School and Campus Characteristics of Non-Graduating Seniors Due to Failure of TAKS Tests in the Western Independent School District

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SCHOOL AND STUDENT CHARACTERISTICS OF NON-GRADUATING SENIORS DUE TO FAILURE OF TAKS TESTS IN THE WESTERN INDEPENDENT SCHOOL DISTRICT

PATRICIA SILVA

Department of Educational Leadership and Foundations

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Dean of the Graduate School
DEDICATION

As my final gift to you, I dedicate this work to you, Leo, my partner for the more than 40 years the Lord gave us together. May God smile on you and hold you closely as we know that you have joy, peace, love and happiness on the other side. You brought love, support and friendship to my life. In dying, you taught us all another intensely valuable lesson. I always feel you close by as we share a special kind of bond and blessing. Knowing and loving you has been one of the greatest gifts that the Lord has given me for you were that wonderful husband, father and grandfather that every woman dreams. Even as your days were leaving us, you reminded me that I still had much to do and that I should follow my dream. When I started this effort, you were there and now I dedicate this in your loving memory. You always had faith in me and encouraged me in everything I did. Because of your support, love and encouragement, I have reached this crossroad. I accomplished this goal because you are my rock and always shoulder to lean on. I know you are smiling as I walk across the stage wearing “that funny hat”. We are kindred souls.
SCHOOL AND STUDENT CHARACTERISTICS OF NON-GRADUATING SENIORS DUE TO FAILURE OF TAKS TESTS IN THE WESTERN INDEPENDENT SCHOOL DISTRICT

by

Patricia Silva, B.S., M.Ed.

DISSERTATION

Presented to the Faculty of the Graduate School of The University of Texas at El Paso in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF EDUCATION

Department of Educational Leadership and Foundations

THE UNIVERSITY OF TEXAS AT EL PASO

December 2010
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I wish to thank all the individuals who supported me in this arduous task and for being here to support me when many times I wanted to give up. I would like to acknowledge the love and encouragement from my sons, Adrian and Ben for their affectionate and uplifting words that support me. To my daughter-in-law, Virginia, thank you for being like the daughter I never had and for always being there for me. To my grandchildren, my buddy Matthew and my princess Kaytlyn, thank you for the energy, the youth and the spunk that shows me life goes on. To the Rodriguez family, my mother Eustolia, brothers Robert, Jr., George, Gerardo and Danny and their wives and family, I thank you for being there for me. To my father, Roberto Rodriguez, even though you are not here to see me reach this accomplishment, I know you are smiling down saying, “way to go, mi hija!” I want to make you proud and be a rewarding reflection of what you wanted in your little girl.

To Don and June Aumen, I thank you friends for pushing me, encouraging me and letting me know the true meaning of friendship. I will always be indebted to you for what you do for me and the happiness you bring to my life.

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Most importantly, I acknowledge Our Lord Jesus Christ for giving me so many blessings and for the wonderful people that continue to guide me and lead me down your path.
THE UNIVERSITY OF TEXAS AT EL PASO

ABSTRACT

SCHOOL AND STUDENT CHARACTERISTICS OF NON-GRADUATING SENIORS DUE TO FAILURE OF TAKS TESTS IN THE WESTERN INDEPENDENT SCHOOL DISTRICT

The purposes of this study were to: (1) describe characteristics, including gender, ethnicity, at-risk status, Limited English Proficient (LEP) status and economically disadvantaged status of seniors who did not graduate from high school because they failed any portion of the Texas Assessment of Knowledge and Skills (TAKS) test, (2) analyze campus characteristics, including campus size, state and federal accountability ratings, principal longevity and teachers’ classroom experience that impact these non-graduating seniors and (3) analyze the effect of these five identified student characteristics on non-graduating seniors that prevent their high school graduation.

This researcher accessed longitudinal data from the Western ISD for the 2007-08, 2008-09 and 2009-10 school years, particularly examining those seniors that did not graduate with their classes due to TAKS failure for these three school years at ten traditional high school campuses. To investigate three guiding research questions, a cross tabs statistical report was generated to determine the total number of seniors as a function of student characteristics and multivariate analyses of variance (MANOVAs) were run to determine whether statistically significant overall effects were present on the students’ standardized TAKS test scores as a function of the campus and student variables.

It was found that higher numbers of lower socioeconomic status (SES), LEP, female, at-risk and minority students comprised the cohort of individuals that did not graduate due to failure
on the TAKS when compared to the district and state averages. The performance of these students on TAKS tests was consistent with statewide trends in terms of rates of failing by content area with most students failing the math assessment, followed by the science test, English Language Arts exam and social studies test, respectively. However, the students in this cohort failed all of these assessments at significantly higher rates when compared to district and statewide averages.

A statistically significant difference was found for seniors enrolled in small campuses compared to mid-size and large campuses in the Western ISD. The students attending the larger campuses had lower failure rates. The gender variable showed statistical significance in math, $p < .05$, when combined with other factors, namely ethnicity, at-risk and economically disadvantaged. The significance level, .005, was yielded through univariate analysis. The analysis showed that the reading and social studies TAKS tests indicated significance levels of $p < .05$ for seniors that had more experienced teachers (with more than 13 years’ experience) as only 21% of failures were reported in this category for the reading test and 30% for the social studies test.

Out of 31 multivariate tests with single and a combination of variable analysis, nine univariate effect tests showed statistical significance. The low socioeconomic status (SES) variable was present in six of these effect tests, which was the greatest presence of all variables. With regard to LEP status, statistical significance was found in relation to the reading test with a significance level of .001. Seventy seven (77%) of students that failed the reading test were identified as LEP. The ethnicity variable was present in five of these effect tests, which was second only to SES. The at-risk variable appeared in four of these tests and the LEP variable was
present in two of the effect tests. This researcher did not find significance in relation to the
campus principal longevity and state and federal accountability variables.
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Chapter 1

INTRODUCTION

We have come to mistake curriculums, textbooks, standards, objectives and tests as ends in themselves rather than as means to an end. Where are these standards and objectives taking us? What is the vision they are pointing toward? When all is said and done, when the last test is taken, what will stay with a student from his or her education?...I contend that what stays with us from our education are patterns: patterns of behavior, patterns of thinking, patterns of interaction. These patterns make up our character, specifically our intellectual character. Schools can do much to shape and influence these patterns. This is the kind of long-term vision we need for education: to be shapers of students’ intellectual character (Ritchhart, 2002, p. 9).

Introduction

This chapter first provides a foundational background of increased testing in schools as mandated by state and federal accountability policies, with a particular focus on the high school exit exam. The statement of the problem follows, which emphasizes the serious consequences of high-stakes assessment. Test-driven systems have resulted in increased anxiety and stress among students, educators and parents, which can be detrimental to achievement. These assessments have also worked to narrow the curriculum, increase teacher attrition and have placed students at a disadvantage in terms of future career aspirations. Additionally, high school exit exams have had an inequitable impact of children from disadvantaged backgrounds. Schools are increasingly subject to sanctions, which result from poor performance as defined by state and federal accountability systems.
Two basic perspectives are presented in the theoretical framework for this study. One view, including the Stereotype Threat Theory and Subtractive Schooling, emphasizes obstacles that account for student failure. The other vantage point, Resiliency Theory, accentuates success factors. The purpose of the study follows this section.

This chapter also addresses the significance of this research. This study is important because it involves a relatively large student population possessing unique demographic characteristics, namely higher numbers of Hispanics, English language learners and economically disadvantaged students than the state norm. High school completion and graduation rates and performance gaps are discussed, topics of concern to all stakeholders, also making this project vital.

This chapter closes with a presentation of the three driving research questions, a list of terms, and the limitations and delimitations of this study.

Background

Every year, Texas high school students face graduation requirements that consist of a specified number of credits accrued and passing scores on the Texas Assessment of Knowledge and Skills (TAKS) tests. The Texas Education Agency (TEA) has issued testing requirements for graduation that have been moved from the 11th grade to 10th grade and now revised back to the 11th grade with exit level TAKS assessments (Texas Education Agency, 2006). TEA has also increased the number of assessments that students must pass in order to graduate from high school. Presently, students are required to take and pass a total of four exit assessments, including the science, social studies, mathematics and English language arts (ELA) tests. The ELA exam is comprised of reading and writing components. This assessment structure will soon change yet again. In the summer of 2007 the Texas Legislature modified this requirement to focus on end of course examinations to be administered in future years (TEA, 2007).
Instead of testing knowledge that students accumulate over several years, the state has passed legislation that mandates testing on students learn in each course at the end of their 9th, 10th and 11th grade school year. A bill passed by the Texas Senate in May of 2007 replaces the TAKS tests at the high school level with four end-of-course tests in English, mathematics, science and social studies for the freshman, sophomore and junior years. Students will be required to take the tests beginning with the freshmen class of 2011 (TEA, 2010a).

Texas’ proposed new system has drawn both praise and skepticism for its balanced approach. Starting with ninth graders in the fall of 2011, high school students will not have to pass every end of course test to graduate. The students have to average a cumulative score of 70 percent across the twelve tests, essentially allowing them to make up for weakness in one area with strength in another (Gewertz, 2008).

This proposal signals a potentially important shift in thinking and one that is gaining momentum. Of the 22 states that required students to pass an exit exam to graduate in 2006, four states used end of course tests, and three more will do so by 2012, according to the Center on Education Policy (2006), a Washington based research group that tracks trends in high school exit exams (as cited in Gewertz, 2008).

In addition to using these assessments as a component of graduation requirements, the new tests also will count 15% toward the final grade in each subject. Educators have been in favor of the end of course exams and affirm that one of the biggest advantages is that students will be tested right after completing a specific course (Gewertz, 2008). With the current test in the 11th grade, students are asked questions in subjects they may have taken a couple of years before. However, until the 2011 school year, Texas high schools will be held accountable for the
number of seniors who graduate under the current system that focuses on credits and TAKS scores (TEA, 2006).

The No Child Left Behind Act (NCLB) is the current national education reform initiative approved by the United States Congress that holds schools and educators accountable for increasing student achievement and decreasing achievement gaps among students of different ethnicities (Center of Education, 2005). States and districts are under increasing pressure to implement guidelines regarding accountability measures pertaining to all students (Center of Education, 2005). Needless to say, students and educators are consequently under great pressure since the requirements NCLB has placed on students to perform have become more rigorous with increasingly severe consequences.

Accountability is measured by students’ annual yearly progress (AYP) on state level tests and has become such a grave concern that it seems to have prompted an increased number of failures, ascending retention rates, and higher levels of dropouts among high school students (Jimerson, Anderson & Whipple, 2006). Students entertaining thoughts of dropping out are desperately trying to avoid failure, but they soon realize that options are limited and their situations appear to be beyond remedy (Jimerson, Anderson & Whipple, 2002).

State legislation has required all local education agencies to scrutinize data for planning purposes and in order to improve attendance, TAKS passing rates, dropout rates and high school completion rates so as to continue receiving funding and avoid adverse media attention. If a campus fails to meet annual yearly progress, the state will issue sanctions - namely closer monitoring of instructional programs, the hiring of an outside mentor, and the continual reporting of data (NCLB, 2003). One side benefit associated with lack of achievement is the allocation of additional funds dedicated to improving student performance (No Child Left Behind, 2003). In
Texas, students are faced with increasing pressure to perform to measures dictated by constantly shifting targets. Educators are correspondingly challenged by this test-driven system.

Texas began to implement the TAKS in spring 2003, at which time all eligible Texas public school students were tested in mathematics in grades 3-11, reading in grades 3-9, writing in grades 4 and 7, English language arts in grades 10-11, science in grades 5, 10 and 11 and social studies in grades 8, 10 and 11. These assessments are designed to measure students’ knowledge of the Texas Essential Knowledge and Skills (TEKS), the state’s curriculum standards, which are aligned to the test (TEA, 2006).

Starting with the spring of 2004 administration of the TAKS, students in grade 11 were required by law to pass the four subject exams in order to receive a diploma from a Texas public high school. The Texas Education Agency (2006) reports that the TAKS exit-level exams assess the following subjects: English language arts (which encompasses English III and writing), social studies (early American and U.S. history), mathematics (including Algebra I and geometry as well as 8th grade skills), and science (comprising biology, integrated chemistry, and physics). Students take the TAKS exit-level exam in English language arts in February of their 10th grade year and the math, science and social studies exams are given in April for the same grade level. The TAKS has three performance levels: (1) did not meet standards, (2) met standard and (3) commended performance (TEA, 2006).

The state reports test scores to districts and schools, including confidential reports for each student approximately two weeks after testing. The reports include a pass/fail indication, subject-area scores, sub scores for skills and content within each major subject area, and scores on individual test items. The state releases all test questions, answer keys and scoring guides every other year during even numbered years (TEA, 2006).
Students may retake any failed TAKS exit-level exam in July, October, February and April after grade 11. If the students meet all graduation requirements except for passing one or more TAKS exams, they may retake the exams as many times as needed after grade 12 with no age limit (TEA, 2006).

Statement of the Problem

In the United States, tests have been traditionally used as a means of categorizing people, educational institutions and as a screening process for pursuits, such as entrance into specific programs and assessing the current level of a person’s education (Thomas, 2005). From kindergarten through graduate and professional schools, tests are a part of every student’s life. High-stakes testing has become an integral part of the education process resulting in serious consequences for individuals as test results are used to sort, rank and categorize students, schools and districts (Thomas, 2005).

During elementary school years, tests are used for placement into special programs and to inform promotion and retention decisions. At higher levels, high school graduation is contingent on passing standardized exit tests. Decisions concerning admissions to programs for gifted students and to private secondary schools are determined by these measures (Thomas, 2005). The Scholastic Aptitude Test (SAT) and American College Test (ACT) scores also influenced college choices. Admissions to professional careers are additionally predicated on tests, such as the Law School Admission Test (LSAT) and Medical College Admission Test (MCAT) (Thomas, 2005).

This research focused on high school seniors and exit exams required for graduation. Each May as graduations are planned, school districts and high school campuses are faced with the dilemma of how to proceed with those seniors who are unable to graduate. One group of
seniors includes those who did not pass their courses and did not have the minimum credits to graduate. Another cohort is composed of those that did pass exit exams, but failed to fulfill all course requirements. This study focuses on a third basic population of seniors, those that have met all their course requirements; however, they have failed one or more of the TAKS tests. These students have been deemed eligible for graduation by the collective judgment of teachers over a span of some 13 to 14 years. However, failure to pass the test prevents them from earning a diploma.

High-stakes testing is a term applied to the testing movement that carries serious consequences for students, school systems and the society that schools are expected to serve (Thomas, 2005). Among the several desired consequences of this regimen are increased reading comprehension, improved math skills and increased student knowledge of science and social studies topics; however, at the same time, a variety of unwelcome effects have also resulted.

Not only does evidence show that more students have failed to be promoted to the next grade level, but also that there has been a greater incidence of high school dropouts, fewer students have earned high-school diplomas, and that there has been a decrease in the variety and depth of subject-matter taught in the schools (Thomas, 2005). All around the nation high-stakes testing has caused classrooms to be modified and frequently adjusted simply to address these testing measures.

Classroom displays disappear, bell schedules are changed, and teachers’ anxieties about student well being and performance surge as highly protected testing materials emerge from their secured locations. Students with their number two pencils darken in bubble answer sheets and pour out information and facts that they hope will earn them a passing grade. Then tests are
packed up and shipped off for scoring and the anxious wait begins - especially for seniors who look forward to their final high school days and graduation.

Every spring as May graduation dates approach, the media focuses attention on those non-graduating seniors, especially when districts do not allow these students to participate in ceremonies. Parents have publicly complained to school boards that students should not be denied this rite of passage, even if they did not pass the required test (Acosta, 2008). In response, some districts have adopted policies allowing these students to participate in the ceremony, often granting a certificate of course completion, while others have elected to deny them any participation in graduation events (Acosta, 2008).

The problem from the student’s perspective is the stress and never ending anxiety that plagues them as they wait for their test scores from the TAKS retests, which will determine whether or not they participate in graduation activities. Some students view these high-stakes tests as gateways to college and university admissions, while others perceive them as insurmountable obstacles to academic success. Based on analysis of student performance on various tests, researchers conclude that test anxiety causes poor performance, relates inversely to a student’s self esteem, and promotes defensiveness and other forms of anxiety (Hembree, 1987).

This anxiety and a sense of urgency are evident not only for the students, but also for the families that await the graduation ceremony. For some students in the Western Independent School District, as in other districts with low socio-economic status families, the students are the first in the family to graduate from high school. The constant worrying takes its toll on some students as their anxiety builds. In some cases, students have become discipline problems as they fear and anticipate the bad news. In other cases, students have given up and dropped out of school, adding to the negative statistics (Acosta, 2008).
For some seniors, the concerns for the test continuously builds until, in some cases they perceive the test as a hurdle and their scores decline in spite of tutoring and efforts to push them to reach that passing mark. Some students suffer from a reduced sense of personal accomplishment and a diminished belief in their competency as they take the TAKS numerous times and continue to miss the passing target (Acosta, 2008).

From the campus perspective, the failure of some students to pass TAKS tests is an accountability issue that affects aggregate data reporting (TEA, 2006). The campus staff also confronts the sense of failure that comes from unsuccessful attempts to help these students pass. Educators often become the bearers of bad news, assuming responsibility for telling students that they have failed to reach the standard required to graduate. Dedicated teachers, administrators, and counselors form bonds with students as they become part of the TAKS battle; as the sense of disappointment and failure becomes part of the job, the responsibility is frustrating and disillusioning for them as well when students cannot graduate despite concerted efforts.

Campus educators spend countless hours scheduling and coordinating pull out study sessions, intense tutoring, Saturday school sessions and TAKS coaching. These efforts yield disparate results, as some students succeed and others fail. The next available option for these students after the end of the regular school year is to return in July to retake the failed TAKS. It is difficult for any educator to see students work twelve or thirteen years at school in striving to earn a diploma and participate in the graduation ceremony, only to witness their failure due to an inability to pass one TAKS test.

From the teacher’s perspective, the problem is often that these exams interfere with good teaching and learning. Researchers have described the pressure felt by teachers as they struggle to reconcile the demands for effective, student-centered learning and high-stakes test scores
(Taylor, 2004). Teachers feel pressure to focus only on test-related materials and objectives at the expense of other curricular domains, which are not part of the assessment.

Classroom instructors restrict their teaching to a narrow curriculum that reflects test objectives. Teachers claim that the subjects that are addressed focus on the multiple choice assessment and many have claimed that they are forced to teach exclusively to the test. Teachers who serve students placed at-risk by social, economic or historic dynamics are particularly under pressure to improve students’ scores on standardized tests (Taylor, 2004).

Many teachers have sacrificed academic freedom along with the joy of teaching their subject matter. As a result, these educators often transfer to schools enrolling more privileged, higher achieving students or else have left the teaching profession altogether (Taylor, 2004). As a consequence, schools serving at-risk students have less experienced and arguably less effective teachers (Taylor, 2004).

Teacher attrition and teacher mobility are relevant issues addressed by Ingersoll and Smith (2003). They state that the teaching profession suffers from chronic and relatively high annual turnover compared with many other occupations. According to Ingersoll and Smith (2003), total teacher turnover is fairly evenly split between two components: attrition – those who leave the teaching profession, and mobility – those who move to teaching jobs in other schools. They cite data that suggest that the roots of the teacher shortage and increased mobility largely reside in the working conditions within schools and districts (Ingersoll & Smith, 2008).

A United States Department of Education (2007) report sheds important light on this subject. Teachers who move cited a desire for different working conditions as their reason for leaving. In a 2004 survey, longitudinal data yielded the following statistics for the years from 1988 to 2005.
As illustrated in the table below, there has been a continuing increase in the number of teachers who left the classroom:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Base Year Public School Teachers</th>
<th>Percent Left Teaching Profession</th>
<th>Percent Moved to Other Schools</th>
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<td>1988-1989</td>
<td>2,386,500</td>
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<td>7.9</td>
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<td>1991-1992</td>
<td>2,553,500</td>
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<td>7.3</td>
</tr>
<tr>
<td>1994-1995</td>
<td>2,555,800</td>
<td>6.6</td>
<td>7.2</td>
</tr>
<tr>
<td>2000-2001</td>
<td>2,994,700</td>
<td>7.4</td>
<td>7.7</td>
</tr>
<tr>
<td>2004-2005</td>
<td>3,214,900</td>
<td>8.4</td>
<td>8.1</td>
</tr>
</tbody>
</table>

(U.S. Department of Education, 2007)

This same survey rated the various reasons that teachers left the profession. Retirement was the main reason: thirty-one percent of teachers cited this reason for leaving the profession. However, the second major cause for leaving education was the desire to pursue careers other than being a K-12 teacher, with 25% of the participants indicating this as their reason (U.S. Department of Education, 2007).

Even though some educators view standardized tests as a means to guide their instructional decisions regarding students, others such as Heubert and Hauser (1999), report that low test scores for students who are economically disadvantaged, ethnic minority, or who speak English as a second language are more reflective of inequities in educational opportunities mirroring social dynamics than they are of these students’ intrinsic abilities. Heubert and Hauser (1999) contend that the current high-stakes testing movement tends to frequently harm students by placing them in categories based on gender, class, and ethnicity in which the improper use of these tests can actually be harmful by reinforcing societal inequities.
These tests appear to actually increase drop-out rates, especially for ethnic minorities (Heubert & Hauser, 1999). The data has shown that high-stakes tests, such as the high school exit exams (HSEE), do not have a significantly positive impact on classroom teaching and learning. They conversely fail to inspire the already poorly motivated student and are inequitable in terms of impacts on different subpopulations, namely the categories of race, culture, language and gender (Berger, 2010).

The impact of high-stakes testing is especially serious for the most vulnerable students, namely at-risk, low socio-economic, culturally diverse and English language learners. Exit exams, such as the TAKS, which are tied to graduation can place many roadblocks in front of these students and may result in the eventual exclusion from the higher paying positions in society. A major criticism of high-stakes tests includes the practice of cultural bias and HSEEs are in the forefront of this discussion.

According to Taylor (2004), the use of test results in high-stakes situations, such as high school graduation, does not always appear equitable for historically underserved students due to their racial-ethnic background or socioeconomic status. To support this claim, Taylor (2004) points to average scores obtained by students from these groups, including those whose first language is not English, as generally lower compared to averages for White, English-speaking students.

Non-graduates constitute a significant indicator measured by the state accountability system. According to the Texas Education Agency (2006), these student numbers are reported under high school completion rates. The graduation rate component is used to determine district and campus Adequate Yearly Progress (AYP) status. Students’ performance on the exit exam is a large factor in the state’s accountability system, which includes accreditation sanctions for low-
performing schools and districts (TEA, 2006). However, the TAKS 11th grade exams are not used to determine AYP under the federal No Child Left Behind Education Act; instead Texas uses the 10th grade TAKS tests, which are not exit exams (TEA, 2006).

Low performing schools and districts are subject to a variety of sanctions based upon student performance on standardized tests, ranging from the media scrutiny and public shaming that comes with the publication of scores to the reorganization or take-over of schools by the state. Schools are subsequently labeled and efforts are promptly stepped up to improve schools’ status with regard to academic accountability. The inordinate attention given to test scores and the resultant implications for promotion and high school graduation necessitate an enormous preoccupation with these assessments (Popham, 2001).

According to Popham (2001), school boards demand that their districts’ educators improve test performances, while in turn school administrators at all levels are evaluated almost exclusively on the basis of test scores. Popham (2001) reports that more than a few governors have pinned their political aspirations directly to the elevation of their states’ test scores. For example, former California Governor Gray Davis, made the improvement of test scores so central to his administration’s success that he publicly proclaimed he would forgo any bid to seek the U.S. presidency if his state’s scores failed to increase. George W. Bush made Texas’s rising test scores a central issue in his successful presidential campaign. The spotlight is clearly on the significance of student test scores in state and national political arenas (Popham, 2001).

With public attention focused on low-performing schools and the eventual threats of restructuring, some administrators adopt superficial strategies for immediate score improvement instead of relying on solid research based curricular approaches. These superficial strategies, such as test pep rallies, test-question bingo and other recall-oriented games have not proven to be
long lasting nor effective in terms of learning pedagogy (Taylor, 2004). Teachers perceive the conflict between instructional practices touted as reforms and the pedagogy they believe will result in long term gains in student achievement (Taylor, 2004).

The problem also extends beyond high school graduation when a senior cannot graduate because of TAKS or lack of credits. The first consequence is that the student cannot immediately enroll in a regular college program. The student must either return to retake the TAKS test(s) or must take and pass the General Education Development (GED) test. Students must pass all TAKS tests or the GED before a higher educational institution can consider their enrollment into a regular college program. This is important to note because data shows that a college degree correlates directly to a person’s salary range and career options.

According to the U.S. Census (2010), salary levels are directly related to a person’s level of education. The census report reveals that at the turn of the 20th century, the profile of the average American worker was quite different as only a minority of adults had a high school diploma. However, by 1975, full-time workers with a bachelor’s degree had 1.5 times the annual earnings of workers with a high school diploma. By 1999, this ratio had edged up to 1.8 times the annual earnings.

As our society has continued to evolve an “…education has become the optimal route to professional success” (U.S. Census, 2010, p. 1). Today, a formal education is an essential requirement for most professional careers. Employers have increasingly used diplomas and degrees as a means to screen applicants. As illustrated in the following table, a person with a Master’s degree earns $31,900 more per year than a high school graduate, a difference of as much as 105%. The students considered in this research may not earn even their high school
diplomas, thus putting them at a disadvantage in this regard. The following table shows the average annual earnings for non-graduates and college graduates.

### AVERAGE ANNUAL SALARY – DIFFERENT LEVELS OF EDUCATION

<table>
<thead>
<tr>
<th>Level of Education</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Degree</td>
<td>$109,600</td>
</tr>
<tr>
<td>Doctoral Degree</td>
<td>$89,400</td>
</tr>
<tr>
<td>Master’s Degree</td>
<td>$62,300</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
<td>$52,200</td>
</tr>
<tr>
<td>Associate’s Degree</td>
<td>$38,200</td>
</tr>
<tr>
<td>Some College</td>
<td>$36,800</td>
</tr>
<tr>
<td>High School Graduate</td>
<td>$30,400</td>
</tr>
<tr>
<td>Some High School</td>
<td>$23,400</td>
</tr>
</tbody>
</table>

(U.S. Census Bureau, 2010)

**Theoretical Framework**

Two basic perspectives are presented in the theoretical framework for this study. One general view, represented by the Stereotype Threat Theory and Subtractive Schooling, emphasizes obstacles that account for student failure. The other vantage point, Resiliency Theory, accentuates success. The more critical theories focus on societal and psychological barriers, while the optimistic stance maintains that individual characteristics and certain factors present in the school environment can help overcome challenges associated with low SES, limited English proficiency and teacher quality.

The Stereotype Threat Theory proposes that students do not need to believe or internalize stereotypes for the stereotype to be influential in academic achievement (Wickline, 2003). Evidence for the validity of stereotype threat has come from numerous experimental
manipulations (Wickline, 2003). Applicable stereotypes include the following: girls do not do well in math, minorities do poorly in school and girls are behind boys in learning math and science. When considering minorities, White Americans seem to hold particularly negative opinions of Hispanic students (Wickline, 2003). Students’ behaviors create the potential for reinforcing and making a looming stereotype more believable for others (Wickline, 2003). Students may eventually separate their self-esteem from the behaviors under scrutiny as a protective mechanism in some instances (Wickline, 2003). This theory suggests a reason for lower expectations for high school performance among Hispanic and female students than their White counterparts.

Steele and Aronson (1995) investigated the nature of prejudice and stereotyping (as cited in Spencer & Steele, 1999). Their inquiries focused on examining the experience of being in a situation where an individual faces judgment based on societal stereotypes about one’s group, an experience that they named stereotype threat. This research is predicated on the fact that most devaluing group stereotypes are widely known throughout society (Spencer & Steele, 1999). Steele and Aronson (1995) explained that because communication plays such a central role in acquisition of stereotypes, including the media, school curriculum, public and private conversations and communications, knowledge of stereotypes is widely spread throughout society, even among those who do not find them believable (as cited in Spencer & Steele, 1999). Therefore, people who are targets of these stereotypes are likely to know them also.

In situations where the stereotype applies, the individuals face the implication that anything they do or any feature they have that fits the stereotype makes it more plausible that they will be evaluated based on that stereotype (Spencer & Steele, 1999). These researchers state that when a stereotype about expected performance is made prominent, the feelings of
threat that this creates leads students who are targets of that expectation to actually perform more poorly (Spencer & Steele, 1999).

Spencer and Steele (1999) studied the relationship between stereotype threat and women’s math performance as a means of understanding the processes that depress women’s performance and participation in math and science related areas. Steele and Spencer (1999) further considered the predicament that widely known stereotypes in society contribute to women who then actually do demonstrate less ability in math and science related domains. Thus, in situations where math and science skills are exposed to judgment, such as when taking high school exit exams, women bear the extra burden of having a stereotype that alleges a sex-based disability (Spencer & Steele, 1999). This is a situation that others, not stereotyped in this way, do not experience. Spencer and Steele (1999) also report that these processes may also contribute to gender differences in other forms of math achievement as well as test performance.

Complementary to the Stereotype Threat Theory is the concept of “subtractive schooling” presented by A. Valenzuela (1999). Valenzuela (1999) articulated how students from Hispanic and immigrant backgrounds have their language, culture, and societal viewpoints, including those related to education, “subtracted” by teachers in order to acculturate them into the American public school systems (Valenzuela, 1999). Valenzuela (1999) claimed that in Texas, a culturally neutral perspective on teaching is weak because the existing educational framework inscribed in education policies is culturally subtractive. Valenzuela (2002) explains that if schools are in compliance with Texas state law, their function is not to promote bilingualism, biliteracy and biculturalism in an additive fashion, but rather to subtract Mexican American children’s culture, language, and community-based identities. Valenzuela (2002) reports that
this subtraction is consequential to students’ academic achievement measured in terms of grades and test scores.

With all the negative factors and results associated with high-stakes testing and high school exit exams, there is evidence that a resiliency factor, also known as Resiliency Theory, provides hope for students. Even with the presence of poverty, gender inequities, school conditions, lack of teacher experience and personal adversity associated with students that fail the HSEE, there are students that are successful and graduate despite all of these extenuating circumstances. Resilient students are able to overcome negative factors to succeed in their educational and career endeavors. Resilience is defined as “...a process of, or capacity for, or the outcome of successful adaptation despite challenging and threatening circumstances” (Garmezy & Masten, 1991, p. 159). Werner (1993) refers to the concept of resiliency to describe children who successfully “…cope with biological and social risk factors to succeed” (p. 503).

Schools play a significant role in relation to resiliency as children spend large parts of their days in educational settings from early childhood through high school and in some instances, through higher education. Their experiences in school affect them in various ways and have the potential to either increase the students’ negative at-risk factors or steer them toward positive experiences that will nurture the resiliency component in their character. School size, for example, has been associated with student achievement. Research has shown that smaller schools can be a protective factor that enhances students’ scores at on standardized tests, including the HSEE (Stewart, 2009).

Bernard (1997) identifies protective factors of successful students that are present in families, schools and communities. Bernard (1997) stated that when at least some of these factors are present, students develop resiliency and the ability to cope with adversity. Four
common features of resilient students are social competence, problem-solving skills, autonomy and sense of purpose and future. All of these attributes are present to some degree in people; however, whether these factors are strong enough to help the individual cope with difficulties depends on the presence of these factors during childhood (Bernard, 1997).

Axvig (2009) maintained that resilience is developed through a developmental process that involves family, school, community and self-concept. Axvig (2009) also emphasized the importance of the school setting in the development of resiliency in students. Resilient students described feeling special and appreciated in their school setting (Axvig, 2009). Resilient students also learn to set realistic goals and expectations for themselves, develop their problem-solving skills, rely on productive coping strategies that foster growth rather than self-defeat and are keenly aware of their weaknesses and susceptibilities while also recognizing their strong skills and talents. (Axvig, 2009).

Axvig (2009) also reports that resilient students recognized those aspects over which they had little or no control, but instead focused their efforts on situations that they could influence in their lives. Axvig (2009) concurred that schools provide an integral component of resiliency in students and states “…resiliency can be fostered in a majority of students and schools act in the best interest of students when they incorporate positive, caring interactions with students and their families” (p. 4).

Purpose of the Study

The aim of this study is to provide insight into the relationship between non-graduating seniors due to TAKS failure and multiple variables, namely gender, ethnicity, at risk, low socio-economic status and Limited English Proficiency status. A profile of these non-graduating seniors in the Western Independent School District (WISD) for the 2008, 2009 and 2010 school
years was developed. The data from all ten traditional WISD high schools’ was analyzed for the given school years and in view of certain campus variables, including size of campus, TEA accountability rating (exemplary, recognized, academically acceptable and academically unacceptable), federal accountability adequate yearly progress (AYP) standing, campus principal longevity and the teachers’ average classroom experience.

This study employed descriptive statistics to report student characteristics and multivariate analysis of variance (MANOVA) for inferential statistics. MANOVA was used to explore the relationship between the categorical student and campus variables and the dependent variables, the four TAKS exit level exams. MANOVA is a statistical technique and an extension of the analysis of variance that is used when there are multiple independent variables. MANOVA is useful in analyzing the dependence relationship and in examining each dependent variable separately. Five independent variables were addressed that related to campus characteristics and five were associated with student characteristics. The appropriate criteria for statistical significance used in this study was Roy’s Largest Root statistical relationship as the dependent variables, TAKS exit level exams are strongly interrelated (Slate, 2006).

**Significance of the Study**

The Western Independent School District (WISD) is the largest district in this region of Texas. With more than 63,000 students in 92 campuses, WISD also is the seventh largest district in Texas and the 57th largest district in the United States. WISD is made up of 10 traditional high schools, one health magnet high school, one alternative high school, 15 middle schools and 56 elementary schools. The West Sun Early College High School enrolled its first freshmen class in 2008 and will boast its first graduating class with dual high school and college credits in 2012. Other campuses include an alternative high school and middle school, a recovery program
for students at risk of dropping out, an adult education school for GED and citizenship classes, an occupational center and several magnet schools. It is also the city’s largest employer with nearly 9000 employees with an annual operating budget of $446 million. The district covers more than 253 square miles (WISD, 2010).

The district reports the following demographic statistics:

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>District Totals (Feb 2009)</td>
<td>62,328</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>70%</td>
</tr>
<tr>
<td>Limited English proficient</td>
<td>30%</td>
</tr>
<tr>
<td>From military families</td>
<td>7%</td>
</tr>
<tr>
<td>Immigrants</td>
<td>4%</td>
</tr>
<tr>
<td>Migrants</td>
<td>2%</td>
</tr>
<tr>
<td>At-risk</td>
<td>62%</td>
</tr>
<tr>
<td>Career Education</td>
<td>21%</td>
</tr>
<tr>
<td>Public Housing</td>
<td>6%</td>
</tr>
<tr>
<td>Bilingual Education/ESL</td>
<td>22%</td>
</tr>
<tr>
<td>Special Education</td>
<td>9%</td>
</tr>
<tr>
<td>Gifted Programs</td>
<td>9%</td>
</tr>
</tbody>
</table>

(WISD, 2010)
This study is significant because it examines a relatively large student population possessing unique demographic characteristics, namely higher number of Hispanics, English
language learners and economically disadvantaged students than the state norm. The education these students receive will certainly have a great economic and social impact on this region of the state. According to Fry and Gonzales (2008) from the Pew Hispanic Center Research Organization, the Hispanic school-age population will increase from 11 million in 2006 to 28 million in 2050 or 166%. They maintain that the non-Hispanic school-age population will grow by just 4% or 43 million to 45 million over that same period. Fry and Gonzales (2008) state that in 2050, there will be more school-age Hispanic children than school-age non-Hispanic White children (Fry & Gonzales, 2008).

The following data from the Pew Hispanic Center study (2008) shows the school enrollment from 1990 to 2006 and projects growth nationwide:

School Enrollment, 1990 and 2006

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Student Enrollment</td>
<td>53,761</td>
<td>45,579</td>
<td>8182</td>
<td>18.0</td>
<td>--</td>
</tr>
<tr>
<td>Public School Enrollment</td>
<td>48,016</td>
<td>40,115</td>
<td>7901</td>
<td>19.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-Hispanic Students</td>
<td>38,195</td>
<td>35,040</td>
<td>3155</td>
<td>9.0</td>
<td>39.9</td>
</tr>
<tr>
<td>Hispanic Students</td>
<td>9821</td>
<td>5075</td>
<td>4746</td>
<td>93.5</td>
<td>60.1</td>
</tr>
<tr>
<td>% Hispanic</td>
<td>20.5</td>
<td>12.7</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

(Fry & Gonzales, 2008, p. i)
This study is vital in that it will address the achievement gaps between low socio-economic and minority students as compared to their White, affluent counterparts. A main goal of the No Child Left Behind Act (2002) is to close gaps in test scores between different subgroups of students while raising achievement for all learners. Of particular concern are the persistent achievement gaps between Hispanics and students from lower socio-economic backgrounds and their Caucasian, economically advantaged peers. Hispanics and low socio-economic status students comprise the majority of the population in the Western ISD. This district reports that 70% of the student population is economically disadvantaged and 79% of the students are Hispanic (Western ISD, 2010).

The Center on Education Policy (2009) has conducted extensive research on high school exit exams (HSEE) and achievement gaps between minority and White student groups. Its November 2009 report presents data that show that achievement gaps still exist, although
achievement has improved in all groups (CEP, 2009). This policy center’s findings demonstrate that there is a pattern of overall improvement; however, progress on closing achievement gaps is slow and uneven (CEP, 2009).

The report also states that there is more progress in closing gaps at the elementary and middle school levels than at the high school level, which includes the HSEE. Even with reported progress, the disparities between subgroups often remain large, up to 20 percentage points at the high school level (CEP, 2009). This analysis of achievement gaps compares the performance of subgroups of students (Hispanic and low-income students) with that of a comparison group, which is made up of White students and non-low-income students (CEP, 2009).

With all the negativity surrounding testing, there are some benefits to formal standardized tests in school. Teachers, school administrators and parents need information regarding student’s academic achievement and this is one method that can provide this data. To some, standardized assessments can readily provide the data that can be utilized to assess and improve the quality of education (CEP, 2009). However, when standardized tests become critical to a student’s high school graduation after completing all the other requirements, then questions and concerns are inevitable: Are these tests necessary? Are these assessments causing more harm than good? Are these measures affecting those students that have been historically stereotyped and underserved? Are these tests being used to improve instruction for all student or are these assessments being employed to keep certain groups of students from achieving their educational goals?

This study is also important because it addresses a topic of concern to all stakeholders – high school completion and graduation rates. The No Child Left Behind legislation has made the graduation rate an important and significant issue by adding completion rates to its multiple lists
of accountability factors. High school campus administrators and teachers work with most students for four years and it has become increasingly significant in terms of accountability when even one student cannot graduate due to TAKS failure.

The research is vital in that passing the TAKS tests has been used as an exit criterion in Texas high schools for years; however, there is little extant literature that exists addressing this particular study issue; the cohort of seniors that did not graduate due solely to TAKS test failure. The findings of this research may help inform the development of staff development programs and may be useful in securing additional resources to provide assistance to students in similarly situated cohorts.

Additionally, the findings of this study may broaden the school leaders’ understanding of intervention strategies, their students’ cognitive development, which may lead to better student achievement. Administrators can use results from this study to focus specifically on TAKS test remediation programs and thereby help current students who are at-risk of not meeting graduation requirements.

An additional view that brings significance to this study is that of college and career readiness, which impacts all schools. Longitudinal data systems have been shown to dramatically improve and influence policy and practice from the public school classroom to college and career fields and studies should use these data to inform public discourse about students’ preparation. One of the WISD’s mission statements is to advance students’ goals and “…graduate mentally, emotionally and physically healthy students who are life-time learners, successful in the world of work and post-secondary pursuits” (WISD, 2010, web page 1).
Research Questions

The following research questions will guide this study:

1. What are the characteristics, including gender, ethnicity, at-risk, Limited English Proficiency (LEP) and economically disadvantaged status of high school seniors in the Western Independent School District who were not eligible to graduate with their class cohort due to failure to pass any portion of the TAKS tests?

2. What are the campus characteristics that impact these non-graduating seniors to include size of campus, TEA accountability rating (exemplary, recognized, academically acceptable and academically unacceptable), campus Adequate Yearly Progress (AYP) status, years of classroom teacher experience, and campus principal longevity?

3. What is the effect of student characteristics (gender, ethnicity, at-risk, LEP and economically disadvantaged status) on seniors that did not graduate with their cohort class due to TAKS failure?

Definition of Terms

The following terms are defined according to their use in this study:

Adequate Yearly Progress (AYP): The Federal measurement under the No Child Left Behind Act that allows the U.S. Department of Education to determine how every public school and school district is performing academically according to results on standardized tests (TEA, 2010b).

Advanced Placement (AP): The Advanced Placement Program is a secondary plan of study in which high school students can pursue advanced courses that are generally eligible for college credit.
Arizona’s Instrument to Measure Standards (AIMS): This assessment is Arizona’s standardized test administered to public school students in order to measure academic achievement. The test is given to students in grades 3 through 8 and 10; the 10th grade test is used as the high school exit exam that students need to pass in order to graduate (Access, 2010).

California High School Exit Exam (CAHSEE): This assessment in the areas of reading, writing and mathematics is a requirement for students to pass for high school graduation (California Department of Education, 2010).

Elementary and Secondary Education Act (ESEA): This federal public law 89-10, 79 is the United States federal statute enacted April 11, 1965 which funds primary and secondary education. The Act was originally authorized through 1970, however, the government has reauthorized the Act every five years since its enactment. The current reauthorization of ESEA is the No Child Left Behind Act of 2001 (U.S. Department of Education, 2007).

English Language Learners (ELL): This term is used to identify students who are in the process of learning English as an additional language.

English as a Second Language (ESL): This term refers to the study of English by speakers with a different native language.

General Education Development (GED) test: This test, consisting of five subject tests in different core content areas, certifies that the student has high school level academic skills. The student who passes then receives the GED diploma which is accepted as an equivalent to a high school diploma.

High school exit exam (HSEE): This term is used for an assessment that is high school students must pass in order get a diploma after completion of studies. This exam is usually a criterion-referenced test administered as part of a comprehensive standards-based education
reform program intended to increase the learning of all students which sets by placement of new standards.

**High stakes testing:** This term is used to define assessments that use sanctions and rewards which are progressively applied in response to specific levels of performance.

**Law School Admission Test (LSAT):** This test is administered by the Law School Admission Council for prospective law school candidates and is required for all approved law schools. It is designed to assess logical and verbal reasoning skills (LSAT, 2010).

**Medical College Admission Test (MCAT):** This test is given to prospective medical students and is required by all medical schools. It is a computer based standardized exam that is designed to assess problem solving, critical thinking, writing skills and knowledge of scientific concepts and principles (MCAT, 2010).

**National Assessment of Educational Progress (NAEP):** This periodic assessment is conducted by the U.S. Department of Education and covers mathematics, reading, writing and science. The NAEP is conducted on representative samples of students in grades 4, 8, and 12 (U.S. Department of Education, 2007).

**No Child Left Behind (NCLB):** This term refers to the federal education act Public Law 107-110 passed by the 107th Congress of the United States in 2003 that is intended to close gaps in test scores between different subgroups of students while raising academic achievement for all students (Center on Education Policy, 2005).

**Public Education Information Management System (PEIMS):** This database is used in Texas public school districts and contains multiple reports regarding student educational records (TEA, 2010c).
**Scholastic Aptitude Test (SAT):** This test is used for college admissions and assesses a student’s academic readiness for college (SAT, 2010).

**Socioeconomic Status (SES):** This term is used to describe a student’s family income, parental education level and overall social standing in the community. In Texas public schools, socioeconomic status is associated with a student’s ability to receive a free or reduced lunch meal as per Department of Agriculture guidelines. Determining a student’s status is accomplished by multiplying the 2007 Federal income poverty guidelines by a given factor; students falling below this poverty income level are placed into either the free lunch or reduced lunch categories (TEA, 2007).

**Standardized tests:** Standardized assessments are administered under specific, standard conditions, creating uniformity in testing environments and administration procedures.

**State of Texas Assessment of Academic Readiness (STAAR):** The STAAR is a criterion-referenced test that will be used beginning in the 2011-2012 school year that will incorporate end-of-course assessments in mathematics, science, English language arts and social studies (TEA, 2010a).

**Stereotype threat theory:** This theory states that when a person belonging to a group that has a negative stereotype attached to it, the person will subconsciously conform to the negative stereotype by performing a task to a lesser degree than they would if not stereotyped (Wickline, 2003).

**Texas Assessment of Academic Skills (TAAS):** The TAAS was a criterion-referenced test used in Texas from 1990 to 2001 to assess academic skills in reading, mathematics, and writing (TEA, 2007).
Texas Assessment of Basic Skills (TABS): The TABS was a criterion-referenced test used in Texas prior to 1984 to assess basic skills in reading, mathematics, and writing (TEA, 2007).

Texas Assessment of Knowledge and Skills (TAKS): The TAKS test is a criterion-referenced assessment in Texas in use from 2001 until the present time that measures student’s mastery levels in English language arts, mathematics, science and social studies. Students need to pass this assessment in order to graduate from high school (TEA, 2007).

Texas Education Agency (TEA): This is the state agency responsible for the oversight of public schools in Texas.

Texas Educational Assessment of Minimum Skills (TEAMS): The TEAMS was a criterion-referenced test in Texas from 1986 to 1990 and assessed students in reading, mathematics and writing and the first state test students were required to pass in order to graduate from high school (TEA, 2007).

Title 1: This title program is under the Elementary and Secondary Education Act and is set up by the U.S. Department of Education to distribute funds to school and districts with a high percentage of low income families (U. S. Department of Education, 1983).

Delimitations

This study will be delimited to the Western Independent School District. The study will use data from the 2008, 2009 and 2010 school years for the ten traditional high schools in the Western ISD:

Apple High School
Ash High School
Beach High School
Bus High School
Copper High School
Cotton High School
Elk High School
Freedom High School
Inex School
Juniper High School

The study will also be delimited to the high school seniors who did not graduate with their class cohort only because of failure to pass any or all portions of the TAKS test.

The study will be delimited to the ten traditional high schools in the Western ISD; traditional high school is defined as a four-year secondary campus that registers all students in their boundaries. The study will exclude the health magnet campus and the alternative high schools as these campuses are considered outliers. The health magnet campus exclusively registers students from throughout the region who are on the health career paths. The alternative high school campus is a disciplinary closed campus serving students removed from their original campus due to severe student behavior and placed temporarily or on a long term basis, depending on the severity of their behavior, at the alternative campus.

Limitations

Limitations that will affect this study will include the quality of the data fields obtained from the WISD Research and Evaluation Department for the 2008, 2009 and 2010 school years. There may be data reporting errors.
Chapter Summary:

This chapter began with a discussion of the general background of increased testing in schools as mandated by state and federal accountability policies, with a particular emphasis on the high school exit exam. A statement of the problem followed, which emphasized the serious consequences of high-stakes assessment. Test-driven accountability systems have contributed to increased anxiety and stress among students, educators and parents. They have also managed to narrow the curriculum, increase teacher attrition and place some students at a disadvantage in terms of future career aspirations. The inequitable impact of tests on children from disadvantaged backgrounds was also addressed in this section.

Two basic perspectives were presented in the theoretical framework for this study. One view, including the Stereotype Threat Theory and Subtractive Schooling, emphasizes obstacles that account for student failure. The other vantage point, Resiliency Theory, accentuates success. The purpose of the study followed, which was to provide insight into the relationship between non-graduating seniors due to TAKS failure and multiple other variables, including gender, ethnicity, at risk, low socio-economic status and Limited English Proficiency status. School characteristics were also considered in this study.

This research is significant for several reasons. This study is important because it involves a relatively large student population possessing unique demographic characteristics, namely higher numbers of Hispanics, English language learners and economically disadvantaged students than the state norm. Topics of concern to all stakeholders, specifically high school completion and graduation rates were addressed, also making this project vital.
This chapter concluded with a presentation of the three driving research questions, a list of terms, and the limitations and delimitations of this study. The next chapter of this report will offer a review of the related literature.
Chapter 2

REVIEW OF LITERATURE

This study aims to provide insight into the relationship between non-graduating seniors due to TAKS failure and multiple other variables, including gender, ethnicity, at-risk, low socio-economic status and limited English proficiency classification. A profile of these non-graduating seniors in the Western Independent School District (WISD) for the 2008, 2009 and 2010 school years will be developed. This study will also analyze all ten traditional WISD high schools’ data for the given school years and correlate the campus variables, namely size of campus, TEA accountability rating (exemplary, recognized, academically acceptable and academically unacceptable), federal accountability adequate yearly progress (AYP) standing, campus principal longevity and the teachers’ average classroom experience.

Consistent with the purpose of this study, this review will address the broader context in which high school exit exams exist today. To this end, the first major section will address background information foundational to this study, namely an overview of high school exit exams, legal issues associated with high school exit exams, state and federal accountability systems and high-stakes testing in the classroom.

A review of the extant literature related to the specific factors considered in this research will foster a better understanding of its significance. Therefore, the second section will address student characteristics, such as gender, minority status, socioeconomic level, and limited English proficiency (LEP) classification and at-risk status, included in the research questions and their relationship to student achievement. Although test anxiety was not a variable directly considered in this study, it is important to address this factor as it remains informative to the overall context of this topic and will also be discussed in the second section.
The third section will focus on campus characteristics and their effect on student performance, such as campus size, teacher experience, longevity of the campus principal, and state and federal accountability campus ratings.

**Background Information of High School Exit Exams**

**Review of High School Exit Exams**

The high school exit exam (HSEE) can trace its roots to the 1965 Elementary and Secondary Education Act (ESEA), which was the first federal law that dispensed significant funding to U.S. school districts for the support of locally designed programs intended to bolster children’s learning (Popham, 2001). Prior to the 1965 ESEA, the amount of federal dollars flowing from Washington, D.C. to local schools had been relatively modest (Popham, 2001).

The ESEA’s federal funding model led Congress to build in a number of corresponding safety measures. One of the most influential was led by Robert Kennedy, then New York senator, who added to the law the requirement that educators who received ESEA funds demonstrate that these funds were being well spent, namely by evaluating and reporting on the effectiveness of their federally supported programs (Popham, 2001).

According to that new law, if local officials did not formally evaluate the current year’s federal subsidized programs, then they would not receive future funding. With this requirement, educators were compelled to evaluate student’s achievement by means of testing (Popham, 2001). There was indeed a convergence of state and federal issues in Texas in the 1960s through the 1980s, ranging from the fight for school finance equity to federal legislation designed to assist disadvantaged students with expectations for evaluation. This prompted a number of student assessment programs throughout the nation.
Carnoy (2001) trace the roots of the current Texas educational reform in two distinct conflicts. The first was the challenge to the unequal distribution of resources among Texas school districts, a result of the state’s heavy reliance on local property taxes to fund education. The second conflict arose in the 1970s when a group of new Texas businesses associated with high technology challenged the domination of the state’s traditional agricultural and oil interests (Carnoy, 2001).

An educational reform began in 1984 with a push from a group of businessmen headed by H. Ross Perot with its intention to bring the state into the high tech age and to resolve pressures for equalized school funding by low income minority groups (Carnoy, 2001). In addition to increasing funds for low spending, high taxed districts, the reform included a strategic plan that recommended new learning standards for each grade level, measuring learning by linking statewide assessments to those standards and holding schools accountable for results. At the same time, state officials pledged not to dictate to teachers and principals how to achieve the results. Meanwhile, the first state-mandated test, the Texas Assessment of Basic Skills (TABS) was being administered to students in grades 3, 5 and 9 in reading, mathematics and writing.

According to the U.S. Department of Education (1983), the federally sponsored Nation at Risk report described the condition of education in the United States as unsatisfactory as reported by the National Commission on Excellence in Education in 1981. In 1984, the Texas legislature passed House Bill (HB) 72, which mandated sweeping reforms in the state’s public education system, including for the first time making graduation contingent on students passing tests in English language arts and math. The bill, among other changes, increased graduation requirements, prohibited social promotion and established a minimum competency testing program, the Texas Educational Assessment of Minimum Skills (TEAMS) with an exit-level test.
required for graduation. The TEAMS was in use from 1986-1990 and tested reading, mathematics and writing in grades 1, 3, 5, 7, 9 and 11 and it was the first state test students were required to pass to earn a diploma. (TEA, 2010a).

Regulations were passed in 1990 making high school graduation contingent upon passing more difficult criterion-referenced tests in math, reading, and writing. Reading and math assessments were also added for grades 3 through 8. Secondary schools were also rated on the percentage of students graduating, thus addressing the issue of students dropping out of school. The new criterion-referenced testing program was the Texas Assessment of Academic Skills (TAAS). The test was used to gauge individual students’ academic progress, and to evaluate the performance of schools and districts for purposes of statewide accountability. The TAAS was implemented under, then governor, George W. Bush and it was during this time period that the “Texas miracle” received notoriety (Hursh, 2008).

In a study of the Texas education reform, Haney (2000) concluded that for the academic year 1996-1997, 17.8% of White students were being retained in ninth grade with 24.2% of African American and 25.9% of Hispanic students. Additionally, only 57.6% of African American and 52% of Hispanic ninth grade students were in twelfth grade four years later. Schools in Texas were faced with these grim statistics and the fact that while forcing students out of school could raise test scores, they risked possible sanctions for high dropout rates (Haney, 2000).

Then Houston superintendent Rodney Paige, who later became President George W. Bush’s first Secretary of Education, resolved this dilemma by ordering principals not to list a student as dropping out, but as having left for another school, or some other category rather than
dropout. Such “creative” recordkeeping resulted in the district claiming a significantly reduced dropout rate of 1.5% and winning awards for excellence.

Critics eventually claimed that the dropout rate was covered up and subsequent research revealed the rate to be much higher. Robert Kimball, assistant principal at one of the Houston high schools involved, raised questions when his school amazingly reported no dropouts even though its freshman class of 1000 had dwindled down to 300 by the senior year. A state investigation into sixteen high schools revealed that of 5000 students who left school, 2999 students should have been reported as dropouts but were not (Winerip, 2003). Significantly, Kimball added that “…almost all of the students that were pushed out were at-risk students and minorities” (as cited in Winerip, 2003, p.83).

After this scrutiny, the TAAS was eventually replaced by the Texas Assessment of Knowledge and Skills (TAKS) test in 2001 (TEA, 2006). The TAKS exit-level exams assess English language arts which encompasses English III and writing, social studies which covers early American and U.S. history, mathematics which include topics from Algebra I and geometry, and science which takes its content from biology, integrated chemistry, and physics. Students take the TAKS exit-level exam in English language arts in February of their 11th grade year and the math, science, and social studies exams in April of that same year. The TAKS has three performance levels: “…did not meet the standard, met standard and commended performance” (TEA, 2006)

The state reports test scores to districts and schools approximately two weeks after testing and generates confidential reports for each students as well as for schools, districts, regions, and the state. These reports include a pass/fail indication, subject-area scores, sub scores for skills and content within each major subject area, and scores on individual test items. The state
releases all tests, answer keys, and scoring guides every other year (odd-numbered years) (TEA, 2006).

Eleventh-grade students may retake any failed exit-level TAKS test in July, October, February and April after grade 11. If they meet all graduation requirements except for passing one or more TAKS exams, students may retake the exam as many times as needed after graduation with no age limit (TEA, 2006).

The TAKS test is currently being used as a graduation requirement; however, in the summer of 2007, the Texas legislature modified this requirement to begin to focus on end-of-course examinations (TEA, 2006).

In January 2010, TEA announced that the new generation of student tests will be called the State of Texas Assessments of Academic Readiness (STAAR). STAAR will now replace the TAKS tests. STAAR will incorporate twelve end-of-course assessments mandated by Senate Bill 1031 in 2007 and the new grade 3 through 8 assessments mandated by House Bill 3 in the 2009 legislature. The new tests will be used beginning in the 2011-2012 school year. Students in the graduating class of 2015, who are in seventh grade in 2010, will be the first students required to meet the end-of-course testing requirements, as well as earn the necessary credits in order to receive a diploma. The new tests will be significantly more rigorous than previous tests and will measure a child’s performance and academic growth. The grade 3 through 8 STAAR tests in reading and mathematics, in accordance with the law, must be linked from grade to grade to performance expectations for the English III and Algebra II end-of-course assessments. The new state rating system will debut in 2013 (TEA, 2010a).

Gewertz (2008) contended that Texas’ proposed new system has drawn both praise and skepticism for its compensatory approach. Starting with ninth graders in the fall of 2011, high
school students will not have to pass every end of course test to graduate. They will be required to average a cumulative score of 70% across the 12 tests, essentially allowing them to make up for weaknesses in one area with strengths in another.

Gewertz (2008) states that this proposal signals a potentially important shift in thinking and one that is gaining momentum. Of the 22 states that require students to pass an exit graduation exam, four use end-of-course tests and three more will do so by 2012, according to the Center on Education Policy (CEP), a Washington-based research group that tracks trends in high school exit exams. Texas’ move, which will take effect with freshmen in the fall of 2011, will result in eight states across the country that uses end-of-course exams.

The Center on Education Policy (CEP) reported a gradual move away from minimum-competency exams to comprehensive end-of-course exams. Noting this strong trend toward end-of-course exams, CEP (2010) reported that by 2015 no state will be using minimum-competency exams. Fifteen states will be using comprehensive exams, and fourteen will be using end-of-course exams. In 2013, Massachusetts, South Carolina and Washington will require public high school students to pass a comprehensive assessment plus new end-of-course exams in order to receive a high school diploma. In Massachusetts, in addition to the comprehensive exam, students will be required to pass an end-of-course exam in one of four science classes: biology, chemistry, introductory physics and technology/engineering. Only Texas has officially reported the STAAR program that will incorporate end-of-course exams in 2011 (CEP, 2006).

Two states have developed alternative assessments for high school students. In May of 2008, Alabama approved the new education plan that both increased graduation requirements and relaxed high school exit exam (HSEE) requirements for graduation (CEP, 2010). The plan consists of two high school tracks – the Advanced Academic Endorsement and the Credit Based
Endorsement. The advanced track requires four credits earned in each of the following: English, social studies, science, mathematics (including Algebra II with trigonometry) and additional credits in arts, computer technology and foreign language as well as students passing all five end-of-course exams. The Credit Based Endorsement requires the same course work, minus the specific math and foreign language requirement, and students are required to pass three of the five end-of-course exams in reading, mathematics, and their choice of science, language or social studies (CEP, 2006).

Arizona implemented the state education augmentation formula in 2005. This formula is an alternative path to high school graduation in Arizona. High school students who failed one or more sections of the state’s exit exams could increase or augment their scores through this formula with points derived from course grades of C or better (CEP, 2007). To qualify for this alternative, students must complete and pass all required courses, take the state assessment each time the test is offered and participate in failed subject area remediation programs available at the student’s school. A large number of students were benefiting from augmentation; in the 2005-2006 school year, 2855 students, nearly 6%, and in the 2006-2007 school year, 3425, nearly 6% of high school seniors met the graduation requirement by augmenting their scores with course grades (CEP, 2007).

Gewertz (2008) comments that no one test should be the sole factor in decision making, especially when it comes to high school graduation. This researcher contends that all students have academic strengths and weaknesses, so the education system must have flexibility of averaging scores, reflecting these strengths and weaknesses and thus supports efforts such as the augmentation formula (Gewertz, 2008).
Texas has helped shape key national tenets of the standards and accountability movement and will now use its end-of-course tests to assess high school students for graduation, establishing yet another trend that schools across the nation could embrace. Gewertz (2008) states that it is difficult to find the best way to assess what high school graduates should know in order to be considered college and career ready. The better approach of averaging twelve tests instead of using one single test is on the cutting edge of revamping the exit level criteria (Gewertz, 2008).

Schools in the United States are given accountability ratings based on states’ test data. Similarly, gaining or losing necessary funds is tied to these same data, yet this often presents a challenge because some state rankings can contradict the NCLB federal rankings as the two accountability systems apply their test results differently. Harris reports that superintendents have major concerns and trepidations when confronted with accountability issues (Harris, 2006).

Natriello and Pallas (1999) suggest that if the motivational consequences of high school graduation tests are not positive or at least not uniformly positive across racial, ethnic and social class lines, then these tests may have the potential to exacerbate inequities in schooling outcomes. In the last quarter of the twentieth century, testing has developed as a major tool of policymakers for the governance and regulation of education (Natriello & Pallas, 2001).

Smith and Kritosonis (2006) offer differing views of the purpose of education and high school graduation tests. They state that education is meant to produce well-rounded citizens and that in order for a student to be well-rounded; the student must obtain knowledge, character and ethics. The philosophy these researchers advocate states that all students are capable of learning and should be free to do so without the fear of tests dictating whether or not they will graduate from high school. Smith and Kritosonis (2006) state that the success of a student is dependent
upon multiple factors such as the student’s ability and motivation, the school, and the parent or guardian. Smith and Kritosonis (2006) claimed that education will lose its focus unless all students are afforded the opportunity to obtain and demonstrate knowledge acquisition. They further state that students should be taught how to make decisions based on analyzing data and through their personal experiences and high stakes testing should not be a critical component of education (Smith & Kritosonis, 2006).

Smith and Kritosonis (2006) further state that it is imperative that educators spend more money and attention to create a whole child that is knowledgeable and has ethical character. These researchers state that funds should not be wasted on examinations that only test content retention (Smith & Kristosonis, 2006).

Research has shown that there are proponents who favor exit exams. The other side of the debate argues that exit exams lead to achievement and other gains. Heuber and Hauser (2010) contend that schools that use the exit exams benefit in that:

- Students know what is expected and that the test really counts, so students work harder.
- Schools identify and can address student weaknesses early.
- Schools discover areas of overall weakness allowing them to refocus resources where they are most needed.
- Education across the state is more consistent and thus eliminates situations where schools in some districts are superior to others.
- The public and community can see gains and losses from year to year and thus be informed as to the school’s standing. (p. 1)

Some experts say one of the problems is that states have tried to do too much too soon without the proper preparation and support for everyone involved. While some policymakers are
rethinking assessments, others say the low scores are just an indication of work that needs to be done. “When we fired this missile,” Todd Bankofier of the Arizona Board of Education said, “we knew we had to guide it. It’s going to take some left turns and some right turns, but it would be wrong to turn it completely back” (as cited in Heubert & Hauser, p. 1). Robert Schwartz wrote in the January 19, 2000 issue of Education Week, “Doing away with the tests or the consequences is the easy way out. It allows us to avoid the hard work of improving instruction and restructuring the use of time and resources so that all students are given the time and support needed to meet standards” (as cited in Heubert & Hauser, p. 1).

Critics, on the other hand, contend that graduation tests do not promote the knowledge, skills and academia needed for success in college or a skilled job. According to college professors and employers, “…high school graduates must be able to analyze conflicting explanations, support arguments with evidence, solve complex problems that have no black and white answer, reach conclusions, conduct research, and engage in meaningful and intelligent interchanges of ideas” (National Research Council, 2002, p. 4)

Other educators maintain that attributes that are needed for success in college and on the job are “…good study skills, time management, awareness of one’s performance and persistence” (Hart, 2008, p. 1). Since exit exams do not measure most of these important attributes, these critics state that test scores have little or no value for colleges or employers (Hart, 2008).

Warren (2007) states that graduation tests do not make high school diplomas more valuable to employers. There is also no evidence that exit exams render diplomas more meaningful in the labor market. In fact, recent research by Warren (2007) found no positive impact on employment status or wages in states with high school exit exams. Another study
showed that there was also no impact on numbers of high school graduates going to college (Warren, 2007).

Research into the labor market shows that most state standards-based high school exit exams are not aligned with college-level work or employment. Most tests are found to measure basic academic skills. Critics insist that these exams rarely require students to apply their learning or engage in higher-level thinking. According to Darling-Hammond (1999), “Most jobs in today’s knowledge-based economy require that we find, assemble and analyze information, write and speak clearly and persuasively; and work with others to solve messy problems, none of which are measured by multiple choice exams” (p. 1).

Research studies contend that the widespread adoption of exit exams has not resulted in more high school graduates prepared for college (Haney, 2000). Exit exam policies now influence the education of 65% of U.S. public high school students, yet colleges report increasing need for remedial education. Federal statistics indicate that 40% of college students take at least one remedial course, reducing their probability of graduating (National Center for Education Statistics, 2004). Texas colleges reported in-state high school graduates needed more, not less, remediation after high-stakes testing was introduced (Haney, 2000).

According to Oakes and Grubb (2007), high school graduates would not be better prepared if schools were to raise standards and make exams harder. They state that tougher multiple-choice questions will not address the real gap between tests and college or employment requirements. They argue that such strategies also ignore research on human motivation, assuming that simply by raising standards and threatening repercussions, withholding high school diplomas, will make students and teachers work harder. In fact, most modern businesses
no longer try to boost productivity by threatening employees with repercussions (Oakes & Grubb, 2007).

Employers and college professors acclaim student portfolios and examples of student work and problem solving as an alternative to HSEE. Educators contend that exhibitions and portfolios have been shown to promote the development of skills and high-order thinking levels that cannot be measured in a content exit exam (Oakes & Grubb, 2007).

The Center on Education Policy (CEP) reports that nineteen out of 26 states offer alternative pathways to graduation for general education students who have difficulty passing the regular exit exam, but demonstrate mastery of high school level knowledge in other ways. These states use portfolio assessments of classroom work as an alternate pathway to graduation. In the CEP report, researchers found that little is known about the connection between passing the high school exit exams and future job and college performance (CEP, 2009).

The HSEE are identified by three types:

(1) minimum competency tests that measure only a small body of knowledge and skills as defined by the state standards,

(2) comprehensive tests that assimilate content knowledge in several relevant courses together, or

(3) end-of-course (EOC) tests that measure student learning at the end of a specific course (CEP, 2009, p. 4).

The TAKS test fits into the second category of comprehensive tests for content areas.

States have worked diligently to find alternative pathways for graduation by examining the high school exam and end-of-course tests. Educators and policymakers realize that the stakes for high school exit exams are so high for students and schools that states have been motivated to
address this policy. Texas, as previously stated, will be incorporating the STAAR assessment program in 2011 (TEA, 2010a).

Four hundred and three students from the Austin ISD were surveyed regarding the importance of various factors for college admissions including the TAKS test. The following results were reported:

Student Attitudes about the Importance of Various Factors in College Admissions

<table>
<thead>
<tr>
<th>Factors that could affect college admission</th>
<th>Percentage of students choosing response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Very Important</td>
</tr>
<tr>
<td>High school grades</td>
<td>79%</td>
</tr>
<tr>
<td>Admission tests (ACT or SAT)</td>
<td>74%</td>
</tr>
<tr>
<td>College admission essays</td>
<td>69%</td>
</tr>
<tr>
<td>High school coursework</td>
<td>59%</td>
</tr>
<tr>
<td>Extracurricular activities</td>
<td>51%</td>
</tr>
<tr>
<td>Teacher or counselor recommendations</td>
<td>47%</td>
</tr>
<tr>
<td>TAKS test scores</td>
<td>33%</td>
</tr>
<tr>
<td>Family income</td>
<td>31%</td>
</tr>
<tr>
<td>Athletic achievement</td>
<td>21%</td>
</tr>
<tr>
<td>Race or ethnic background</td>
<td>16%</td>
</tr>
</tbody>
</table>

(Center on Education Policy, 2009, p. 14)

This study survey exhibited mixed responses about the importance of TAKS test scores for college admission. Only 33% of the responding students believed that TAKS scores were
very important as a factor for getting into college and another 33% viewed the tests scores as somewhat important. However, 35% of students surveyed rated TAKS scores as not important in getting into college. The students surveyed by CEP cited high school grades as the most important factor in college admissions (CEP, 2009).

Texas postsecondary institutions do not use TAKS scores in the admission process. However, the TAKS exit-level exams include a higher education readiness component that indicates students’ readiness for college-level work. Students who achieve a score of 2200 on the English Language Arts and mathematics portions of TAKS and a score of 3 on the writing component (scale of 1 to 5, the latter being the best score possible) are exempt from taking developmental courses in college and from taking the Accuplacer college entrance test (CEP, 2009). Some administrators believe that higher TAKS scores can save parents money. As one administrator emphasized, “Those remedial courses don’t count for college credit, but they are a part of tuition, so the goal is to lift students’ scores so they won’t have to be placed in those classes” (CEP, 2009, p. 34).

Some district officials and community stakeholders observed that the 2200 cut score on the TAKS may not be the best indicator of college readiness, nor is it always clear how colleges use the scores. One administrator spoke to this concern:

There’s a possibility that the state will use that measure to rate high schools in the future, and that would be unfortunate because the test was aligned with curriculum, this was never meant to be a measure of future success in college. TAKS scores in some instances are on a scale higher and better developed than some college entrance exams, so what are you really measuring? At some point, there could be additional questions
on the TAKS to measure for college readiness, but there needs to be funding to develop
the items and time to check reliability, as well as training and awareness. (CEP, 2009, p. 34)

Legal Issues Involving High School Exit Exams

There have been numerous legal challenges to HSEE dating back to 1978 in the
landmark *Debra P. v. Turlington* case when ten Hillsborough County African-American students
who failed Florida’s competency test challenged its use as a requirement for graduation. The
students claimed that the testing requirement was racially biased, given to students without
adequate notice and designed to place African-American students into remedial classes (Case, 2010). The Florida HSEE was a multiple choice test involving reading and math skills. In 1979,
after the test had been administered three times, approximately 2 percent of White seniors had
not passed, compared to approximately 20 percent of African-American students (Case, 2010).

The court ruled that the test was being used unfairly and delayed implementation of the
graduation requirement until the 1982-1983 school year, the first year in which all students
graduating would have spent their entire education in unsegregated schools. The court ruled that
the two years’ notice of the program implementation and testing was inadequate (Case, 2010).
The court also found that even though more African-American than White students were being
placed in remedial classes. This was a temporary result of the earlier inequity in the school
system. The case was appealed and, in 1983, the court determined that the HSEE was
instructionally valid, was constitutional and that students were afforded adequate opportunity to
learn the skills tested on the exit exam (Case, 2010).

The court also found no causal link between failure rates for black students and the
effects of past school segregation. The Florida Commissioner of Education, Ralph Turlington,
stated that the students in Florida “…were the real winners through this court decision” (History of Statewide Assessments, 2002, p.1) as the case resulted in two vital rulings. The Debra P. case established two major requirements for HSEE: adequate notice and curricular validity. Adequate notice requires that students be told what a graduation test will cover several years before the test is implemented. Curricular validity means that the test will cover the curriculum that is being taught in the classroom (Case, 2010).

The Debra P. v. Turlington case illustrated the need for due process in educational testing. The court found that even though the HSEE was valid, many questions were raised as to its content, curricular and instructional validity. It suggested that Florida schools needed to commit substantial time and effort to the analysis and focus of instruction with regards to the test content. Its finding illustrated that even though a test is accurate for the population with which it is being used, basing educational decisions on its results may be inappropriate if all of the students have not had the opportunity to learn the material being tested. This case marked the beginning of litigation involving HSEE (Case, 2010).

A lawsuit involving Arizona was entitled Flores v. Arizona. This litigation was brought against the state in 1992 by the Arizona Center for Law in the Public Interest. In 2000, the plaintiffs won the case, and a court ordered Arizona to improve funding for English language learners. But in July 2005, with the threat of Arizona’s Instrument to Measure Standards test (AIMS) becoming a high school graduation requirement, the attorney in the original case asked a federal court to suspend the requirement for ELL students until the state complied with an earlier court order to improve instruction for these students (Access, 2010). The lawsuit continued for years through various appeals and the court ultimately ordered funding for ELL instruction. However, in June 2009, in a 5-4 decision, the United States Supreme Court sent it back for
further hearings. This funding case had been pending in the federal courts for nine years. The federal high court reversed a decision from the appeals court that ruled that Arizona was in contempt for failing to follow the court’s previous order to establish an equitable funding system for English language learners (Access, 2010).

While this case was pending, the State of Arizona experienced another case, Espinoza v. Arizona, filed by a group of students in the class of 2006 who had met all other graduation requirements except for passing the HSEE. This case challenged the state’s requirement that students pass the AIMS, the state assessment, in order to graduate from an Arizona high school (Access, 2010). The plaintiffs argued that Arizona did not adequately fund education, thereby depriving many students of the educational services that were needed in order to reach the state’s academic standards and pass the HSEE (Access, 2010).

The lawsuit mentioned three specific groups of students, racial/ethnic minority students, low-income students and English Language Learners (ELL) that were not receiving adequate instruction. Plaintiffs also claimed that education was a fundamental interest under the State Constitution and that there was no compelling state interest in this test requirement (Access, 2010). The case contained claims that severe inequities in the state’s educational finance system deprived members of the plaintiff case of an opportunity to receive a quality education that would prepare them to pass the exit exam. In 2008, the Court dismissed Espinoza v. Arizona stating that there was insufficient evidence and that the plaintiffs failed to prove a causal connection between the pass/fail rate of the AIMS test and specific districts (Access, 2010).

The State of California has also been involved in litigation that has challenged the fairness of that state’s exit exam. In July 2007, a tentative settlement was reached in the longstanding Valenzuela v. O’Connell lawsuit challenging the fairness of the California High
School Exit Exam (CAHSEE). The lawsuit against State Superintendent of Public Instruction, Jack O’Connell, was filed by Liliana Valenzuela, a student. It was also a class action on behalf of those high school students in California public schools who were scheduled to graduate with their cohort class in 2006 and had satisfied all of the graduation requirements except for passing the exit exam. The lawsuit alleged that the students had been

…deprived of their fundamental right to a public education by denying them their high school diplomas, had violated the equal protection clause by unfair educational supplemental funding to disadvantaged English learners and had deprived the students of their property interest in obtaining their high school without due process” (California Department of Education, 2010, p. 2).

This California lawsuit, which was battled in the courts for years, was finally settled with a law that was passed in October 2007, Assembly Bill (AB) 347. Governor Schwarzenegger signed the bill into law and essentially has left the HSEE in place, but gave a major boost to students who complete grade 12 without achieving a passing score on the reading and math parts of the exit exam. Funding is now provided for two additional years of academic assistance in the material tested on the exam at no charge to the students. The bill requires school districts that receive state funds for intensive instruction to prepare students for the exit exam (California Department of Education, 2010).

Even as recently as the summer of 2009, Superintendent O’Connell and the litigators were appealing the issue of funding as California faced budget cuts and major educational funding issues. The state faced major budgetary cuts but the exit exam was kept in effect for the 2010 school year (California Department of Education, 2010).
*GI Forum v Texas Education Agency* is of crucial importance to those states and school districts that require the HSEE as an element to graduation. Critics of high-stakes tests argue that being denied a diploma because of unfair exit exams victimizes minority students. This debate finally boiled over when the Mexican American Legal defense and Education Fund (MALDEF) filed suit against Texas on behalf of several minority students (CEO, 2007).

The lawsuit was filed on October 14, 1997 in federal district court in Texas. The complaint against the State of Texas by MALDEF alleged that the TAAS test for high school graduation was illegally discriminatory. The complaint was filed on behalf of the GI Forum, Image de Texas, and seven Mexican-American and African-American students. It named as defendants the Texas Education Agency (TEA), members of the Texas State Board of Education, and Texas Commissioner of Education, Mike Moses (CEO, 2007). The complaint asserted that the TAAS test denied diplomas to Mexican-American and African-American students at a rate significantly higher than that of White students; thereby, “…violating a variety of United States Constitutional, statutory and regulatory provisions, as well as fundamental fairness” (CEO, 2007, p. 2).

The complaint went on to allege that Mexican American and African American students had suffered from a long and well-documented history of discrimination in Texas public schools and stated that White students were almost twice as likely as Mexican-American and African-American students to pass the TAAS. It stated that the TAAS was an “…invalid instrument for determining which students were qualified to receive diplomas because many who scored below the cut-off score could perform satisfactorily as high school graduates in college, the military and the workforce” (CEO, 2007, p. 2). The major complaint was that the TAAS had an “…illegal and disparate impact on blacks and Mexican Americans” (CEO, 2007, p. 2).
MALDEF complained that the students they represented were being denied equal educational opportunities, that they were being illegally discriminated against on the basis of race and national origin in violation of Title VI of the Civil Rights Act and sought a permanent injunction against “…any standardized test as an absolute requirement for receipt of a high school diploma” (CEO, 2007, p. 2)

Several prominent educators testified that the TAAS exit level test met all relevant professional standards and that the test did not create the social problems faced by minority groups but had actually contributed to the improvement of their academic achievement. The educators stated that the test was reliable, a fair test of student learning, and that all students were steadily showing improvement on test scores (CEO, 2007).

After reflection, Judge Edward Prado ruled that the TAAS test did not have an “…impermissible adverse impact on Texas minority students and did not violate any civil rights in the due process of the law” (CEO, 2007, p.4). Judge Prado stated that the plaintiffs “…failed to prove that the policies were unconstitutional, that the adverse impact was….significant and that other approaches would meet the State articulated legitimate educational goals” (CEO, 2007, p. 4). Judge Prado also commented on the extensive findings about the TAAS test. He stated:

The Court finds as an inescapable conclusion that in every administration of the TAAS test since October 1990, Hispanic and African American students have performed significantly worse on all three sections of the exit exam than majority students. However, the Court also finds that it is highly significant that minority students have continued to narrow the passing rate gap at a rapid rate. In addition, minority students have made gains on other measures of academic progress, such as the National
Assessment of Educational Progress test….the Court finds, based on evidence presented at trial, that the effect of remediation, which is usually eventual success in passing the examination and thus receipt of a high school diploma is more profound than the steadily decreasing minority failure rate….The results of the TAAS are used, in many cases quite effectively, to motivate not only students but schools and teachers to raise and meet educational standards” (as cited in CEO, 2007, p. 5).

Accountability

Public and community pressure for educational improvements has grown over the last several decades. The public outcry reached critical mass after several instances of high school graduates who were unable to complete job applications and cases of high school graduates who could not read or write came to the attention of the media (Horne & Stonier, 2007). The community demanded that the quality of education in the nation’s schools be improved. As legislators often do when there is public uproar, they drafted legislation and suddenly the federal government became very involved in state and local education. Along with the legislation came money and with the money came accountability measures. This produced a situation where people not necessarily trained in the field of education began to mandate what would and should be done in classrooms. They also decided how progress and success would be measured and thus entered accountability through high-stakes testing. As Popham (2001) concludes, we entered into a “…game of high-stakes testing that we cannot win” (p. 12).

The most prominent of the legislative measures was the passage of No Child Left Behind (NCLB) passed in 2001 which is the national education reform act approved by the United States Congress in an effort to make schools and educators accountable for increasing student achievement. Decreasing achievement was met with a number of sanctions, including
reconstitution of schools and allowing students to transfer to higher performing schools. NCLB is the federal government’s effort to make schools and educators accountable for increasing student achievement and decreasing achievement gaps among students of different ethnicities. NCLB requires all states to provide assessments, including an exit level state test to graduate from high school for all students, and allows for very few exceptions (Center of Education, 2005).

The NCLB Act required all states to develop high-quality academic assessments aligned with state academic standards. The federal government has provided $400 million to school districts for assessment implementation every year since 2002 (U.S. GAO, 2010). The NCLB Act, which seeks to improve the educational achievement of 12.5 million students considered to be at-risk, also reauthorized $10 billion Title I program funds. In passing the legislation, Congress increased the frequency with which states were to measure student achievement in mathematics and reading and added science as another subject. Congress also authorized funding to support state efforts to develop and implement tests for this purpose (U.S. GAO, 2010).

The federal government’s accountability office estimated that the total expenditures between fiscal years 2002 and 2008 were $1.9 billion for states that used multiple choice tests and machine scoring. The General Accountability Office estimated the cost to be $5.3 billion for states that used a combination of multiple choice machine scored answers and open-ended questions that require students to write their responses such as essays which are hand scored (U.S. GAO, 2010).

Western Independent School District is just one of the multitudes of school districts that are following the educational trend of attempting to have students ready for college and careers.
by assessing their aptitude before they receive a high school diploma. During the 2007-2008 academic year, the number of states in the nation withholding diplomas based on students’ performance on state-mandated high school exit exams increased and now there are 26 states in the nation that embrace this concept (Zabala & McMurrer, 2008). This assessment has a significant on American education because more than half of the nation’s states are utilizing HSEE as graduation requirements. Today, 68% of the nation’s public high school students are enrolled in the 26 states with these policies (Zabala & McMurrer, 2008). By 2012, when three more states implement high school exit exam requirements, approximately 74% of the nation’s public high school students will be affected (Zabala & McMurrer, 2008).

The Center of Education Policy, an independent nonprofit organization has been studying state HSEE and has generated extensive findings. Their research focuses on new developments in the HSEE and state policies that affect the education of students. Zabala and McMurrer (2008) argue that the variance in exit exam requirements plus the different paths across states illustrates the nation’s lack of understanding of what a high school diploma represents in terms of knowledge and skills. They comment:

A high school diploma has become ever less comparable among states. Years ago, all diplomas represented a number of credits completed and perhaps completion of a minimum competency exam. There was no pretense that a diploma was a measure of knowledge and skill. Now, states are trying to assert that a diploma should be a measure of something, but what exactly varies dramatically. This would be fine if students did not exist in a national economy, let alone a global economy, but, alas, they do (Zabala & McMurrer, 2008, p. 25).
Furthermore, Zabala and McMurrer (2008) add:

Why not prepare all students for the AP/IB and then allow some lower score on those exams to count? There is no pretense that the state exit exams and the AP/IB are in any way comparable. They are simply measures those legislators deem rigorous. The alternatives aren’t really going to get states off the hook as far as getting many more kids to pass the exam requirement. (p. 25)

Texas superintendents believe that accountability has become a grave concern. This matter seems to have stimulated an increased number of failures, increased retention rates, and higher levels of dropouts among high school students (Harris, 2006). Each year schools are measured by students’ yearly performance on state level tests. The school administrators report that state-mandated testing and the federal No Child Left Behind Act have continued to raise the bar of education but at the same time, they have increased the tensions of testing among students, parents, educators and policy makers (Harris, 2006).

Schools in the United States are given accountability ratings based on states’ test data. Similarly, gaining or losing necessary funds is tied to these same data. Yet this often presents a challenge because some state rankings can contradict the NCLB federal rankings as the two accountability systems apply test results differently. Harris reports that superintendents have major concerns and trepidations when confronted with accountability issues (Harris, 2006).

Natriello and Pallas (1999) suggest that if the motivational consequences of high school graduation tests are not positive, or at least not uniformly positive across racial, ethnic and social class lines, then these tests may have the potential to exacerbate inequities in schooling outcomes. In the last quarter of the twentieth century, testing has developed as a major tool of
policymakers for the governance and regulation of education. Natriello and Pallas (1999) state that whatever interpretation one prefers to place on the high-stakes testing movement, there are a number of things that educators can do to improve the use of such tests to enhance the educational rights of students in the United States. Educators can develop research programs to more fully understand the consequences of high-stakes testing and indeed focus on the better use of assessment processes of individual students and their performance (Natriello & Pallas, 1999).

Smith and Kritosonis (2006) offer differing views of the purpose of education and HSEE. They state that education is meant to produce well-rounded citizens and that in order for a student to be well-rounded; the student must obtain knowledge, character and ethics. The philosophy these researchers advocate states that all students are capable of learning and should be free to do so without the fear of tests dictating whether or not they will graduate from high school. Smith and Kritosonis (2006) state that the success of a student is dependent on the student, the school, and the parent or guardian; the success of the nation is determined by the success of a child’s education. Smith and Kritosonis (2006) claimed that education will lose its focus unless all students are afforded the opportunity to obtain and demonstrate knowledge acquisition. They further stated that students should be taught how to make decisions based on analyzing data and through their personal experiences and high stakes testing should not be a critical component of education (Smith & Kritosonis, 2006).

Smith and Kritosonis (2006) state that it is imperative that educators spend more money and attention creating a whole child that is knowledgeable and has ethical character. These researchers state that funds should not be wasted on examinations that only test content retention (Smith & Kristosonis, 2006).
Clarke (2002) examined how high-stakes assessments affect dropout and high school completion rates. This researcher looked at the evolution of high stakes testing in Texas, as well as other states, and suggests that some high school sophomores dropped out of school because of the requirement of satisfactory performance on the exit level test. While their data concerned just one cohort of Texas high school students, the data fit well with Texas enrollment patterns over a twenty year period (Clarke, 2002).

Clarke’s (2002) work showed data that suggested that high school graduation testing in Texas affected the rates of high school completion differently in the 1990s than in the 1980s and that this impact was more severe for minority students. This evidence suggested that even tests of minimum competency are associated with higher dropout rates when used for high stakes decision-making, such as high school graduation (Clarke, 2002).

A Texas Kids Count Special Report in 2006 stated that due to the accountability and coding policies, starting in May 2006, high school seniors that do not pass the TAKS test were reported as drop-outs. The variety of ways that students are now being coded in the Texas Public Education Information Management System (PEIMS) is directly affecting those seniors that do not meet the passing standard of the exit level graduation TAKS tests. The report states that those seniors are coded as other-leavers and have become a statistic known as a dropout (Texas Kids Count Special Report, 2006).

In 2007, a Johns Hopkins University study looked at the number of high school freshmen who graduate in four years. The study found that 185 Texas high schools failed to graduate 40 percent or more of their freshmen in four years in the graduating classes of 2004, 2005 and 2006. A San Antonio research organization, the Intercultural Development Research Association (IDRA) has also released Texas dropout figures that mirror those found by Johns Hopkins. The
study goes on to name the El Paso schools, which include a number of campuses examined in this study, as having low graduation rates. Local educators called the findings alarming when compared with state and federal dropout figures (Acosta, 2008).

Superintendents and other local educators call the IDRA study inflammatory and not descriptive of the real situation (Acosta, 2008). They claim that all local education agencies have no option but to follow the state policy by coding students as dropouts not only when they leave school, but also when they fail to pass TAKS. Educators state that leaving high school has major negative outcomes that were once reserved for those students who met the more typical definition of dropouts. However, the seniors who fall in the TAKS category have not actually left school; educators state that these students have stayed and strived to meet graduation requirements, however, fell short only on the TAKS test (Acosta, 2008).

Owens and Sunderman (2007) argue that accountability is definitely needed in the public educational system, however, they suggest that perhaps the wrong people are being held accountable for the wrong education. They state that there is no doubt that teachers must be part of the accountability formula but the first and possibly most influential teachers a child will ever have are the parents. These researchers assert that the problem with the current accountability system is that it makes it very easy to enter into a blame game instead of real discourse about the flaws of our educational system. They present the important question of who exactly is failing: teachers, students, parents or possibly the outdated education system altogether (Owens & Sunderman, 2007).

The Harvard Civil Rights Project (2006) asserted that the “…core of NCLB has simple but controversial accountability provisions: all schools and districts must meet all standards by 2014” (as cited in Owens & Sunderman, 2007, p.2). Owens and Sunderman (2007) stated that
this system does not differentiate instruction for the non-English students or the special education student with individual education plans. They report that with so much emphasis on lower performing students, little time is left for teachers to prepare and teach lessons that challenge high ability students, thus weakening the curriculum. The focus of NCLB is for “...all students to reach grade level proficiency rather than for all students to reach their academic potential” (Owens & Sunderman, 2007, p. 2). The punitive nature of the law causes many school districts to shift their focus and funding to those students who are not grade level proficient.

These authors further state that for students already performing at grade level, attention is focused on their “…intellectual maintenance rather than intellectual growth” (Owens & Sunderman, 2007, p. 2). Little attention is given to students already exceeding the NCLB goals. They report that it is ironic that teachers are taught how important it is to differentiate instruction to meet the needs of all learners but then the government expects all learners, regardless of abilities, to take and pass the exact same test. These researchers suggest that this is probably one of the biggest areas of contention for classroom teachers who must administer high-stakes tests to their students.

Accountability can be a valuable tool in the education system, however, it must be determined who is being held accountable for student learning. The current stance on accountability provided by the federal government is that schools and teachers should assume the entire responsibility. NCLB has mandated that all teachers must be highly qualified which means that teachers must hold at least a bachelor degree in their teaching field and meet the full certification requirements of their respective state (NCLB, 2002).

Under the NCLB standards and in addition to the demand for expanded testing, schools must meet adequate yearly progress (AYP) and this is the particular feature of the law that leads
to labeling of schools and districts as failing. Actually the notion of AYP has been around for a while. In the previous 1994 reauthorization of the ESEA, there was a requirement that Title I schools must annually demonstrate that their students were making adequate yearly progress (Popham, 2004). Title I schools serve substantial numbers of economically disadvantaged students, and therefore, receive large amounts of the ESEA money specifically intended to improve educational experiences provided to such disadvantaged students (Popham, 2004). However, the degree of the required AYP called for in the 1994 ESEA reauthorization was left to the determination of each individual state. Educational policy makers in most states were reluctant to set particularly demanding AYP expectations for their state, fearing that many of the state’s schools might be unable to meet those expectations; therefore, a number of states established AYP targets that were insignificant and inconsequential (Popham, 2004).

Popham (2004) states that it was not unusual to see state level policy makers announce that their state’s Title I schools show a 2 percent improvement in students’ test scores each year. Popham (2004) goes on to state that AYP expectations based on the 1994 version of the ESEA were “...laughably low” (p. 22).

When federal lawmakers began to work on the ESEA reauthorization after the 2000 presidential elections, they set out to devise a way to set the bar higher for state’s educational achievements because funds were subsequently involved in the accountability issue (Popham, 2004). Congressional legislators wrote into the NCLB law requirement that within twelve years, which would be 2013-2014, a full 100 percent of the nation’s students had to be “proficient” (Popham, 2004, p. 23). The law requires each state to clearly describe at least three levels of student achievement: basic, proficient and advanced. A state can meet more levels it so chooses, but at least three academic achievement standards must be present.
Students’ performances are classified as:

<table>
<thead>
<tr>
<th>Academic Achievement Standard (Performance Level)</th>
<th>Percent of Test Items Answered Correctly by Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced</td>
<td>90 and above</td>
</tr>
<tr>
<td>Proficient</td>
<td>70 to 89</td>
</tr>
<tr>
<td>Basic</td>
<td>69 and below</td>
</tr>
</tbody>
</table>

(Popham, 2004, p. 24)

An attempt was made to compel the nation’s educators to focus on underserved student subgroups in addition to the cumulative AYP targets, and as a result the law calls for test scores to be disaggregated according to students who are

1. economically disadvantaged
2. from major racial and ethnic groups
3. disabled, and
4. with limited proficiency in English (Popham, 2004, p. 24)

NCLB calls for 100 percent of these four subgroups to attain proficient or above status by the end of the 2013-14 school year.

When a school does not make AYP for five consecutive years, the NCLB Act gives districts five options:

- Reopen the school as a public charter school
- Replace all or most of school staff, including the principal
- Enter into a contract with an entity such as a private management company with a demonstrated record of effectiveness to operate the school
- Allow the state to take over the school
Engage in any other major restructuring of the schools’ governance arrangement (NCLB, 2002, p. 35)

Owens and Sunderman (2007) report other concerns related to the accountability and high-stakes testing are teacher retention rates, student drop-out rates, a watered down curriculum and depriving children of the joy of learning by emphasizing “drill and kill” instruction and assessment. Additionally, they report that some feel that diverse schools are unfairly penalized because they have more subgroups required to meet the AYP standard. Many believe that teachers in these at-risk schools are working very hard and students are making progress. Unfortunately, NCLB has the expectation that everyone will reach a specified level at the end of the year regardless of where they started and what their limitations were, such as special needs, language deficiencies or economical backgrounds (Owens & Sunderman, 2007).

The Harvard Civil Rights Project Report (2006) states that, ironically, holding schools in poorer areas accountable for their students’ performance often actually impedes teachers’ ability to help those at-risk students (as cited in Owen & Sunderman, 2007). Compliance with NCLB in the first place requires teachers to complete massive amounts of paperwork, which in turn consumes time that the teachers might otherwise have spent improving instruction or working with individual students. Kozol (2005) states “…nothing could be less efficient than this misappropriation of a teacher’s energy and hours” (p. 38).

Moreover, the Harvard Civil Rights Project Report (2006) states that once a school becomes stigmatized as a result of its students’ lower test scores, the likelihood increases that the better teachers will look for positions elsewhere, thus leaving the school in worse condition than before (as cited in Owen & Sunderman, 2007). Under NCLB, when a school fails to meet the required standard, students may also request to be placed at another school; therefore, the higher
achieving students are also likely to leave the school. Deprived of its better students and teachers and with its funding and very existence threatened, an at-risk school has almost no chance of raising its student test scores to the required level (Owens & Sunderman, 2007).

If a school is closed down as a result of failing to meet NCLB requirements, as happened in Portsmouth, Virginia (Fernandez, 2006), nearby schools which may already be overcrowded could well be harmed by the influx of at-risk students lacking adequate resources to accommodate their needs. Finally, the cycle of holding schools accountable can ultimately penalize teachers, students and communities alike (Owens & Sunderman, 2007).

Owens and Sunderman (2007) concluded that everyone needs to be held accountable in order for the nation’s future workers to enter an international job market as very well prepared and competent workers. Their argument is that our educational system is in a state of crisis and if the public community chooses not to be part of the solution then it will be part of the problem. Meanwhile, all of the debate and stagnation occurs at the educational expense of the nation’s children (Owens & Sunderman, 2007).

**High Stakes Testing**

Popham (2004) defines a high-stakes test as an “...assessment that has serious consequences either for the student who takes the test or for those who prepared the student for that test” (p. 7). But the use of high-stakes tests is not new, and their effects are not always desirable. The consequences associated with test results, or stakes, have long been a part of the American scene. Amrein and Berliner (2002) report that for immigrants early in the 20th century, scores on the then recently invented standardized tests could result in entrance to or rejection from the United States. In the public schools, test scores could reveal giftedness, provide entrance into programs for those talented in specific areas, and provide evidence of deficiencies,
leading to placement in vocational tracks or even in homes for the mentally inferior. Test scores could also mean the difference between acceptance into or rejection from the military. Standardized test scores were used throughout early twentieth century society to “…confirm the superiority or inferiority of various races, ethnic groups, and social classes” (Amrein & Berliner, 2002, p. 3). For a century, significant consequences have been attached to high-stakes test scores.

In recent decades, test scores have come to dominate the discussion about schools and their accomplishments or lack thereof. Amrein and Berliner (2002) report that families have now come to make important decisions, such as where to live, based on test scores. This occurs because real estate agents use school test scores to rate neighborhood quality which in turn affects property values. Test scores have been shown to affect housing prices, resulting in a difference of about $9,000 between homes in what realtors term grade A or grade B neighborhoods (Amrein & Berliner, 2002).

High-stakes tests have come to translate into the practice of having students bubble-in answers to tests on a regular basis in that form of student assessment. Researchers, however, have evaluated the issue of high-stakes testing and assessment and claim that “…one is not the other” (Murillo, 2006, p. 1). This researcher reports that assessment and high-stakes testing are two very different phenomena. This author writes that “…assessment should be deliberately designed to improve education and student performance, not merely to audit it as most school tests currently do” (Murillo, 2006, p. 1). The word assessment is derived from the Latin word assio which means to sit alongside (Murillo, 2006, p. 1). This principle suggests that educators sit aside students receiving feedback, then use this input to improve education. The principle of
feedback goes hand in hand with accountability and Wiggins (1993) puts the accountability factor in perspective:

We will have real, and not simply political accountability, when we are required to seek and use feedback as part of our daily practice. Teachers as well as students must come to recognize that seeking and receiving feedback on their performance is in their interest, and different from their previous experience with so-called supervision and evaluation, which has too commonly been counterproductive or useless. (p. xv)

Popham (2001) affirmatively states

I believe that today’s high-stakes tests, as they are used in most settings, are doing serious educational harm to our students. Because of unsound high-stakes testing programs, many students are receiving educational experiences that are far more ineffective than they would have been if such programs had never been born (p. 1)

Popham insists on an accountability program with a condition:

I see nothing wrong with accountability-oriented programs for the evaluation of schooling if these evaluations incorporate appropriate kinds of evidence. It would be ….senseless to reject standardized achievement tests without replacing it with a new evaluative program that’s based on the right data. (p. 157-158)

Testing is only one part of the overall field of education; however, its importance can hardly be denied. Not only is testing an integral part of the practice of education, it is often the most visible measure of the success or failure of the school, administration, teachers, and ultimately, the student (Phillips, 2004). According to the test watchdog organization, National Center for Fair and Open Testing (2008), America’s public schools administer more than 100
million tests each year (National Center, 2008). Phillips (2004) makes an obvious observation by stating that if:

……we want to know whether a student has learned, we turn to test scores. When we want to know whether a teacher has taught, we turn to test scores. When we want to know whether a school has met expectations, we turn to test scores. When we want to know how our state’s educational systems compare to other states, we turn to test scores. When we want to know how our nation’s schools are performing, we turn, again to test scores. At each of these levels, test scores play a part in determining promotion, funding, support and reforms. The types of tests we use, the way they are developed, the weight they are given and the consequences of their results are deeply involved in our overall concept of education; whether it is a success or failure, and indeed, the ways we define success and failure (p. 117).

A report from the National Center for Fair and Open Testing (2008) claimed that even though high-stakes tests are used to make important decisions about students, such as graduation, its research shows key reasons why test scores should never be the determining factor in making such decisions. The National Center for Fair and Open Testing (2008) reported that high-stakes tests do not improve educational outcomes. Its extensive research showed that students who are held back do not progress academically as well as comparable children who are promoted. Their research showed that these students also suffer a loss of self-esteem and are more likely to drop out of school. Comprehensive national studies have found that HSEE lead to higher dropout rates while they do not improve learning for those who stay in school (National Center for Fair and Open Testing, 2008).
This same research group reveals that test-based decisions do not accurately assess many students. Some students who successfully demonstrate learning through classroom performance do not score well on standardized tests. These often include students with test anxiety and learning disabilities as well as students whose first language is not English. WISD’s demographic statistics show that 30% of the student population is labeled as ESL.

The National Center for Fair and Open Testing (2008) reported that standardized tests reinforce inequity. These researchers state that society should not punish students for adults’ failure to provide children with the necessary tools for success. Many students, especially those from low socioeconomic status, along with English language learners, attend under-funded schools or lack access to high quality educational programs necessary for their success. Young adults who do not obtain a high school diploma because of testing hurdles or any other reason earn far less, have less stable families, and are more likely to be in prison, according to this research (National Center for Fair and Open Testing, 2008).

The National Center for Fair and Open Testing (2008) addressed classroom curriculum and reports that high-stakes testing results in teaching to the test and this trend also drives out the best and most needed teachers. Talented educators are discouraged, even disgusted, by the overemphasis in testing. Many excellent teachers leave, often from schools that need them most (National Center for Fair and Open Testing, 2008). Finally, the National Center for Fair and Open Testing (2008) summarizes its research by stating that even though high quality assessment is an educational necessity, experts report that basing a decision, such as high school graduation, on a single test is wrong. Most professional education organizations state that making a decision that impacts a student for the rest of his educational career based on a single test score is a “…misuse of standardized testing” (Fair Test, 2008, p. 1).
High-stakes tests have become an instrument to evaluate the instructional ability of schools and teachers. Popham (2001) makes persuasive arguments for avoiding this use and states that he believes persons who do use tests in such a manner are misinformed, but well meaning. Not everyone agrees with Popham’s assessment of the educators. Kohn (2000) believes that more disturbing forces are at work and refers to high-stakes tests as “educational ethnic cleansing” (as cited in Taylor, 2004, p. 46). Kohn (2000) presents eight statements to support his views on high-stakes testing:

- Children in the United States are tested more in comparison to other countries and more frequently now than ever before;
- Variance in test scores among schools and districts is attributable in great part to non-instructional factors;
- Norm-referenced tests are designed to distribute scores, not rate children or schools;
- Standardized tests often measure low-level thinking;
- Standardized testing is developmentally inappropriate for children younger than 8;
- Important decisions such as promotion or graduation should not be based on a single test score;
- Time, energy and money devoted to test preparation comes at the expense of attention devoted to higher-level thinking, certain subject areas, and opportunities for personal development;
- Educators are demoralized by the shaming and blaming associated with high-stakes testing; many are leaving the field; recruitment of new faculty is difficult. (as cited in Taylor, 2004, p. 47)
Kohn (2000) also agrees that high-stakes tests are particularly unfair to low income and minority children. He notes that for many years, critics have characterized standardized tests as culturally biased. He adds that affluent families and schools will purchase test-preparation materials, an opportunity not available for poor families.

Popham (2004) states that under relentless pressure to boost students’ test scores, some educators resorted to providing students with item-focused test preparation, teaching to the test and in some situations, claims of cheating have arisen in some schools and districts (Popham, 2004). Popham (2004) states that perhaps the “…most reprehensible of the acts test-pressured teachers engage in can be summed up in a single word – cheating” (p. 22). Educator-initiated cheating is much more common today and unquestionably brought on by the score-raising pressure of high-stakes testing (Popham, 2004).

Popham’s (2004) research shows that during the 1999-2000 academic year, 52 educators from the New York City public schools were charged with test-related cheating. In June 2001, the principal of a highly ranked Maryland elementary school resigned after allegations that fifth grade students taking the annual, high-stakes state achievement test were guided toward correct answers and given help rewriting essay responses. Other incidents have included educators erasing wrong answers after students have turned in their materials. Similar reports about outright violations of state and/or district prescribed test administration procedures appear almost every week. Teachers and administrators caught engaging in such rule bending have sometimes lost their teaching certificates and, in many instances, have actually lost their jobs (Popham 2001).

At the most obvious level, teachers blatantly break rules by dispensing hints about what correct answers ought to be, as well as by directing students to write test answers on scratch
paper. Only after teachers have checked these answers and suggested modifications were students allowed to transfer their new answers to the test’s official response sheet (Popham, 2001). This process has the added benefit of reducing the number of erasures on students’ formal response sheets. Teachers have learned that an answer sheet with excessive erasures is more likely to be identified by test-scoring personnel as needing more careful scrutiny (Popham, 2001).

Another way to control test scores is to control who takes the tests. In Texas, after the TAAS was first implemented, the percentage of special education students increased from 4.5% to 7.1% (Hursh, 2008). These students were previously exempt from the TAAS test, but now have opportunities to take the TAKS Accommodated and the TAKS Modified tests as an alternative to the regular instrument. Admission, Review and Dismissal (ARD) committees convene to decide which accommodation is best suited for the student (TEA, 2008).

According to Fordham, educators must reconsider their fundamental beliefs:

In the real world, testing will continue. Testing experts have much to contribute to efforts to ensure that testing is done well. Unfortunately many of them share an ideological orientation that makes any type of standardized testing impossible to swallow. Until these experts reexamine their most fundamental beliefs about teaching and learning, all the hard work of improving standardized tests will have to be done without them (as cited in Phelps, 1999, p. 4)

In the midst of the unintended adverse effects of testing, there remain proponents. There are arguments in support of high-stakes tests and Amrein and Berliner (2002) convey the case by summarizing these points:
Students and teachers need high-stakes tests to know what is important to learn and to teach;
Teachers need to be held accountable through high-stakes tests to motivate them to teach better, particularly to push the laziest ones to work harder;
Students work harder and learn more when they have to take high-stakes tests;
Students will be motivated to do their best and score well on high-stakes tests; and
Scoring well on these tests will lead to feelings of success, while doing poorly on such tests will lead to increased effort to learn. (p. 25)

Supporters of high-stakes tests also claim that the tests:

- Are good measures of the curriculum that is taught to students;
- Provide a kind of level playing field or an equal opportunity for all students to demonstrate their knowledge; and that
- These tests are good measure of an individual’s performance, little affected by differences in students’ motivation, emotionality, language and social status. (Amrein & Berliner, 2002, p. 25)

Finally, supporters believe that:

- Teachers use results to help provide better instruction for individual students;
- Administrators use the test results to improve student learning and design better professional development for teachers; and that
- Parents understand high-stakes tests and how to interpret their children’s scores. (Amrein & Berliner, 2002, p. 25)

Amrein and Berliner (2002) examined the validity of these statements in support of high-stakes tests through both quantitative and qualitative research. They conclude that while these
statements are true only some of the time, or for only a modest percent of the individuals who were studied, they suggest that all of these statements are likely to be false a good deal of the time. They deduce that research studies show exactly the opposite of the effects anticipated by supporters of high-stakes testing (Amrein & Berliner, 2002).

**Student Characteristics and High School Exit Exam Performance**

**Gender Gap**

Gender differences in student performance are considered in this study. Research has long been done on noted differences in achievement between males and females in reading and math. Historically, it has been reported that females tend to perform better on reading tests while males perform better on math tests, particularly at the high school level (Chudowsky, 2010). Although tests of general overall intelligence have suggested no difference between the genders, large differences by gender are apparent in specific skill tasks. Research has shown that males tend to perform better in certain spatial and visual tasks while females tend to do better with verbal tasks (Chudowsky, 2010).

Hyde (2008) reports that achievement gaps between the genders have decreased. Hyde (2008) examined large amounts of data, around seven million students’ test scores including the SAT, state math tests and standardized tests and concluded that there are no longer gender differences in math performance. After studying this data, Hyde reported that achievement in math of males and females is roughly the same (Hyde, 2008). Gender gap differences on the National Assessment of Educational Progress (NAEP) are far smaller than gaps between racial/ethnic or income groups (Chudowsky, 2010).

Gender gaps, particularly the lagging achievement of boys in reading, have been attributed to a variety of biological and environmental factors in what essentially comes down to
“…a nature versus nurture issue” (Chudowsky, 2010, p. 3). On the biological side, evidence reveals that male and female brain structures and exposure to sex hormones appear to influence the gender specific skill tasks (Chudowsky, 2010). Burman (2008) reported that the areas of the brain associated with language work harder in females than in males during language tasks and that the different genders rely on different parts of the brain when performing these specific tasks. In this research, it was noted that not all females outperform all males on tasks related to language skills, but that only the average outcome was somewhat higher for females (Burman, 2008).

Else-Quest (2010) analyzed two data sets from the Trends in International Mathematics & Science Study (TIMSS) and the Program for International Student Assessment representing 493,495 students ages fourteen to sixteen. The purpose of this study was to gauge the extent of gender differences in math achievement, attitude and affect in students in 69 nations around the world, including the United States. The results showed that on average, very little difference was found between the genders in math achievement. Else-Quest (2010) agreed with data that indicates a pattern of gender similarities and decreasing gaps in math achievement over the last two decades.

In the United States there are gender differences in attitudes and affect toward math as it was found that males tend to hold more positive attitudes and involvement in math-oriented tasks (Else-Quest, 2010). This same research also revealed gender differences in math anxiety and self-concept, which illustrated how females tend to believe that career opportunities available to or appropriate for them do not require math skills and thus are less likely to take higher level math courses or develop an interest in math-oriented skills (Else-Quest, 2010).
Else-Quest (2010) summarized the report by stating that factors that have more direct influence on math achievement are teacher quality and the value of curriculum and instruction. “Girls will perform at the same level as their male classmates when they are encouraged to succeed, are given the necessary educational tools and have visible female role models excelling in mathematics” (Else-Quest, 2010, p. 127).

Chudowsky (2010) reported that researchers who emphasize environmental factors often blame societal expectations based on stereotypical myths about gender. For instance, females may be brought up to believe they have low aptitude for math and are told that they will not need math skills as adults. Males, on the other hand, may be socialized to view reading as an activity that is more suitable for females. Other research examined students and their interactions with their teachers and the degree to which this dynamic influences academic performance. Teachers sometimes interact differently with the genders and some evidence suggests that students benefit academically from having teachers who are the same gender as themselves (Dee, 2007).

Chudowsky (2010) summarizes the debate stating that researchers still do not fully understand or totally agree on the sources of differences in academic performance between genders.

Sapienza (2008) examined the relationship between math and reading achievement in forty countries, including the United States and reported that the genders scored approximately the same in about a dozen countries (as cited in Rycik, 2008). Results from the United States showed equality for the genders in math achievement (Rycik, 2008).

The gender gap in science is another important issue involving the high school exit exam as science content is also assessed. Good (2010) reported that female students score lower on standardized tests in science putting them at a disadvantage when applying to college or pursuing science related jobs. “Eleven out of the top fifteen majors with the highest starting salaries in
2005 involved math, science and technology putting women at a disadvantage for future earnings due to their decreased interest in these fields” (Good, 2010, p. 133).

Good (2010) conducted research on science performance and found no significant differences on comprehension between the genders. This extensive study involving 81 students from 9th and 10th grade also addressed the interest level of science. The study used textbook images that portrayed the stereotype of males in science careers and found that these images can have an impact on students’ comprehension as well as general interest in science. The research reported that mere textbook images in school can begin to influence females and can perpetuate the stereotype of their inferior performance in science. The report also states that this can also contribute to females not pursuing their interest in science and thus limit their academic potential (Good, 2010).

Hispanic Students’ Educational Achievement and Test Performance

An important issue explored in this study is Hispanic student achievement levels in school and test performance. Hispanics are becoming the largest minority population and the impact of this in classrooms across the nation is evident. Tienda (2009) addressed this trend:

Hispanics are falling behind in their educational attainment and this is worrisome, not only because advanced schooling is becoming ever more important for labor market success and meaningful civic engagement, but also because the offspring of Latin American immigrants are the fastest-growing segment in United States schools. (p. 5)

A review of the literature indicates that between 1900 and 1960, the racial composition of the United States population changed very little. Whites comprised about 87 percent of the total population and African-Americans were the dominant minority group. All other groups combined made up only about one percent of the population (U.S. Census, 2010).
However, immigration was one factor that changed the racial makeup of the nation. Since 1960, the Hispanic population has more than tripled; by 2007, Hispanics represented 15 percent of all U.S. residents (Pew Hispanic Center, as cited in Tienda, 2009). Put differently, Hispanics, both immigrants and their offspring, account for over one-third of the 100 million persons added to the United States population between 1967 and 2006 (Pew Hispanic Center, as cited in Tienda, 2009). Tienda (2009) maintained that the social and economic significance of Hispanics’ rapid “…increase stems from its coincidence with a period of rising socioeconomic inequality and the aging of the dominant non-Hispanic White population” (p. 7).

Strong growth in Hispanic school enrollment is expected to continue for decades, according to a recently released U.S. Census Bureau population projection. The bureau projects that the Hispanic school-age population will increase by 166% by 2050 (to 28 million from 11 million in 2006), while the non-Hispanic school-age population will grow by just 4% (to 45 million from 43 million) over this same period. In 2050, there will be more school-age Hispanic children than school-age non-Hispanic White children (Fry & Gonzales, 2008).
The school enrollment figures show a dramatic percentage change for the upcoming years:

SCHOOL ENROLLMENT, 1990-2006

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>1990</th>
<th>CHANGE, 1990-2006</th>
<th>% CHANGE, 1990-2006</th>
<th>SIZE OF GROWTH (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Student Enrollment</td>
<td>53,761</td>
<td>45,579</td>
<td>8182</td>
<td>18.0</td>
<td>-</td>
</tr>
<tr>
<td>Public School Enrollment</td>
<td>48,016</td>
<td>40,115</td>
<td>7901</td>
<td>19.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Non-Hispanic Students</td>
<td>38,195</td>
<td>35,040</td>
<td>3155</td>
<td>9.0</td>
<td>39.9</td>
</tr>
<tr>
<td>Hispanic Students</td>
<td>9821</td>
<td>5075</td>
<td>4746</td>
<td>93.5</td>
<td>60.1</td>
</tr>
<tr>
<td>% Hispanic</td>
<td>20.5</td>
<td>12.7</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

While Hispanics account for 20% of public school students nationally, their share of enrollment is greater in several states. In 2006, Hispanics represented about half of all public
school students in California, up from 36% in 1990. Hispanics represented more than 40% of enrollments in three additional states: New Mexico, Texas and Arizona, and between 20% and 40% of all public school students in five states: Nevada, Colorado, Illinois, Florida and New York. Overall, Hispanics are the largest minority group in public schools in 22 states (Fry & Gonzales, 2008).

The classroom is impacted with sheer numbers as the Hispanic population increases resulting in language and cultural differences and changes in attitude toward educational attainment. Tienda (2009) and other researchers, such as Valenzuela (2002), cite improvements in Hispanic educational trends. Although Hispanics have trailed Whites, African-Americans and Asians in average attainment levels since before 1970 (U.S. Census, 2010), there are signs of improvement. Only 32 percent of adult Hispanics were high school graduates in 1970, compared to 60 percent by 2006. The population of Hispanic adults with college degrees has more than doubled since 1970, rising from 5 to 12 percent of all persons age 25 and over, yet they remain more than three decades behind their White counterparts in their college completion rate (Tienda, 2009).

Fry and Gonzales (2008) cite the following demographic facts regarding Hispanics:

- The vast majority of Hispanic public school students (84%) were born in the United States.
- More than half (52%) of all Hispanic students are enrolled in public schools in just two states, Texas and California.
- Although most Hispanic students live in the nine established Hispanic states, foreign-born Hispanic students are more likely than native-born Hispanic students to live in new and emerging Hispanic states, those with predominantly less
Hispanics. Hispanic kindergartners in public schools are overwhelmingly born in the United States (93%), compared with 86% of Hispanic students in grades 1 through 8 and 77% in high school.

- The majority of Hispanic students are of Mexican origin (69%), followed by Puerto Rican (9%), Dominican (3%), Salvadoran (3%), and Cuban (2%).

- Nearly three in five Hispanic students (57%) live in households with both of their parents compared with 69% of non-Hispanic white students and 30% of non-Hispanic African-American students.

- More than seven in ten U.S. born Hispanic students of immigrant parents (71%) live with both parents. Smaller groups of foreign born students (58%) and U.S. born students of native parentage (48%) reside with both parents.

- More than a quarter of Hispanic students (28%) live in poverty, compared with 16% of non-Hispanic students. In comparison, more than a third of non-Hispanic African-American students (35%) reside in poverty and about one in ten (11%) non-Hispanic White students live in a poor household.

- A significant number of Hispanic public school students (34%) have parents who have not completed high school. Fewer than one in ten (7%) non-Hispanic students have parents who have not finished high school.

- Seven in ten (70%) Hispanic students speak a language other than English at home.

- Almost 30% of Hispanic public school students report speaking only English at home and an additional 52% of Hispanic public school students report speaking English very well; the remaining 18% of Hispanic students speak English with difficulty.
Nearly half (44%) of first generation students speak English with difficulty, compared with 20% of second generation students and 5% of third and higher generations.

Most Hispanic students (78%) live in households in which at least one household member over the age of 13 speaks only English in the home or speaks English very well (p. 14).

In Texas, the high school graduation rate clearly shows that Hispanic students are below the other groups. The Editorial Projects in Education Research Center (EPERC, 2005) estimates that over 120,000 public high school students in Texas failed to graduate in 2002 (as cited in Swanson, 2006). Texas falls below the national graduation rate of 69.6 percent and ranks 35th among all 50 states. The large disparities across different states are evident and data show that fewer than 60 percent of Hispanic students graduate with a diploma, compared to over 75% of White and Asian students (Swanson, 2006). Further analysis of the data shows that the lowest-performing group is that of Hispanic males who graduate at a rate of less than 53 percent (Swanson, 2006).

The Texas Education Agency reports that 84.2 percent of all students in high school in 2003 graduated (TEA, 2006). The EPERC (2005) has found, however, that Texas, along with other states such as New Mexico and North Carolina, overinflate this number. In an analysis conducted for the 2006 Diplomas Count report, the EPERC calculated 2002-2003 graduation rates for each state using the Cumulative Promotion Index (CPI). When EPERC calculated the Texas statistic, it only was able to account for 67 percent of all students graduating in 2003, 17 points lower than what TEA reported (Swanson, 2006). Swanson (2006) argued that official graduation rates for Hispanic students are overestimated by 20 percentage points. By
comparison, rates are inflated by 15 points for Whites. TEA-reported figures are also higher than CPI rates for each of the state’s ten largest school districts; Western ISD is one of these districts reported. Regardless of whose data is scrutinized, the Hispanic population still ranks much lower than any other student subgroup. EPERC claims that the inflated Texas rates are more extreme for minorities and large urban districts. (Swanson, 2006). The following figures generated by the EPERC report high school graduation rates and other information for the nation, Texas and Western ISD:

Graduation Rates and Other Information for the Nation, Texas and WISD

<table>
<thead>
<tr>
<th></th>
<th>United States</th>
<th>Texas</th>
<th>WISD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrollment</td>
<td>46,993,268</td>
<td>4,201,792</td>
<td>63,185</td>
</tr>
<tr>
<td>Schools</td>
<td>92,253</td>
<td>7809</td>
<td>94</td>
</tr>
<tr>
<td>Student Composition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Minority</td>
<td>40.6%</td>
<td>Minority</td>
</tr>
<tr>
<td></td>
<td>English Language Learners</td>
<td>9.2%</td>
<td>English Language Learners</td>
</tr>
<tr>
<td></td>
<td>Free/Reduced Lunch</td>
<td>38.7%</td>
<td>Free/Reduced Lunch</td>
</tr>
<tr>
<td>High School Graduation Rates</td>
<td>Native Americans</td>
<td>47.4%</td>
<td>Native Americans</td>
</tr>
<tr>
<td></td>
<td>Asian</td>
<td>77.0%</td>
<td>Asian</td>
</tr>
<tr>
<td></td>
<td>Hispanic</td>
<td>55.6%</td>
<td>Hispanic</td>
</tr>
<tr>
<td></td>
<td>Black</td>
<td>51.6%</td>
<td>Black</td>
</tr>
<tr>
<td></td>
<td>White</td>
<td>76.2%</td>
<td>White</td>
</tr>
</tbody>
</table>

(as cited in Swanson, 2006, pp. 7-8).

Even with the disagreement of how high school graduation rates are calculated, there is widespread consensus that Hispanics are less likely to graduate from high school compared with other demographic groups. Despite improvement in Hispanic high school graduation rates, in
2001 the state’s dropout rate for Hispanics was more than double that of African-Americans and Whites (Swanson, 2006).

Berger (2010) reported that census studies show only 13% of Hispanic adults have received at minimum a bachelor’s degree, compared with 31% of Whites, 18% of African-Americans and 50% of Asians. Berger (2010) states that these data are potentially statistically misleading because a majority of the Hispanics who were counted in the census are immigrants, many with weak English skills. The gaps narrow when only native-born Hispanics are counted; dropout and college endurance statistics roughly match those of African-Americans. Still, there remains a large gap among minority groups with Hispanics trailing their counterparts in relation to educational attainment (Berger, 2010).

Some of the reasons that Hispanic students display lower educational achievement data are no different from those of other groups, but several circumstances render them particularly vulnerable to underachievement in school. Tienda (2009) reports that:

….disproportionate shares of parents who lack either college credentials or high school diplomas; the large numbers raised in homes with parents who do not speak English at all or don’t speak English fluently; and the growing numbers attending large, segregated, underperforming schools (p. 18)

Tienda (2009) further states that no single factor can account for the persistent educational disparities among student groups, but collectively “…these circumstances define a profile conducive to poor secondary outcomes that, in turn, presage their underrepresentation in post-secondary institutions” (p. 19).

As Tienda’s (2009) research revealed, Hispanic children start on an unequal footing from preschool programs through high school. Delayed school enrollment of Hispanic preschool-age
children is one manifestation of low parental education. Although the share of Hispanic 3- and 4-year olds enrolled in a preschool program rose slightly, from 28 percent in 1980 to 36 percent in 2000, the gap placed larger numbers of Hispanic children at a relative disadvantage during the crucial early learning years (Tienda, 2009).

Another consequence of low parental education on their children’s educational attainment is the level of school readiness among preschool-age children. A substantial proportion of Hispanic youth has limited opportunity to acquire pre-literacy skills because low-education parents are less likely to read to their children (Tienda, 2009).

Deficits in basic reading and numeracy skills carry over to later grades as students go through the elementary school years. The growing number of Hispanics attending middle and high schools in large urban schools also becomes a factor in impeding their school success. Schneider and associates (2006) stated that compared with White and African-American students, Hispanics have weaker relationships with middle school teachers (as cited in Tienda, 2009). These poor relationships in turn diminish their motivation for academic work and lower their post-secondary aspirations. Although the transition from middle to high school is difficult for all students, alienation from teachers, counselors and school personnel makes the transition for Hispanic students even more arduous (Tienda, 2009).

High school counselors and teachers guide students to prepare for post-secondary studies, however, the decision is still up to the individual student to enroll in a variety of classes and unfortunately, not all students opt for the demanding upper level math and science courses. The Pew Hispanic Center (as cited in Tienda, 2009) reported that in 2000 only 31 percent of Hispanic high school graduates as compared to 47 percent of White students completed calculus, trigonometry or other advanced math courses. Additionally, 56 percent of Hispanic students
completed advanced science courses as compared to 64 percent of White students (Pew Hispanic Center, as cited in Tienda, 2009).

At the end of the high school experience, students face the HSEE which is viewed as yet one more obstacle to graduation. Amrein and Berliner (2002) report that the HSEE negatively affects students from racial minority backgrounds in greater proportions than it does White students. Their research reveals that HSEEs are more likely administered in states with higher percentages of African Americans and Hispanics and lower percentages of Caucasians (Amrein & Berliner, 2002). Their data reveal that 67% of the states with a higher percentage of Hispanics than the national average utilize high school graduation exams (Amrein & Berliner, 2002). Conversely, only 13% of the states with a higher percentage of Caucasians than the national average have implemented high school graduation exams (Amrein & Berliner, 2002). These data have been verified by the U.S. Census Bureau. This study will examine data to determine whether these academic gaps continue to exist in one particular large school system.

As previously reported, data show that the Western ISD has 79% Hispanic population and 67.3% of students in this district are on the free or reduced lunch program. These numbers indicate that there is an even greater percentage of students determined to be below the poverty level and qualify for the free or reduced lunch program.

Lopez (2010) maintains that cultural and economic factors have worked to sustain the performance disparity between Hispanics and other ethnic groups. (as cited in Berger, 2010). The Pew Hispanic Center (as cited in Berger, 2010) surveys indicate that Hispanic parents state they value education as much as any other minority group, however, when 16 to 25 year olds who dropped out of high school or had no further education beyond high school were interviewed, it was revealed that nearly three-quarters did so because they had to help their
family. Four in ten of these students said they did not need further education for the occupations they were pursuing. The survey also demonstrated that young Hispanic females were more likely to be teenage mothers caring for infants, making school attendance a burden. The survey also revealed that many Hispanic immigrant parents were not well educated in their home countries, with 34% of foreign-born Hispanic adults only obtaining a ninth-grade education (Berger, 2010).

Students from Lower Socioeconomic Groups and their Educational Achievement

Students who are classified as lower SES are those students that report their family income through the school lunch program. In the Western ISD, as in all Texas school districts, these students are identified through a review of the family income which identifies students who qualify for free or reduced lunch (TEA, 2006).

White (1982) reported that the family characteristic that is the most powerful predictor of school performance is socioeconomic status (SES). White (1982) reported that the higher the SES of the student’s family, the higher the student’s academic achievement. This relationship has been documented in countless studies and “…seems to hold no matter what measure of status issued – be it occupation of principal breadwinner, family income, parents’ education, or some combination of these factors” (White, 1982, p. 461).

According to White (1982), to categorize students by the family’s income or parent’s education is to “…order them on the extent of their participation and eventual degree of success in the American educational system” (p. 461). This has been so consistently confirmed by research, such as that conducted by White (1982) and Popham (2001), that it can now be regarded as “…empirical law - SES predicts grades, achievement and intelligence test scores, retentions at grade level, course failures, truancy, suspensions from school, high school dropouts,
plans for college attendance, and total amount of formal schooling” (White, 1982, p. 462).

Amrein and Berliner (2002) reported that the HSEE disproportionately affects students from lower socioeconomic backgrounds. Their data reveals that high school graduation exams are more likely to be found in states with the greatest degrees of poverty as compared to the nation. To look at the geographical demographics, economically disadvantaged students are most often found in the South and the Southwest and least often found in the Northeast and Midwest (Amrein & Berliner, 2002). Further, these researchers found that 69% of the states with child poverty levels greater than the national average have current or future plans to implement high school exit exams. They conclude that “…high school graduation exams are more likely to be implemented in states that have lower levels of achievement, and the always present correlate of low achievement, poorer students” (Amrein & Berliner, 2002, p. 10).

Amrein and Berliner (2002) contend that high school exit exams will not improve the schools attended by poor children and ethnic minorities. These tests have potential unintended consequences such as: narrowing the curriculum as teachers are pushed to teach to the test, increasing dropout rates and contributing to higher rates of students unable to graduate from high school. Consequently, Amrein and Berliner (2002) state that these “…unintended consequences would have a greater impact on the families and neighborhoods of poor and minority students” (p. 11).

Warren and Edwards (2005) researched HSEE and dropout rates in view of the SES factor. The sample included more than 25,000 randomly selected eighth graders in 1,000 randomly selected schools. Warren and Edwards (2005) reported that 40% of students in the sample were required to pass a HSEE and these were also more likely to be: minority students, have low SES, have failed a grade level or required to repeat a grade level. They assert that all these variables are associated
with students not graduating or dropping out. With regard to school characteristics, Warren and Edwards (2005) reported that schools in states with HSEEs were more frequently in “…urban areas, tended to have large populations and tended to have higher concentrations of minority students and students eligible for the free/reduced lunch program” (p. 59).

Similar to the findings of Amrein and Berliner (2002), Warren and Edwards (2005) found that the states that mandate HSEE are disproportionately located in the southeastern United States. Many are among the most economically disadvantaged in the nation and contain high proportions of racial/ethnic minority groups in urban settings (Warren & Edwards, 2005). Reardon (1996) states “…because of the geographic concentration of exit examination policies, it is not surprising that poor, minority, and urban students in the South are more likely to face such requirements (as cited in Warren & Edwards, 2005, p. 54). States with HSEEs tend to have higher poverty rates, higher proportions of minority students, and lower levels of academic achievement (Warren & Edwards, 2005).

One possible explanation given for this geographic concentration of the HSEE requirement is that the “…southeast traditionally has ranked near the bottom of the states on National Assessment of Education Progress (NAEP) scores, college entrance tests such as the SAT, and other indicators of educational status” (Warren & Edwards, 2005, p.54). They contend that it is therefore likely that educational policymakers in those states “…would feel compelled to implement programs designed to improve the achievement of their students, and as a result, the standings of their states in national educational rankings” (Warren & Edwards, 2005, p. 55).

Eckland and Heubert (2000) offer another perspective of the HSEE. They propose that these exams might be viewed as a “…policy mechanism that widens social and economic disparities in rates of high school diploma acquisition, particularly given that poor, minority, and
urban students in the South are more likely to fail such tests” (as cited in Warren & Edwards, 2005).

Popham’s research into high-stakes tests and their biased affect on lower socioeconomic status students is extensive. In one example, Popham (2008) looked at a sixth grade science test item that explains that a plant’s fruit contains seeds and asks the student to identify which is not a fruit – an apple, pumpkin, orange or celery. Popham (2008) presents the argument that children who eat fresh apples and oranges, snack on celery sticks and carve pumpkins as jack-o-lanterns for Halloween are more likely to answer this question correctly. Popham (2008) further states that children whose parents rely on food stamps to feed the family and cannot afford the luxury of fresh fruit and vegetables, let alone pay for a pumpkin to carve, would find this difficult question to answer.

Popham (2004) reports another example of a test item that can tend to be biased is a fifth-grade vocabulary item that states: “My dad’s field is computer graphics” (p. 72). Students are given the following answer choices:

- The pitcher could field his position.
- We prepared the field by plowing it.
- The doctor examined my field of vision.
- What field will you enter after college? (Popham, 2004, p. 72)

Popham (2004) claims that children from advantaged backgrounds will do well on this vocabulary item, but students from low SES backgrounds will have difficulty with this exercise. A child who comes from a family with a parent in a professional job, such as physician or attorney, understands the parent has a field. If the child’s dad works in a car wash and mom is a cashier in a convenience store, Popham (2008) states that this particular student will not
understand that a parent has a field. These parents have jobs, but not fields, Popham (2008) maintains. Some students from poor backgrounds will answer this question correctly, but on the average, children whose families have a higher SES will do better on test items similar to this example (Popham, 2008).

Further research by Popham (2008) into national standardized test items determined the percentage of items linked to SES:

<table>
<thead>
<tr>
<th>Subject</th>
<th>SES Linked Item Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>15%</td>
</tr>
<tr>
<td>Language Arts</td>
<td>65%</td>
</tr>
<tr>
<td>Mathematics</td>
<td>5%</td>
</tr>
<tr>
<td>Science</td>
<td>45%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>45%</td>
</tr>
</tbody>
</table>

(p. 126)

Popham (2008) maintains that although this bias is subtle, the inclusion of “…such content in a standardized test tends to penalize children from less affluent background” (p. 126). Popham (2008) succinctly voices that these types of socioeconomic linked test items measure “…what students bring to school, not what students are taught in school” (p. 126).

Popham (2004) reports that, of the nationally standardized test items he reviewed, 50 percent of the items were either aptitude-linked or SES-linked; in language arts it was more than 75 percent. The impact was less in math, at approximately 15%. Whether trying to be objective in reviewing test items or even only taking half of these percentages, Popham (2004) maintains that this still leaves far too many items on standardized achievement tests that measure what students bring to school already imprinted from their family background.
Lewis, Simon and Uzzell (2010) reported on African-American male students’ math and reading NAEP (2009) test scores and found that this minority group continues to show low achievement levels even when controlling for the SES factor. They report that African-American males in large city public schools who were not eligible for the free/reduced lunch program had reading and math scores similar to or lower than those of White males in public schools who were eligible for the free/reduced lunch program (Lewis, et al., 2010). These researchers determined that the average reading score of African-American males who were identified as not eligible for free/reduced lunch programs was one point lower at grade four and seven points lower at grade eight than the scores of White males who were identified as low SES (Lewis, et al., 2010).

**At-Risk Student Factor**

TEA uses the term *at-risk* to categorize students from all grade levels that are deemed to be in danger of dropping out of school. This code is used by public schools to tag students’ files for possible intervention and to report data to the state and federal educational agencies. The at-risk indicator code uses state-defined criteria only and includes all students who meet any one of the following criteria:

1. A student who is in pre-kindergarten through third grade who did not perform satisfactorily on a readiness assessment.
2. A student in grades 7-12 who did not maintain an average equivalent to 70 in two or more subjects in the foundation curriculum during that current school year.
3. A student who was not advanced to the next grade level for one or more school years.
4. A student who did not perform satisfactorily on an assessment instrument and who has not in the previous or current school year subsequently performed on that
instrument or another appropriate instrument at a level equal to at least 110 percent of
the level of satisfactory performance on that instrument.

5. A student who is pregnant or is a parent.

6. A student who has been placed in an alternative education program due to
disciplinary reasons.

7. A student who has been expelled.

8. A student currently on parole, probation, deferred prosecution or other conditional
release.

9. A student previously reported through PEIMS to have dropped out of school.

10. A student who is Limited English Proficient, as defined by TEA codes.

11. A student who is in custody or care of the Department of Protective and Regulatory
    Services or who has been referred to the department by a school or law enforcement
    official.

12. A student who is homeless, as defined by TEA codes.

13. A student who resides or has resided in a residential placement facility, including a
    foster home, substance abuse treatment facility or detention facility (TEA, 2010c).

Students need to meet only one of the criteria listed above to be classified as at-risk.

Once a student is reported as at-risk, the code remains in the student’s file until graduation or the
student leaves the school system (TEA, 2010c).

Limited English Proficiency Status

Western ISD reports 30% of the total student population as Limited English Proficient
(LEP). With its geographical proximity to the Mexican border, Western ISD has a larger LEP
population than the 16% reported statewide average. The area schools report a major portion of
LEP students as recent immigrants that speak little or no English other than in the school setting and enroll with different language abilities and educational backgrounds (WISD, 2010).

The state and federal educational agencies use the LEP acronym interchangeably with English Language Learners (ELL) label to define a student who:

…was not born in the United States or English is not a native language or that comes from a background in which English is not the primary language and has difficulty reading, writing, speaking or understanding the English language that may deny the individual the ability to meet the state’s proficient level of achievement (NCLB, as cited in TEA, 2010e, p. 37).

The LEP subpopulation is one of the fastest growing within total school membership. According to the Hispanic Dropout Project (1996), LEP students, especially those with Spanish as their primary language, are twice as likely to be below the reading level of their White or Asian-American peers (Secada, 1996 as cited in Fry, 2008). According to the National Center of Education Statistics (1997), the percentage of LEP school-age children nearly doubled from 2.8% in 1979 to 5.4% in 2005 (as cited in Fry, 2008).

Results from national and state assessments indicate that LEP students are among the sub-groups least likely to meet state proficiency standards on mandated assessments (Fry, 2008). Fry (2008) states that the “…fastest-growing group of students is also one of the lowest-achieving student groups in reading and math” (p. 9). Several analyses examined the academic achievement of LEP students at both the national and state levels and report that the majority of LEP students scored below proficiency standards (Batalova & Fix, 2010). One study compared the five states with the largest population of LEP students, Arizona, California, Texas, Florida and New York, and examined the state assessment results of White and LEP students. The
reported differences in Texas test scores between White and LEP students showed LEP students 18% points lower in elementary grades and 53% points lower in middle school (Fry, 2008).

The HSEE is required of LEP students and presents a major obstacle in language as well as content mastery. According to TEA accountability requirements, LEP students in grades 2-10 may receive three years of exemption from the TAKS test (TEA, 2010). However, LEP students are not eligible for an exemption from the exit level testing on the basis of limited English proficiency. TEA (2010) states “…like other Texas public school students, LEP students are required to perform satisfactorily on the exit levels test in order to fulfill the assessment portion of their graduation requirements” (p. 37). The state does allow for an exit level LEP postponement during a student’s first 12 months of enrollment in U.S. schools (TEA, 2010).

Giambo (2010) conducted a study of LEP students in Florida who were required to pass the HSEE in order to graduate. Giambo (2010) reported a high failure rate for LEP students and consequently an equally high drop-out rate. Specifically, this research examined aggregate scores for the state achievement assessment beginning with grade 10 revealing that reading and math scores for LEP students showed a flat trend and remained low (Giambo, 2010). This researcher stated that the HSEE essentially was a test of academic English proficiency for a LEP student. Without academic proficiency in English, LEP students are not able to validly demonstrate their knowledge of content (Giambo, 2010).

Fishkin (2010) examined the process of second language acquisition and suggests that formation varies from person to person. Fishkin (2010) reports that, according to principles of language learning, it takes about three to five years for a LEP student to have sufficient language mastery to function successfully in the mainstream classroom (Fishkin, 2010).
Collier and Thomas (1989) assert that language acquisition takes even longer. According to their research findings, it takes five to seven years of English instruction for students to function effectively in academic courses. Collier and Thomas (1989) based their conclusion on an assessment of 2,014 LEP students over a ten year period. The tests were in reading, language arts, math, social studies and science. This research mirrors the TAKS test content used in this study. Collier and Thomas (1989) stressed that the fact critical to their study of LEP students was the students’ socioeconomic level. LEP students from middle-class families who had a systematic formal education in their native country were able to transfer skills to English in less time than those LEP students from lower-class families that came from rural areas and whose formal education was incomplete or had been interrupted (Collier & Thomas, 1989). Collier and Thomas (1980) maintain that LEP students from lower SES background will tend to take longer than five to seven years (as cited in Cornell, 1995).

High school students in the United States who have been identified as recent immigrants are reported as LEP and placed in language acquisition classes. Clearly, for LEP students, the language used in the assessment is a key factor to success or failure. The four years in high school is not sufficient time, however, according to these researchers’ findings, for these students to learn English and have academic success.

Multiple Choice Tests, Test Anxiety and Student Performance

Multiple choice item tests are the predominant format for testing educational knowledge and attainment from the early elementary grades through graduate school. Anyone who has attended a United States school in the last half century is familiar with bubble tests; a question is posed with four or five possible answers and students respond by filling in the blanks with a number two pencil. A number two pencil is used because the lead in the pencil is a conductor of
electricity so that the answer sheets can be scored by a scanning machine (Lemann, 1999). Four and five-year olds take multiple-choice reading-readiness tests; elementary, high school and college students take classroom and standardized achievement tests in multiple-choice format.

Typically used in classrooms or other group settings to measure achievement, “…the multiple choice test is an objective, easy score able device for obtaining information about a student’s knowledge in any given content area” (Miller, 1978 as cited in Lemann, 1999, p. 37). The term objective in this context means “…that the correctness of any possible answer is determined before the test is given and that scoring error is minimized” (Miller, 1978 as cited in Lemann, 199, p. 37). Lemann (1999) stated that multiple choice tests refer “…to the fact that possible answers are given and the student has to choose rather than provide an individual response” (p. 37).

Critics have challenged the use of multiple choice tests because they appeared to limit the way students could answer the questions (Miller, 1992). Critics charged that the questions did not encourage thinking, focused on memorized facts and students could guess at answers without any prior knowledge. However, test designers took up the challenge to make more sophisticated multiple-choice tests. In many cases multiple choice tests now require considerable thought, even notes and calculations, before bubbling in that one correct answer (Miller, 1992).

Zucker (2003) nonetheless stated that multiple-choice tests are “…clearly limited in the kinds of achievement they can measure” (p. 2). Zucker (2003) states that these tests do not ask students to produce anything, but only to recognize, with or without thought, the correct answer to bubble in. In doing so, Zucker (2003) states that multiple-choice tests “…foster a mindset that expects a right answer even though further experience in both school and life tends to frustrate that expectation” (p. 2).
Growing use of standardized tests has increased the demand for multiple-choice items. From comparatively little use in the early part of the twentieth century, standardized tests now nearly a century later encompass many of life experiences. Multiple choice items are frequently used to assess intelligence, school achievement, interests, personality characteristics, special aptitudes and attitudes (Miller, 1978). Each year millions of persons take some form of standardized test, and the companies that produce, score, disaggregate and interpret test results have budgets that run into the millions (Miller, 1978).

Crocker and Schmitt (1987) researched student performance on multiple-choice tests and cite that a single score on a multiple-choice test may be a critical factor in decisions regarding placement into programs, professional certification, or in the case of this study, graduation from high school. According to these researchers, each year millions of persons take some type of standardized test in a multiple-choice format. Technology has also created increased supply and demand of assessments due to computerized test platform generation from test-item banks, as well as instant scoring capability. The increased dependence on criterion-referenced tests coupled with NCLB mandating annual testing for every student in grades 3-12 has prompted an exponential demand for multiple-choice assessments. The process begins with test-item banks referenced to curriculum and instructional objectives to test scoring that includes data analysis for each test item, for each student, classroom, school and district (Cizek & Burg, 2006). Cizek and Burg (2006) state that the full impact of computer-produced tests is best seen in the classroom and in statewide assessments, such as the TAKS.

To illustrate the immense use of tests in the classroom, a report by the General Accounting Office (GAO) (1993) estimated that:

(1) The total number of individual tests administered in elementary and secondary schools
each year is 36 million;

(2) The per-pupil cost of testing is about $14.50 per student; and

(3) The amount of time devoted to system-wide student testing each year is only about 3.5 hours per year. (as cited in Cizek & Burg, 2006, p. 1)

This mass production and use of tests at every level of education has come with an increase of test anxiety. Test anxiety is defined as one of “…many specific forms of anxiety that result in a combination of cognitive and physical responses that are aroused in testing situations where a person is being evaluated” (Cizek & Burg, 2006, p. 1). Test anxiety has taken on increased importance as the consequences of high-stakes tests have increased in the classroom.

Cizek and Burg (2006) state that test anxiety can pose serious threats to individual students and place the accurate interpretation of test scores at risk, ultimately hindering learning. Their research proposes that test anxiety is a “…collection of responses from an individual who is being evaluated that varies in degree with each individual” (Cizek & Burg, 2006, p.13). In the case of this study, the HSEE bears the heavy weight of high school graduation; therefore, test anxiety is an important issue for students who feel threatened by this evaluation. “This threat is most likely to be aroused when a student perceives that the evaluation is likely to be low” (Cizek & Burg, 2006, p. 13). This perception arises because the student may believe his or her knowledge or ability is inadequate to perform successfully on the test.

Cizek and Burg (2006) report that because the level of test anxiety is increased in a student, lower test performance can result and the students’ perception of the threat may turn out to be accurate. Thus, the cycle of heightened test anxiety leads to lowered test performance and, the student will perform poorly on tests, regardless of their level of knowledge and ability (Cizek & Burg, 2006).
Crocker and Schmitt (1987) researched test anxiety and its relation to the multiple-choice item formats. They assert that a score on a single multiple-choice test may be a critical factor in decisions, such as graduation or professional selection. These researchers explored this field with groups of students that showed low and high levels of test anxiety. Their results suggest that “…debilitating effects of high test anxiety” may help to explain the low scores of those students in a control group (p. 204). They state that students with “… little or no test anxiety attend mostly to task relevant variables, while highly test anxious students attend to both self relevant and task relevant variables” (p. 204). These researchers found that students with less test anxiety focus their attention on tasks at hand, such as thinking of the answers to the tests they are taking, while students with high levels of test anxiety focus on self preoccupation variables, such as self-esteem and worry about their performance on the task, thus detracting their thought processes from the answers they need to generate (Crocker & Schmitt, 1987).

The issue of math anxiety is a concern that has been explored by researchers. There are individuals for whom mathematics is a very difficult subject to understand, is not enjoyed or for which many have little or no aptitude in school. Richardson and Suinn (1971) define math anxiety:

Math anxiety is feelings of tension and anxiety that interfere with the manipulation of numbers and the solving of mathematics problems in academic situations; math anxiety may prevent a student from passing fundamental mathematics courses or prevent the student from pursuing advanced courses in mathematics. (as cited in Meece, Wigfield and Eccles, 1990, p. 94).
Data from studies, such as those reported by Richardson and Suinn indicate that poor performance on mathematics tests and test anxiety are highly correlated (as cited in Meece, et al., 1990).

Math anxiety and associated poor performance on math assessments discourage students from pursuing further math courses (Meece, et al., 1990). Many otherwise academically capable students prematurely restrict their educational and career options by discontinuing their mathematical training early in high school due in part to their formative experiences with math anxiety. Surveys from the National Assessment of Educational Progress (1990) and the National Center for Educational Statistics (1989) indicate that only half of all high school graduates enroll in mathematics courses beyond the tenth grade (as cited in Meece, et al., 1990). These reports also indicate that fewer females than males enroll in the more advanced courses in high school mathematics. Furthermore, students of both sexes, but particularly females, do not attain a high level of mathematical competency, even if they have completed four years of high school math (Meece, et al., 1990).

Meece, et al. (1990) contend that math anxiety relates negatively to students’ performance on standardized tests of mathematics achievement, grades in mathematics, plans to enroll in advanced high school math courses, and selection of math-related college majors. Their extensive research with students showed that math anxiety definitely plays a role when it comes to scores on math tests, general attitudes toward math and self-concepts of math ability (Meece, et al., 1990).
Campus Characteristics and High School Exit Exam Student Performance

Effect of Campus Size

Educational leaders are continually searching for the best methods to produce the conditions most favorable for learning and success of students. Researchers have considered school size along with other facets of education while searching for optimal conditions for learning.

Campus size is an important factor that affects students’ test performance. The Western Independent School District is the largest district in the west Texas area and, according to the University Interscholastic League, several of the high schools are categorized as 5A, which are among the largest. The UIL arranges high schools in Texas by classification to ensure that schools compete with other schools of similar geographic area, both academically and athletically. The classifications are 1A, which is the smallest to 5A, which is the largest (UIL, 2010). The following is the enrollment data for each high school in WISD:

<table>
<thead>
<tr>
<th>School</th>
<th>Enrollment 2009-2010 School Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apple High School</td>
<td>1832</td>
</tr>
<tr>
<td>Ash High School</td>
<td>1510</td>
</tr>
<tr>
<td>Beach High School</td>
<td>1050</td>
</tr>
<tr>
<td>Bush High School</td>
<td>1540</td>
</tr>
<tr>
<td>Copper High School</td>
<td>1839</td>
</tr>
<tr>
<td>Cotton High School</td>
<td>2482</td>
</tr>
<tr>
<td>Elk High School</td>
<td>1333</td>
</tr>
<tr>
<td>Freedom High School</td>
<td>3002</td>
</tr>
<tr>
<td>Inex High School</td>
<td>1695</td>
</tr>
</tbody>
</table>
All of the WISD traditional high schools have an enrollment over 1000 students. Stewart (2009) found significant correlations between school size and student performance on the TAKS tests. Stewart’s (2009) findings indicate that smaller rural schools experience higher percentages of students that pass all four of the exit level TAKS tests than larger schools (Stewart, 2009).

School districts and campuses have experienced phenomenal growth over the past 70 years, and according to Herzog and Pittman (1995), the following factors have driven the growth in campus and district size:

(a) the overall population of the United States has seen an increase,

(b) many families have moved to metropolitan areas from sparsely populated rural areas, and,

(c) legislators have been looking for ways to cut spending thereby requiring schools and districts to be more efficient. (p. 114)

High schools with 400 to 900 students tend to hold more promise for student academic success than the larger schools (Stewart, 2009). While there are no standard definitions among researchers for small and large high schools, some generally accepted guidelines refer to small high schools as those with less than 400 students enrolled. Numbers greater than 900 are generally considered large high schools (Stewart, 2009). Western ISD campuses fit Stewart’s (2009) description of large high schools.

Stewart (2009) found that there is a significant correlation between school size and TAKS achievement. The research data reveals that 69.83% of the students in 1A schools passed all four parts of the TAKS tests while 57.84% of students in 5A schools passed (Stewart, 2009).
Stewart (2009) further examined the TAKS test results with different socioeconomic levels. This researcher disaggregated data by SES quartiles:

- the 1st quartile represents less than 25% low SES school student population
- the 2nd quartile represents 25% to 49% low SES school student population
- the 3rd quartile represents 50% to 75% low SES school student population
- the 4th quartile represents 75% to 100% low SES school student population.

(Stewart, 2009, p. 24)

Data in this research indicate that in all but the 1st SES quartile, smaller schools experience higher percentage of students passing all four parts of the high school TAKS exit exam than the larger schools. Data revealed that 69.83% of students in 1A schools passed all four exit TAKS tests while 66.74% of students in 5A schools passed the same tests. In the 3rd SES quartile, 64.01% of students in 1A schools passed these four exit exams while 57.84% of students in 5A schools passed the same tests. In the 4th SES quartile, 53.80% of students in 1A schools passed all four exit TAKS exams compared to 50.56% of students in 5A (Stewart, 2009). The following chart shows the percentages of eleventh grade students who passed all four parts of the exit TAKS test in 2005-2006 by class classification as well as socioeconomic status:
Further research suggests that economically disadvantaged students are better served in the close knit settings of smaller schools, due to the familial nature of the relationships between staff and students (Stewart, 2009). School size is yet another factor to consider in success of student academic achievement.

Raywid (1998) prepared a synthesis of research regarding school size and student achievement. This report included research by McMullen (1994), which included 20,000 student records in the Philadelphia area and compared student achievement in large and small schools. Huang and Howley (1993) also sought to determine the performance differences between large and small schools by examining 13,000 student test scores in Alaska. Lee and Smith (1995) conducted research involving 12,000 students in 800 high schools nationwide in this same manner. All of these studies consistently revealed that high school students in small schools were more likely than those in large schools to pass major subjects and progress toward high school graduation (Raywid, 1998). Raywid (1998) contends that smaller schools permit
more human connections, greater teacher to student interaction, as well as close collaboration between teachers and administrators.

Raywid (1998) posits that campus size had more influence on student achievement than any other factor under the control of educators. However, Howley (1995) found that the SES variable is also an important factor to consider (as cited in Raywid, 1998). Howley (1995) reported that students from high SES backgrounds actually profit more from large schools than from small high schools. Howley (1995) stated that larger school size has a negative effect when high numbers of lower SES students are present (as cited in Raywid, 1998).

Werblow (2009) reports that even though the consensus has been that student do better in the smaller school setting, a five year evaluation of the Bill and Melinda Gates Foundation’s High School Initiative (2007) found that smaller schools in three out of four districts studied did not lead to increased student achievement on standardized reading and math assessments (as cited in Werblow, 2009). These findings are challenged due to methodological weaknesses in the research. Werblow (2009) states that research on school size has lacked:

(1) generalizability, because random assignment of students to schools is generally not practical and findings cannot be generalized beyond the sample,

(2) researchers’ inconsistent quantifying large versus small schools, and

(3) multivariate analyses which can account for sampling differences across schools and students” (p. 15).

Werblow (2009) also cites that research regarding school size and student performance is inconsistent because of the array of measures that are used to determine achievement. School effectiveness has been measured by standardized test scores, graduation rates, SAT scores and dropout rates. Werblow (2009) states that the differences in student achievement among
schools are explained less by school characteristics, such as size, and more by differences in the students themselves, including gender, ethnicity, and SES (Werblow, 2009).

Werblow (2009) found that SES and student ethnicity, explained up to 30% of the difference in students’ math learning, thereby minimizing the impact of high school size. The study concluded that school size had more statistical significance with regard to dropouts than it did in math achievement. This researcher analyzed data from 16,081 students in tenth grade from 752 schools in a statistical sampling to create a national representative overview of high schools (Werblow, 2009).

Effect of Campus Teachers’ Classroom Experience

A school characteristic variable used in this study is that of campus teachers’ experience level. Murnane (1981) and Klitgaard (1974) both have found a relationship between teachers’ effectiveness and their years of experience leading to a direct effect on student academic performance (as cited in Darling-Hammond, 1999). These studies have shown that inexperienced teachers, those with less than three years of classroom experience, are typically less effective than more senior teachers. These researchers have reported that the benefits of experience appear to even out after about five years (Murnane, 1981 and Klitgaard, 1972, as cited in Darling-Hammond, 1999). These studies show that a possible cause of this leveling off trend in experience is that older teachers do not always continue to grow and learn and may become tired in their jobs. This tendency for teachers to stop growing professionally can be mitigated. When veteran teachers work in settings that emphasize collaboration and team building, they will continue to improve their teaching techniques and pedagogy (Darling-Hammond, 1999).
Rivkin, Hanushek and Kain (2006) conducted a study to examine teacher influence on students’ academic achievement. These researchers used data from the University of Texas at Dallas Texas Schools Project and evaluated the specific impact of teacher quality, as measured by teachers’ years of experience in the classroom, college major and level of college degree, on student performance on state reading and mathematics assessments. The researchers concluded that “…teachers and therefore schools matter importantly for student achievement” (Rivkin, et al, 2006). Their research identified large differences in the quality of instruction. This study also concluded that even though “…achievement gains were systematically related to teacher and school characteristics, the effects were generally small” (Rivkin, et al, 2006, p. 420). The report states that even though there appear to be important gains in teaching quality in the first year of experience, the trend shifted to smaller gains over the next few years in the classroom.

However, Grissmer (2000) found that “…teacher experience did not show significant effects on achievement” (Grissmer, 2000, p. 5). This finding came as a result of a review of test scores from the National Assessment of Educational Progress (NAEP) in math and reading from 1990 to 1996 and a corresponding analysis of factors that influenced performance, including teacher characteristics.

Another study conducted by the Center for Educator Compensation Reform (2002) regarding teacher education and experience concluded that these two variables are not strong predictors of teacher effectiveness as measured by student achievement gains on standardized tests. Researchers involved in this study of Chicago public school teachers “…found 90 percent variance in teacher effects on students that was not explained by teacher characteristics such as highest level of education, years’ experience and credentials” (Center for Educator Compensation Reform, 2002, p. 2). This same research revealed that even though teachers
become more knowledgeable and skilled with additional years of experience, the “...preponderance of evidence suggests that teacher experience matters most during the first several years of a teacher’s career” (Center for Educator Compensation Reform, 2002, p. 2).

Wenglinsky (2002) also addressed school and teacher impact on student academic performance. This study included 2829 high school students who were tested in mathematics and science in the 10th, 11th and 12th grades. Teacher characteristics were surveyed and teacher experience and level of college degree proved unrelated to student achievement. Goldhaber (1995) found similar results when data on 5149 tenth grade students in 639 schools drawn from the National Educational Longitudinal Study of 1988 were analyzed. Of the various factors studied, teacher experience was found to be insignificant. The only factor that made a difference in this study was the level of college mathematics courses taken by math teachers, namely whether the teacher had majored in their content (Wenglinsky, 2002).

The literature addressing the nature of the relationship between teaching experience and student achievement indeed offers mixed results. Some have found a positive correlation (Klitgaard, 1974, Murnane, 1981, Rivkin, et al, 2006), while others have not determined a significant connection (Center for Educator Compensation Reform, 2002, Goldhaber, 1995, Grissner, 2000, Wenglinsky, 2002).

Effect of Campus Principals’ Longevity

Campus principals are an integral component to a school’s effective performance and these administrators play important roles in establishing campus environments conducive to students’ academic achievement and performance on standardized tests. Campus leaders interact on a daily basis with teachers and students and “…all major research on school effectiveness shows that the principal strongly influences the likelihood of student success,” (Leech, 2008, p. 631).
Leithwood and Wahlstrom (2008) provided a voluminous review of leadership research and concluded that leadership is important in improving schools. Knab (2009) found statistical significance between the leadership practices of high performing high schools and the leadership practices of low performing schools as measured by the Leadership Practices Inventory and staff surveys. Daresh (1986) asserted that the “…principal’s behavior might be the single most important determinant of school effectiveness” (p. 168). The campus high school principal is responsible for leading and directing daily curricular functions and is vital to creating a collaborative learning environment that assists students in earning high school diplomas.

For these reasons, it is important to consider the longevity of the campus principal and the possible impact of years of experience. Norton (2002) reports that a healthy and steadfast school climate needs purposeful and persistent campus leadership, which starts with the campus principal. A campus principal has been described as a politician, legal expert, disciplinarian, coach, persuasive leader, fiscal manager, consensus builder, instructional leader, cheerleader, crisis manager, and with NCLB, data analyst and statistical expert (Norton, 2002). Finding these traits in a strong effective administrator is more difficult than ever. As principals retire, leave their positions or are asked to leave their positions, the numbers of qualified replacements are dwindling (Norton, 2002).

Leech (2008) states that many baby boomers, who now hold the majority of these jobs, will be retiring in the next few years. The typical principal is described as White, male, 50 years old and has been a classroom teacher or coach (Leech, 2008). Veteran principals are leaving because of school reform or simply because they no longer want to do the work (Leech, 2008). Leech (2008) estimates that in some geographical areas, 60 percent of campus principals will leave their positions over the next five years. Considering the importance of the principal and in
view of the fact that there appears to be a growing attrition rate, longevity becomes an important factor to examine in terms of student success.

Clark (2009) examined the relationship between a principal’s characteristics and school academic performance. Clark (2009) found little evidence of a relationship between school performance and the principal’s education and pre-principal work experience. Evidence was found, however, that demonstrated experience as assistant principal at the principal’s current school positively affected student performance. Clark (2009) found a positive relationship between principal experience and school performance, particularly for math test scores and student absences.

Brewer (1992) studied the effects of principals on public high school students’ academic achievement and found that little systematic evidence existed for principal effects (as cited in Grissom & Loeb, 2009). The results from this research suggested that principals did have a measurable impact on student achievement through the selection of teachers and the setting of curricular goals (Brewer, 1992, as cited in Grissom & Loeb, 2009).

Grissom and Loeb (2009) also examined the school principals’ influence on student achievement regardless of longevity when attempting to determine how a single person can affect change, whether in student test scores or graduation rates, it is difficult to distinguish which latent factor is the impetus for this change. Even when a statistical link between particular principals and student outcomes is identified, it is difficult to identify which factors, such as longevity, leadership style or any other “…set of principal skills that are associated with positive school outcomes where outcomes are measured in multiple ways from multiple perspectives” are responsible for this change (Grissom & Loeb, 2009, p. 2).
A study completed for the National Association of Secondary School Principals (NASSP) revealed a 50% turnover of high school principals during the 1990’s and noted that this trend would increase in the next decade (Norton, 2002). This same study also found that although administrators’ salaries are increasing, they do not match the change in the consumer price index. According to the survey, high school principals earned an average of $92,965 in 2006 (Norton, 2002). The campus principal is faced with what has been described as the loneliest job and Hertling (2001) points to factors that make the principalship a highly stressful charge:

1. minimal pay differences between top teacher and administrator,
2. overwhelming high expectations,
3. state and district mandates that require endless amounts of paperwork and research,
4. long hours, from 60 to 80 hour work week,
5. workload and complexity of the job,
6. supervision of evening activities, and
7. increasingly complex society and social problems (p.2)

Factors cited that lead principals to leave their jobs are “…erosion of authority to effect change, escalating expectations of accountability, lack of support, and a stressful political environment for school leaders” (Hertling, 2001, p. 2).

With this high turnover, according to Clark’s (2009) research, the loss of that campus principal’s intellect and experience can impact students’ educational attainment. Principal attrition is costing school districts and taxpayers millions, and impacting the community, as well as further straining already tight school budgets. Norton (2002) believes that the low-estimate cost to replace a classroom teacher is 25% of that teacher’s salary, or about $12,000.
A conservative estimate for replacing a mid-management administrator in a typical school district is approximately $25,000.

Reasons principals are leaving their positions are reported to include:

- the changing demands of the position
- salary
- time
- lack of parent and community support
- the negativity of the media and pupils towards schools and
- lack of respect (Norton, 2002, p. 3)

Compounding the attrition problem is the fact that fewer individuals are being attracted to the principal’s position. Pounder and Merrill (2000) found that of the 170 high school assistant principals and middle school principals, only 30% of them indicated that they had their career goals set on becoming a high school principal.

Fuller and Young (2009) analyzed employment data from 1995 to 2008 for more than 16,500 public school principals. They found that the average tenure over that time period was 4.96 years for elementary school principals and 3.38 years for high school principals. This analysis further revealed that these administrators did not leave their schools to head other schools; instead, Fuller and Young (2009) found that 45 percent of the Texas principals were no longer employed by their schools districts. Thirty-two percent had moved to central office positions, 15 percent were working in another professional capacity in schools, such as counselors, and another 8 percent were teaching in the classroom (Fuller & Young, 2009).

Viadero (2009) maintains that early principal attrition causes several problems. These administrators do not stay long enough to make a positive impact. They are unable to establish
meaningful connections, which would enable them to implement programs or changes that result in positive differences in student achievement. However, Viadero (2009) asserts that some individuals hold a different perspective of principal turnover. Attrition is viewed as a sound practice in the time of accountability as non-productive principals are leaving or are asked to leave the position in order to bring in educators that will prove successful.

Effect of Federal and State Accountability Campus Status

Accountability for school campuses takes its form both from federal and state levels. In order to receive certain funds such as Title I the federal government directs that states periodically measure student achievement through standardized tests in the core areas of math, reading and science (NCES, 2010). The federal government further requires that states adhere to a schedule of progressively more severe sanctions and interventions if schools fail to meet adequate yearly progress (AYP). This progress is reported and monitored through achievement data disaggregated by student subpopulations. In Texas, the 11th grade TAKS scores are used for analysis (TEA, 2010d).

NCLB’s multi-component accountability system for schools has set AYP targets for each school year; if a school does not meet AYP goals for one year, no sanctions are applied, but they are given a warning of the potential for future penalties. A school that does not meet AYP for two consecutive years is identified for improvement and allocated funds to provide assistance and interventions in order to improve students’ academic achievement and raise test scores. Along with this measure, students in these schools must be offered the opportunity to transfer to higher performing campuses within their districts. Students must be given the additional option of enrolling in supplemental educational services approved by the state in addition to the daily school instruction if a school fails for a third consecutive year to not meet AYP goals. A fourth
consecutive year of missing AYP standards places that campus into a corrective action status at which point the district must implement interventions including the replacement of staff and curricular programs, adding time to the school calendar, restructuring the school internally, or bringing in an outside school interventionist. Missing AYP for the fifth consecutive year leads to a total restructuring of the school, which requires major changes in school’s staff, converting the school to charter-school status or turning the campus over to the state or a private firm (NCES, 2010).

The U.S. Department of Education (2000) published performance standards for 2002 to 2014. The standards are intended to increase until 100% are reached in 2013-14. For the first six years, the standards were held constant for two years at a time with increases occurring at the end of the second year. The standards then increased annually beginning in 2008-09. The following table outlines the standards.

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>47%</td>
<td>53%</td>
<td>60%</td>
<td>67%</td>
<td>80%</td>
<td>80%</td>
<td>87%</td>
<td>93%</td>
<td>100%</td>
</tr>
<tr>
<td>Math</td>
<td>33%</td>
<td>42%</td>
<td>50%</td>
<td>58%</td>
<td>75%</td>
<td>75%</td>
<td>83%</td>
<td>92%</td>
<td>100%</td>
</tr>
</tbody>
</table>

(TEA, 2010b, p.25)

Texas sets forth state accountability standards at the same time by which schools also report student achievement namely test scores, attendance figures, graduation rates and college readiness rates. The state uses the 10th grade TAKS to rank the campuses as academically unacceptable, academically acceptable, recognized and exemplary (TEA, 2006). Pilotin (2010) reports that schools are thus measured by “varying yardsticks” (p.546), which are used to determine student, school and district progress. Pilotin (2010) offers that states are allowed to set their own benchmarks. This latitude prompts some states to set lower academic standards,
particularly because NCLB mandates sanctions to schools that consistently report low test scores. The use of “...varying yardsticks demonstrates the arbitrary manner in which schools are labeled where one state standard could laud the school as successful while a federal measure dismisses the same school as failing” (Pilotin, 2010, p. 547). Annual reports do show campuses rated as exemplary by the state and, at the same time, as not meeting AYP according to federal standards.

In support of federal accountability goals, President Obama’s administration earmarked $4.35 billion in education stimulus funds from the American Recovery and Reinvestment Act of 2009 to support state educational initiatives. The government set aside $350 million of this allocation for states to develop common assessments. The administration’s Race to the Top Assessment Program was established to coordinate states’ efforts to develop common academic curricular standards which will guide the development of common assessments (Pilotin, 2010). Until these common assessments come to fruition, students will continue to be evaluated by state tests, such as the TAKS and the HSEE.

The Center on Education Policy (2010) cites rising scores on state tests as compared to the National Assessment of Educational Progress (NAEP). This center, in another report issued in 2007, asserts that state test scores provide evidence that student achievement has increased since the implementation of NCLB (CEP, 2007). The 2007 CEP policy report also concluded that in most states student achievement in reading and math had increased since 2002, the year NCLB was enacted. The 2010 CEP report provides evidence that student scores in Texas have increased. This Texas trend is consistent with the NAEP direction of ascending performance. The data show that in 2005, Texas student numbers reported as proficient, or as passing the TAKS test, was 79%. These numbers increased to 84% in 2009. In terms of the NAEP, 64% of
tested students were reported as proficient in 2005 increasing to 65% in 2009. Although the increase in NAEP is only one percentage point, the trend is positive (Chudowsky, 2010).

Gill (2009) analyzed the effects of campuses not meeting AYP and student achievement. This researcher stated even though there is no way to generalize findings of this particular study, which was conducted in two states and three large urban school districts, there were no consistent effects on student achievement found in schools that missed AYP in the preceding school year. There were a few effect estimates that were positive, students’ test scores did improve, but these findings were inconsistent across years and outcomes. Additionally, none of the analyses suggested that missing AYP led to significantly negative effects in the subsequent year (Gill, 2009).

**Effect of Title I – Economically Disadvantaged Status**

Title I of the Elementary and Secondary Education Act of 1965 is the federal program that directs federal aid for disadvantaged students in public schools. This single largest federal aid initiative is the original antecedent to NCLB. Since 2006, Title I funds have totaled $12.7 billion of which one third has gone to K-12 public schools (Liu, 2008). As a major component of NCLB, Title I maintains a primary purpose of narrowing the academic achievement gaps of students, regardless of race or income (Liu, 2008).

This program’s goal is to “supplement not supplant” (Liu, 2008, p. 973) state and local education funds. To the campus principal, this means that the federal funds are to be allocated to increase and enhance instructional programs or staff and not to displace regular state and local funds. NCLB allows schools with 40 percent or more students from low-income families to use Title I funds for school-wide programs which are aimed at enhancing the total instructional program. Schools with less than 40 percent of low-income students must allocate Title I funds to
provide instructional services to specifically identified students (Chambers, 2009). Title I funds are directed to meet the educational needs of low-achieving students in high-poverty schools and may be used to pay for additional instructional staff, professional development, supplemental educational services as well as related transportation.

The National School Lunch Program is used as a guide to measure the poverty level in public schools. NCES (2010) reported 44.5 percent of students in the United States were eligible for free or reduced lunch in the 2008-2009 school year, which represents a 1.3% increase over the previous school year. Of the total 8530 Texas public schools, NCES reported 6044 campuses or 71 percent qualified as Title I school-wide programs (NCES, 2010).

The number of Title I schools providing school-wide programs increased from 25,184 in 2001 to more than 50,000 in 2008. The National Center for Educational Statistics (2010) reported that in 2009, Texas received $1,406,279,000 in Title I allocations; of this, Western ISD received $86,039,000 to distribute to its campus educational programs.

The National Center for Educational Statistics (2010) also provides information regarding the school district demographics. The Center reports 26.07 percent of families in Western ISD with income below the poverty level (NCES, 2010).

A recent issue concerning Title I funds involves the Obama administration’s proposal that allocations of these funds be contingent on states adopting reading and math standards that will prepare students for college. This proposal will require states to develop rigorous college or career-ready standards or to work with higher education institutions to set related standards. Educators and policymakers are concerned that this proposal could result in loss of Title I funds for students in property-poor schools if states opt out of revamping their standards (Klein, 2010).
Gill (2007) analyzed reading intervention initiatives supported by Title I funds. This researcher examined 3rd, 4th and 5th grade cohort groups in different reading intervention programs. The findings of this study revealed significant improvement in reading skills, including increased fluency and comprehension proficiency for younger students. However, this researcher also found that there was no direct improvement on students’ state standardized scores (Gill, 2007).

In February 2010, the Center on Education Policy did an extensive review of Title I intended to affirm the reauthorization of this federal program. It concluded, in view of all the research and statistics related to the program, that Title I has played a vital role in “…raising achievement for students who come from low income status, are low-achieving, or have disabilities or limited English proficiency” (as cited in Kober, 2010, p. 10). The Center’s research indicated that scores on state tests have increased over the last seven years. State results from the NAEP validate this general trend:

While it is very difficult to attribute changes in achievement to specific causes in light of the host of intermingled influences present in schools, standards-based reform has been the most dominant movement in education during this period and has almost certainly contributed strongly to the gains that have been observed.

(Kober, 2010, p. 10)

Chapter Summary

This research focused on the relationship between non-graduating seniors due to TAKS failure and various student and campus factors. The first major section of this literature review addressed foundational information intended to give the reader a context for this particular study,
including an overview of high school exit exams, legal issues associated with high school exit exams, state and federal accountability systems and high-stakes testing in the classroom.

A review of the extant literature related to the specific factors considered in this research followed the overview section. Research regarding student characteristics, namely gender, minority status, socioeconomic level, and limited English proficiency (LEP) classification and at-risk, was presented with a particular emphasis on relationships to student achievement. Also discussed under the student characteristics’ section were multiple-choice exams and test anxiety. Although these topics were not specifically included in the research questions, this author believes they are important to address because of their impact on achievement.

The final section of this chapter addressed campus characteristics, such as campus size, teacher experience, longevity of the campus principal, and state and federal accountability campus ratings relative to this study and their effect on student performance.

Although the research results were mixed in many instances regarding student and campus characteristics and achievement, it was apparent that SES is a predictor of student success or failure, smaller schools foster student performance, and that limited English proficient students are at a disadvantage in a Texas assessment system that uses tests written in English. The literature also reveals that Hispanic students inordinately come to school from economically disadvantaged backgrounds and often lack proficiency in English. In the next chapter, the methodology used in this study is discussed.
Chapter 3

METHODOLOGY

This chapter will address the methodology employed in this study. Prefacing a discussion of the specific design will be a statement of the purpose of this study, guiding research questions and information regarding the subjects of this research. Following these sections, data analysis techniques and ethical considerations will be discussed.

Purpose of the Study

This study aimed to provide insight into the relationship between non-graduating seniors due to TAKS failure and multiple variables, including gender, ethnicity, at risk, low socio-economic status and Limited English Proficiency status. A profile of these non-graduating seniors in the Western Independent School District (WISD) for the 2008, 2009 and 2010 school years will be developed. This study will also analyze all ten traditional WISD high schools’ data for the given school years and correlate the campus variables to include size of campus, TEA accountability rating (exemplary, recognized, academically acceptable and academically unacceptable), federal accountability adequate yearly progress (AYP) standing, campus principal longevity and the teachers’ average classroom experience.

Research Questions

The following research questions will guide this study:

1. What are the characteristics, including gender, ethnicity, at-risk, Limited English Proficiency (LEP) and economically disadvantaged status of high school seniors in the Western Independent School District who were not eligible to graduate with their class cohort due to failure to pass any portion of the TAKS tests?

2. What are the campus characteristics that impact these non-graduating seniors to include size of campus, TEA accountability rating (exemplary, recognized, academically
acceptable and academically unacceptable, campus Adequate Yearly Progress (AYP)
status, years of classroom experience, and campus principal longevity?

3. What is the effect of student characteristics (gender, ethnicity, at-risk, LEP and
economically disadvantaged status) on seniors that did not graduate with their cohort
class due to TAKS failure?

Subjects and Selection of the Subjects

The units of study are high school seniors that did not graduate due to failure of TAKS in
the 2007-2008, 2008-2009 and 2009-2010 school years. These subjects attended the ten
traditional high schools in Western ISD. Both campuses and students provide metrics for
comparison and make up the subjects of this study.

The district used in this study had a student population of 62,328 for the 2008-2009
school year, making it the largest district in the western region of Texas. The ethnic composition
for the 2008-2009 school year was 79 percent Hispanic, 15 percent White non-Hispanic, 5
percent African American, 1 percent Native American and 1 percent Asian/Pacific Islander.
Western ISD has higher percentages of economically disadvantaged and limited English
proficient (LEP) students than the State of Texas as a whole. The district has 70 percent
economically disadvantaged students compared to 56.7 percent statewide. Similarly, students
reported as LEP make up 30 percent of the district compared to 16.9 percent statewide (WISD,
2010).

Western Independent School District (WISD) has 92 campuses, is the seventh largest
district in Texas and the 57th largest district in the United States. WISD is made up of ten
traditional high schools, one health magnet high school, one alternative high school for students
with disciplinary issues, 15 middle schools and 56 elementary schools. This district is the city’s
largest employer with nearly 9000 employees and maintains an annual operating budget of $446 million. The district covers more than 253 square miles (WISD, 2010). According to TEA’s 2008-2009 District Performance Report, WISD is rated as Academically Acceptable and has four high school campuses with Academically Acceptable ratings and six secondary campuses reported in the Recognized category (TEA, 2010d).

It is informative to consider national and state statistics to provide a broader perspective of and context for Western ISD demographics. According to 2010 data from the National Center of Education Statistics, nearly 49.4 million students will attend public elementary and secondary schools in the United States. Of these, 14.7 million students will be in grades 9-12. Approximately 4.1 million public school students are expected to enroll in ninth grade and of these, approximately 2,962,000 students are expected to graduate from public high school in the 2010-2011 school year. The percentage of high school completers enrolling in college in the fall following high school completion was 70.1 percent in 2009. The rate for females was 73.8 percent, which is higher than the rate for males, which is 66 percent. In the fall of 2010, a record 19.1 million students are expected to attend the nation’s two and four year colleges and universities, constituting an increase of 3.8 million since the fall of 2000. Of these, 7.5 million students are expected to attend public four year college institutions while 6.7 million will attend public two-year institutions (National Center for Education Statistics, 2001).

According to the Texas’ Academic Excellence Indicator System, 2008-2009 State Performance Report, there were 4,728,204 students enrolled in Texas public schools on census day for the 2008-2009 school year. The total graduates for the class of 2008 were 252,121, which represented 79.1 percent of the total senior class enrollment. The district used in this study reported that 72.3 percent of the students in the class of 2008 graduated (TEA, 2010d).
The decision to include both students and campus characteristics in this study was guided by a desire to maximize any discernable variables with regards to non-graduating seniors. Given the literature concerning students’ success in graduating from high school, campus characteristics are a vital component to the data analysis.

Student achievement data used in this study was limited to the collection of reported TAKS scores for the three longitudinal school years for all ten traditional campuses. This data consisted of the April retest exit scores for each school year, which is the last test administration before the spring graduation date. Students that do not pass this final administration are reported as non-graduating seniors.

Research Design

This study focused on student and campus variables in order to generate a profile of the non-graduating seniors; therefore, quantitative data were utilized. A cross tabulation analysis was run to describe student variables. This quantitative approach is an appropriate tool to answer the first research question regarding student variables.

To answer the second and third research questions regarding the relationship of campus and student characteristics to seniors not graduating due to TAKS failure, a quantitative approach and inferential statistics were utilized. A multivariate analysis of variance (MANOVA) was employed to explore statistical significance between campus and student variables and the seniors that failed any portion of the TAKS test.

This researcher also examined various district and campus programs, strategies and approaches deployed to help students pass the TAKS test. This inquiry involved interviewing various central office and campus leaders to determine efforts to assist students.
Data Analysis

This study was conducted utilizing quantitative methods. Primarily, through a observational and non-experimental quantitative process, numerical and categorical data was collected and subjected to statistical analyses to determine whether there were relationships of statistical significance among variables. Through the use of a correlational design, the researcher was able to learn the possible relationships among the defined student and campus variables. The categorical data for this study was given an arbitrary value and range of values were created for those variables that required this definition (Slavin, 2007).

Quantitative data regarding student demographics and test results were retrieved from the school district. Campus and teacher characteristics were accessed from the school district and the Texas Education Agency data sets. The Statistical Package for Social Sciences (SPSS) was used to describe variables to answer the first research question and to identify correlations among variables to answer the second and third research questions.

The multivariate analysis of variance (MANOVA) statistical method was used to identify any significant correlation among the independent variables, campus and student variables, and the dependent variables, TAKS exit-level test results. Levels of significance, p was set at .05 for all analyses. Effect sizes for the MANOVAS are reported using Cohen’s (1988) standards: .1 is considered to be a small effect size and of limited practical value; .3 is considered to be a moderate effect size and of moderate practical value; and .5 and above is considered to be a large effect size of substantial practical value (Slavin, 2007).

The first MANOVA was run to find if a relationship between campus characteristics (campus size, state and federal accountability, principal longevity and teachers’ classroom experience) and TAKS exit-level test scores existed. A total of 31 multivariate reports were
generated that included single campus variables as well as all combination of campus variables that were a function of TAKS scores. The second MANOVA was run to find an effect on student characteristics (gender, ethnicity, LEP status, at risk status and economically disadvantaged free/reduced lunch status) on TAKS exit-level test scores. A total of 31 multivariate reports were also generated for single student variables and all combinations of student variables. Of these 31 student multivariate reports, the analysis then generated nine univariate effect study reports for those student variables that were found to be statistically significant. This statistical method was selected because this analysis explores multivariate relationships between several categorical variables. The Scheffe post hoc comparison method was applied to determine if there is any significant interaction between the variables.

This researcher found it necessary to define ranges for two variables to facilitate analyses, namely the campus size variable and teacher years of experience. The campus size variable was ranked as small for campuses with student populations ranging from 1000 to 1500 students, mid-size for campuses with 1501 to 2000 students and large for campuses with more than 2000 students. The teachers’ classroom experience variable was also ranked as: (1) beginning teachers with 1 year to 11 years experience, (2) mid-ranked teachers with 12 years to 13 years experience and (3) senior teachers with more than 13 years experience. Other variables did not require further definition through the identification of ranges.

Ethical Considerations

This study involved the use of historical and categorical data. Student names were recoded with numerical classification. No statistical or categorical data were identified in this study.
This researcher sought and was granted approval to conduct the study from the Institutional Review Board of the Western ISD (see Appendix A) and the University of Texas at El Paso (see Appendix B). The data used for the student profile involved the use of district statistics; therefore strict adherence to principles of ethical research was required. At no time did identifiable student data used for this study leave the school district. Additionally, no attempt was made to use student data at the campus level to identify, rank, or classify students or campuses. All institutional requirements regarding the collection, processing, and storage of data were followed.

Chapter Summary

This chapter has included a review of the purpose of this study, a description of the subjects who were the focus of the study, the research design, data analysis techniques and ethical considerations. This study aimed to provide insight into the relationship between non-graduating seniors due to TAKS failure and multiple variables, including student and campus characteristics. Three research questions guided this research. The units of study are high school seniors that did not graduate due to failure of TAKS in the 2007-2008, 2008-2009 and 2009-2010 school years. These subjects attended ten traditional high schools in Western ISD.

A quantitative approach was utilized to answer the first research question regarding student variables. To answer the second and third research questions regarding the relationship of campus and student characteristics to seniors not graduating due to TAKS failure, inferential statistics were employed. A multivariate analysis of variance (MANOVA) was used to explore statistical significance between campus and student variables and the seniors that failed any portion of the TAKS test. Through an observational and non-experimental quantitative process, numerical and categorical data was subjected to statistical analyses to determine whether there
were relationships of statistical significance among variables.

Ethical requirements, including seeking and gaining approval to conduct the study from the Institutional Review Board of the University of Texas at El Paso and Western ISD (see Appendices A and B), were strictly observed. The next chapter will include the results of this study.
Chapter 4

RESULTS

This chapter includes a review of the purpose of the study, a description of the subjects who were the focus of the study, and the results for each research question posed in Chapter 1. Additionally, several district and campus leaders were interviewed to gain a sense of intervention efforts in Western ISD for students who fail the TAKS tests. A narrative is included at the closing of this chapter describing their views.

Purpose of the Study

The purposes of this study were to: (1) describe characteristics, including gender, ethnicity, at-risk status, LEP status and economically disadvantaged status of seniors who did not graduate from high school because they failed any portion of the TAKS test, (2) analyze campus characteristics, including campus size, state and federal accountability ratings, principal longevity and teachers’ classroom experience that impact these non-graduating seniors and (3) analyze the effect of these five identified student characteristics on non-graduating seniors that prevent their high school graduation. This study will use multivariate analysis of variance (MANOVA) methodology to explore which factors impact students’ TAKS HSEE performance.

Subjects

This researcher used longitudinal data from the Western ISD for the 2007-08, 2008-09 and 2009-10 school years and particularly examined data regarding those seniors that did not graduate with their classes due to TAKS failure for these three school years at ten traditional high school campuses.

The Western ISD used in this study is located along the United States/Mexico border and had a student population of 62,638 for the 2006-07 school year. It is the largest district in this region of Texas. With 92 campuses, WISD also is the seventh largest district in Texas and the
57th largest district in the United States. WISD is made up of 10 traditional high schools, one health magnet high school, one alternative high school, 15 middle schools and 56 elementary schools. The West Sun Early College High School enrolled its first freshmen class in 2008 and will boast its first graduating class with dual high school and college credits in 2012.

Other campuses include an alternative high school and middle school, a recovery program for students at risk of dropping out, an adult education school for GED and citizenship classes, an occupational center and several magnet schools. It is also the city’s largest employer with nearly 9000 employees with an annual operating budget of $446 million.

The district covers more than 253 square miles. The ethnic composition of the district for the 2006-07 school year was 79% Hispanic students, 15% White, 5% African American, 1% Native American and 1% Asian. The district reported 70% of the student population as economically disadvantaged as compared to 55.5% statewide. Students labeled as LEP make up 30% of the district’s population and students labeled as at-risk make up 62% of the district’s population (WISD, 2010).

The data was obtained from the district and disaggregated for the last three school years. Only those seniors’ TAKS scores that did not pass any portion of the exit level HSEE were used for the study. The total number of seniors that graduated from Western ISD for these three school years was 9612 students.

Research Questions

Research Question #1: What are the characteristics, including gender, ethnicity, at-risk, Limited English Proficiency (LEP) and economically disadvantaged status of high school seniors in the Western Independent School District who were not eligible to graduate with their class cohort due to failure to pass any portion of the TAKS tests?
A cross tab analysis was run to produce the descriptive statistics reported for this breakdown.

To answer research question #1, the total district demographic data is used to identify and compare the characteristics of this student cohort group that failed to graduate due to failure of TAKS. Western ISD reported a total population consisting of 51% male and 49% female. The study cohort had more females than the district average with 56% females comprising this group. The findings of this study found that non-graduates due to TAKS failure were 44% male and 56% female. Western ISD reported that 70% of the total student population was identified as economically disadvantaged. Of the 922 students that were non-graduates, 76% or 704 students were reported as economically disadvantaged.

Data indicated that 30% of the total student population was identified as LEP. Of the 922 students present in this student cohort that were non-graduates, 42% or 390 students were categorized as LEP. Sixty two percent (62) of the total student population was reported as at-risk while the cohort consisted of 92% or 847 students classified as at-risk.

The following table presents the total district student population by student variables as compared to the study cohort:
Table 1. Western ISD Total Percent Student Population by Variables and Reported Findings of Non-Graduates due to TAKS

<table>
<thead>
<tr>
<th>STUDENT VARIABLES</th>
<th>TOTAL PERCENT DISTRICT STUDENT POPULATION</th>
<th>TOTAL PERCENT NON-GRADUATES DUE TO TAKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>51%</td>
<td>44%</td>
</tr>
<tr>
<td>Female</td>
<td>49%</td>
<td>56%</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>70%</td>
<td>76%</td>
</tr>
<tr>
<td>LEP</td>
<td>30%</td>
<td>42%</td>
</tr>
<tr>
<td>At-Risk</td>
<td>62%</td>
<td>92%</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asian American</td>
<td>1%</td>
<td>0.1%</td>
</tr>
<tr>
<td>American Indian</td>
<td>1%</td>
<td>0.7%</td>
</tr>
<tr>
<td>African American</td>
<td>5%</td>
<td>5.0%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>79%</td>
<td>90.0%</td>
</tr>
<tr>
<td>White</td>
<td>15%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

With regard to the total number of seniors that graduated from this district for these three school years, gains were made with regards to the seniors that failed to graduate due to TAKS failure, especially for the 2009-2010 school year as demonstrated in the following table:

Table 2: Western ISD Graduate Rates for 2008, 2009 and 2010 School Years As Compared to the Number of Seniors that Failed to Graduate Due to TAKS Failure.

<table>
<thead>
<tr>
<th>School Year</th>
<th>District Number of Graduates</th>
<th>District Number of Seniors Failed to Graduate Due to TAKS</th>
<th>District Percent Seniors Failed to Graduate Due to TAKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-2008</td>
<td>3480</td>
<td>317</td>
<td>9%</td>
</tr>
<tr>
<td>2008-2009</td>
<td>3193</td>
<td>385</td>
<td>12%</td>
</tr>
<tr>
<td>2009-2010</td>
<td>2939</td>
<td>220</td>
<td>7%</td>
</tr>
</tbody>
</table>

To further explore the relation of these student characteristics to achievement on the TAKS test, this researcher considered how these subpopulations performed on various subject area exams.
Table 3 presents data on the seniors that took the TAKS exit-level test for the three school years and the pass/fail totals and percentages. Of the 922 students in this study cohort, more students failed the math TAKS test (584) followed by the science TAKS test (516), the English Language Arts TAKS test (237) and the social studies TAKS test (80), respectively.

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>Failed</th>
<th>Passed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td>237</td>
<td>685</td>
<td>922</td>
</tr>
<tr>
<td>Count</td>
<td>26%</td>
<td>74%</td>
<td>100%</td>
</tr>
<tr>
<td>Math</td>
<td>584</td>
<td>338</td>
<td>922</td>
</tr>
<tr>
<td>Count</td>
<td>63%</td>
<td>37%</td>
<td>100%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>80</td>
<td>842</td>
<td>922</td>
</tr>
<tr>
<td>Count</td>
<td>9%</td>
<td>91%</td>
<td>100%</td>
</tr>
<tr>
<td>Science</td>
<td>516</td>
<td>406</td>
<td>922</td>
</tr>
<tr>
<td>Count</td>
<td>56%</td>
<td>44%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 4 displays the total number of seniors in the study cohort that failed the TAKS tests identified by gender. Sixty-two (62) percent of the female students compared to 38% of the male students failed the science TAKS test. The data also shows that 68% of the female students compared to 32% of the male students failed the social studies TAKS test. The table indicates that 54% of the female students compared to 46% of the male students failed the English Language Arts TAKS test and 56% of the female students compared to 44% of the male students failed the math test.

Table 4. Western ISD Seniors Failed TAKS Tests Totals by Gender

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td>127</td>
<td>110</td>
<td>237</td>
</tr>
<tr>
<td>Count</td>
<td>54%</td>
<td>46%</td>
<td>100%</td>
</tr>
<tr>
<td>Math</td>
<td>327</td>
<td>257</td>
<td>584</td>
</tr>
<tr>
<td>Count</td>
<td>56%</td>
<td>44%</td>
<td>100%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>54</td>
<td>26</td>
<td>80</td>
</tr>
<tr>
<td>Count</td>
<td>68%</td>
<td>32%</td>
<td>100%</td>
</tr>
<tr>
<td>Science</td>
<td>321</td>
<td>194</td>
<td>516</td>
</tr>
<tr>
<td>Count</td>
<td>62%</td>
<td>38%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 5 presents the seniors that failed TAKS tests identified by economically disadvantaged (free/reduced lunch program) status. A total of 203 students or 86% of students participating in the free/reduced lunch program failed the English Language Arts TAKS test as compared to 14% of those not identified economically disadvantaged. The math TAKS test results indicate that 74% of students identified as economically disadvantaged failed that test as compared to 26% of those not identified as economically disadvantaged. In social studies, 86% of students identified as economically disadvantaged failed the test and the science TAKS test results indicate that 79% of students identified as economically disadvantaged failed the test.

Table 5. Western ISD Seniors Failed TAKS Tests by Economically Disadvantaged Status (SES)

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>Not Econ Disadv</th>
<th>Econ Disadv</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>34</td>
<td>203</td>
<td>237</td>
</tr>
<tr>
<td>Percent</td>
<td>14%</td>
<td>86%</td>
<td>100%</td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>151</td>
<td>433</td>
<td>584</td>
</tr>
<tr>
<td>Percent</td>
<td>26%</td>
<td>74%</td>
<td>100%</td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>11</td>
<td>69</td>
<td>80</td>
</tr>
<tr>
<td>Percent</td>
<td>14%</td>
<td>86%</td>
<td>100%</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>107</td>
<td>409</td>
<td>516</td>
</tr>
<tr>
<td>Percent</td>
<td>21%</td>
<td>79%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 6 presents the total number of seniors in this study cohort that failed the TAKS test identified by ethnicity. A total of 225 students or 95% of the Hispanic students failed the English Language Arts TAKS test, while 3% of the failures were White, .2% was identified as African American, .04% was identified as American Indian and none were identified as Asian American. The data also shows that 89% of the Hispanic students failed the math TAKS test again compared to much lower failure rates for the other ethnic groups. The table indicates that 90% of the Hispanic students failed the social studies test with significantly lower rates for the other groups. A total of 94% of the Hispanic students failed the science test.

Table 6. Western ISD Seniors Failed TAKS Tests by Ethnicity

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>Asian American</th>
<th>American Indian</th>
<th>African American</th>
<th>Hispanic</th>
<th>White</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>225</td>
<td>6</td>
<td>237</td>
</tr>
<tr>
<td>Percent</td>
<td>0%</td>
<td>0.04%</td>
<td>.2%</td>
<td>95%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>4</td>
<td>32</td>
<td>520</td>
<td>28</td>
<td>584</td>
</tr>
<tr>
<td>Percent</td>
<td>0%</td>
<td>1%</td>
<td>5%</td>
<td>89%</td>
<td>5%</td>
<td>100%</td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>73</td>
<td>2</td>
<td>80</td>
</tr>
<tr>
<td>Percent</td>
<td>0%</td>
<td>3%</td>
<td>4%</td>
<td>90%</td>
<td>3%</td>
<td>100%</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>3</td>
<td>18</td>
<td>483</td>
<td>11</td>
<td>516</td>
</tr>
<tr>
<td>Percent</td>
<td>.01%</td>
<td>1%</td>
<td>3%</td>
<td>94%</td>
<td>2%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 7 presents total number of seniors in this study cohort that failed the TAKS test identified by limited English proficiency (LEP) status. The table also indicates that 77% of the LEP students failed the English Language Arts TAKS test, 35% of the LEP students failed math, 75% failed the social studies test and 47% of these LEP students failed the science test.

Table 7. Western ISD Seniors Failed TAKS Tests by Limited English Proficiency (LEP) Status

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>Non-LEP</th>
<th>LEP</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>54</td>
<td>183</td>
<td>237</td>
</tr>
<tr>
<td>Percent</td>
<td>23%</td>
<td>77%</td>
<td>100%</td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>382</td>
<td>202</td>
<td>584</td>
</tr>
<tr>
<td>Percent</td>
<td>65%</td>
<td>35%</td>
<td>100%</td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>20</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>Percent</td>
<td>25%</td>
<td>75%</td>
<td>100%</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>273</td>
<td>243</td>
<td>516</td>
</tr>
<tr>
<td>Percent</td>
<td>53%</td>
<td>47%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Table 8 presents total district number of seniors in this study cohort that failed TAKS identified by at-risk status. A total of 95% of the at-risk students failed the English Language Arts TAKS test, 91% failed math, 92% failed social studies and 94% failed the science TAKS test.

Table 8. Western ISD Seniors Failed TAKS Tests by At Risk Status

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>Not At Risk</th>
<th>At Risk</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Language Arts</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>13</td>
<td>224</td>
<td>237</td>
</tr>
<tr>
<td>Percent</td>
<td>5%</td>
<td>95%</td>
<td>100%</td>
</tr>
<tr>
<td>Math</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>51</td>
<td>533</td>
<td>584</td>
</tr>
<tr>
<td>Percent</td>
<td>9%</td>
<td>91%</td>
<td>100%</td>
</tr>
<tr>
<td>Social Studies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>6</td>
<td>74</td>
<td>80</td>
</tr>
<tr>
<td>Percent</td>
<td>8%</td>
<td>92%</td>
<td>100%</td>
</tr>
<tr>
<td>Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>33</td>
<td>483</td>
<td>516</td>
</tr>
<tr>
<td>Percent</td>
<td>6%</td>
<td>94%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Research Question #2: *What are the campus characteristics that impact these non-graduating seniors to include campus size, TEA accountability rating (exemplary, recognized, academically acceptable and academically unacceptable), campus Adequate Yearly Progress (AYP) status, teachers’ classroom experience and campus principal longevity?*

A multivariate analysis of variance (MANOVA) was run to determine whether a statistically significant overall effect was present on standardized TAKS test scores as a function of these campus variables. There were a total of 31 multivariate single variable and combinations of variables effects presented. Of these, inferential statistical showed only two campus variables that displayed statistical significance: campus size and teachers’ classroom experience.

A statistically significant overall effect was present, Roy’s Largest Root $F(4, 907) =$
5.33, \( p < .05 \), on standardized TAKS test scores as a function of campus size. Effect size = 
\[
\frac{\text{mean}_1 - \text{mean}_2}{\text{SD}} = 0.15.
\]
An effect size of 0.15 was observed and reported as a small effect size (Cohen, 1988). Following-up univariate analysis using Scheffe post hoc is reported as small and is reported in Table 9.

A statistically significant overall effect was present, Roy’s Largest Root \( F (4, 906) = 8.73, \ p < .05 \), on standardized TAKS test scores as a function of teachers’ classroom experience. Effect size = 
\[
\frac{\text{mean}_1 - \text{mean}_2}{\text{SD}} = 0.20.
\]
An effect size of 0.20 was observed and reported as a small effect size (Cohen, 1988). Following-up univariate analysis using Scheffe post hoc is reported as small and is reported in Table 13.

A statistically significant overall effect was not present, Roy’s Largest Root \( F (4, 906) = .62, \ p < .05 \), on standardized TAKS test scores as a function of federal accountability AYP status.

A statistically significant overall effect was not present, Roy’s Largest Root \( F (4, 906) = .78, \ p < .05 \), on standardized TAKS test scores as a function of state accountability TEA status.

A statistically significant overall effect was not present, Roy’s Largest Root \( F (4, 906) = .51, \ p < .05 \), on standardized TAKS test scores as a function of campus principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root \( F (4, 905) = .00, \ p < .05 \), on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status and state TEA accountability.

A statistically significant overall effect was not present, Roy’s Largest Root \( F (4, 905) = .00, \ p < .05 \), on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status and campus size.
A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of state TEA accountability and campus size.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, state TEA accountability and campus size.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status and principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of state TEA accountability and principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, state TEA accountability and principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of campus size and principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, campus size and principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of state TEA accountability and campus size.
TEA accountability, campus size and principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root $F (4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, state TEA accountability, campus size and principal longevity.

A statistically significant overall effect was not present, Roy’s Largest Root $F (4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F (4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of state TEA accountability and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F (4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, state TEA accountability and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F (4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of campus size and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F (4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, campus size and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F (4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of state TEA accountability, campus size and teachers’ experience.
A statistically significant overall effect was not present, Roy’s Largest Root $F$ (4, 905) = .00, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, state TEA accountability, campus size and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F$ (4, 905) = .00, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of principal longevity and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F$ (4, 905) = .00, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of state accountability, principal longevity and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F$ (4, 905) = .00, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal AYP accountability, principal longevity and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F$ (4, 905) = .00, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, state TEA accountability, principal longevity and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F$ (4, 905) = .00, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of campus size, principal longevity and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F$ (4, 905) = .00, $p \leq .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, campus size, principal longevity and teachers’ experience.
A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of state TEA accountability, campus size, principal longevity and teachers’ experience.

A statistically significant overall effect was not present, Roy’s Largest Root $F(4, 905) = .00$, $p < .05$, on standardized TAKS test scores as a function of a variable combination of federal accountability AYP status, state TEA accountability, campus size, principal longevity and teachers’ experience.

The campus size variable was ranked as small for campuses with student populations ranging from 1000 to 1500 students, mid-size for campuses with 1501 to 2000 students and large for campuses with more than 2000 students.

The data analysis showed that for the reading TAKS test, campus size for small schools with mid-size schools was statistical significant (.008 significance level) and small schools with large schools was statistical significant (.000 significance level). Table 9 indicates the statistical significance for the campus size and students’ reading TAKS test scores.

Table 9. Reading TAKS Test as a Function of Campus Size

<table>
<thead>
<tr>
<th>Reading TAKS Test</th>
<th>Small campus size (1000-1500)</th>
<th>Mid-size campus size (1501-2000)</th>
<th>N 324</th>
<th>$p$ .000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small campus size (1000-1500)</td>
<td>Large campus size (≤ 2000)</td>
<td>138</td>
<td>.008</td>
<td></td>
</tr>
<tr>
<td>Mid size campus size (1501-2000)</td>
<td>Large campus size (≥ 2000)</td>
<td>460</td>
<td>.999</td>
<td></td>
</tr>
</tbody>
</table>
Table 10 shows the total number of seniors that failed the reading TAKS test in view of campus size.

Table 10. Western ISD Seniors Took Reading TAKS test and Campus Size

<table>
<thead>
<tr>
<th>Reading TAKS Test</th>
<th>Small Campus Size 1000-1500 students</th>
<th>Mid-Size Campus Size 1501-2000 students</th>
<th>Large Campus Size □ 2000 students</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed Reading Count</td>
<td>112 (47%)</td>
<td>96 (41%)</td>
<td>29 (12%)</td>
<td>237 (100%)</td>
</tr>
<tr>
<td>Pass Reading Count</td>
<td>212 (31%)</td>
<td>364 (53%)</td>
<td>109 (16%)</td>
<td>685 (100%)</td>
</tr>
<tr>
<td>Total</td>
<td>324 (35%)</td>
<td>460 (50%)</td>
<td>138 (15%)</td>
<td>922 (100%)</td>
</tr>
</tbody>
</table>

Table 11 shows the statistical significance for the campus size and students’ social studies TAKS test scores. The data analysis indicated that for the social studies TAKS test, campus size for small schools with large schools was statistically significant (0.013 significance level) and small schools with mid-size schools was statistically significant (0.024 significance level).

Table 11. Social Studies TAKS Test as a Function of Campus Size

<table>
<thead>
<tr>
<th>Social Studies TAKS Test</th>
<th>Small campus size (1000-1500)</th>
<th>Mid-size campus size (1501-2000)</th>
<th>N 324</th>
<th>p 0.024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small campus size (1000-1500)</td>
<td>Large campus size (□ 2000)</td>
<td>460</td>
<td>.013</td>
<td></td>
</tr>
</tbody>
</table>
Table 12 shows the total number of seniors that took the social studies TAKS test with reference to campus size.

Table 12. **Western ISD Seniors that Took Social Studies TAKS test and Campus Size**

<table>
<thead>
<tr>
<th>Social Studies TAKS Test</th>
<th>Small Campus Size 1000-1500 Students</th>
<th>Mid-Size Campus Size 1500-2000 Students</th>
<th>Large Campus Size &lt; 2000 Students</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed Social Studies Count</td>
<td>41 51%</td>
<td>33 41%</td>
<td>6 8%</td>
<td>80 100%</td>
</tr>
<tr>
<td>Passed Social Studies Count</td>
<td>283 34%</td>
<td>427 51%</td>
<td>132 15%</td>
<td>842 100%</td>
</tr>
<tr>
<td>Total</td>
<td>324 35%</td>
<td>460 50%</td>
<td>138 15%</td>
<td>922 100%</td>
</tr>
</tbody>
</table>
Table 13 shows the statistical significance for teachers’ classroom experience and the reading TAKS test. The teachers’ classroom experience variable was also ranked as: (1) beginning teachers with 1 year to 11 years experience, (2) mid-ranked teachers with 12 years to 13 years experience and (3) senior teachers with more than 13 years experience. The data analysis showed that teachers’ classroom years’ experience was statistically significant with regard to the reading TAKS test. There is statistical significance for beginning teachers and senior teachers (.000 statistical significance) as well as mid-rank teachers and seniors teachers (.000 statistical significance).

Table 13. Reading TAKS Test as a Function of Teachers’ Experience

<table>
<thead>
<tr>
<th>Reading TAKS Test</th>
<th>Beginning teachers 1-11 years experience</th>
<th>Mid-rank teachers 12-13 years experience</th>
<th>N</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beginning teachers 1-11 years experience</td>
<td>Senior teachers ≤ 13 years experience</td>
<td>524</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Mid-rank teachers 12-13 years experience</td>
<td>Senior teachers ≤ 13 years experience</td>
<td>278</td>
<td>.000</td>
</tr>
</tbody>
</table>
Table 14 indicates the total number of students that failed the reading TAKS test and teachers’ classroom experience.

Table 14. Western ISD Seniors that Took Reading TAKS test and Teachers’ Experience

<table>
<thead>
<tr>
<th>Reading TAKS Test</th>
<th>Beginning Teachers 1-11 Years Experience</th>
<th>Mid-Rank Teachers 12-13 Years Experience</th>
<th>Senior Teachers ˂13 Years Experience</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed Reading Count</td>
<td>62</td>
<td>125</td>
<td>50</td>
<td>237</td>
</tr>
<tr>
<td>Percent</td>
<td>26%</td>
<td>53%</td>
<td>21%</td>
<td>100%</td>
</tr>
<tr>
<td>Passed Reading Count</td>
<td>216</td>
<td>399</td>
<td>70</td>
<td>685</td>
</tr>
<tr>
<td>Percent</td>
<td>32%</td>
<td>58%</td>
<td>10%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>278</td>
<td>524</td>
<td>120</td>
<td>922</td>
</tr>
<tr>
<td>Percent</td>
<td>30%</td>
<td>57%</td>
<td>13%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 15 reveals the statistical significance for teachers’ classroom experience and the social studies test. There is statistical significance for beginning teachers and seniors teachers (.000 significance level) as well as mid-rank teachers and seniors teachers (.000 significance level).

Table 15. Social Studies TAKS Test as a Function of Teachers’ Experience

<table>
<thead>
<tr>
<th>Social Studies TAKS Test</th>
<th>Beginning teachers 1-11 years experience</th>
<th>Mid-rank teachers 12-13 years experience</th>
<th>N</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Beginning teachers 1-11 years experience</td>
<td>Senior teachers ˂13 years experience</td>
<td>524</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Mid-rank teachers 12-13 years experience</td>
<td>Senior teachers ˂13 years experience</td>
<td>278</td>
<td>.000</td>
</tr>
</tbody>
</table>
Table 16 indicates the total number of seniors in the student cohort that took the social studies TAKS test and teachers’ classroom experience.

Table 16. Western ISD Seniors that Took Social Studies TAKS Test and Teachers’ Experience

<table>
<thead>
<tr>
<th>Social Studies TAKS Test</th>
<th>Beginning Teachers 1-11 Years Experience</th>
<th>Mid-Rank Teachers 12-13 Years Experience</th>
<th>Senior Teachers ˃13 Years Experience</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failed Social Studies Count</td>
<td>21</td>
<td>35</td>
<td>24</td>
<td>80</td>
</tr>
<tr>
<td>Percent</td>
<td>26%</td>
<td>44%</td>
<td>30%</td>
<td>100%</td>
</tr>
<tr>
<td>Passed Social Studies Count</td>
<td>257</td>
<td>489</td>
<td>96</td>
<td>842</td>
</tr>
<tr>
<td>Percent</td>
<td>31%</td>
<td>58%</td>
<td>11%</td>
<td>100%</td>
</tr>
<tr>
<td>Total</td>
<td>278</td>
<td>524</td>
<td>120</td>
<td>922</td>
</tr>
<tr>
<td>Percent</td>
<td>30%</td>
<td>57%</td>
<td>13%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Research Question #3: What is the effect of student characteristics (gender, ethnicity, at-risk, LEP and economically disadvantaged status) on seniors that did not graduate with their cohort class due to TAKS failure?

A multivariate analysis of variance (MANOVA) was run to determine whether a statistically significant overall effect was present on standardized TAKS test scores as a function of these student variables. Of the 31 multivariate single and variable combinations, nine were found to be statistically significant: (1) ethnicity, (2) LEP, (3) economically disadvantaged status, (4) a combination of ethnicity and economically disadvantaged, (5) a combination of at-risk and economically disadvantaged status, (6) a combination of ethnicity, at-risk and economically disadvantaged, (7) a combination of LEP, at-risk and economically disadvantaged, (8) a combination of ethnicity and gender and (9) a combination of ethnicity, at-risk, gender and economically disadvantaged.
A statistically significant overall effect was present using Roy’s Largest Root on standardized TAKS test scores as a function of these student variables and is reported in Table 16. Effect size is calculated as _______. An effect size was observed and reported as a small effect size (Cohen, 1988). Scheffe post hoc is not used as there are less than three groups present in the analysis. A univariate analysis is used to report statistical significance between subject effects.

Table 17. TAKS Tests as a Function of Statistically Significant Student Variables

<table>
<thead>
<tr>
<th>Category (Roy’s Largest Root)</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethnicity</td>
<td>$F(4, 881) = 5.56$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>LEP</td>
<td>$F(4, 878) = 6.27$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td>$F(4, 878) = 3.09$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Ethnicity and Economically</td>
<td>$F(4, 880) = 3.14$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At Risk and Economically</td>
<td>$F(4, 878) = 2.63$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity, At-Risk and</td>
<td>$F(4, 879) = 2.71$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEP, At-Risk and Economically</td>
<td>$F(4, 878) = 2.63$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Disadvantaged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity and Gender</td>
<td>$F(4, 880) = 4.57$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Ethnicity, At-Risk and</td>
<td>$F(4, 878) = 2.72$</td>
<td>$p &lt; .05$ Statistically Significant</td>
</tr>
<tr>
<td>Economically Disadvantaged</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The student ethnicity variable has the five categories: Asian American, American Indian, African American, Hispanic and White, which are directly extracted from the TEA PEIMS system. The data analysis using the univariate between-subjects effects is reported for the four TAKS tests and ethnicity in Table 18. The data shows statistical significance for the social studies TAKS test with regard to ethnicity (.004 significance level) and no statistical significance for the other TAKS tests.

Table 18: **TAKS Tests as a Function of Ethnicity**

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>1.350</td>
<td>.250</td>
<td>.07</td>
</tr>
<tr>
<td>Math</td>
<td>0.944</td>
<td>.438</td>
<td>.06</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3.945</td>
<td>.004</td>
<td>.14</td>
</tr>
<tr>
<td>Science</td>
<td>0.838</td>
<td>.501</td>
<td>.06</td>
</tr>
</tbody>
</table>

Table 19 displays the TAKS tests univariate analysis and students reported as LEP. The data shows statistical significance for the reading (.001 significance level) and the social studies TAKS test (.000 significance level) and no statistical significance for the math or science TAKS tests.

Table 19: **TAKS Tests as a Function of LEP**

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>11.238</td>
<td>.001</td>
<td>.11</td>
</tr>
<tr>
<td>Math</td>
<td>1.695</td>
<td>.193</td>
<td>.04</td>
</tr>
<tr>
<td>Social Studies</td>
<td>15.287</td>
<td>.000</td>
<td>.13</td>
</tr>
<tr>
<td>Science</td>
<td>3.304</td>
<td>.069</td>
<td>.06</td>
</tr>
</tbody>
</table>
Table 20 displays the TAKS tests univariate analysis and students reported as economically disadvantaged. The data shows statistical significance for the social studies TAKS test (.007 significance level) and no statistical significance for the other TAKS tests.

Table 20: **TAKS Tests as a Function of Students Reported as Economically Disadvantaged**

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>.001</td>
<td>.973</td>
<td>.00</td>
</tr>
<tr>
<td>Math</td>
<td>.669</td>
<td>.413</td>
<td>.03</td>
</tr>
<tr>
<td>Social Studies</td>
<td>7.225</td>
<td>.007</td>
<td>.09</td>
</tr>
<tr>
<td>Science</td>
<td>3.391</td>
<td>.066</td>
<td>.06</td>
</tr>
</tbody>
</table>

Table 21 displays the TAKS test univariate analysis and the combination of student variables, ethnicity and economically disadvantaged. The data shows statistical significance for the social studies TAKS test (.042 significance level) and no statistical significance for the other TAKS tests.

Table 21: **TAKS Tests as a Function of Ethnicity and Students Reported as Economically Disadvantaged**

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>.101</td>
<td>.959</td>
<td>.00</td>
</tr>
<tr>
<td>Math</td>
<td>.077</td>
<td>.973</td>
<td>.00</td>
</tr>
<tr>
<td>Social Studies</td>
<td>2.753</td>
<td>.042</td>
<td>.09</td>
</tr>
<tr>
<td>Science</td>
<td>1.868</td>
<td>.133</td>
<td>.08</td>
</tr>
</tbody>
</table>
Table 22 displays the TAKS test univariate analysis and the combination of student variables, students reported as at-risk and economically disadvantaged. The data shows statistical significance for the social studies TAKS test (.020 significance level) and no statistical significance for the other TAKS tests.

Table 22: TAKS Tests as a Function of Students Reported as At-Risk and Economically Disadvantaged

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>1.396</td>
<td>.238</td>
<td>.04</td>
</tr>
<tr>
<td>Math</td>
<td>3.187</td>
<td>.075</td>
<td>.06</td>
</tr>
<tr>
<td>Social Studies</td>
<td>5.462</td>
<td>.020</td>
<td>.08</td>
</tr>
<tr>
<td>Science</td>
<td>2.011</td>
<td>.156</td>
<td>.04</td>
</tr>
</tbody>
</table>

Table 23 displays the TAKS test univariate analysis and the combination of student variables, ethnicity, students reported as at-risk and economically disadvantaged. The data shows statistical significance for the science TAKS test (.020 significance level) and no statistical significance for the other TAKS tests.

Table 23: TAKS Tests as a Function of Ethnicity, Students Reported as At-Risk and Economically Disadvantaged

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>0.055</td>
<td>.947</td>
<td>.00</td>
</tr>
<tr>
<td>Math</td>
<td>1.683</td>
<td>.186</td>
<td>.06</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1.014</td>
<td>.363</td>
<td>.04</td>
</tr>
<tr>
<td>Science</td>
<td>3.919</td>
<td>.020</td>
<td>.09</td>
</tr>
</tbody>
</table>
Table 24 displays the TAKS test univariate analysis and the combination of student variables, students reported as LEP, at-risk and economically disadvantaged. The data shows statistical significance for the social studies TAKS test (.004 significance level) and no statistical significance for the other TAKS tests.

Table 24:  **TAKS Tests as a Function of Students Reported as LEP, At-Risk and Economically Disadvantaged**

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>.921</td>
<td>.337</td>
<td>.03</td>
</tr>
<tr>
<td>Math</td>
<td>2.534</td>
<td>.112</td>
<td>.05</td>
</tr>
<tr>
<td>Social Studies</td>
<td>8.211</td>
<td>.004</td>
<td>.09</td>
</tr>
<tr>
<td>Science</td>
<td>.021</td>
<td>.885</td>
<td>.00</td>
</tr>
</tbody>
</table>

Table 25 displays the TAKS test univariate analysis and the combination of student variables, ethnicity and gender. The data shows statistical significance for the social studies TAKS test (.029 significance level) and no statistical significance for the other TAKS tests.

Table 25:  **TAKS Tests as a Function of Ethnicity and Gender**

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>.332</td>
<td>.802</td>
<td>.03</td>
</tr>
<tr>
<td>Math</td>
<td>2.406</td>
<td>.066</td>
<td>.09</td>
</tr>
<tr>
<td>Social Studies</td>
<td>3.021</td>
<td>.029</td>
<td>.10</td>
</tr>
<tr>
<td>Science</td>
<td>2.351</td>
<td>.071</td>
<td>.09</td>
</tr>
</tbody>
</table>
Table 26 displays the TAKS test univariate analysis and the combination of student variables, ethnicity, gender and students reported as at-risk and economically disadvantaged.

The data shows statistical significance for the math TAKS test (.005 significance level) and no statistical significance for the other TAKS tests.

Table 26: TAKS Tests as a Function of Ethnicity, Gender and Students Reported as At-Risk and Economically Disadvantaged

<table>
<thead>
<tr>
<th>TAKS Test</th>
<th>F</th>
<th>Statistical Significance</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading</td>
<td>.988</td>
<td>.320</td>
<td>.03</td>
</tr>
<tr>
<td>Math</td>
<td>7.971</td>
<td>.005</td>
<td>.09</td>
</tr>
<tr>
<td>Social Studies</td>
<td>1.694</td>
<td>.193</td>
<td>.04</td>
</tr>
<tr>
<td>Science</td>
<td>.236</td>
<td>.627</td>
<td>.00</td>
</tr>
</tbody>
</table>

Western ISD’s Curricular Programs

To gain a general sense of intervention efforts in Western ISD for students who fail the TAKS test, this researcher interviewed one central office administrator who was responsible for overall district initiatives designed to improve performance. Additionally, two high school principals were interviewed to determine campus level strategies in this regard.

Western ISD employs a central office administrator to direct curricular policy implementation as it applies to all secondary campuses in Western ISD. This director’s focus is on supervising the implementation of curricula, disaggregation and analysis of student data and on assisting campus principals in the district’s secondary schools. This administrator provided an overview of these efforts.

This administrator stated that the district begins tracking students from eighth grade, thereby anticipating and preparing for the academic needs of students before they enter high school. If a student fails to pass the math or reading TAKS in middle school, the student is
placed in an additional study skills class for English as well as double block classes for Algebra I. The district is careful not to pull students from credit classes that are required for graduation, but instead will replace an elective with the remedial classes. The district has placed curricular coaches in English and math content areas at all the campuses and as the budget allows, there are science coaches in some schools. The district also assigns students to block schedules in content areas, which provides students with additional instructional classroom time. In addition, there is an at-risk coordinator that works with students. An assistant principal on each campus directly supervises students identified as at-risk and their instructional programs.

This district administrator stressed that the high school campuses are given data bases for the student groups considered to be at risk, determined by failing any of the TAKS tests in middle school. The district encourages campuses to formulate individual educational plans for each student, thereby assuring that students are given opportunities to make up credit courses that they might have failed. If students need credit recovery, the district offers mini-mesters that allow for credits to be recovered within a reasonable amount of time.

In reference to the TAKS tests, the district administers various benchmark assessments as well as diagnostic exams that show mastery by objective for each student. Classroom teachers can thereby work with students on an individual basis or in small group settings to address identified academic needs. This district leader emphasized that administrators are constantly observing teachers in the classroom and are looking specifically for student engagement and checking for understanding of concepts. Students’ test results are disaggregated at the district level and shared with each campus.

In addition to the intervention strategies noted above, the district implements tutoring programs. For instance, some campuses host the federal Gear Up program, which tracks
students with specific academic needs and provides targeted instructional assistance. Tutoring is offered before and after school and on Saturdays; teachers and tutors are compensated for this extra duty.

With regards to content, the district administrator noted that there are high failure rates on the science test and attributes this deficiency to the fact that this subject is not taught at all elementary grades. The TAKS science test, according to TEA guidelines, is administered in the fifth and eighth grade. There is no ninth grade science test and students take this subject area test for the first time in the tenth grade. With this sequence, there are grade levels where science is minimally emphasized at some campuses. Therefore, the district is stressing that science should be a vital component of the curriculum at all grade levels. The other factor affecting the science test is the Lexile reading level. This district administrator reported that state information indicates that the science vocabulary used in the TAKS test is usually three grade levels higher than on the English language arts test. This issue is also being addressed by science coaches and teachers in the classroom.

This researcher also interviewed a random sample of Western ISD high school principals. One Western ISD campus high school principal, AB, stated that benchmark tests and district data allow the campus staff to evaluate each student and work to develop individual educational plans. One of the assistant principals directly supervises the campus at-risk program and consistently schedules students for counseling. Students are tracked and scheduled into two classes of math and/or English with specific teachers that have shown success on TAKS with their students. This campus administrator reported that the best strategy to avoid student failure is to identify students’ needs in the ninth grade and to provide appropriate interventions throughout the high school years. If a student does fail at the tenth grade, the student has an
elective replaced with a study skills class specifically for the content that has not been mastered.

Meanwhile, curriculum in the content areas is closely monitored by the instructional content coach and department chair as well as the campus administrators. Four year trend data reports also give the administrators an overview of students’ performance on specific objectives for that campus. There are common assessments, tutoring and pull-out programs where students spend one-on-one time with tutors and/or teachers.

Of particular interest at this campus was performance on the English language arts test. This campus has a large LEP population and some students come to this campus with no formal schooling and/or with no proficiency in the English language. Home visits and parent interviews reveal that there is no English spoken at home. For some students, there appears to be no place, other than school, where the student can practice English. However, for the most part, the campus administrator feels the students’ scores have improved since his presence at the campus, in spite of language difficulties. Also, the graduation rate at this site has risen from 68% in 2006-2007 school year to 72% in the 2008-2009 school year.

A second campus high school principal, CD, has a different philosophy of remediation as it relates to students who fail the TAKS. The administrator has been assigned to this campus for the past three school years and does not believe in TAKS remediation classes; instead, he has left students in core classes and has strengthened the curriculum. There is a double block schedule of math classes for ninth and tenth graders and double English classes for LEP identified students. The administrator agrees that instructional coaches have allowed teachers to focus on instructional content and feels that teachers and students have “bought in” to the idea of the strengthened curriculum. The administrator also feels that pull-out tutoring during the day has given students much needed one-on-one attention. This school leader states that district data
reports have enabled the staff to identify students in as early as the middle school grades and this enables the staff to work with students as soon as the ninth grade. The administrator proudly boasts that every year there are fewer and fewer seniors at this campus that fail, thereby enabling teachers to provide individual tutoring to this smaller number of students.

Chapter Summary

This chapter included a review of the purpose of the study, a description of the subjects of this research and the results for each research question. Also presented was a narrative account of interviews held with one central office administrator and two high school principals conducted to gain a general sense of intervention efforts in Western ISD for students who fail the TAKS test. The next section of this report will address conclusions and implications of this study.
Chapter 5

DISCUSSION AND CONCLUSIONS

This chapter begins with an overview of the research questions, methodological approaches and 12 general conclusions related to the research questions. In the next section, the theoretical framework and research variables will be addressed in light of the results and related literature. This discussion will be followed by a presentation of the possible implications of this study for practitioners, researchers and policymakers. Closing thoughts will finally be offered.

Research Questions

The following research questions guided this study:

1. What are the characteristics, including gender, ethnicity, at-risk, Limited English Proficiency (LEP) and economically disadvantaged status of high school seniors in the Western Independent School District who were not eligible to graduate with their class cohort due to failure to pass any portion of the TAKS tests?

2. What are the campus characteristics that impact these non-graduating seniors to include size of campus, TEA accountability rating (exemplary, recognized, academically acceptable and academically unacceptable), campus Adequate Yearly Progress (AYP) status, years of classroom teacher experience, and campus principal longevity?

3. What is the effect of student characteristics (gender, ethnicity, at-risk, LEP and economically disadvantaged status) on seniors that did not graduate with their cohort?

The sample included 922 students who participated in the testing program over this three year span. The schools selected for the study were ten traditional campuses in the Western ISD where these students attended.
Methods

Student TAKS scores were collected for those seniors that did not graduate due to failure of any portion of the test for the 2007-08, 2008-09, and 2009-10 school years. The sample included 922 students who participated in the testing program over this three year span. The schools selected for the study were ten traditional campuses in the Western ISD.

To investigate the first research question, a cross tabs statistical report was generated to determine the total number of seniors as a function of student characteristics, including gender, ethnicity, LEP status, at-risk status and economically disadvantaged standing.

To investigate the second research question, a multivariate analysis of variance (MANOVA) was run to determine whether a statistically significant overall effect was present on the students’ standardized TAKS test scores as a function of the campus variables, namely campus size, state and federal accountability status, campus principal longevity and teachers’ classroom years of experience and all combinations of these variables.

To investigate the third research question, a multivariate analysis of variance (MANOVA) was run to determine whether a statistically significant overall effect was present on the students’ standardized TAKS test scores as a function of the student variables, including gender, ethnicity, LEP status, at-risk status and economically disadvantaged free/reduced lunch program status and all combinations of these variables.

Additionally, to gain a general sense of intervention efforts in Western ISD for students who fail the TAKS test, this researcher interviewed one central office administrator who was responsible for overall district initiatives designed to improve performance. Additionally, two high school principals were interviewed to determine campus level strategies in this regard.
General Conclusions

1. It was found in this study that higher numbers of lower SES, LEP, female, at-risk and minority students comprised the cohort of individuals that did not graduate due to failure on the TAKS when compared to the district average. These percentages were even higher when compared to state averages in these same categories.

2. The performance of these students on TAKS tests was consistent with statewide trends in terms of rates of failing certain exams, with students in the cohort, Western ISD and in Texas failing the math test at the highest rates, followed by the science exam, English language arts assessment, and social studies test, respectively. However, students in the Western ISD cohort failed all of these exams at significantly higher rates when compared to total district and statewide averages.

3. There is evidence to support both critical theories that focus on why students fail to achieve (Steele & Spencer, 1999; Valenzuela, 2002) and theories that place emphasis on why students can achieve in spite of the obstacles (Bernard, 1997; Garmezy & Masten, 1991; Werner, 1993).

4. The findings of this study appear to run counter to certain research on school size that suggests students perform at higher levels in smaller schools (Raywid, 1998; Stewart, 2009). The larger schools in Western ISD outperformed the smaller campuses. This finding may be a function of the fact that the larger high schools in Western ISD are located in comparatively more affluent regions of the district.

5. Gender gaps were evident in terms of TAKS test performance, particularly in social studies. These gaps narrowed in math and science, which is consistent with recent research (Else-Quest, 2010; Hyde, 2008).
6. Years of teaching experience did make a positive difference in terms of the reading and social studies achievement of this cohort. Students with more experienced teachers performed at higher levels on these exams, consistent with findings of Murnane (1981) and Klitgaard (1974) and contrary to conclusions drawn by Grissmer (2000) and the Center for Educator Compensation Reform (2002).

7. Consistent with research regarding SES and academic achievement (Popham, 2001; White, 1982), the findings of this study reveal that the SES variable is a dominant factor affecting students’ HSEE performance. In fact, the low SES variable was present in six of the univariate effect tests, more than any other variable. This finding may also provide evidence to support critical theorists’ claims that students in disadvantaged categories often succumb to stereotypes and subtractive schooling practices (Steele & Spencer, 1999; Valenzuela, 2002).

8. The results of this study lend support to the other research findings that LEP students are at a distinct disadvantage when it comes to testing requirements (Batalova & Fix, 2010; Fishkin, 2010; Fry, 2008; Giambo, 2010). With regard to LEP status, statistical significance was found in relation to the reading test with a significance level of .001. Seventy seven (77%) of students that failed the reading test were identified as LEP. Additionally, the LEP variable was present in two of the univariate effect tests.

9. Amrein and Berliner (2002) report that the high school exit exams negatively affect students from racial minority backgrounds in greater proportions than they do White students. Based on the high failure rates for Hispanics reported in this study, Amrein and Berliner’s (2002) finding holds true in Western ISD. Fry and Gonzales (2008) attribute this disparity to multiple factors, including a tendency for Hispanic students to have
parents with less education than the norm, a lack of English proficiency and Hispanic children are often raised in poverty in single parent households. This finding may run counter to the assertions of those who believe that students can overcome obstacles to succeed in academic pursuits (Bernard, 1997; Garmezy & Masten, 1991; Werner, 1993).

10. Nine univariate effect student variable tests showed statistical significance. The at-risk variable appeared in four of these tests, which was third behind SES and ethnicity, respectively. The seniors reported as at-risk in this study comprised the majority of failures in all four TAKS test categories with 95% failing the English Language Arts TAKS test, 91% failing math, 92% failing social studies and 94% failing science. LEP standing was the only at-risk category out of a total of 13 employed by the state, including such criteria as students who are pregnant, expelled from school or are classified as homeless, that was a variable in this research. Because the at-risk category is so far reaching, this researcher determined that it was beyond the scope of this study to present extant literature that may relate to all 13 categories. However, the one at-risk criterion that does appear, LEP, was addressed above.

11. This researcher did not find significance in relation to the campus principal longevity and state and federal accountability variables. The absence of significance relative to these factors may suggest congruence to Clark’s (2009) findings that there is little evidence of a relationship between principal’s longevity and school academic performance. This lack of finding is also consistent with the research conducted by Brewer (1992) and Grissom and Loeb (2009). The absence of significance in terms of state and federal accountability systems supports Gill’s (2009) finding that none of the campuses in one study that missed meeting AYP showed significantly negative effects on students’ test performance.
12. District and campus interviews revealed concerted efforts to assist students in this study cohort, including central disaggregation of test results, strategic placement of students in particular content area courses, development of individual educational plans, early tracking of students with academic needs, and the use of benchmark exams as diagnostic tools. Owens and Sunderman (2007) state that schools fail to differentiate instruction for the non-English or the special education students with individual education plans. Therefore, at least one of Western ISDs intervention strategies stands in contrast to the findings of Owens and Sunderman (2007). In addition, certain personnel are dedicated to assist this population, such as curriculum coaches and assistant principals who are given specific responsibility for supporting these students.

There were philosophical differences noted between the principals. One emphasized the value of remediation strategies separate from the core while the other believed in leaving students in regular classes citing the importance of strengthening the overall curriculum for all students.

**Theoretical Framework**

In terms of Stereotype Threat Theory, Steele and Spencer (1999) state that when a stereotype about expected performance is made prominent, the feelings of threat that this creates leads students who are targets of that expectation to actually perform more poorly. Another view which emphasizes why students fail to achieve is the concept of subtractive schooling. Valenzuela (2002) explains that if schools are in compliance with Texas state law, their function is not to promote bilingualism, biliteracy and biculturalism in an additive fashion, but rather to subtract Mexican American children’s culture, language, and community-based identities.
Valenzuela (2002) reports that this subtraction is consequential to students’ academic achievement measured in terms of grades and test scores.

On the other hand, there exists a school of thought, known as Resiliency Theory, which focuses on why students achieve in spite of the obstacles. Resilience is defined as “…a process of, or capacity for, or the outcome of successful adaptation despite challenging and threatening circumstances” (Garmezy & Masten, 1991, p. 159). Werner (1993) refers to the concept of resiliency to describe children who successfully “…cope with biological and social risk factors to succeed” (p.503).

It was found in this study that higher numbers of lower SES, LEP, female and minority students comprised the cohort of individuals that did not graduate due to failure on the TAKS when compared to the district average. Seventy-six (76) percent of the cohort came from economically disadvantaged backgrounds compared to the district average of 70% and LEP students represented 42% of this group while the district average was 30%. Overall, 79% of the students in Western ISD are Hispanic compared to the cohort, which includes 90%. Forty-nine (49) percent of the district’s students are female while the cohort contains 56%. This higher representation of students from these categories in the cohort may lend support to the Stereotype Threat Theory and to the concept of subtractive schooling.

However, there are also findings that support the Resiliency Theory. Keeping in mind that Western ISD as a whole has higher numbers of lower SES, LEP and minority students than state averages, it is noteworthy that six of its campuses are rated as Recognized and the balance are rated as Academically Acceptable. There were no schools classified as academically unacceptable, which would be an indicator of low test scores, graduation rates or unacceptable attendance rates. Axvig (2009) emphasized the importance of the school setting in the
development of resiliency in students. Western ISD and campuses have instituted various intervention strategies to assist students in need, as stated above, thereby possibly providing school conditions that foster resiliency. Based on this finding, Resiliency theorists might argue that students in Western ISD, as a whole, have managed to overcome obstacles to perform at levels deemed acceptable or above average by the state accountability system.

Research Variables

School Size

Axvig (2009) emphasized the importance of the school setting in the development of resiliency in students. In his report, resilient students described feeling special and appreciated in their school setting. One school factor considered in this study was campus size. Some researchers have found that high school students in small schools are more likely than those in large schools to pass major subjects and progress toward high school graduation (Raywid, 1998). In a study involving TAKS performance in schools of various sizes, Stewart (2009) found a positive correlation between smaller campus size and performance on the test. This researcher suggested that economically disadvantaged students are better served in the close knit settings of smaller schools, due to the familial nature of the relationships between staff and students.

This study revealed the opposite. A statistically significant difference was found for seniors enrolled in small campuses compared to mid-size and large campuses in the Western ISD. The students attending the larger campuses had lower failure rates, 15%, than the small campuses with failure rates of 35% and mid-size campuses with failure rates of 50%. However, this finding may be a function of the fact that the larger high schools in Western ISD are located in comparatively more affluent regions of the district. These findings may lend support to Werblow’s (2009) observation that differences in student achievement among schools are
explained less by school characteristics, such as size and location, and more by differences in the students themselves, namely minority status, income level and gender. Howley (1995) reported that students from high income levels actually profit more from large high schools than from small high schools. This researcher found that size had a negative effect in low socioeconomic settings as opposed to high socioeconomic communities. This finding in this study regarding school size appears to be consistent with Howley’s (1995) observation.

Gender

Historically, it has been reported that females tend to perform better on reading tests while males perform better on math tests, particularly at the high school level (Chudowsky, 2010). However, Hyde (2008) asserted that achievement in math of males and females is roughly the same. Else-Quest (2010) presented data that indicate a pattern of gender similarities and decreasing gaps in math achievement over the last two decades. Good (2010) reported that female students score lower on standardized tests in science putting them at a disadvantage when applying to college or pursuing science related jobs.

In reference to gender gaps in this study, differences were evident as findings revealed more female students failed all four TAKS tests than male seniors. There were also obvious gender gaps related to the science TAKS test with 321 (62%) of the females compared to 194 (38%) of the males failing this assessment. This finding is consistent with Good’s (2010) research that documented significant gaps in science test performance between males and females. The TEA AEIS (2010d) statewide report shows a mere 3 percentage point difference in test performance between the genders. Statewide, 13% of the male students and 16% of female twelfth graders failed the science TAKS test.
The math and English Language Arts TAKS tests revealed smaller differences in terms of performance by gender. A total of 327 females or 56% failed the math test compared to 257 or 44% of the males. Performance results of the English Language Arts TAKS test showed the smallest differences of the four tests regarding gender with 127 (54%) females compared to 110 males (46%) failing this test. This finding of narrower gaps in ELA and math, compared to other subject areas, in Western ISD may be viewed as being more consistent with the research results offered by Hyde (2008) and Else-Quest (2010). TEA AEIS (2010d) statewide reports indicate only a one percentage point difference in math test performance between the genders and a 3 point difference in relation to the ELA assessment.

The gender variable showed statistical significance in math, $p < .05$, when combined with other factors, namely ethnicity, at-risk and economically disadvantaged. The significance level, .005, was yielded through univariate analysis, which may congruent with Chudowsky’s (2010) conclusions regarding the gender gap in math.

It must be noted that the largest gender gap was found in data reported concerning the social studies TAKS test with more females (54) or 68% failing compared to 26 males or 32%. This finding is in stark contrast to the statewide exit level statistics reported by TEA (2010d) reports that show no difference in gender for this particular assessment. Statewide data show an equal proportion, 3% of female students and 3% of male seniors fail the social studies test.

### Years of Teaching Experience

One campus characteristic that displayed statistical significance was teachers’ years of experience. The analysis showed that the reading and social studies TAKS tests indicated significance levels of $p < .05$ for seniors that had more experienced teachers (with more than 13 years’ experience) as only 21% of failures were reported in this category for the reading test and
30% for the social studies test. The analysis also suggested that there may be an equity issue with the number of seniors that were placed within the three teacher categories. It was found that 278 students were placed with beginning teachers compared to 120 total students with the more experienced teachers.

Murnane (1981) and Klitgaard (1974) both have found relationships between teachers’ effectiveness and their years of experience and its direct effect on student academic performance. These studies revealed that inexperienced teachers (those with less than three years of classroom experience) are typically less effective than more senior teachers. Other researchers came to the opposite conclusion. Grissmer (2000) found that “teacher experience did not show significant effects on achievement” (p. 5). Another study conducted by the Center for Educator Compensation Reform (2002) regarding teacher education and experience concluded that these two variables are not strong predictors of teacher effectiveness as measured by student achievement gains on standardized tests.

The findings of this study, at least in terms of reading and social studies performance, are congruent with the conclusions of Murnane (1981) and Klitgaard (1974). Western ISD students in the cohort examined in this research performed at higher levels in reading and social studies under the guidance of more experienced teachers.

Socioeconomic Status (SES)

The data shows that for all four TAKS tests, more low SES students failed when compared to their more affluent counterparts. The district reports that 70% of student population is economically disadvantaged as compared to 55.5% of students statewide. Out of 31 multivariate tests with single and a combination of variable analysis, nine univariate effect tests
showed statistical significance. The low SES variable was present in six of these univariate effect tests. The ethnicity variable was present in five of these univariate effect tests while the at-risk variable appeared in four. The LEP variable was present in two of the univariate effect tests.

Consistent with research regarding SES and academic achievement (Popham, 2001; White, 1982), the findings of this study reveal that the SES variable is a dominant factor that affects students’ HSEE performance. These findings indicate that students from low SES backgrounds, those that qualify for the free/reduced lunch program, had the higher failure rates on HSEEs. This factor exists in combination with other variables, including ethnicity, at-risk status and LEP. This array of factors describe a majority of the Western ISD students as the district reports 70% of students are identified as economically disadvantaged, 62% as at-risk, 79% as Hispanic and 30% are classified as LEP. The findings of this study showed statistical significance, $p < .05$ for student characteristics that identify the majority of Western ISD students.

These findings regarding the SES factor in Western ISD are congruent with research results published by White (1982) and Popham (2001). White (1982) asserted that this correlation can be considered “empirical law….SES predicts grades, achievement and intelligence test scores, retentions at grade level, course failures, truancy, suspensions from school, high school dropouts, plans for college attendance, and total amount of formal schooling” (p. 462).

Furthermore, these findings are consistent with those who have found that HSEEs tend to be concentrated in lower SES regions of the country. Amrein and Berliner (2002) report that the
HSEE disproportionately affects students from lower socioeconomic backgrounds. Their data reveals that high school graduation exams are more likely to be found in states with the greatest degrees of poverty as compared to the nation and an unintended negative effect of this policy is student failure.

Limited English Proficient Status

Thirty (30) percent of total student population in Western ISD is classified as LEP while 16% of students statewide are considered LEP. The cohort has a LEP population of 42%, 12 percentage points above the total district number and 26 percentage points above the state LEP figure. With regard to LEP status, statistical significance was found in relation to the reading test with a significance level of .001. Seventy seven (77%) of students that failed the reading test were identified as LEP. The LEP variable was also present in two of the univariate effect tests. In addition, 35% failed the math exam, 75% of the students were unsuccessful on the social studies assessment and 47% failed the science test. These students’ English proficient peers scored at higher levels on these exams.

Results from national and state assessments indicate the LEP students are among the sub-groups least likely to meet state proficiency standards on mandated assessments (Fry, 2008). Fry (2008) states that the “fastest-growing group of students is also one of the lowest-achieving student groups in reading and math” (p. 9). Giambo (2010) reports a high failure rate for LEP students and consequently an equally high drop-out rate. Several analyses examined the academic achievement of LEP students at both the national and state levels finding that the majority of these students scored below proficiency standards (Batalova & Fix, 2010).

This low performance on the part of English language learners has been attributed to a large extent to the disjuncture between best language acquisition practices and mandates for
these students to be tested in English. Fishkin (2010) reports that according to principles of language learning, it takes about three to five years for a LEP student to have sufficient language mastery to be able to function successfully in the mainstream classroom (Fishkin, 2010).

Tests are often administered before LEP students acquire the needed English proficiency to be successful. The results of this study confirm other research findings that LEP students are at a distinct disadvantage when it comes to testing requirements (Fishkin, 2010; Fry, 2008; Giambo, 2010).

**Ethnicity**

With regard to ethnicity, the district reports 79% Hispanic students in the total student population; therefore, Hispanic students made up the majority of those that failed all four TAKS tests. A total of 225 or 95% failed the English language arts test compared to 6 or 3% of the White population and 520 or 89% failed the math exam while only 28 or 5% of the White population was unsuccessful. Similar disparities were present in social studies and science. Out of 31 multivariate tests with single and a combination of variable analysis, nine univariate effect tests showed statistical significance. The ethnicity variable was present in five of these univariate effect tests, which was second only to SES.

Amrein and Berliner (2002) report that the high school exit exams negatively affect students from racial minority backgrounds in greater proportions than they do White students. Hispanic students are at disadvantage for multiple reasons, including a tendency to have low-education parents, lack of English proficiency and being raised in poverty in single parent households (Fry & Gonzales, 2008). Hispanics are less likely to graduate from high school than other demographic groups. Despite improvements in Hispanic high school graduation rates, in
2001 the state’s dropout rate for Hispanics was more than double that of African-Americans and Whites (Swanson, 2006). The findings of this research relative to the Hispanic subpopulation are consistent with extant literature on this subject (Amrein & Berliner, 2002; Fry & Gonzales, 2008; Swanson, 2006; Tienda, 2009).

Hispanic students in this cohort failed the test at significantly higher rates compared to their White counterparts.

**At-Risk Status**

Nine univariate effect tests showed statistical significance. The at-risk variable appeared in four of these tests, which was third behind SES and ethnicity, respectively. The seniors reported as at-risk in this study comprised the majority of failures in all four TAKS test categories with 95% failing the English Language Arts TAKS test, 91% failing math, 92% failing social studies and 94% failing the science TAKS test. It should be noted that the district reports 62% of its total student population as at-risk. The statewide TEA data indicates that less than half of the state population, or 48.3%, is reported at-risk.

TEA (2010c) uses the term *at risk* to categorize students from all grade levels that are deemed to be in danger of dropping out of school. This code is used by public schools to tag students’ files for possible intervention and to report data to the state and federal educational agencies. The at-risk indicator code uses 13 state-defined criteria, such as expelled, pregnant and homeless students. Because the at-risk category is so far reaching, this researcher determined that it was beyond the scope of this study to present extant literature that may relate to all 13 categories. However, one at-risk criterion that does appear, LEP, was addressed above.
Other Variables

This researcher did not find significance in relation to the campus principal longevity and state and federal accountability variables. The absence of significance relative to these factors may suggest congruence to Clark’s (2009) findings that there is little evidence of a relationship between principal’s longevity and school academic performance. Clark (2009) found no statistical significance with relation to campus principal longevity and students’ TAKS test scores. The results of this study may run counter to Knab (2009) and Leithwood’s (2008) research that indicated that campus leadership was one of the most significant school-related factors that contributed to students’ academic performance.

Federal and state accountability will continue to impact the campus setting; however, based on the findings of this study, there are no consistent effects on student achievement relative to schools that missed AYP in the preceding school years. Gill (2009) found in one study that none of the campuses that missed meeting AYP showed significantly negative effects on students’ test performance.

Implications

Implications for Practice

1. These research findings confirm that LEP students continue to struggle with standardized tests. At the present time, TAKS exit tests are administered in English. There exists a critical disjuncture between best language acquisition practices (Fishkin, 2010) and mandates for these students to be tested in English. Recognizing that local educational leaders are subject to state and federal mandates, there are measures that can be taken at the district level to address this issue. For instance, practitioners might review ESL and bilingual program models to ensure they
are effectively and appropriately preparing students for exit level tests. Corresponding teacher training is also essential in this regard.

2. It was found that gender gaps in student performance exist in Western ISD, with more females failing all four exit exams than males. In view of this finding, district and campus educators may want to evaluate instructional materials to ensure they are gender neutral. Good (2010) found that mere textbook images, which included images of primarily males in science careers, can begin to influence females and can perpetuate the stereotype of their inferior performance in this subject. In addition, professional development for teachers in this area may foster more effective instructional practices.

3. Hispanic and low SES students in this cohort failed the test at significantly higher rates compared their more affluent, White counterparts. Tienda (2009) found that Hispanic children start on an unequal footing from preschool programs through high school. One manifestation of low parental education is the delayed school enrollment of Hispanic preschool-age children. SES is a strong predictor of success or failure on standardized tests (Popham, 2001; White, 1982).

In view of these findings, district and campus officials might consider more aggressive community outreach efforts to ensure parents are fully aware of early childhood offerings. Although this study focused on the end of students’ public school experience, it is important to realize that readiness for education is a key factor in promoting long-term academic success for all children.

4. This study found that there may be an equity issue with the number of seniors in this cohort that were placed within the three teacher categories. It was found that more
students were placed with beginning teachers than with the more experienced teachers. Murnane (1981) and Klitgaard (1974) both have found a relationship between teachers’ effectiveness and their years of experience and its direct effect on student academic performance.

If any student population is in need of more experienced teachers, it is this cohort of students consisting of higher numbers of low SES, LEP and Hispanic students. In light of these findings, practitioners should consider a teacher distribution audit to examine various factors, such as ethnicity, gender and experience. To the extent possible, more experienced teachers should be assigned to the areas of greatest academic need.

5. The district administrator interviewed for this study noted particular concern for the high failure rates on the science test and attributed this deficiency to the fact that science is not taught at all elementary grades. Schools are inclined to focus on tested subjects and when particular exams are not required at particular levels, educators may neglect important content in areas that are not measured. The central office leader also reported that the science vocabulary used in the TAKS test is usually three grade levels higher than on the English language arts test.

In light of these findings, it is suggested that practitioners consider focusing on a well-rounded curriculum throughout the grades with appropriate scope and sequences for each subject area. Smith and Kritoisonis (2006) state that it is imperative that educators spend more money and attention creating a whole child that is knowledgeable and has ethical character. This approach stands in contrast to more
fragmented efforts to prepare students exclusively for certain tests at the expense of consistently and effectively covering equally important areas of the curriculum.

**Recommendations for Further Research**

1. This study utilized a secondary data base to answer three guiding research questions. This quantitative approach was useful in determining the characteristics of high school seniors in the Western Independent School District who were not eligible to graduate with their class cohort due to failure to pass any portion of the TAKS tests and in examining the impact of campus and student characteristics on student achievement. However, this method does have limitations. Additional research into similar cohorts, utilizing different techniques, such as qualitative methods, may provide a deeper understanding of the social setting, in this case the school, in which these cohorts of students exist. Richer findings regarding the players, including educators, students and parents, may also emerge from the application of qualitative methods. For example, it was found that gender gaps exist in terms of performance on various exit tests. Other techniques may help reveal why these differences exist in the school environment and how educators work to foster gender neutrality or how they may exacerbate gender differences.

2. This study was delimited to one particular school district, Western ISD, which possessed unique school and student characteristics. Therefore, the results of this research cannot be generalized to other settings with different factors. It would be useful to conduct similar studies in areas that possess dissimilar student and school characteristics. Additionally, a more extensive research project involving multiple
school districts and nontraditional high school settings may yield findings to inform the knowledge base.

3. This study, in many respects, represented a snapshot of a particular cohort of students that did not graduate from high school due to failure on the TAKS test and of how student and campus characteristics impacted academic achievement. A longitudinal study tracking the educational and career progress of these students beyond high school over the course of multiple years may be helpful to answering important questions prompted by this work, such as: Did these students finally earn a high school diploma? How many of these individuals pursued higher education? Were these students resilient and persistent enough to overcome barriers, such as low SES and LEP status, into early adulthood and possibly beyond?

4. As the accountability system evolves into the administration of end-of-course exams, replacing the TAKS test, further research is needed to determine the effects of this new assessment approach. Will students from disadvantaged backgrounds fare better under this future system or will they continue to experience high failure rates?

5. It was noted that there were philosophical differences between the principals interviewed for this study. One emphasized the value of remediation strategies separate from the core while the other believed in leaving students in regular classes citing the importance of strengthening the overall curriculum for all students. This debate is not limited to these particular administrators. School leaders across the nation struggle with this same question. Future research might explore this issue as it relates to preparing students for high school exit exams.
Implication for Policymakers

The findings of this research indicate that LEP students have high failure rates on the exit exams. Results from national and state assessments indicate the LEP students are among the subgroups least likely to meet state proficiency standards on mandated assessments (Fry, 2008). Additionally, it was found that students in the low SES category also performed poorly on assessments. White (1982) and Popham (2001) asserted that a strong predicator of performance on standardized tests in the economic status of the student.

National Center for Fair and Open Testing (2008) research reports that standardized tests reinforce inequity. These researchers state that society should not punish students for adults’ inabilities to provide children with the necessary tools for success. Many students, especially those from low socioeconomic status, along with English language learners, attend under-funded schools or lack access to high quality educational programs necessary for their success.

The best public policy is informed by research. Elected officials at the local, state and national levels charged with making decisions regarding accountability systems should seriously consider the entire body of research, including this study, pertaining to the unintended effects of high-stakes testing. Policymakers are unfortunately often motivated by political expediency as opposed to truly serving the best interests of citizens, including students, by embracing research to inform their decisions.

Closing Thoughts

I was inspired to pursue this research project by my many experiences in the field of education, including service as a classroom teacher, math department head and as a principal. I witnessed the increasing daily negative effects of narrow accountability systems. These were observed not so much from the perspective of an academic, but rather from the vantage point of a
practitioner who cared about kids. I tried to comfort and assist students who had lost hope because of failing a single “pencil and paper” test and teachers who were extremely stressed over anticipated assessment reports. I will never forget the looks on the faces of parents whose children were not earning anticipated high school diplomas because they failed to pass the test. This dissertation provided an opportunity to peer through a different lens, one of a scholar looking objectively at this phenomenon we call standardized testing and its effects on students, namely those who were the subjects of this study.

There is some irony here. I taught math for many years and can certainly relate to quantitative methods. This approach involves analyzing numbers in contrast to interacting with people, which is inherent to qualitative methods. However, during the writing process, I never lost sight of the fact that there were students behind each number. Real and living individuals with hopes, dreams, aspirations and feelings contributed to the many tables presented in Chapter 4 and provided the data to run various statistical analyses. It is hoped that “the numbers” generated in this study, along with the large body of related research on this topic, will someday make a positive difference in the lives of students, particularly those who must overcome significant obstacles to succeed. I give my heartfelt thanks to the Western ISD cohort that contributed to this research and I wish each and every one of them only the best as they pursue their dreams.
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APPENDIX A
September 16, 2010

Patricia Silva
1328 Hookridge Dr.
El Paso, TX 79925-7829

Dear Ms. Silva,

We have received your request to continue research in the EPISD. Your study, School & Student Characteristics of Non-Graduating Seniors Due to Failure of TAKS Tests, has been approved. You will conduct the research at the district level (all high school), under the endorsement of Dr. Steinhauser. Once the study is completed we would appreciate if you could send a copy of your findings to our department for our records. Thank you.

You have our best wishes for a successful continued study. Please contact me at (915) 881-2412 or email me at cperales@episd.org

Sincerely

Carlos Perales
Researcher

Approved:
James Steinhauser, Assistant Superintendent
DATE: October 27, 2010

TO: Patricia Silva, MEd

FROM: University of Texas at El Paso IRB

STUDY TITLE: [186132-1] School and Student Characteristics of Non-Graduating Seniors Due to Failure of TAKS tests in the Western Independent School District

IRB REFERENCE #: 186132-1

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS

APPROVAL DATES: October 27, 2010 through October 27, 2011

Thank you for your submission of New Project materials for this research study. University of Texas at El Paso IRB has determined this project is EXEMPT according to federal regulations.

We will put a copy of this correspondence on file in our office.

If there are any changes or modifications to the originally approved protocol, it must be submitted and reviewed in order to determine if exemption status remains. Please submit a continuing review report at least two weeks prior to the date of expiration or a study closure packet upon study completion.

If you have any questions, please contact Athena Fester at (915) 747-8841 or afester@utep.edu. Please include your study title and reference number in all correspondence with this office.

cc:
CURRICULUM VITA

Patricia Rodriguez Silva was born in El Paso, Texas to Roberto and Eustolia Rodriguez. She graduated from Ysleta High School in El Paso, Texas in 1968. She enrolled at the University of Texas at El Paso in 1982. She majored in Secondary Education in Mathematics and Sociology and earned a Bachelor of Science Degree in May 1985 from UTEP. She earned a Master’s of Education Degree in May 1992 from UTEP and entered the doctoral program in Educational Leadership in the summer of 2004. Patricia began teaching mathematics in the Socorro Independent School District (SISD) in 1985. She is a Charter Member of Montwood High School where she taught mathematics and was the Mathematics Department Chair from 1990 to 1998. She was the principal at Fabens Middle School in the Fabens Independent School District (FISD) from 1998 to 2003 and Director of Curriculum and Instruction in the FISD from 2003 until her retirement in 2008. At the time of this research, she teaches at El Paso Community College (EPCC) and is math consultant for the El Paso Independent School District (EPISD).

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