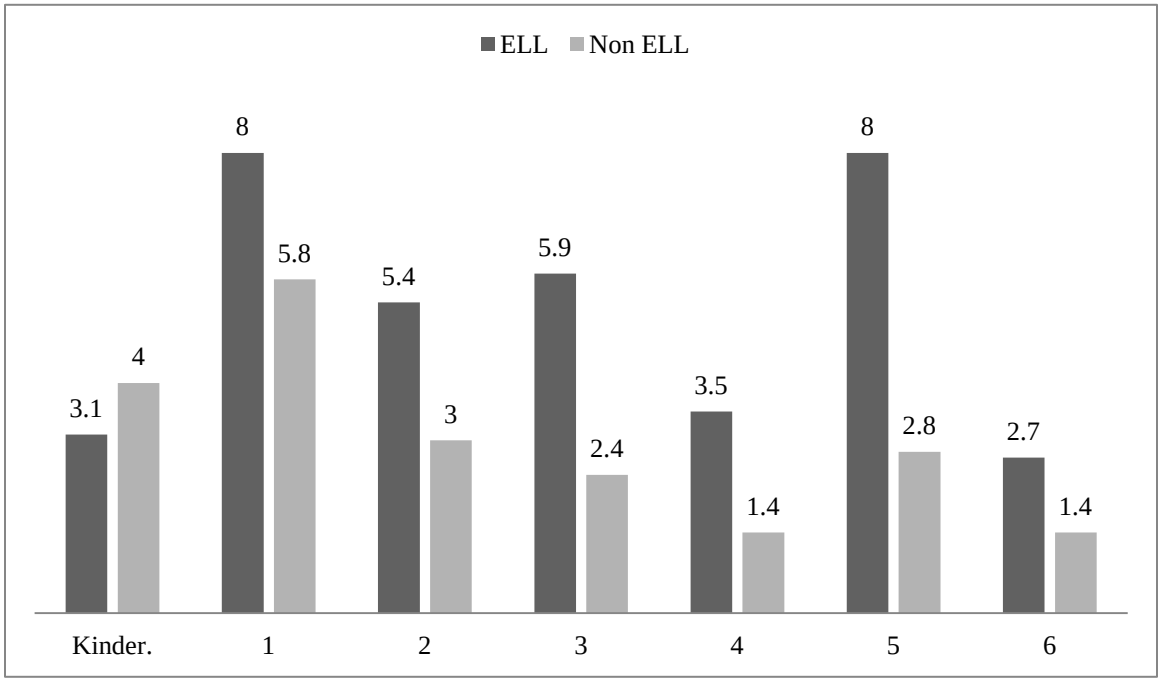

Figure 7. Retention Rate by Grade and ELL Status, in 2004-05. Adapted from Texas Education Agency reports, Grade-Level Retention in Texas Public Schools, 2006 and 2009.

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