High-Stakes Testing Policy in Texas: Describing the Attitudes of Young College Graduates

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Mark Davis Featherston

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Faculty Approval:	
Patricia M. Shields, PhD	
Howard R. Balanoff, PhD	
James McCutcheon, MPA	

Abstract

Purpose: The purpose of this research is to describe the attitudes of young college graduates regarding the efficacy of high-stakes testing policy in Texas. Although statewide testing results suggest that public school students are showing academic improvement, assessing the effectiveness of high-stakes testing policy should consider more complex factors. This research uses the literature to develop a conceptual framework based on three categories or criteria for determining whether high-stakes testing policy is useful. These categories are student learning, student motivation, and student preparation for college.

Methods: This study utilizes survey research to describe the attitudes of young college graduates in Texas. The survey was distributed to college graduates between the ages of 21-28 electronically, through email and the online social networking site, Facebook. Descriptive statistics were then used to analyze the results of the survey.

Findings: Results indicate that the cohort of young college graduates surveyed have strong opinions regarding the efficacy of high-stakes testing policy. The majority of respondents disagreed that preparing for or participating in high-stakes testing was beneficial for their learning, motivation, or college preparation. Perhaps the most remarkable finding is that high-stakes testing did not stimulate these former Texas public school students' interest, engagement, or creativity in the classroom.

About the Author

Mark Davis Featherston was born and raised in College Station, Texas. He graduated with a Bachelor of Arts in Geography and a minor in History from The University of Arizona in 2008. Mark will complete the Master of Public Administration degree from Texas State University – San Marcos in May 2011. During his graduate education, he has worked in the Texas House of Representatives at the State Capitol as well as with the Professional Services Program Area of the Texas General Land Office. Mark is currently a Development Intern for the Colorado River Foundation, a nonprofit organization that provides inquiry-based outdoor environmental education programs for Central Texas youth. You may contact Mark at mdf3303@yahoo.com.

Table of Contents

Chapter One: Introduction	
Research Purpose	7
Preview of Chapters	7
Chapter Two: History and Setting.	9
Chapter Purpose	9
History of Educational Testing in the United States	9
Research Setting: Testing in Texas	19
Chapter Summary	24
Chapter Three: Meeting the Needs of Diverse Populations	25
Chapter Purpose	25
Minorities and the Underprivileged	25
English Language Learners	28
Students with Disabilities	29
Gifted Students	31
Chapter Summary	32
Chapter Four: Criteria for Assessing the Efficacy of High-Stakes Testing Policy	33
Chapter Purpose	33
Student Learning	
English Language Arts	
Mathematics	
Science	38
Social Studies	39
Student Motivation	42
Student Engagement	42
Student Creativity.	44
Student Preparation for College	45
Content Knowledge and Skills	
Cognitive Abilities.	48
Academic Behaviors	
Conceptual Framework	
Chapter Summary	52

Chapter Five: Methodology	53
Chapter Purpose	53
Operationalization of Conceptual Framework	53
Survey Research	55
Online Distribution	56
Sample	59
Statistics	59
Human Subject Protection	60
Chapter Six: Results	61
Chapter Purpose	61
Respondent Information	61
Student Learning	62
Student Motivation	67
Student Preparation for College	69
Chapter Summary	72
Chapter Seven: Conclusion	73
Chapter Purpose	73
Summary of Results	73
Recommendations	78
Future Research.	80
Bibliography	81
Appendix A: Summary of Results	88
Appendix B: Survey Instrument	90
Appendix C: List of Survey Participant Comments	
Appendix D: List of Survey Link Postings and Email Recipients	

Chapter One: Introduction

Students who travel through the public school system in the United States have become accustomed to the rigors of standardized accountability testing throughout almost every grade of their K-12 education. Whether the testing material is social studies, science, math, or reading, contemporary American students are expected to perform "proficiently" and improve year to year in order to ensure that the work force of tomorrow will effectively provide leadership and competition in an ever-expanding globalized economy (Hursh 2005).

In order to provide such educational accountability, the U.S. federal government has gradually taken on a greater role in education policy. What was once considered a public service reserved to state and local regulation; education policy has become increasingly centralized due to national concerns over the employment and college readiness of U.S. high school graduates (McGuinn 2006). While the implications of increased federal involvement have varied over the last century, the most significant effect of federal influence has been the mandatory implementation of standardized accountability testing in every state across the nation.

Although many states instituted accountability testing systems several years prior, the *No Child Left Behind Act (NCLB)* of 2001 attempted to address concerns with the U.S. public education system by officially requiring that all states develop and administer standardized assessments to all public school students. In order to accomplish the goals of increased student achievement and decreased achievement gaps between various student subgroups, NCLB established a system in which student testing scores result in rewards and sanctions to the student, teacher, administrator, school, and school district (Heise 2006, 126). Although the "accountability movement" has been underway for nearly a decade, the debate over the efficacy

of "high-stakes" testing measures continues to consume the majority of dialogue surrounding public education (Gunzenhauser 2003).

Proponents of such an educational accountability system have welcomed the increase in high-stakes testing and provided several arguments for its benefits. To begin with, those in favor of such testing argue that the use of high-stakes assessments establishes a purposeful and explicit curriculum that allows all school personnel to understand what information should be taught (Haertel and Herman 2005, 17). Likewise, proponents argue that the pressure of performing well on the assessments has increased the motivation of students, teachers, and administrators by developing clear goals to strive for (Jones et al. 2003, 90). Regardless of these arguments and the subsequent increases in high-stakes testing, opponents continue to fight to alter the path of educational reform. Included in the arguments against high-stakes testing are the criticisms that such assessments have narrowed the curriculum, ignored the development of higher level thinking skills, and lowered student and teacher morale (Jones 1999, 200-202).

When discussing the effectiveness of high-stakes testing policy, there are undoubtedly many different voices to consider. Although it has been argued that policy makers have ignored the opinions of those involved in high-stakes testing (Nichols and Berliner 2007, 145), the literature on high-stakes testing does include the attitudes of teachers¹, administrators², as well as students³. Because these three categories of the populace are directly engrossed in the administration of the tests, it is critical that each of these groups participate in evaluating the success of high-stakes testing policy. Review of the literature shows that student opinions are not only limited in quantity but are outdated and unrepresentative of the student population. Absent from the literature completely are the opinions of former public school students, whose firsthand

See for example, Jones 1999; Louis et al. 2005; Moon et al. 2003; Scot et al. 2007
 See for example, McNeil et al. 2008; Sallee 2005

³ See for example, Kellaghan et al. 1982; Roderick & Engel 2001

experience with high-stakes testing would provide valuable insight regarding the effectiveness of high-stakes testing policy.

For this reason, this study examines the attitudes of former public school students. The research focuses on young college graduates from Texas for multiple reasons. First, college graduates represent a subgroup of the population that have been introduced to a variety of educational learning and testing techniques while having academic success. This group of former public school students has completed college course work, and therefore has a heightened perspective on what is needed for academic achievement. Secondly, Texas provides an ideal setting for this research study because the state has been recognized as a model for educational accountability policy throughout the nation (Bernstein 2004; McNeil 2005).

The purpose of this research is to describe the attitudes of young college graduates in Texas regarding the efficacy of high-stakes testing policy. This research is noteworthy because it provides policy makers an opportunity to hear from those who experienced high-stakes testing during their K-12 public education and continued on to have postsecondary success.

Chapter Preview

This research is organized into seven chapters. Chapter two provides the historical context for educational testing policy in the United States and Texas. Chapter three begins the literature review by discussing whether high-stakes testing policy effectively meets the needs of diverse subgroups of the population. Chapter four concludes the literature review and develops the conceptual framework for the survey by establishing three categories or criteria for assessing the efficacy of high-stakes testing policy: student learning, student motivation, and student preparation for college. Chapter five provides a description of the methodology used in this

research and the operationalization of the conceptual framework. Chapter six discusses survey results using descriptive statistics, and chapter seven provides conclusions, recommendations, and an agenda for future research⁴.

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⁴ For more Applied Research Projects regarding public education, see Collins 2008; Boukhris 2007; Sievert 2007

Chapter Two: History and Setting

Chapter Purpose

This chapter provides a chronological account of the development of educational testing in the United States by examining the history of testing measures and the evolution of education policy regarding such testing. Testing policy for the state of Texas is also examined in order to establish the setting for this study.

History of Educational Testing in the United States

1900-1960

Although accountability testing is currently mandated and thus widely used throughout the United States K-12 public education system, the development and implementation of such testing did not arise over night. In fact, the first testing in education was introduced in the early 1900s, when scholars like E. L. Thorndike began developing tests that assessed student knowledge in a variety of subjects including: reading, math, spelling, and drawing. These tests were not administered with the purpose of school accountability, but were used to determine homogeneous classroom groupings, which many educators at the time believed would lead to a more productive setting for learning (Haertel & Herman 2005).

This single purpose for testing changed in 1911, as several major cities, including New York, Boston, and Detroit, introduced school testing in order to not only compare students for placement, but also to evaluate the quality of education in their public school systems. As Haertel and Herman note, "it was during this time that educational testing and evaluation gained its first strong foothold" (Haertel & Herman 2005, 4). Throughout these early decades, local

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implementation of standardized testing became very popular and in 1929, E.F. Lindquist, at the University of Iowa, developed the first statewide testing program titled the "Iowa Test of Basic Skills". Aimed at assessing basic skills and the application of knowledge, Lindquist's test was not only implemented throughout the state of Iowa, but was available for use by other states, significantly increasing the use of standardizing testing in the United States throughout the 1930s and 1940s (Haertel & Herman 2005).

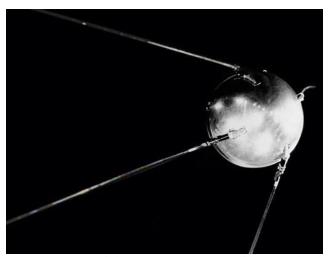
During the 1950s, standardized testing continued to increase as greater numbers of school districts purchased tests from commercial publishers, similar to the Iowa Test of Basic Skills.

Because very few states actually imposed the assessments, and students, teachers, and administrators did not experience sanctions or rewards as a result of test scores, testing at this time was considered low stakes, with little to no serious consequences. These low cost, multiple-choice tests were not intended to evaluate school and school district performance, but were used to identify areas of strengths and weaknesses in student achievement. These tests were titled norm-referenced (NRTs) because performance was reported in comparison to a distribution of scores (Koretz 2008). Therefore, scoring for individual students was compared to district, state, and national averages. Although these tests scores provided a great tool for student evaluation, testing was not mandated by most states and the federal government avoided education issues altogether, believing that education policymaking was a state and local matter.

This decentralization changed in the late 1950s due to national concerns over the quality of the American public education system. During this time, two important realizations surfaced which created anxiety amongst the American public and "provided an impetus for greater federal involvement in education" (McGuinn 2006, 27). The first of these concerns grew from an increasing public awareness about the economic and educational inequalities in the U.S.

population, which emerged through extensive social science research in the 1950s and 1960s. Many people believed that these racial and gender inequalities were the result of several social injustices that could be addressed by improving education. The second cause for concern arose through competition with the Soviet Union during the Cold War. In 1958, the Soviet Union launched Sputnik (*see Figure 2.1*), the world's first orbiting satellite, producing national fears that the United States was now internationally behind in technology development and needed an improved education system for national security purposes (McGuinn 2006).

Figure 2.1 Sputnik



Source: http://www.jpl.nasa.gov/explorer/captions/sputnik.php

Such concerns over the state of public education led to the first major federal education policy in the 1950s. In 1958, Congress passed the National Defense Education Act (NDEA), in order to provide funding to states for the improvement of math, science, and foreign language instruction in schools (McGuinn 2006). Although the actual dollar amount (less than 1 billion) of federal funding that the act allocated was minimal compared to total funding needed by states for public education, NDEA established an important precedent as the first major federal involvement in public education. While many citizens and political leaders believed that such action was necessary to address the educational concerns of the 1950s, opposition arose from

others who believed that education policy decisions should be relegated to state and local governments (McGuinn 2006).

1960-1980

The national fears over the effectiveness of public education did not cease in the 1960s. "The common regime of low-stakes, diagnostic, norm-referenced achievement testing" began to change, however, with the help of two actions by the federal government (Koretz 2008, 54). In 1965, Congress passed the Elementary and Secondary Education Act (ESEA) with the purpose of improving the poor performance of students in low-income schools. In order to accomplish this, the act established the Title I Compensatory Education Program, which created funding for various school services and programs to help economically disadvantaged children in low-income schools (McGuinn 2006). Although the effectiveness of this policy has often been questioned, its passage signified a massive shift in education policy in the U.S.

The second major federal action in the 1960s was the development of the National Assessment of Education Progress (NAEP)⁵. "A periodic assessment of nationally representative samples of students", the NAEP has undergone changes since its inception but its primary purpose continues to be providing the "public and policymakers with a description of student achievement and information about trends in performance over time" (Koretz 2008, 55). In order to provide such descriptions, the NAEP encompasses two low stakes testing programs administered throughout the country. Although the NAEP was not established to provide consequences for test results, the NAEP did provide the foundation for a shift in the goals of testing from local school evaluation and student diagnosis to a means of "large-scale monitoring of performance and, ultimately, to test-based accountability" (Koretz 2008, 55).

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⁵ The current NAEP includes two testing programs. The "main NAEP" is administered every two years in reading and math and less frequently for other subjects, while the "long-term trend NAEP" is administered every four years in reading and math (Chudowsky and Chudowsky 2010, 2).

This transition to large-scale monitoring continued into the 1970s as the federal government developed the Title I Evaluation and Reporting System (TIERS) in 1974. This act required that the evaluations of Title I programs (developed in the ESEA) would be based on students' scores on standardized, norm-referenced achievement tests. Therefore, federal funding provided to low-income schools for student services was appropriated based on the standardized test results of economically disadvantaged students. Although TIERS only required testing in schools receiving Title I funding, the act represented another progression in the evolution of mandatory standardized testing (Koretz 2008).

The next step was the introduction of minimum-competency testing, devised to ensure that all students were able to reach a minimal level of mastery of basic skills. First implemented in a statewide program in 1971, many of these tests were instituted in order to provide an exit-level exam for high school graduation, while others were employed for use in other grades throughout the K-12 system. Typically considered a test lacking much difficulty, these minimum-competency exams were exceptionally popular in the late 1970s, with 35 states introducing such programs by the end of the decade (Koretz 2008, 56).

Although minimum-competency testing lost some popularity during the 1980s, the massive statewide movements to utilize such assessments set the stage for more overall testing in the U.S. The new testing measured student performance in terms of expectations as opposed to diagnostic purposes. Thus, by the start of the 1980s, achievement testing in the U.S. was not only ubiquitously established, but federal and state government leaders believed that school instruction would benefit from holding students accountable through such testing (Koretz 2008).

1980-2000

Similar to the late 1950s, national concerns over the state of the American education system were widespread in the 1980s. The combination of nationwide declines in state test scores, inadequate performances on NAEP exams, and research indicating that U.S. student achievement compared poorly with other international students led to increased federal involvement in education and culminated in the 1983 report titled "A Nation at Risk".

Researched and drafted by the National Commission on Excellence in Education, this report brought the concerns over public education to the forefront of political issues (Haertel & Herman 2005). Concerned about the economic competitiveness of the nation's future workforce, national leaders converged to call for education reform based on "more uniform education policies, ultimately focusing on raising standards, implementing standardized tests, and holding students and teachers accountable" (Hursh 2005, 606).

While minimum-competency testing underlined the educational testing policy of the 1970s and early 1980s, the development of "A Nation at Risk" and the educational reform movement generated significant changes to the tests in order to ensure that students were accountable for their academic output. Thus, new tests were made more difficult and based on specified content standards, shifting format from all multiple-choice to some written and short-answer problems requiring more extensive and complex tasks for completion. These assessments of "high-order skills", rather than basic skills, were thought to improve classroom instruction by encouraging tasks requiring real life problem solving abilities. Because scoring such test answers is more difficult than scoring multiple-choice answers, these tests created complications in how student performance was graded and reported (Koretz 2008).

Nonetheless, the growth of standards-based testing continued into the 1990s with the help of several important federal education policies. Beginning in the early 1990s, congress passed the Goals 2000: Educate America Act. This act "established an initial framework and funding stream to support states and national entities to identify challenging academic content standards, develop measures of student progress, and link state and local reform efforts to enable students to meet those standards" (Haertel & Herman 2005, 16).

Following up on this policy, Congress passed the 1994 Improving America's Schools Act (IASA), a reauthorization of Title I, which mandated that in order for states to receive Title I funding, their schools must develop school-improvement plans and create high content and performance standards. Unlike previous federal involvements in education policy, this act not only required schools to implement standards-based testing to obtain funding, but also mandated that the assessments must be administered once within each of the following grade blocks: 3-5, 6-9, 10-12, and that testing scores must be disaggregated within states, districts, and schools based on gender, race, economic status, and disability (McGuinn 2006).

This federal influence on public education continued in 1997, with the passage of the Individuals with Disabilities Education Act Amendments. Including students with special needs and those with limited English language proficiency, this act took aim at previous testing concerns surrounding disabled students by requiring that those with special needs take standardized tests like all other students. The rationale for such policy arose from the idea that if others were held accountable for their test results then teachers would focus on them and ignore special needs students whom did not have to take the tests (Koretz 2008, 68).

The combination of these three powerful acts by the federal government in the 1990s not only led to state-mandated standardized achievement testing in almost every state by the end of

the century, but also represented an even greater shift of centralization in American education policy (Koretz 2008). Although the states themselves were responsible for developing and implementing content standards and standards-based assessment, it was the national concerns, pressures, and policies over educational accountability, which led to the immense growth of standardized testing by the year 2000. At the turn of the century, this new accountability based policy paradigm would take center stage when bipartisan political leaders came together to create the most centralized education policy in the history of the United States.

2000-Present

Although the role of the federal government in education had historically been absent with gradually increasing influence in the second half of the 20th century, presidential candidates in the 2000 election found themselves developing education reform plans as voters recognized education as the most important issue of the election (McGuinn 2006). In stark contrast to previous decades, political leaders and citizens realized that the federal government was obligated to address education concerns; however, the degree of such involvement was uncertain. Once elected, the administration of President Bush (see *Figure 2.2*) quickly dissolved such uncertainty by releasing their education bill titled "No Child Left Behind (NCLB)". Based on the goals of boosting overall student achievement and shrinking the achievement gaps between different student subgroups (race, ethnicity, economic status, etc.), this extremely powerful bipartisan bill was passed overwhelmingly in both sides of Congress and set into law in 2002 (Heise 2006).

Tornier President George Bush discusses NCLB legislation

Figure 2.2 Former President George Bush discusses NCLB legislation

Source: http://www.edweek.org/ew/articles/2008/12/10/15bush_ep.h28.html

The most influential federal education policy ever enacted, NCLB put several state requirements in place in order to ensure that all states adopted academic standards to develop curriculum and produce a testing system to assess those standards (McGuinn 2006, 178). These requirements included mandating that states test all students, grades 3-8 and once in high school in math and reading, with science testing to be implemented in grades specified at a later date. The bill also required states to test English proficiency for all English as Second Language learners and also administer the math and reading portions of a national test, created by the NAEP, in grades 4 and 8. This national test would then be used to check the effectiveness of state standards and compare performance across states (McGuinn 2006).

According to NCLB, states must not only develop standards and assess students based on those standards, but the scores from those assessments must be made public with results disaggregated by gender, race, ethnic group, economic status, and disability (McGuinn 2006). Aimed at decreasing educational inequalities, NCLB also states that the results from testing must improve from year to year in order for each school to make 'adequate yearly progress' (AYP).

AYP is met by comparing the test scores for each subgroup to the state's testing requirements. "If one group fails to make AYP, the entire school is designated as failing" (Hursh 2005, 608).

Under NCLB, schools that fail to meet AYP are faced with severe penalties and sanctions based on the number of years they have failed to meet the requirements. Penalties begin with the second year of failing when schools are designated as 'in need of improvement'. Students in these schools are then given the option of transferring to a not 'in need of improvement' public school, thus creating market competition between schools. Schools failing AYP for three straight years must provide students with supplemental services including after school programs, tutoring, remedial classes or summer school. Failing to meet AYP for four or five consecutive years results in some form of corrective action with the possibility that "the school district must initiate plans to fundamentally restructure the school" (Hursh 2005, 608).

Through the implementation of mandated testing with progress requirements and sanctions, the passage of NCLB represented a major shift in the governance of public education in the U.S and the largest expansion ever of federal power over the public education system. NCLB established a transformation from the former federal policy goals of equity and opportunity for disadvantaged students, to a policy paradigm with the overall objective of improving education for all students through increased accountability (McGuinn 2006). This change in education policy has been met with great opposition, as a growing movement against NCLB has taken center stage over the last few years. Such opposition has developed from the opinions of those directly involved in the accountability process as well as from the findings of academic studies performed by education and public policy scholars, and has resulted in the delay of NCLB reauthorization for over three years (Au and Apple 2010).

Although President Barack Obama entered office in 2008 under the campaign of "change", his potential impact on federal education policy, particularly NCLB, does not appear to be momentous. In March of 2010, President Obama and the United States Department of Education released their blueprint revisions for the reauthorization of NCLB (U.S. Dept. of Education 2010). Included in the blueprint is a focus on developing "college and career ready students" through assessments that are increasingly focused and aligned with postsecondary and occupational academic standards, including an emphasis on critical thinking and problem solving skills. The blueprint sets the goal of "all students graduating or on track to graduate from high school ready for college or a career by 2020"(9). In order to accomplish this goal, states are encouraged to compete in a "Race to the Top", in which their development of innovative policies and practices to improve student achievement will be rewarded through increased federal grant funding (36). Although the blueprint does shift the approach to rewarding and penalizing schools by encouraging a focus on rewarding schools for performance and providing "School Turn Around Grants" for low performing schools, the administration of high-stakes assessments remains integral, especially the testing of Mathematics and English Language Arts (12). According to the blueprint, schools will continue to be held accountable for student performance on standardized tests, suggesting that the heart of the NCLB legislation will remain intact.

Research Setting: Testing in Texas

1975-1990

Although some states implemented statewide achievement testing as early as the 1960s, the state of Texas did not enforce such testing until the latter half of the 1970s. Many individual school districts had already purchased and administered such testing in years prior; however,

1979 marked the first year in which the state of Texas addressed the issue. By amending the Texas Education Code in 1979, the Texas Legislature "require[d] the Texas Education Agency (TEA) to adopt and administer a series of criterion-referenced assessments designed to assess basic skills competencies in mathematics, reading, and writing for students in grades 3, 5, and 9" (Cruse & Twing 2000, 328). Implemented in 1980, this minimum-competency assessment was titled the "Texas Assessment of Basic Skills" (TABS). The first statewide testing program, TABS was "designed for diagnostic purposes to enable educators to better meet students' needs" (Alford 2001, 110). Because the state of Texas did not have a statewide education curriculum in place at the time, the Texas Education Agency developed a set of TABS objectives, which were evaluated by educator committees and used in conjunction with the testing measures in order to assess minimum basic skills (Cruse & Twing, 2000).

Similar to national concerns at the time, the early 1980s represented an era of apprehension surrounding the effectiveness of public education in Texas. Because of such concerns, the Texas legislature created a state education committee, chaired by business executive H. Ross Perot, to examine the state's education system. The recommendations from this influential committee led to the creation of two important pieces of Texas education legislation (Alford 2001, 110).

The first of these policies, House Bill 72 created in 1983, resulted in a no-pass, no-play measure for student athletes, a maximum absence rule per semester, and more importantly, increased graduation requirements with a mandatory exit-level competency examination high school graduation requirement (Alford 2001, 110). The second recommendation, House Bill 246, was passed in 1984 with the purpose of creating a statewide curriculum framework titled, Essential Elements of Instruction (EEs). Established for every subject at each grade level, the

EEs represented the state's most centralized education curriculum to date, and a response to the notion that Texas must improve its educational standards in order for the population to stay competitive in a globalizing job market (Alford 2001, 113).

In order to ensure educational improvement, the Texas Legislature ordered TEA to increase the difficulty of the achievement assessments and add individual student penalties for performance. The result of this mandate was the replacement of TABS with a new statemandated, criterion-referenced test called the "Texas Educational Assessment of Minimum Skills" (TEAMS). Due to the requirements of House Bill 72 and House Bill 246, TEAMS was to be administered to students in grades 1, 3, 5, 7, 9, with the exit-level exam in grade 11.

Beginning in 1987, students were required to pass the exit-level exam in grade 11 in order to receive a high school diploma (Cruse & Twing 2000). This marked the first time that students in Texas would have to pass an assessment in order to graduate, representing the beginning of a shift in Texas education policy from low-stakes competency testing to high-stakes minimum skills accountability testing.

The last major legislation of the 1980s was the passage of the Academic Excellence Indicator System (AEIS) in 1989 (Alford 2001). Still utilized today, the system's purpose is rating school districts, individual schools, as well as staff and student production in order to provide the basis for rewards or sanctions (Causey-Bush 2005). AEIS originally only included test scores; however the system has since evolved to include multiple performance indicators⁶. Prior to the 1980s, no such rating system was in place. The creation of AEIS, along with the introduction of TEAMS, the new minimum skills achievement test, underlined the massive transformation of Texas education policy within one decade.

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⁶ Current AEIS performance indicators include: TAKS scores, TAKS participation, exit level TAKS passing rates, progress of previous year's TAKS failures, student attendance, student dropout rates, and various college readiness indicators (TEA 2010d).

1990-Present

Although significant polices were passed in the 1980s signifying a shift to high-stakes accountability testing, the 1990s witnessed a continuation of state government involvement in education as political leaders continued to reiterate the idea that 'all students can learn' and thus their academic performance could be increased (Alford 2001). In 1990, the Texas Legislature passed SB 1, aimed at "achieving the end results of increased student learning for each subgroup as well as for all students." SB 1 provided clarity for the state's accountability system by requiring district ratings (Alford 2001, 113). In order to obtain such ratings, overall school performance and individual subgroup performance data was to be compiled based on testing scores, dropout rates, and attendance (Bernstein 2004).

In an effort to improve the accountability reporting method as well as establish a new statewide achievement test, the Texas Legislature passed SB 7 in 1991. Instead of only publishing the results of school districts, SB 7 required the publication of results of every school and required statewide testing of students in grades 3-8 and an exit level exam in grades 10-12. According to this policy, all students were to be tested in reading and mathematics in each of these grades, with a writing assessment in grades 4, 8, and at the exit level (Alford 2001, 116).

Following the passage of SB 7, the state government recognized that the increase in grades tested must be coupled with improved assessment. Therefore, TEAMS was replaced in 1991 by the Texas Assessment of Academic Skills (TAAS). This new assessment indicated a shift in the testing system by no longer emphasizing the assessment of basic skills, but instead incorporating critical thinking and high-order reasoning skills (Alford 2001). Employed throughout the 1990s and emulated by other states, TAAS represented the most difficult

achievement test to date in Texas history as well as "the most high-stakes component of the Texas assessments in history" (Cruse and Twing 2000, 330).

Although TAAS assessments were introduced in the early 1990s, the statewide curriculum of EEs was not changed until 1997. Developed by the State Board of Education, the Texas Essential Knowledge and Skills (TEKS) curriculum replaced EEs framework by emphasizing the critical thinking and higher-order reasoning skills that were already tested in TAAS assessments (Causey-Bush 2005). Still employed today, the TEKS framework noted a shift in state education curriculum by focusing on what students will learn, as opposed to previous curriculums (EEs), which focused on what the teacher would teach (Alford 2001, 118). Throughout the late 1990s, elements from TEKS were implemented into the assessments of TAAS. By the end of the decade, political and education leaders recognized the need to develop an assessment which fully integrated the concepts of TEKS.

Thus, in 1999, the Texas Legislature enacted Senate Bill 103, mandating the implementation of a new statewide testing program. Titled, the "Texas Assessment of Knowledge and Skills" (TAKS), this program was developed and implemented in 2003 (TEA 2009). Used today in conjunction with the curriculum framework of TEKS, the TAKS testing system is more difficult and distinguishes itself from the TAAS by: including more multiple-choice and open-ended questions than true/false questions, requiring more difficult critical thinking skills, containing more extensive reading passages, and more accurately measuring instruction and student learning (Causey-Bush 2005, 337). In addition to the new statewide testing program, SB 103 also mandates the development of a new exit-level 11th grade test, as well as new 9th and 10th grade tests, incorporating the subjects of English, math, science, and social studies (Alford 2001).

Although Texas currently uses TAKS in the 2010-2011 school year, this system will be replaced in the 2011-2012 school year (TEA 2009). Following passage of SB 1031 in 2007, requiring schools to administer 12 end-of-course (EOC)⁷ assessments for high school courses, and HB 3 in 2009, requiring new assessments for grades 3-8, the TEA has developed the State of Texas Assessments of Academic Readiness (STAAR). Although STAAR will continue to be based on TEKS standards, the system aims to respond to the "need to provide a more clearly articulated K-16 education program that focuses on fewer skills and addresses those skills in a deeper manner" (TEA 2010e). The majority of STAAR assessments will test content students studied that year, as opposed to testing material learned over multiple years. These assessments will also contain a greater number of open-ended questions and additional essays in order to test content at a higher cognitive level.

Historical Summary

By examining the history of education policy in the U.S. and Texas, it is easy to recognize the direction in which achievement testing has evolved. Prior to the 1950s, achievement testing was not only uncommon, but public education was regulated at the local level. Over the last half of the 20th century, public education was greatly centralized when the federal government began addressing educational concerns through increasingly powerful legislation, culminating in the passage of No Child Left Behind. Over the years, the purpose behind legislation has changed from diagnostics and local evaluation to large-scale school, teacher, and student accountability; however, the means to accomplish such goals have remained the same – more testing. The next chapter begins the literature review by examining the effects that high-stakes testing has on different subgroups of the public school population.

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⁷ Senate Bill 1031 mandates the development of end-of-course assessments for the following high school courses: Algebra I, Algebra II, geometry, biology, chemistry, physics, English I, English II, English III, world geography, world history, and United Stations history (TEA 2010e).

Chapter Three: Meeting the Needs of Diverse Populations

Chapter Purpose

Federal and state education policies have stated that decreasing the "white-minority achievement gap" is a central priority in the reform movement towards increased high-stakes testing. While it is undoubtedly important to examine the current gap in academic achievement between African American, Latino, and Caucasian students, policy makers and critics of the accountability testing movement must more importantly decide whether the use of high-stakes testing is effective for all subgroups of the population. The purpose of this chapter is to examine how high-stakes testing policy affects each of the following subgroups: minorities and the underprivileged, English language learners, students with disabilities, and gifted students.

Minorities and the Underprivileged

Depending on the indicator used to assess student achievement, policy makers, political leaders, academics, and school personnel have continually argued over the state of the white-minority academic achievement gap as well as the improvement of minority achievement in general. While proponents of high-stakes testing have pointed to the noticeable gains in testing scores to argue that minority achievement is increasing, several studies⁸ provide reason to believe that high-stakes testing policy is detrimental to the minority student population.

By simply examining TAKS results from the last seven years, it is quite obvious that increasingly more minorities are scoring well enough on the exams to meet state minimum expectations (see *Figures 3.1, 3.2*). Results from cross-state analysis however, indicate that the

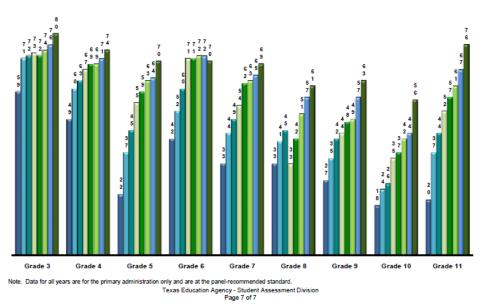
⁸ See for example McNeil 2005; Marchant and Paulson 2005; Balfanz et al. 2007

majority of states with strong accountability systems (i.e. more testing) did not have any improvements in their academic achievement gap during the 1990s (Lee and Wong 2004). By examining the state reading and math test scores of students in states with strong accountability systems, Lee and Wong (2004) concluded that not only did accountability policies and changes in the achievement gap fail to show a relationship, but that changes in the achievement gap were strongly associated with the amount of school resources available to students. Unfortunately however, most studies have indicated that schools with large minority populations tend to have the least amount of available resources (Balfanz et al. 2007).

Figure 3.1 Percent of Hispanic Students Meeting Texas State Standards

Texas Assessment of Knowledge and Skills
Percent of Students Meeting Fanel-Recommended Standard
Spring 2003 — Spring 2010
Grades 3-11 All Tests Taken (English)
Hispanic Students

■ 2003 ■ 2004 ■ 2005 ■ 2006 ■ 2007 ■ 2008 ■ 2009 ■ 2010



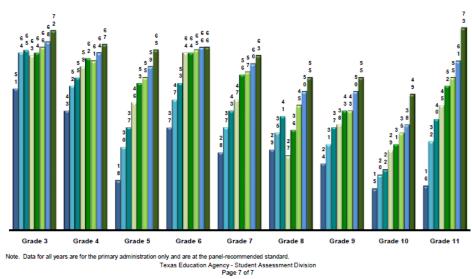
Source: Texas Education Agency, 2010

Figure 3.2 Percent of African American Students Meeting Texas State Standards

Texas Assessment of Knowledge and Skills
Percent of Students Meeting Panel-Recommended Standard
Spring 2003 - Spring 2010
Grades 3-11 All Tests Taken (English)

African American Students

■ 2003 ■ 2004 ■ 2005 ■ 2006 ■ 2007 ■ 2008 ■ 2009 ■ 2010



Source: Texas Education Agency, 2010

While state test results provide one indicator of minority achievement, such results should not be the only item considered. As McNeil (2005) argues, determining the condition of minority achievement can also be evaluated by other types of testing as well as graduation rates. In her study of minority students in Austin, Dallas, Houston, and San Antonio between 1996-2001, McNeil (2005) concludes that while minority scores on state tests increased, minority graduation numbers decreased, minority drop outs increased, and scores for minorities on college preparatory exams (SAT and ACT) remained very low.

Subsequent studies by Marchant and Paulson (2005), Balfanz (2007), as well as McNeil (2008) have supported findings that graduation rate and test scores do not share a positive relationship, indicating that minority test score increases are often associated with decreases in minority graduation rates. By comparing the graduation rates of states with and without

mandatory graduation exams, Marchant and Paulson (2005, 6) conclude that minority graduation rates are lower when students have to pass a test to graduate. Likewise, Balfanz (2007, 579) reported that adequate yearly progress improvements among the nation's low-performing schools was correlated with dropouts and declining graduation rates. McNeil et al. (2008, 20) indicated that low-performing students in several Texas high schools were being encouraged to dropout so that school wide testing scores would be high. Despite gains in testing scores, these studies support the argument that the use of rewards and sanctions, via the results of high-stakes testing scores, has not improved the educational achievement of the low-performing minorities which high-stakes policies are intended to benefit.

English Language Learners

There is little uncertainty about what direction student demographic trends are moving in the state of Texas. Between the years 2000-2010, the number of students receiving bilingual or English as Second Language (ESL) services increased by almost 250,000, with those considered to be Limited English Proficient (LEP) increasing by almost fifty percent (TEA 2010b, 20). Because of these increases, the Texas Education Agency has continued to incorporate additional state tests in order to meet their specific needs and assess their academic achievement (TEA 2010b).

Regardless of the fact that LEP students have shown positive gains in testing scores on TAAS and TAKS over the last fifteen years (McNeil 2005, 68), there are strong arguments that such figures are misleading and that testing has not been an effective learning strategy for this population because of the increased pressure on English language learners to perform well.

According to NCLB, schools receive Title III funding based on their percentage of LEP students and if those students are able to make adequate yearly progress. Because most schools with a

large population of LEP students are also the same schools lacking adequate resources, such federal funding is critically important and thus these students are under substantial pressure to perform well on high-stakes tests (Nichols and Berliner 2007, 68-69).

As Nichols and Berliner (2007) argue however, such high pressure to perform on tests causes English learning students to feel marginalized, frustrated, and often leads to increases in dropouts. Although many states, including Texas, have tests designed for LEP students, such tests have historically not been offered at every tested grade level and have not proven to be an effective method for assessing these students. Reports from LEP students indicate that many feel they are forced to take tests even when they feel they are unable to fully read and comprehend test questions (Nichols and Berliner 2007, 70). Such frustration with the inability to successfully pass high-stakes tests has caused substantial numbers of LEP students to drop out over the last decade, inaccurately inflating positive results of state tests during that time (McNeil 2005, 96).

Another important argument against high-stakes testing for LEP students is the contention that high-stakes testing narrows the curriculum and causes diversity to be ignored in the classroom. As McNeil (2005, 93) argues, "the rigidity and narrowness of test-practice and test-score production on a standardized test by definition structure out possibilities for the expression of and affirmation of cultural identities." Because high-stakes testing focuses as a control system in which the goal is to bring all students to the exact same knowledge level, the system fails to consider the developmental, social, and cultural differences that are present in the classroom (McNeil 2005).

Students with Disabilities

NCLB requires that all states develop and administer statewide assessments for students with disabilities including students with physical and mental disabilities, emotional or behavior

disorders, or other learning problems. Although academic instruction is often a secondary concern for many such students, the inclusion of students with disabilities in statewide assessments has generated both positive and negative effects on their educational achievement (Carr-George et al. 2009).

One indicator of increased achievement by students with disabilities is illustrated by the gains shown on statewide assessments over the last decade. Following a five year case study on one school district, Schulte et al. (2001, 498) found that not only did high-stakes test participation rates increase for students with disabilities but that average scores on reading assessments increased as well. Several other studies on the assessment results of students with disabilities have provided similar results (Ysselkyke et al. 2004, 78), and aggregate data of Texas state testing results between 2003-2010 indicate that special education students are showing improvements in reading, math and science (TEA 2010c).

In addition to improved test scores, arguments have been made that the use of high-stakes testing has led to more accommodations for students with disabilities. As Ysselkyke et al. (2004) note, because students with disabilities are required to take state tests, schools are providing supplemental services otherwise not provided in order to help these students perform well on the assessments. For students with disabilities that have performed poorly on previous state tests, many schools are establishing remedial programs and developing one-on-one afterschool or Saturday study sessions to help these students improve scores (Ysseldyke et al. 2004, 86).

Other positive effects of high-stakes testing on students with disabilities include improved instruction, greater access to the general education curriculum, higher expectations, and greater parental awareness. Research suggests that requiring students with disabilities to meet standards on state tests has raised the expectations of these students, while providing

teachers with a greater understanding of what is expected from this part of the student body (Ysselkyke et al. 2004, 81). Carr-George et al. (2009) argue that students with disabilities who are taught from the general curriculum perform better, and some studies have indicated that testing requirements align the curriculum such that students with disabilities are able to access the general curriculum with greater regularity (Ysselkyke et al 2004, 83).

Conversely, there are arguments against high-stakes testing for students with disabilities. Examples include that high-stakes testing has created pressure on teachers to teach students with disabilities strictly by the test, which does not allow these students to develop higher-order thinking or problem solving skills (Ysseldyke et al. 2004, 84). Nichols and Berliner (2007) agree with this argument, while also noting that the alternative assessment requirement, which states that school districts can only administer alternative versions of state assessments to a certain percentage of the student population, has forced many disabled students to pass the regular tests. According to Nichols and Berliner (2007, 65-66), such test qualification issues have created frustration and increased dropouts among students with disabilities.

Gifted Students

While federal and state education policy regarding the use of high-stakes tests tends to focus on improving the achievement of low performing students, effects of such policy on gifted students must be evaluated as well. Although gifted students generally do not have problems with meeting the standards of state assessments, the literature indicates that high-stakes testing has serious negative implications for gifted student achievement.

In a study by Moon et al. (2003), in which a national survey of the attitudes of gifted students and teachers of gifted students was conducted, results suggest that gifted students are disengaged by what they are learning in the classroom and are unable to showcase their abilities

and talents. Students in this study indicated that they were frustrated by the repetition of test practice worksheets, bored with class in general, and believed that a lot of class time was wasted (5). When asked about the effects of high-stakes testing on gifted students, the teachers "expressed concern that bright students will not be able to demonstrate talents or cultivate potential talent in school" because curriculum and instruction was so focused on state testing (4).

Other studies have suggested similar concerns by concluding that the pressure to improve low-performing students' scores on high-stakes tests has encouraged teachers to focus on "bubble" kids and ignore gifted students (Scot et al. 2007; Nichols and Berliner 2007).

According to Nichols and Berliner (2007, 75), "bubble" kids represent "those almost at the point of passing the high-stakes test, perhaps needing a little extra teaching time to help them to pass." In order for schools to make adequate yearly progress, these "bubble" students represent the most critical part of the classroom, causing teachers to decrease the pace of instruction to accommodate this group of students (Moon et al. 2003). Subsequently, gifted students are often left unchallenged, disengaged, and unable to reach their potential (Scot et al. 2009).

Chapter Summary

Although high-stakes testing scores suggest that students from all backgrounds are showing academic improvement, the literature indicates that testing results are misleading. This chapter explored research studies regarding the effects of high-stakes testing on various subgroups of the public school student population. Chapter four will continue the literature review and establish the conceptual framework used to develop the survey.

Chapter Four: Criteria for Assessing the Efficacy of High-Stakes

Testing Policy

Chapter Purpose

Although calculating the efficacy of high-stakes testing policy is no simple task and has been the subject of great controversy (Lee 2008), the goals of NCLB and the purpose of the K-12 education can provide a foundation and framework for doing so. According to NCLB, the rationale for high-stakes assessments is to increase learning standards for all children, with particular emphasis on disadvantaged students, through increased accountability and student motivation (Gunzenhauser 2003). Furthermore, literature on the contemporary purposes of public education suggests that the primary objective of secondary schooling is to prepare students for a postsecondary education (Balfanz 2009). Therefore, the efficacy of high-stakes testing policy can

be evaluated based on the effects high-stakes testing has on the following categories:

- student learning
- student motivation
- student preparation for college

Student Learning

The first goal of NCLB and the educational reform policies of the last decade, in which increases in high-stakes testing have been emphasized, is to improve the standards of learning for all students in the United States public education system (Gunzenhauser 2003). In order to accomplish this, students must be provided with a balanced curriculum, which includes knowledge and skills from the following core content areas: English Language Arts, Mathematics, Science, and Social Studies. Although most would not argue the value of each of

these content areas, the literature suggests that high-stakes accountability testing policies have

33

not only emphasized the importance of some subjects over others, but that the pressures of highstakes testing have greatly impacted student learning in each of these areas.

English Language Arts

As Conley (2007, 15) notes, "the foundations of English include reading comprehension and literature, writing and editing, information gathering, and analysis, critiques, and connections." From the start of the K-12 education system, students are taught the basics of language arts and are expected to master these skills in order to become literate and increase their knowledge in other subject areas. NCLB policy has responded to concerns over student knowledge in English Language Arts by increasing high-stakes testing measures in this area (Fitchett and Heafner 2010). While scores from such testing indicate increased student learning in reading and writing over the last decade and a half, the literature expresses concern over the effects of high-stakes testing on English Language Arts learning.

At the national level, test results indicate that students are showing gains in reading. By examining state test and NAEP⁹ scores of 4th and 8th grade students from across the nation, Chudowsky and Chudowsky (2010) concluded that the average percentage of students meeting proficiency in reading increased between 2005 and 2009. This national consensus has been matched by examination of AEIS data in Texas, where the percentages of students meeting state established standards in reading and writing has steadily increased over the last sixteen years (TEA 2010d). Between 1994 and 2002, under the TAAS system, the percentage of students meeting state standards increased in both reading (14.8%) and writing (9.7%). Although the TAKS testing system replaced TAAS in 2003, this trend continued through 2009, with dramatic increases in students meeting reading standards (19%) and writing standards (15%).

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⁹ The National Assessment of Educational Progress (NAEP) is a "federally sponsored assessment that is administered periodically to representative samples of students for the nation as a whole and for each state" (Chudowsky and Chudowsky 2010, 1)

While such test results indicate that student learning in English Language Arts has increased under the current high-stakes testing policies, other research suggests serious concerns over how reading and writing are tested. As McNeil (2005) argues, state reading tests are poor indicators of student achievement because of the multiple-choice format. According to the author, students are able to answer questions without "interpreting text, engaging with literature or coming to understand how ideas connect with a writer's words" (89). Brown and Conley (2007) echo this sentiment by suggesting that state tests covering English Language Arts do not adequately assess critical thinking and research skills.

According to Hillocks Jr. (2002), perhaps the greatest concern for English Language Arts learning comes from the effect that high-stakes testing has on student writing abilities. As the author notes, although there are many different types of writing, state writing tests focus on only a few, causing classroom instruction to do the same. Not only are students not introduced to the many different types of writing, but the standardization of writing assessments causes the public school system to teach a very formulaic style of writing. Called the "Five Paragraph Theme", students are expected to construct essays via a specific template in which their writing should include exactly: three reasons, five paragraphs, and five sentences per paragraph (Hillocks Jr. 2002, 87).

Additionally, Hillocks Jr. (2002) argues that because the current form of writing assessment is based on short and simple prompts that do not require students to evaluate any information, students do not learn how to effectively develop evidence based on analyzing different sources. These arguments, in conjunction with the indication that many high school students spend very little time reading and writing inside or outside the classroom (HSSSE)

2005a, 5), strongly disagree with test results and suggest that student learning in English Language Arts is not improving under high-stakes testing policies.

Mathematics

The importance of knowledge in mathematics is quite obvious and is closely tied to understanding economics and improving technology. As Shoenfield (2002, 13) argues, "to fail children in mathematics, or to let mathematics fail them, is to close off an important means of access to society's resources" as "course work in mathematics has traditionally been a gateway to technological literacy and to higher education." Because the international competitiveness of the American mathematics curricula has been questioned throughout the last forty years, educational reform efforts have focused on improving math learning for K-12 students, with NCLB policy emphasizing math in mandatory high-stakes testing from the onset (Shoenfield 2002). Although math is typically tested more than any other subject ¹⁰, assessing the effects of increased testing on mathematics learning has produced mixed conclusions.

According to testing scores, student learning in mathematics is improving with increases in high-stakes testing. Following a study of state tests results as well as results from NAEP exams, Chudowsky and Chudowsky (2010) concluded that the percentage of 4th and 8th grade students meeting proficiency¹¹ in math increased between 2005 and 2009. Of the twenty-one states assessed in the study, over ninety-five percent (Texas included) showed gains in math. Such national results are backed by outcomes in Texas, where Texas AEIS scores illustrate continual gains in student math learning over the last sixteen years. According to the Texas Education Agency (2010d), the percentage of students meeting state AEIS standards in

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¹⁰ In Texas, math is tested via TAKS in grades 3-10 as well as an exit level exam before graduating high school (TEA 2009).

¹¹ Proficiency on state tests is different for each state, while proficiency for NAEP indicates where the National Assessment Governing Board (NAGB) believes that students should be in terms of knowledge and skills in different subject areas (Chudowsky and Chudowsky 2010, 6).

mathematics improved by over thirty percent between 1994-2002 (TAAS) and by twenty-five percent between 2003-2009 (TAKS).

Although testing results overwhelmingly indicate that student learning in mathematics is increasing, other research suggests that there is no correlation between increased testing and learning math. By examining the relationships between state accountability policies, school resources, and student math achievement, Lee and Wong (2010, 820) concluded that while NAEP results illustrated slightly greater student math gains during the 1990s, such increases in math achievement had a much greater correlation with level of school resources. Nichols (2007, 57) provides a similar contest, indicating that there is insufficient evidence to suggest that increased testing pressure and student math achievement are correlated.

Perhaps the most significant counter to the obvious increases in student testing scores is the argument that high-stakes tests do no effectively assess student math knowledge because of their format. McNeil (2005) argues that the multiple-choice testing format and test preparation associated with such exams allow students to answer test questions without really understanding the math concepts involved in the problem. Shoenfield (2010) expands this argument by suggesting that the majority of state tests do not effectively incorporate mathematical problem solving. According to Shoenfield (2010, 23), current high-stakes tests follow "the very common misunderstanding that in mathematics students have to master skills before using them for applications and problem solving." Thus, the use of these testing measures places an overemphasis on basic math skills, causing K-12 students to inadequately understand important math concepts and develop higher order mathematical reasoning abilities.

Science

With the significance of engineering and technology in today's economy, there is little question that students must be equipped with adequate scientific knowledge and skills. In order to produce more students who are prepared for higher education science courses and technology based occupations, the U.S. has established several initiatives to improve science education (Marx and Harris 2006). Although NCLB policy did not originally include science as a subject area with mandated testing, science testing is now required in all fifty states. While the introduction of testing policy has appeared to increase student learning in science through improved test scores, the literature suggests that current high-stakes assessments do not emphasize the type of science learning that is necessary for increased student understanding.

In Texas, state assessment results indicate that student learning in science is quickly increasing with the implementation of high-stakes testing. Although science was not tested statewide prior to 2003, state AEIS data for 2003-2009 indicates that the percentage of students meeting state science standards has increased by almost forty percent over the last six years, more than other subject area (TEA 2010d). Such results may be misleading however, since many American scientists and science teachers believe that science education in the United States is not where it should be (Taylor et al. 2008).

The most significant concern over the effects of high-stakes testing on student learning in science surrounds the use of *inquiry-based* learning. As Southerland et al. (2007, 51) notes, inquiry-based learning requires students to employ "some of the same strategies scientists use: observing, questioning, examining research to determine what is known, planning and conducting investigations, constructing explanations based on those investigations, and communicating what they have learned." The benefits of inquiry-based learning include

increasing content knowledge, development of critical thinking skills, and improving student attitudes towards science (Southerland et al. 2007). Although the use of inquiry-based learning strategies in science has been empirically proven to improve participation and learning for a wide range of students (Trettor and Jones 2003), research indicates that high-stakes assessments do not encourage such strategies.

According to a survey conducted by Taylor et al. (2008, 1069), science teachers believe that the pressures of high-stakes testing "has constrained the creativity and flexibility of science instruction" and made the implementation of inquiry-based learning very difficult. As Marx and Harris (2006) and Longo (2010) argue, although there has recently been an initiative to increase science inquiry learning in the classroom, state assessments continue to be content based, testing only scientific facts and knowledge. Testing such knowledge through the use of multiple-choice exams not only inadequately assesses scientific abilities (Trettor and Jones 2003), but has been proven to discourage teachers from utilizing inquiry-based teaching strategies in the classroom (Wideen 1997). As Longo (2010, 56) notes, in order for students to truly expand their science understanding and engage in "the creative, ongoing synthesis of observations, reflections, and information," the K-12 science classroom must fully adopt inquiry-based learning.

Social Studies

According to Conley (2007, 15), social studies "entail a range of subject areas, each with its own analytic techniques" which "emphasize interpreting sources, evaluating evidence and competing claims, and understanding themes and the overall flow of events within larger frameworks of organizing structures." At the K-12 education level, these subject areas include history, geography, government, and economics and are "an integral part of perpetuating a

democratic society by providing the necessary skills that citizenship requires" (Journell 2007, 301). For this reason, social studies is currently included in state high-stakes testing measures.

Although high-stakes testing results indicate that student learning in social studies is improving (TEA 2010d), other studies suggest that inclusion in such assessments has negatively affected student learning in the subject. As Fitchett and Heafner (2010, 115) note, because NCLB did not mandate that states test student social studies knowledge and skills, many states have historically not assessed the subject. This exclusion from federal policy, as well as the fact that education programs designed to improve math and science learning receive more federal funding, has created a perception that social studies is less important than other subjects (Vogler and Virture 2007). Such disinterest has caused schools to award less instructional time to student learning in history, geography, and government (Fitchett and Heafner 2010).

Aside from the marginalization of social studies, there are arguments that policy mandating testing has caused a number of serious concerns for student learning. According to Burroughs et al. (2005, 18), because high-stakes social studies test questions are multiple-choice and do not require writing, classroom instruction is focused on the memorization of social science facts, thus narrowing the curriculum and not allowing students to learn content in depth. Journell (2007, 304) has agreed with this sentiment, arguing that students are not required to develop social studies critical thinking skills because teachers are not employing creative and higher level instructional approaches such as "role playing, performance assessments, problem solving, and interdisciplinary instruction." Also discouraging, research indicates that student discussion in social studies classrooms has decreased with the increases in high-stakes testing (Parker 2006).

Journell (2007) also argues that the high-stakes testing environment affects student learning in social studies by skewing perceptions of history. The author notes that standardization of social studies is ineffective because it separates historical facts from the historical process. Although multiple versions of history exist, students are currently only exposed to "the master narrative presented in textbooks" causing student social science knowledge to become very simplistic (307). Unlike mathematics, where questions can be evaluated to find one specific result, Journell (2007) argues that history cannot be viewed so concrete as to choose one correct answer on a multiple-choice exam.

Additionally, Burroughs et al. (2005) and Journell (2007) suggest there has been a loss of student interest in social studies as a result of poor social studies instruction and the narrowing of the social studies curriculum. Journell (2007, 308) argues that the lack of student autonomy provided by the high-stakes testing environment has discouraged intrinsic interest in social studies, while Burroughs et al. (2005) explains that students are not currently gaining interest in the workings of government and how our democracy works.

While testing scores illustrate student learning gains in each of the aforementioned academic subjects, the preceding research indicates that high-stakes tests may not be beneficial for student learning in each of these areas. Such findings suggest that the public is unclear on whether testing policy is achieving its primary goal: to increase student learning. Assessing the efficacy of high-stakes testing policy is not limited to student learning, the tests are intended to increase student motivation as well.

Student Motivation

Educational reform during the past decade has cited student motivation as a principal explanation for increases in high-stakes testing. According to proponents of high-stakes testing, the pressure, via sanctions and rewards, attached to rigorous state tests will act as a motivational tool for unmotivated students, "usually identified as low socioeconomic students in urban schools" (Amrein and Berliner 2007, 32). Although some arguments have suggested that the use of high-stakes testing can be motivational in terms of providing clear goals for students to strive for (Jones et al. 2003), the majority of evidence indicates that high-stakes tests not only decreases student motivation but also increases the number of students who drop out of school (Amrein and Berliner 2007).

As Nichols and Berliner (2007) and Jones et al. (2003) argue, high-stakes tests are ineffective in increasing student motivation because they are based on the use of extrinsic rewards, in which students complete a task in order to receive a grade, grade promotion, or a prize. Research indicates that while extrinsic rewards may be successful in "influencing short term compliance" (Nichols and Berliner 2007, 148), the attachment of rewards and sanctions to high-stakes tests actually causes students to be less intrinsically motivated to learn (Amrein and Berliner 2007). As Jones et al. (2003, 80) indicates, "students are more likely to be motivated to choose an activity and persist at it if they enjoy the activity and are interested in it." Thus, in order for substantial increases in learning to occur, students must not be concerned with the extrinsic rewards, but must be interested and engaged in the classroom.

Student Engagement

According to Yazzie-Mintz (2010), student engagement consists of the combination of student effort, student participation, and student connectedness to school. As previous studies

illustrate, each of these dimensions of engagement shares a positive relationship with student academic achievement but can also be used to assess the impact of high-stakes testing on student motivation (Yazzie-Mintz 2010). While some research has suggested that the use of high-stakes tests increases interest and engagement in the classroom for the majority of students (Kellaghan et al. 1982), most studies on the relationship between high-stakes testing and student engagement provide less optimistic results.

For example, multiple studies suggest that while high-stakes testing can increase engagement for high performing students, it decreases engagement for the low achieving students for whom the testing policy is designed (Jones et al. 2003; Madaus et al. 2009; Roderick and Engel 2001). In a study by Roderick and Engel (2001), in which the authors interviewed middle school students about their work ethic in response to accountability tests, results indicate that the students who reported greater motivation and work effort were historically medium to high-achieving students while those who reported decreased motivation and work effort were historically low-performing students. According to Jones et al. (2003, 93), such results are accurate because historically high-achieving students have established confidence in their academic abilities and thus "continue to want to be the best and brightest" while historically low-achieving students have developed an "avoidance performance orientation" in which their motivation is negatively affected by previous academic failure.

While these studies indicate that high-stakes testing can have a positive impact on motivation for some students, there is a great deal of evidence suggesting otherwise. According to studies by The High School Survey of Student Engagement (2005, 2009), the majority of high school students are generally bored, uninterested, and unchallenged at school, causing them to not put in much effort in the classroom. Others provide similar concerns, finding that students

believe the material they are learning under the regiment of high-stakes testing is uninteresting (Amrein and Berliner 2007; Moon et al. 2003; Yazzie-Mintz 2010). Both teachers and students have suggested that the lack of interest in school work comes from the fact that the work is focused on memorization and test practice exercises (Moon et al. 2003; Scot et al. 2007; Yazzie-Mintz 2010) and lacks any knowledge applicable to real life skills (HSSSE 2005; McNeil et al. 2008).

Student Creativity

In order for students to be fully engaged and motivated in the classroom, they must not only be interested in the material but must be able to use *creative* critical thinking and problem solving skills (Beghetto and Plucker, 2006). According to Beghetto and Plucker (2006, 321), creativity is defined as "the interaction among aptitude, process, and environment by which an individual or group produces a perceptible product that is both novel and useful as defined within a social context." Although many people would consent to the importance of student creativity in the classroom, the literature suggests that the emphasis on high-stakes testing has diminished creative abilities.

According to Longo (2010), one of the reasons for decreasing student creativity in the classroom resonates from the fact that high-stakes tests are content driven. As VanTassel-Baska (2006, 300) notes, although the use of creativity requires domain specific or content knowledge, it also demands the cognitive abilities to apply such knowledge to solve problems through "planning, abstracting, undoing, and making means into ends." The use of high-stakes testing has been continually criticized for its ability to narrow the classroom curriculum to memorization of discrete facts (McNeil et al. 2008; Moon et al. 2003; Scot et al. 2007) and inability to provide an indicator of real in-depth understanding of a problem and solution (Beghetto and Plucker 2006).

Both of these concerns have caused classroom time to be focused on learning test content, which has not allowed students time to develop creative abilities (Moon et al. 2003).

As Beghetto and Plucker (2006, 319) argue, student creativity has also been diminished because the focus on test content emphasizes the "teacher-centered classroom." Because teachers are pressured to cover all of the material or content included in the state tests, the classroom becomes one-sided as the teacher imparts all of the knowledge on the students without allowing them to "draw on their own experiences or interpretations" (320). While "teacher-centered" practices appear to be efficient and effective when evaluating the results of high-stakes testing scores, such a focus on the teacher does not provide students with the autonomy to be creative (322). Studies by Moon et al. (2003) and Scot et al. (2007) support this argument by providing the opinions of teachers on student creativity in the classroom. In both studies, teachers overwhelmingly indicate that the focus on state tests has led to a decreased utilization of creative and student-centered instructional approaches, which has reduced student motivation in the classroom (Moon et al. 2003, Scot et al. 2007).

Although a primary purpose of high-stakes testing policy is to increase student motivation through the use of rewards and sanctions, the literature suggests that current testing requirements are failing to achieve this objective. The next section analyzes the efficacy of high-stakes testing policy by examining the effects testing requirements have on preparing students for postsecondary education.

Student Preparation for College

While high-stakes testing policies do not specify *college readiness* as one of the main objectives for the use of high-stakes assessment measures, the importance of college preparation

in today's economy makes the effects of testing on college success undoubtedly significant. As Balfanz (2009, 23) notes, there is an obvious consensus "that regardless of the characteristics of a school or its students, the primary purpose of high school is to prepare students for college." Although "workforce preparation, socialization, and community building" remain as secondary functions of our schools, the fact that seventy-five percent of high school graduates in the United States enroll in some form of postsecondary education within two years of graduating provides evidence that public schools, built on testing, must not only provide a basic education for students but must ensure that they are college ready (Balfanz 2009, 23).

According to Conley (2007, 5), "college readiness can be defined as the level of preparation a student needs to enroll and succeed in a credit bearing general education course at a postsecondary institution." In order to have such success, or complete "entry level courses with a level of understanding and proficiency that makes it possible for the student to be eligible to take the next course," students must have developed important learning components in their K-12 education (Conley 2007, 5). Such learning components include: academic knowledge and skills, cognitive abilities, and academic behaviors.

Academic Knowledge and Skills

As Conley (2007) notes, in order for students to be successful in college, they must have adequate knowledge of the core academic disciplines as well as the skills necessary to increase such knowledge. This includes background knowledge in English, Math, Science, and Social Sciences as well as skills in reading, writing, research, and arithmetic.

Although each of these subject areas is valuable for student success, studies on the opinions of college students indicate that knowledge and skills in math, reading, and writing are the most critical for early college success (Bryd and MacDonald 2005; HSSSE 2005a).

According to Conley (2007, 15), college level math skills require students to have a "thorough understanding of the basic concepts, principals, and techniques of algebra" while being able to "apply conceptual understandings in order to extract a problem from a context, use mathematics to solve the problem, and then interpret the solution back into the context". Likewise, in order for students to be effective readers and writers, they must be able to "engage texts critically and create written, organized, and supported work products in both oral and written formats" (14).

While research indicates that these particular skills are crucial for college success, there is substantial evidence suggesting that public schools are not providing students with proficiency in these areas. According to a study by Brown and Conley (2007, 137), in which the content of state test was compared with college readiness standards¹², the majority of state assessments are only "moderately aligned" with university standards. Their results indicate that state tests align adequately with reading and algebra skills, but poorly with research, writing, critical thinking, trigonometry, and statistics skills. As Brown and Conley (2007, 154) note, these conclusions are unsettling "during a period when policymakers are seeking to redesign or restructure educational systems so that more students attend college".

The alignment between state tests and college readiness standards is not the only indication of inadequate college academic knowledge and skills. Other studies suggest that student performance on standardized tests and participation in college remedial courses provide reason to believe high school graduates are not prepared for college. By examining the results of NAEP exams, Balfanz (2005, 24) argues that only half of all seventeen year olds can "demonstrate moderately complex procedures and reasoning in mathematics and can understand complicated information in reading." This sentiment is confirmed by a study cited by the High

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¹² College readiness based on set of standards titled "Knowledge and Skills for University Success (KSUS)" developed by the Standards for Success Project (Brown and Conley 2007, 140).

School Survey of Student Engagement (2005a, 6), in which results indicate that almost a quarter of all first-year college students require remediation in math despite the fact that educational reform efforts have focused on improving student knowledge in math.

Perhaps the most significant evidence however, is the results from the Texas college readiness indicator system, AEIS¹³, in which several indicators are measured including course enrollment and TAKS or SAT scores. According to a study by Moore et al. (2010), in which the authors examined AEIS data from all Texas high school campuses during the 2006-2007 school year, the majority of high school seniors are not college ready in math or reading. Results indicate that while less than fifty percent of students were college ready in each subject, less than a third of all students were deemed to be ready in both reading and math (Moore et al. 2010, 8). *Cognitive Abilities*

According to Conley (2007, 13), cognitive abilities are "patterns of intellectual behavior that lead to the development of mental processes and capabilities necessary for college level work." While cognitive abilities include a variety of complex thinking strategies, the four major abilities needed for college success are: problem solving, analysis, interpretation, and reasoning (Conley 2007, 12). The use of these strategies is crucial because university students are expected to think extensively in order to make inferences, analyze intricate problems, "engage in the exchange of ideas," synthesize results, support arguments with concrete evidence, and put forward explanations and recommendations (Conley 2007, 6).

While the fact that students need to possess these abilities is well accepted, there is substantial evidence that high-stakes testing does not effectively assess such cognitive abilities and therefore students in the K-12 education system do not graduate prepared for college success. As Conley (2007, 12) notes, "the development of key cognitive strategies in high school

¹³ AEIS college readiness indicators required by Texas Education Code §39.051(b)(13) (Moore et al. 2010).

is often overshadowed by an instructional focus on decontextualized content and the imparting of facts necessary to pass examinations". Such inferences have been reiterated in several studies by other education scholars.

According to Jones et al. (1999) and Madaus (2009), high-stakes testing has a tremendous impact on student development of higher order cognitive abilities because the tests are content based and thus create a focus on memorizing test material. As Madaus (2009) notes, most high-stakes tests are multiple-choice exams for scoring purposes, however such questions do not effectively require students to employ the problem solving and higher-level thinking skills that are necessary at the postsecondary level. Because the pressure of passing the tests is so high, teachers allocate a great amount of class time forcing students to learn discrete facts through repetition (Jones et al. 1999), allowing little time for students to engage in the projects, presentations, and group activities that not only stimulate their interest but increase their cognitive abilities (Madaus 2009, Yazzie-Mintz 2009).

As Beghetto and Plucker (2006) argue, the fact that students are not given the opportunity to "engage in the creative process to develop a meaningful context for problem solving" leads to a very vague understanding of the academic knowledge and skills that are needed for college success. While students may illustrate the appearance of understanding when scored on high-stakes tests, such tests do not provide an accurate indicator for real in-depth understanding of a problem and solution. In order for students to truly learn, teachers must allow students to come to an understanding and develop knowledge in their own way, something that high-stakes testing is not permitting (Beghetto and Plucker 2006).

Academic Behaviors

As defined by Conley (2007, 16), academic behaviors represent "a range of behaviors that reflect greater self-awareness, self-monitoring, and self-control on the part of students in relation to a series of processes and behaviors necessary for academic success". Such academic behaviors include "self-monitoring skills" and study skills and are dissimilar to the previous two components for college success in that they are independent of a specific content area (Conley 2007, 16). Self-monitoring skills include the ability to understand what techniques and strategies worked, understand what is needed to improve, and possess effective time management skills. Study skills include the ability to effectively prepare for and take examinations, use learning strategies outside the classroom, and take effective and efficient notes (Byrd and MacDonald 2005; Conley 2007).

Although academic behaviors are not capable of being tested and the literature does not specifically address the relationship between such behaviors and high-stakes testing, there is reason to believe that the high-stakes testing environment is not effective for developing the self-monitoring and study skills of K-12 students. For example, Moon et al. (2003), Jones et al. (1999) and Madaus (2009) argue that the pressure of high-stakes tests causes test preparation to mirror the multiple-choice testing format of state tests, with teachers forcing students to complete repetitive worksheets. As McNeil (2008) notes, the focus on test format creates an emphasis on memorization as the primary test preparation study skill.

While these authors suggest that high-stakes testing causes test preparation to be narrowed, results from the High School Survey of Student Engagement (2005, 2009) indicate that students are not developing time-management and study skills in K-12 because they are not required to spend much time studying. Of the more than 80,000 students surveyed in each study,

over fifty percent indicated that they spend less than four hours weekly on homework assignments or preparing for class. Likewise, eighty percent responded to spending less than three hours weekly reading, almost forty percent revealed that they had never written a paper longer than five pages, and over forty percent indicated that they have never worked on a paper or project using multiple sources (HSSSE 2005b, 6-8). Although the majority of students in this survey also indicated that they have been successful in high school, conclusions from the study provide evidence that K-12 students are not developing the study skills necessary for college success.

Conceptual Framework

The conceptual framework for this paper, which uses descriptive categories, is connected to the supported literature in *Table 4.1*. These categories and the subsequent conceptual framework will be used to develop a survey to describe the attitudes of young college graduates in Texas regarding the effectiveness of high-stakes testing in the K-12 public education system.

Table 4.1: Conceptual Framework

CATEGORY	LITERATURE			
Student Learning				
English Language Arts	Conley (2007), Chudowsky and Chudowsky (2010), Hillocks Jr. (2002), HSSSE (2005a), McNeil (2005), Nichols (2007), Texas Education Agency (2010d)			
Mathematics	Balfanz (2009), Brown and Conley (2007), Chudowsky and Chudowsky (2010), Lee and Wong (2004), McNeil (2005), Nichols (2007), Schoenfield (2002), Texas Education Agency (2010d)			
Science	Longo (2010), Marx and Harris (2006), Southerland et al. (2007), Taylor et al. (2008), Texas Education Agency (2010d), Trettor and Jones et al. (2003), Wideen et al. (1997)			

Social Studies	Burroughs et al. (2005), Fitchett and Heafner (2010), Journell (2007), Parker (2006), Texas Education Agency (2010d), Vogler and Virtue (2007)	
Student Motivation		
Student Engagement	Amrein and Berliner (2003), HSSSE (2005a), Jones et al. (2003), Kellaghan et al. (1982), Madaus et al. (2009), McNeil et al. (2008), Moon et al. (2003), Nichols and Berliner (2007), Roderick and Engel (2001), Scot et al. (2007), Yazzie-Mintz (2010)	
Student Creativity	Beghetto and Plucker (2006), Jones et al. (1999), Longo (2010), Moon et al. (2003), Scot et al. (2007), VanTassel-Baska (2006)	
Preparation for College		
Academic Knowledge and Skills	Balfanz (2007), Brown and Conley (2007), Byrd and MacDonald (2005), Conley (2007), Hillocks Jr. (2002), HSSSE (2005a), Jones (1999), Moore et al. (2007)	
Cognitive Abilities	Beghetto and Plucker (2006), Byrd et al. (2005), Conley (2007), Jones (1999), Madaus et al. (2009)	
Academic Behaviors	Byrd et al. (2005), Conley (2007), HSSSE (2005b), Jones et al. (1999), McNeil et al. (2008), Moon et al. (2003)	

Chapter Summary

This chapter explored the literature on high-stakes testing and provided the criteria for assessing the efficacy of high-stakes testing policy. These descriptive categories or criteria include: student learning, student motivation, and student preparation for college. As explained, the descriptive categories make up the conceptual framework for this study and provide the foundation for creating the survey¹⁴. The next chapter details the methodology employed in this study.

¹⁴ The development of the conceptual framework involved in this study was accomplished with the help of two important articles: Shields 1998; Shields and Tajalli 2006.

Chapter Five: Methodology

Chapter Purpose

This study used survey research to obtain the attitudes of young college graduates regarding the efficacy of high-stakes testing policy in Texas. Each survey question addressed a specific element from one of the descriptive categories. For example, the statement "Preparing for the TAAS/TAKS writing assessments improved my writing abilities" was designed to assess whether young college graduates believe that the use of high-stakes tests increased their ability to write during their K-12 education experience. The operational relationship between each survey question and the associated descriptive category is illustrated in *Table 5.1*. The combination of the survey questions provide an opportunity to understand whether students who have been through the high-stakes testing process believe the policy mandating such testing is effective.

Table 5.1 Operationalization of the Conceptual Framework

Table 3.1 Operationalization of the Conceptual Framework				
CATEGORY	SURVEY QUESTIONS*			
Student Learning				
English Language Arts	4. Preparing for the TAAS/TAKS reading comprehension assessments increased my ability to comprehend difficult reading material.			
	5. Preparing for the TAAS/TAKS writing assessments improved my writing abilities.			
	6. The multiple-choice format of TAAS/TAKS reading and writing assessments adequately assessed my research skills.			
Mathematics	7. Preparing for the TAAS/TAKS math assessments increased my ability to complete complex mathematical problem solving.			
	8. The multiple-choice format of TAAS/TAKS math assessments allowed me to answer questions without fully understanding the mathematical concept being tested.**			

Science	9. Preparing for the TAKS science assessments increased my ability to understand scientific concepts.
	10. Preparing for the TAKS science assessments involved substantial class time dedicated to science projects and/or lab experiments.
	11. TAKS science preparation emphasized memorizing scientific facts over inquiry-based learning strategies such as: individual or group projects, investigations, experiments, etc.**
Social Studies	12. Preparing for TAKS social studies assessments increased my knowledge and skills in social studies.
	13. Preparing for TAKS social studies assessments emphasized memorizing facts over inquiry-based learning strategies such as individual or group projects, role playing, classroom discussion, etc.**
Student Motivation	
Student Engagement	14. Learning the material included on the TAAS/TAKS stimulated my interest in school.
	15. The pressure of the TAAS/TAKS caused me to increase my work ethic at school.
Student Creativity	16. The TAAS/TAKS adequately assessed my creative abilities.
	17. Preparing for the TAAS/TAKS increased my creative abilities.
Preparation for Coll	ege
Academic Knowledge and	18. The material included on TAAS/TAKS is a good representation of what students need to know to have success in entry level college courses.
Skills	19. Preparing for the TAAS/TAKS provided me with the reading skills necessary for success in entry level college courses.
	20. Preparing for the TAAS/TAKS provided me with the writing skills necessary for success in entry level college courses.
	21. Preparing for the TAAS/TAKS provided me with the math skills necessary for success in entry level college courses.
Cognitive Abilities	22. Preparing for the TAAS/TAKS provided me with the problem solving skills necessary for success in entry level college courses.
	23. Preparing for the TAAS/TAKS provided me with the critical thinking skills necessary for success in entry level college courses.
Academic Behaviors	24. Preparing for the TAAS/TAKS provided me with the study skills necessary for success in entry level college courses.
	25. Preparing for the TAAS/TAKS provided me with the time-management skills necessary for success in entry level college courses.

^{*}Response scale: Strongly Agree, Agree, Unsure, Disagree, Strongly Disagree

**Negatively keyed questions used to avoid acquiescence bias

Survey Research

This study utilized survey research to obtain the attitudes of young college graduates regarding the efficacy of high-stakes testing policy in Texas. Survey research provided the most useful research technique for this study because it is an effective way of measuring the attitudes of large populations (Babbie 2010, 254). Survey research provides breadth and flexibility by allowing the researcher to ask a variety of questions on one or more topics. Additionally, survey questionnaires are standardized, reducing measurement ambiguity (Babbie 2010, 287).

Although survey research is appropriate for this study, there are apparent weaknesses with survey methodology. Babbie (2010, 272) notes that poor participation can be a significant concern when conducting survey research. Poor participation and low response rates can decrease the validity of the research by providing results that are unrepresentative of the population. Survey research can also be inflexible at times. When answers are provided for the respondents to choose from, respondents are not allowed to completely expand on their opinions or raise new issues with the topic. Thus, while survey research effectively provides breadth, it sacrifices depth. To increase the depth and allow survey participants to elaborate their attitudes regarding high-stakes testing, this survey included a comment section (see *Appendix C: List of Survey Comments*).

Babbie (2010, 260) also warns that survey research is ineffective when surveys are biased, or encourage participants to respond to questions in a particular way. It is important for researchers to avoid misleading, loaded, or unclear questions so that respondents are not confused and answers are accurate. In order to avoid these concerns, this study was pre-tested by a group of graduate students at Texas State University – San Marcos.

The survey questionnaire used the Likert scale, asking respondents to provide their level of agreement with a statement. As Babbie (2010, 179) notes, Likert scale questions are useful because they are relatively easy to understand and they provide a method for ordering different levels of opinion. Responses for each statement were analyzed to assess the attitudes of young college graduates in Texas regarding the efficacy of high-stakes testing policy. It should be noted that the survey design flows from a carefully constructed conceptual framework, developed from a thorough review of the literature. *Appendix A* contains a copy of the survey questionnaire.

Online Distribution

Although traditional modes of survey collection are utilized today, there is little doubt as to which direction social science research surveys are currently moving. As Best et al. (2001, 131) explains, "the internet has become an increasingly popular form of data collection because it permits complex questionnaires to be administered more quickly, flexibly, and inexpensively than conventional survey methods." Web based surveys not only reduce research costs by eliminating printing and postage, but they also decrease the time spent on collection and data analysis by automating the entire process (Brickman-Bhutta 2009).

One method for online survey collection that is just beginning to achieve notoriety is the use of online social networking sites (SNSs). Although there is a broad range of definitions for an SNS, Lenhart and Madden (2007) define a social networking site as "an online location where a user can create a profile and build a personal network that connects him or her to other users." Such sites allow users to connect with each other by establishing a profile space, exchanging content or media (photos, music, etc.), and communicating through various forms of messaging (Redmond 2010). Users can not only link to other users as "friends", but they can create online

communities of friends through the development of "groups", which are typically created because of a common interest (Brickman-Bhutta 2009).

As Redmond (2010) indicates, SNSs provide the best way to conduct online surveys because of the ability to access a large population with minimal financial or time constraints. As of 2011, the most popular SNS is www.facebook.com, which has over 400 million users worldwide and is the second most viewed website on the internet (Redmond 2010, 37). In addition to the ease of administration and result compilation, Facebook is ideal for snowball sampling due to its design, allowing users to connect and share information with friends, family, or a number of people who they may not know particularly well or at all (Redmond 2010).

Because of its propensity for snowball sampling and its popularity with younger populations¹⁵, Facebook was chosen for this research project. The survey questionnaire was constructed and administered via the website www.surveymonkey.com, but was distributed in multiple ways to young college graduates through the website www.facebook.com. First, a private message containing a statement of the research purpose and a link to the survey was sent to all "friends" of the researcher. Secondly, the research purpose statement and link to the survey was posted on the "wall page" of several groups, which were considered to comprise a large population of young college graduates from Texas (see *Appendix D*). Additionally, the research purpose and survey link was emailed to several graduate school student advisors and staff with the request that the email be forwarded to all graduate students in their department (see *Appendix D*). All of the recipients of the survey were encouraged to forward the survey on to

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¹⁵ Approximately 70 percent of Americans between the ages of 18-29 have a profile on Facebook.com (Lenhart et al. 2010).

¹⁶ The term "friend" refers to the social networking connection between Facebook users which allows them to interact (i.e. share messages, pictures, games, etc.).

¹⁷ On Facebook, each group page contains a "wall page" that allows users to post messages that can be viewed by the entire group.

other young college graduates. The survey questionnaire was sent out multiple times over a three month time period, January – March 2011.

Although SNSs appear to be an effective method for survey administration, no research has been done on the reliability or validity of using SNSs for research as there are some noticeable sampling concerns with using this methodology (Redmond 2010). To begin with, SNSs, and internet surveys in general, do not provide the ability to develop a representative sample because "regardless of the sampling unit employed, a sampling frame cannot be designed that ensures that each Internet user possesses some chance, even if not an equal one, of being selected" (Best et al. 2001). With SNSs, little information is known about the characteristics of the population and therefore any generalizations about the population under study are questionable. Additional concerns include issues with technical skill of the researcher and participant trustworthiness, as participants may be able to misrepresent their identity, cheat, or participate in the survey multiple times (Redmond 2010).

It should be noted that young college graduates from Texas is a very difficult group to reach through traditional means of survey research. There is no logical sampling frame or a way of finding a random sample of recent college graduates, therefore this research project sacrificed a more rigorous sampling system for a greater sample size. By utilizing Facebook and email to distribute the survey, this research has notable limitations but at the very least provides preliminary data on former Texas public school student attitudes regarding the efficacy of high-stakes testing policy.

Sample

The sample for the survey is drawn from the population of young college graduates from Texas. For the purposes of this study, this includes male and female college graduates, between the ages of 21 and 28, who participated in at least one statewide TAAS or TAKS assessment during their K-12 education¹⁸. Reliable data on this population is not available. However, the total population of Texas citizens between the ages of 21-28 is estimated to be 3,041,535 (IDSER 2010) and the percentage of Texas citizens, age 25 or older, holding a bachelor's degree is approximately 25 percent (THECB 2010). These figures suggest that the population for this study is roughly 750,000. In order to obtain an adequate sample size, this study utilized convenience and snowball sampling techniques. A total number of 227 young college graduates participated in the survey.

Descriptive Statistics

This research uses descriptive statistics such as mode and survey respondent percentages. Descriptive statistics, such as frequency distributions, are ideal for this study because of the descriptive nature of the research problem. Frequency distributions effectively demonstrate the range in attitudes among young college graduates, and may be beneficial for future research by comparing the attitudes of young college graduates toward high-stakes testing policy with the attitudes of other subgroups of the population. Descriptive statistics allow large amounts of information to be reduced into manageable summaries (Babbie 2010, 467).

¹⁸ Because the TAKS testing system was implemented in 2003, individuals over the age of 26 only participated in TAAS assessments while those younger participated in both TAAS and TAKS.

Human Subjects Protection

This Applied Research Project was submitted for review and declared exempt by the Institution Review Board at Texas State University – San Marcos (IRB Approval #EXP2010K4313). Because survey research requires human subjects, this research project considered several ethical concerns. To ensure that respondents remained anonymous, participants were not required to provide any identifiable information. Deception was avoided by including a description of the research purpose as well as a description of how the results of the survey would be used. Lastly, participants were informed that completion of the questionnaire was completely voluntary and they were allowed to stop taking the survey at any time.

Chapter Six: Results

Chapter Purpose

The purpose of this chapter is to provide and analyze the results of the high-stakes testing survey administered to young college graduates from Texas. This analysis includes examining responses to survey questions as well as additional comments provided by the participants. The comments allow respondents to elaborate their attitudes, providing depth and context to the survey results (see *Appendix C*). The data collected from this survey addresses the research purpose of this project by describing the attitudes of young college graduates regarding the efficacy of high-stakes testing policy in Texas.

Respondent Information

Between January and March 2011, survey responses were requested from young college graduates in two ways. Through the social networking website Facebook, the researcher sent out messages and posts to friends and groups whose demographics fit the requirements of the survey project. Surveys were also sent out to graduate students at Texas-based universities through email. A total number of 227 young college graduates completed the survey.

The majority of survey participants were female (66.5%) and between the ages of 23-24 (37.2%), seventy-six males participated and all ages groups were adequately represented. Although these results cannot be generalized to the population of young college graduates, gender results are similar to the national population, where the majority of college graduates (58%) are female (USDE 2010a). Additionally, all five categories of college major were represented, with participants with a Liberal Arts degree representing the largest group (38.3%).

While a large number of college graduates complete their degree in Liberal Arts, national averages indicate that the majority of bachelor degrees are awarded in Business (USDE 2010b). *Table 6.1* provides the demographics of the survey participants. A complete set of results for all survey information can be found in *Appendix A* and a complete list of the additional comments provided by participants is located in *Appendix C*.

Table 6.1 Respondent Demographics

Gender	Male	Female
N= 227	33.5%	66.5%

Age	21-22	23-24	25-26	27-28
N= 227	12.1%	37.2%	29.0%	21.6%

College Major	Business	Education	Liberal Arts	Engineering/ Science	Other
N= 226	8.7%	9.6%	38.3%	19.6%	23.9%

Student Learning

The most inherent objective for the use of high-stakes testing is to monitor the academic progress of youth and ensure that students are gaining knowledge at all age and grade levels. In the Texas public education system, the four most emphasized subjects of student learning are: English Language Arts, Mathematics, Science, and Social Studies. Although the depth, complexity, and regularity of testing in each of the subjects has varied over the last decade, testing is now required in each of these subjects across the state. *Tables 6.2-6.5* summarize the attitudes of survey respondents regarding the effects that high-stakes testing has on student learning in each of these critical academic disciplines.

English Language Arts

Although reading and writing provide the foundation for English Language Arts learning (and for all other learning), the majority of respondents indicated that the use of high-stakes

testing was ineffective for increasing their academic abilities in these areas. Almost two-thirds of participants (59.9%) strongly disagreed or disagreed that preparing for TAAS or TAKS reading assessments increased their ability to comprehend difficult reading material. More than half of young college graduates (55.9%) strongly disagreed or disagreed that preparing for TAAS or TAKS writing tests improved their writing abilities, while even more (66.5%) strongly agreed or agreed that the multiple-choice format of these tests was effective for assessing their research skills. The mode for each of the questions concerning reading and writing abilities showed disagreement (see *table 6.2*). The opinions were supplemented by additional comments:

"Because I was not taught material except that on the test, when I was given a reading comprehension test in 9th grade I was actually reading 2-3 grades behind my classmates that attended schools that did not focus on [testing]. The lack of schooling continues to present challenges on a daily basis in reading, writing, and spelling." – Business Graduate

"In AP English my junior year, our teacher actually taught us how to dumb ourselves down for the test by describing a very formulaic approach that fit in the tiny box provided for literary analysis." – College Graduate

These attitudes directly support previous research which suggests that high-stakes reading and writing assessments are not completely effective for improving student learning in English Language Arts. By focusing classroom time on inadequate English Language Arts testing material and techniques, including formulaic reading and writing strategies, it is apparent that students are not reaching their potential in this subject area.

Table 6.2 Attitudes on English Language Arts Learning

Survey Question	N	% Strongly Disagree and Disagree	Mode
4. Preparing for the TAAS/TAKS reading comprehension assessments increased my ability to comprehend difficult reading material.	227	59.9%	Disagree
5. Preparing for the TAAS/TAKS writing assessments improved my writing abilities.	227	55.9%	Disagree
6. The multiple-choice format of TAAS/TAKS reading and writing assessments adequately assessed my research skills.	227	66.5%	Disagree

Mathematics

Survey results regarding the effects of high-stakes testing on student learning in Mathematics are no less troubling. Nearly two-thirds (59.3%) of young college graduates surveyed strongly disagreed or disagreed that preparing for the TAAS or TAKS math assessments increased their ability to complete complex mathematical problem solving. As one participant indicated:

"All we were taught was how to basically cheat the test and pick out the best answer regardless of actually knowing anything about the question." – Liberal Arts Graduate

This sentiment appears to be widely held as the majority (59.5%) of respondents indicated that the multiple-choice format of TAAS and TAKS math assessments allowed them to answer questions without fully understanding the mathematical concept being tested (see *table 6.3*). These results are troublesome considering the importance our society places on engineering and technology.

Table 6.3 Attitudes on Mathematics Learning

Survey Question	N	% Strongly Disagree and Disagree	Mode
7. Preparing for the TAAS/TAKS math assessments increased my ability to complete complex mathematical problem solving.	226	59.3%	Disagree
8. The multiple-choice format of TAAS/TAKS math assessments allowed me to answer questions without fully understanding the mathematical concept being tested.**	227	23.4%	Agree

^{**} Negatively keyed statement used to avoid acquiescence bias

Science

Survey participants indicated that preparation for high-stakes Science assessments was ineffective for increasing their learning in Science. More than half (54%) strongly disagreed or disagreed that preparing for the TAKS Science assessments increased their ability to understand scientific concepts, while nearly two-thirds (62.9%) strongly disagreed or disagreed that

preparing for TAKS Science assessments involved significant class time dedicated to science projects and/or lab experiments. Likewise, the majority (59.8%) indicated that TAKS Science preparation emphasized memorizing facts over inquiry-based learning strategies like group projects and experiments (see *table 6.4*). Respondents also elaborated on their attitudes about Science learning through comments:

"I don't think we were prepared for the science section at all in class, and I was not encouraged to do any studying for any of the sections outside of school time." – Liberal Arts Major

"TAKS and TAAS wasted so much educational time. I went to elementary school in Odessa and we didn't even start science until 7th grade because all we did in class was reading and math for TAAS." – Engineering/Science Major

Although it has been several years since these respondents were in high school, the results of this survey suggest that Texas schools are not utilizing the learning strategies empirically proven to increase student learning in Science and increase student interest in subjects like Chemistry, Biology, and Physics.

Table 6.4 Attitudes on Science Learning

Survey Question	N	% Strongly Disagree and Disagree	Mode
9. Preparing for the TAKS science assessments increased my ability to understand scientific concepts.	176*	54%	Disagree
10. Preparing for the TAKS science assessments involved substantial class time dedicated to science projects and/or lab experiments.	175*	62.9%	Disagree
11. TAKS science preparation emphasized memorizing scientific facts over inquiry-based learning strategies such as: individual or group projects, investigations, experiments, etc.**	174*	20.7%	Agree

^{*}Because the mandatory testing of Science in Texas was not instituted until 2004, several of the survey respondents were unable to accurately answer these questions and therefore have been omitted from analysis

^{**} Negatively keyed statement used to avoid acquiescence bias

Social Studies

The majority of respondents indicated that the high-stakes testing of Social Studies was futile in improving their learning in the subject. More than half (54%) strongly disagreed or disagreed that preparing for TAKS Social Studies assessments increased their knowledge and skills in Social Studies. Similar to questions regarding Science learning, nearly two-thirds (59.5%) of respondents indicated that preparing for the TAKS Social Studies assessments emphasized memorizing facts over individual and group projects, role playing, and classroom discussion (see *table 6.5*). As one young college graduate described it:

"The TAAS/TAKS test encouraged rote memorization over critical thinking skills and often led to teachers drilling information that would quickly be forgotten. Had the teachers been able to present material in an interesting/critical way, I believe that would have engendered the basic skills necessary to succeed." – College Graduate

Such responses indicate that high-stakes testing developed an ineffective classroom-learning environment for this cohort of former public school students. These preliminary results suggest that the classroom environment be modified to include more engaging and thought-provoking learning strategies and activities.

Table 6.5 Attitudes on Social Studies Learning

Survey Question	N	% Strongly Disagree and Disagree	Mode
12. Preparing for the TAKS social studies assessments increased my knowledge and skills in social studies.	174*	54%	Disagree
13. Preparing for the TAKS social studies assessments emphasized memorizing facts over inquiry-based learning strategies such as individual or group projects, role playing, classroom discussion, etc.**	173*	19.6%	Agree

^{*}Because the mandatory testing of Social Studies in Texas was not instituted until 2004, several of the survey respondents were unable to accurately answer these questions and therefore have been omitted from analysis ** Negatively keyed statement used to avoid acquiescence bias

Student Motivation

An essential purpose for the use of accountability assessments is to motivate students to work hard in the classroom, understanding that their grade progression and graduation from high school are dependent upon it. As the literature suggests, student motivation is a fundamental aspect of student learning and is directly related to how well students are engaged in the classroom and how much autonomy they are allowed. Therefore, in order to assess student motivation in the classroom, survey participants were asked to provide their thoughts on student engagement and student creativity in the high-stakes testing environment. *Tables 6.6 and 6.7* summarize the attitudes of survey respondents regarding student motivation.

Student Engagement

Survey respondents overwhelmingly indicated that their engagement in the classroom was negatively affected by the use of high-stakes testing. Over ninety percent of the young college graduates surveyed strongly disagreed or disagreed that learning the material included on the TAAS/TAKS assessments stimulated their interest in school. The mode for this question was strong disagreement, and was emphasized by several comments including the following:

"I absolutely loathed having to work on TAAS/TAKS work, because it was far beneath my abilities. It felt like a waste of time and was very frustrating to have to sit through." – College Graduate

"TAAS was a joke, and TAKS was only marginally more difficult. Neither challenged me in any way." – Liberal Arts Graduate

Contrary to the beliefs of many high-stakes testing proponents, roughly three-quarters (77.7%) of respondents strongly disagreed or disagreed that the pressure of the TAAS/TAKS caused them to increase their work ethic at school (see *table 6.6*). These results illustrate that preparing for high-stakes assessments actually decreased student engagement for the young college graduates who participated in this survey.

Table 6.6 Attitudes on Engagement

Survey Question	N	% Strongly Disagree and Disagree	Mode
14. Learning the material included on the TAAS/TAKS stimulated my interest in school.	224	91.1%	Strongly Disagree
15. The pressure of the TAAS/TAKS caused me to increase my work ethic at school.	225	77.7%	Disagree

Student Creativity

"TAAS/TAKS certainly did not bring out the strengths of students who were more creative and artistically talented rather than analytical and critical thinking students." – College Graduate

As the preceding statement indicates, the young college graduate attitudes regarding the effects of high-stakes testing on student creativity were no less tempered. A striking majority (88.1%) of respondents strongly disagreed or disagreed that the TAAS/TAKS adequately assessed their creative abilities, while even more (90.2%) strongly disagreed or disagreed that preparing for the TAAS/TAKS increased their creative abilities. The mode for both questions was strong disagreement (see *table 6.7*). The responses and comments provided support the literature, which suggests that the use of high-stakes testing has established a classroom environment which is not advantageous for the development of student creativity. The former Texas public school students who participated in this survey felt very strongly about the relationship between high-stakes testing and student creativity.

Table 6.7 Attitudes on Creativity

Survey Question	N	% Strongly Disagree and Disagree	Mode
16. The TAAS/TAKS adequately assessed my creative abilities.	226	88.1%	Strongly Disagree
17. Preparing for the TAAS/TAKS increased my creative abilities.	225	90.2%	Strongly Disagree

Student Preparation for College

Although college readiness has not been cited as primary goal in the advent of high-stakes testing policy, there is little disagreement to the notion that secondary schools must prepare students for postsecondary success. Adequate student preparation for college includes the development of academic knowledge and skills, cognitive abilities, and academic behaviors. *Tables 6.8-6.10* summarize the survey respondents' attitudes regarding the relationship between high-stakes testing and student preparation for college.

Academic Knowledge and Skills

The majority of survey participants indicated that high-stakes testing was ineffective in providing them with the academic knowledge and skills that are needed for postsecondary achievement. Nearly seventy percent of respondents strongly disagreed or disagreed that the material included on TAAS/TAKS was a good representation of what they needed to know to have success in entry level college courses. The mode for this question was strong disagreement.

When asked about how high-stakes testing affected their college preparation in terms of specific academic skills, the attitudes were only slightly more positive. Roughly two-thirds of respondents strongly disagreed or disagreed that preparing for the TAAS/TAKS provided them with the reading, writing, or math skills that are needed in order to have success in entry level college courses (see *table 6.8*). According to the literature, each of the skills is critical for academic achievement in the university setting, however the mode for all three questions was disagreement. These strong opinions were exemplified by the following comment:

"As a current math instructor, I have experience that the TAAS and TAKS material taught in high schools are NOT preparing students for college mathematics." – Engineering/Science Graduate

These results are undoubtedly troubling and provide questions about the content of high-stakes assessments in Texas as well as the learning techniques and strategies that are being utilized in response to testing requirements. Although the purpose of high-stakes testing policy is to increase student learning across the board, there are some obvious deficiencies that must be addressed in order for public school students to enter college with the academic knowledge and skills that are essential for obtaining a postsecondary degree.

Table 6.8 Attitudes on College Academic Skills

Survey Question	N	% Strongly Disagree and Disagree	Mode
18. The material included on TAAS/TAKS is a good representation of what students need to know to have success in entry level college	223	69.5%	Strongly Disagree
courses.			Disagree
19. Preparing for the TAAS/TAKS provided me with the reading skills necessary for success in entry level college courses.	228	67.1%	Disagree
20. Preparing for the TAAS/TAKS provided me with the writing skills necessary for success in entry level college courses.	225	69.8%	Disagree
21. Preparing for the TAAS/TAKS provided me with the math skills necessary for success in entry level college courses.	226	68.1%	Disagree

Cognitive Abilities

One of the long-held principal arguments against high-stakes assessments is the perception that such testing does not effectively assess nor encourage the critical thinking and problem solving abilities of students. Survey participants appear to support this argument. About two-thirds (65.3%) of respondents strongly disagreed or disagreed that preparing for the TAAS/TAKS provided them with the problem solving skills necessary for success in entry level college courses, while more than seventy percent strongly disagreed or disagreed that preparing for the TAAS/TAKS provided them with the critical thinking skills necessary for success in entry level college courses. The mode for both questions was disagreement (see *table 6.9*),

suggesting that high-stakes testing may not be providing public school students with the cognitive skills needed for postsecondary achievement.

The results from these questions may perhaps be the most disturbing considering the unremitting concerns that have been brought up regarding high-stakes testing and critical thinking/problem solving skills. Although the state of Texas has worked to develop testing measures that are more effective at assessing these crucial skills, it is apparent from the attitudes of survey participants that the high-stakes testing environment did not allow these young college graduates to develop the cognitive tools that are so imperative for both academic and professional success.

Table 6.9 Attitudes on College Cognitive Abilities

Survey Question	N	% Strongly Disagree and Disagree	Mode
22. Preparing for the TAAS/TAKS provided me with the problem solving skills necessary for success in entry level college courses.	225	65.3%	Disagree
23. Preparing for the TAAS/TAKS provided me with the critical thinking skills necessary for success in entry level college courses.	227	70%	Disagree

Academic Behaviors

"I don't think the test preparation that I received taught me adequate study or time management skills. I didn't learn either of these things until I was forced to teach myself in college." – College Graduate

As indicated by the comment provided by above, responses to questions concerning the effect of high-stakes testing on the development of college academic behaviors were overwhelmingly negative. A sizeable majority (84.1%) of respondents strongly disagreed or disagreed that preparing for the TAAS/TAKS provided them with the study skills necessary for success in entry level college courses. Likewise, most (86.3%) participants strongly disagreed or disagreed that preparing for the TAAS/TAKS provided them with the time-management skills necessary for success in entry level college courses (see *table 6.10*). Although the literature

suggests that a significant amount of classroom time is exhausted preparing for high-stakes assessments, the mode for both of these questions was strong disagreement.

The results from these questions and the comments provided indicate that, for the former Texas public school students involved in this study, the test preparation for state assessments bears little resemblance to the study and time-management skills that are needed at the university level. While providing such academic behaviors has not been cited as a primary concern of high-stakes testing policy makers, it is certainly reasonable to assume that students should begin developing these requisite skills during their secondary education.

Table 6.10 Attitudes on College Academic Behaviors

Survey Question	N	% Strongly Disagree and Disagree	Mode
24. Preparing for the TAAS/TAKS provided me with the study skills necessary for success in entry level college courses.	226	84.1%	Strongly Disagree
25. Preparing for the TAAS/TAKS provided me with the timemanagement skills necessary for success in entry level college courses.	227	86.3%	Strongly Disagree

Chapter Summary

This chapter provided the results of the survey according to the categories that encompass the conceptual framework. The categories illustrate respondents' attitudes regarding the impact that high-stakes testing has on student learning, student motivation, and student preparation for college. The results indicate that the young college graduates surveyed have strong opinions regarding high-stakes testing. The majority of participants felt that high-stakes testing was ineffective in increasing their learning and preparing them for college. Likewise, almost all those surveyed indicated that high-stakes testing did not increase their motivation in the classroom. Such results suggest that for this group of former Texas public school students, high-stakes testing policy proved ineffective.

Chapter Seven: Conclusion

Chapter Purpose

This final chapter provides a summary of the key research findings regarding the efficacy of high-stakes testing policy in Texas. The findings are based on a review of the literature and an analysis of the survey questionnaires, in which young college graduates were asked to convey their attitudes on the relationship between high-stakes testing and student learning, motivation, and preparation for college. This chapter also discusses recommendations for improving high-stakes testing policy and the direction of possible future research.

Summary of Results

The purpose of this research was to describe the attitudes of young college graduates regarding the efficacy of high-stakes testing policy in Texas. In order to lay the foundation for this research and survey, the paper began by illustrating the history of educational testing in the United States and Texas specifically, with a focus on the national and state policies that have shaped the use of high-stakes testing.

The literature was then used to guide the research project by developing a descriptive conceptual framework used to evaluate the efficacy of high-stakes testing policy. The first category, student learning, refers to the student knowledge uncovered in elementary and secondary schooling and is comprised of the following academic subjects: English Language Arts, Mathematics, Science, and Social Studies. Student motivation is the second criterion, and consists of the subcategories, student engagement and student creativity. The final category is student preparation for college. This category includes three elements that are considered

necessary for postsecondary success: academic knowledge and skills, cognitive abilities, and academic behaviors.

Based on the descriptive categories, the survey questionnaire was developed in order to assess young college graduate attitudes regarding the efficacy of high-stakes testing policy in Texas. To accomplish this task, electronic surveys were administered to appropriate participants throughout the state. The 227 respondents who successfully participated in the survey comprise the sample population for this research study.

While the results of the survey are striking, the findings support the literature. For each of the categories assessed, participants provided an overwhelmingly negative attitude regarding high-stakes testing (see *table 7.1*). Respondents felt the most strongly about the effects that high-stakes testing have on student motivation. When asked about how high-stakes testing impacted their engagement and creativity in school, a striking majority of respondents (80-90%) strongly disagreed or disagreed that preparing for high-stakes testing increased their engagement and creative abilities in the classroom. In addition to the questions on student motivation, several respondents provided additional comments suggesting that high-stakes testing actually decreased their engagement in school because of several factors including: a lack of interesting or challenging learning material and repetition-based learning strategies and techniques. The participants strongly indicated that high-stakes testing did not increase their motivation to learn.

Another major finding is illustrated by the survey responses to student learning, the category consisting of the following academic subjects: English Language Arts, Mathematics, Science, and Social Studies. For each of these academic subjects, nearly sixty percent of respondents strongly disagreed or disagreed that preparing for high-stakes testing increased their learning in the subject area. Very few participants indicated that preparation for high-stakes

testing improved their reading, writing or math skills. These results are undeniably troubling for the STEM (Science, Technology, Engineering, and Mathematics) subjects, considering that the sizeable majority (around 60%) of respondents also indicated that they were able to answer high-stakes test questions without fully understanding the mathematical concept being tested.

Additionally, when asked about preparation for high-stakes assessments, most (around 60%) of survey participants strongly agreed or agreed that the majority of class time was dedicated to memorization and repetition-based learning exercises instead of inquiry-based learning strategies like group projects, lab experiments, and classroom discussions.

Survey participants also felt strongly about the impact that high-stakes testing has on student preparation for college. More than two-thirds (69.5%) of young college graduates strongly disagreed or disagreed that the material included on high-stakes assessments is a good representation of what students need to know to have success in entry level college courses. Likewise, the majority of respondents (around 70%) strongly disagreed or disagreed that preparing for and participating in high-stakes testing provided them with the reading, writing, and math skills that are needed in order to be successful in postsecondary courses. These findings are compounded by attitudes regarding student cognitive abilities, where approximately two-thirds of participants strongly disagreed or disagreed that preparing for high-stakes assessments improved their problem solving and critical thinking abilities. Once again, respondents left several additional comments specifically addressing this category, suggesting that high-stakes testing did very little to prepare them for college coursework¹⁹.

Results from this study show striking similarities to other high-stakes testing research findings provided in the literature and highlight some critical problems with current high-stakes testing policy. To begin with, high-stakes testing is simply not motivating students in the

10

¹⁹ For more information on student preparation and success in college, see Amaya 2010.

classroom. In addition to the research on extrinsic and intrinsic rewards, which would underline the inherent fallacy that testing proponents cling to, student surveys suggest that the high-stakes testing environment has actually decreased student interest in school. Additionally, students are not being tested on, and therefore not developing, the cognitive abilities (i.e. critical thinking and problem solving) that are so imperative for not only academic but professional life. Finally, although high-stakes testing has focused on improving reading, writing, and math skills, the young college graduates surveyed in this study indicate that the assessments did very little to improve these crucial abilities. Although diminishing these concerns will require significant transformations in state and national education policy, the following section provides some general recommendations that may improve this troubling situation.

Table 7.1 Summary of Survey Results

Student Learning	
Survey Question	Results
4. Preparing for the TAAS/TAKS reading comprehension assessments increased my ability to comprehend difficult reading material.	Respondents indicated that the use of high-stakes testing was
5. Preparing for the TAAS/TAKS writing assessments improved my writing abilities.	ineffective in improving their English Language Arts learning.
6. The multiple-choice format of TAAS/TAKS reading and writing assessments adequately assessed my research skills.	
Survey Question	Results
7. Preparing for the TAAS/TAKS math assessments increased my ability to complete complex mathematical problem solving. 8. The multiple-choice format of TAAS/TAKS math assessments allowed me to answer questions without fully understanding the mathematical concept being tested.	Respondents indicated that the use of high-stakes testing was ineffective in improving their Mathematics learning.
Survey Question	Results
 9. Preparing for the TAKS science assessments increased my ability to understand scientific concepts. 10. Preparing for the TAKS science assessments involved substantial class time dedicated to science projects and/or lab experiments. 11. TAKS science preparation emphasized memorizing scientific facts over inquiry-based learning strategies such as: individual or group projects, investigations, experiments, etc. 	Respondents indicated that the use of high-stakes testing was ineffective in improving their Science learning.

12. Preparing for TAKS social studies assessments increased my knowledge and skills in social studies. 13. Preparing for TAKS social studies assessments emphasized memorizing facts over inquiry-based learning strategies such as individual or group projects, role playing, classroom discussion, etc. Student Motivation Results	g was
my knowledge and skills in social studies. 13. Preparing for TAKS social studies assessments emphasized memorizing facts over inquiry-based learning strategies such as individual or group projects, role playing, classroom discussion, etc. Student Motivation Results	g was
memorizing facts over inquiry-based learning strategies such as individual or group projects, role playing, classroom discussion, etc. Student Motivation Survey Question Results 14. Learning the material included on the TAAS/TAKS stimulated my interest in school. Respondents indicated that high-stakes testing was ineffective in increasing their engagement at school.	g was
Survey Question Results 14. Learning the material included on the TAAS/TAKS stimulated my interest in school. Respondents indicated that high-stakes testing was ineffective in increasing their engagement at school.	
14. Learning the material included on the TAAS/TAKS stimulated my interest in school. Respondents indicated that high-stakes testing was ineffective in increasing their engagement at school	
stimulated my interest in school. Respondents indicated that high-stakes testing was ineffective in increasing their engagement at school.	
15. The pressure of the TAAS/TAKS caused me to increase my	
work ethic at school.	
Survey Question Results	
16. The TAAS/TAKS adequately assessed my creative abilities. Respondents indicated that high-stakes testing was ineffective in improving their creativity.	
17. Preparing for the TAAS/TAKS increased my creative abilities.	
Student Preparation for College	
Survey Question Results	
18. The material included on TAAS/TAKS is a good representation of what students need to know to have success in entry level college courses.	
19. Preparing for the TAAS/TAKS provided me with the reading skills necessary for success in entry level college courses. Respondents indicated that high-stakes testing was ineffective in preparing them for college courses.	
20. Preparing for the TAAS/TAKS provided me with the writing skills necessary for success in entry level college courses.	
21. Preparing for the TAAS/TAKS provided me with the math skills necessary for success in entry level college courses.	
Survey Question Results	
22. Preparing for the TAAS/TAKS provided me with the problem solving skills necessary for success in entry level college courses. Respondents indicated that high-stakes testing was ineffective in providing the cognitive abilities needed in	L
23. Preparing for the TAAS/TAKS provided me with the critical thinking skills necessary for success in entry level college courses.	
Survey Question Results	
24. Preparing for the TAAS/TAKS provided me with the study skills necessary for success in entry level college courses. Respondents indicated that high-stakes testing was	
25. Preparing for the TAAS/TAKS provided me with the time-management skills necessary for success in entry level college courses. ineffective in providing the academic behaviors they ne in college.	eded

Recommendations

In order to address the problems in existing high-stakes testing policy, the focus of education and the format of testing must both be changed (see *table 7.2*). To begin with, a change in educational focus includes moving the spotlight from testing outcomes to student learning. Because there are powerful rewards and sanctions attached to the assessments, policy makers, school administrators, teachers, and parents have placed incredible attention on testing results. This focus on testing results has developed a classroom environment that emphasizes test preparation instead of the student learning that high-stakes tests were designed to assess. As the survey participants in this study suggested, a classroom that is focused on test preparation is a learning environment that is not conducive to the innovative and inquiry-based learning techniques (nor the student autonomy) that stimulate academic interests.

The second change in focus that must occur is in regards to the teacher. As Mitchell et al. (2008) note, there is an important question that we must ask ourselves: "What is the point of testing students if their learning deficiencies are due in significant measure to the ineffectiveness of their teachers?" Teachers are the foundation and backbone of public education, working with youth to uncover and develop their mental and moral capacities, and therefore the assessments of our education system and schools must be focused on their efforts. However, such a focus on teachers does not mean that they should be controlled by the outcomes of one particular type of student performance. Instead they should be adequately trained and afforded the autonomy to utilize the most effective teaching strategies available. By focusing on the efficacy of the teacher, we can more effectively ensure that all students are immersed in a classroom that is motivational, flexible and learner-centered.

Although changes in the focus of education are undoubtedly important, these changes are interrelated to adjustments that must be made in the development and format of testing measures. To begin with, it is hard to argue with the fact that teachers know their students better than anyone else, therefore why is the responsibility of developing educational assessments in the hands of policy makers and bureaucrats? The argument for such state-wide testing surrounds the idea that all students need to meet a standard of academic attainment, however, the experts in student learning, the teachers, should be the party responsible for developing the assessments. All students learn differently (i.e. visual, auditory, kinesthetic), and therefore their teachers are the only ones who truly know if and how much they are learning. Effective student assessment must be developed at the local level, where teachers can make adjustments that respect student individuality.

Lastly, it is quite obvious that current high-stakes testing measures do not assess all aspects of student learning, therefore why is grade progression and graduation dependent upon passing these exams? As the literature indicates, and the results of this study suggest, the multiple-choice format of high-stakes testing is often ineffective in evaluating student knowledge and skills. Although the state of Texas continues to change state-wide assessments behind the notion that the newest assessment more effectively incorporates higher level cognitive abilities, the fact is that these tests continue to be all written and largely multiple-choice. Understanding the differences in individual student learning, student educational assessments should take on a variety of forms including written, oral, and kinesthetic. There are many different methods for evaluating student abilities, and teachers, not policy makers, must be given the authority and responsibility to use their expertise in developing and administering student assessments.

Table 7.2 High-Stakes Testing Policy Recommendations

Recommendations	From	То
1. Change the Focus	Testing Preparation & Results	Student Learning
1. Change the 1 ocus	Student Performance	Teacher Efficacy
2. Change the Test	Written (Multiple-Choice)	Variety of Methods (written, auditory, kinesthetic, teacher observation, etc.)
	State-Wide Standardization	Teacher Developed & Administered

Future Research

The purpose of this research is to provide the attitudes of young college graduates regarding the efficacy of high-stakes testing policy in Texas, therefore this study only considered the opinions of a small cohort of people who were involved in the high-stakes testing process before attending and graduating from college. While their opinions are noteworthy due to their educational and professional experience, there is still a great deal of research needed to accurately provide indication of the public school student opinion on high-stakes testing policy.

Further research should begin with developing a more rigorous survey methodology that incorporates the advantages of using online applications like social networking sites but also effectively avoids sampling issues. In order to generalize findings from online surveys, researchers must be able to develop an accurate sampling frame and limit response bias. This research is critical, considering the possibilities available in utilizing websites like Facebook. Additionally, future research should include administering surveys to high school students, high school dropouts, college students and college dropouts. High school students would be directly and presently involved in high-stakes testing and therefore may have greater insight as to how the assessments are affecting their motivation and learning, while college students would be presently enrolled in university courses, and therefore may have a heightened sense of the affects high-stakes testing has on college readiness.

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Appendix A: Summary of Results

Survey Question	N	Male	Female
1. Gender	227	33.5%	66.5%
		(76)	(151)

Survey Question	N	21-22	23-24	25-26	27-28
2. Age	231	12.1%	37.2%	29.0%	21.6%
		(28)	(86)	(67)	(50)

Survey Question	N	Business	Educatio n	Liberal Arts	Enginr./ Science	Other
3. College Major	230	8.7% (20)	9.6% (22)	38.3% (88)	19.6% (45)	23.9% (55)

Survey Question	N	Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
4. Preparing for the TAAS/TAKS reading comprehension assessments increased my ability to comprehend difficult reading material.	227	0.9% (2)	23.8% (54)	15.4% (35)	43.2% (98)	16.7% (38)
5. Preparing for the TAAS/TAKS writing assessments improved my writing abilities.	227	1.8% (4)	26.0% (59)	16.3% (37)	38.3% (87)	17.6% (40)
6. The multiple-choice format of TAAS/TAKS reading and writing assessments adequately assessed my research skills.	227	0.9% (2)	17.6% (40)	15.0% (34)	42.7% (97)	23.8% (54)
7. Preparing for the TAAS/TAKS math assessments increased my ability to complete complex mathematical problem solving.	226	2.7% (6)	27.0% (61)	11.1% (25)	37.6% (85)	21.7% (49)
8. The multiple-choice format of TAAS/TAKS math assessments allowed me to answer questions without fully understanding the mathematical concept being tested.	227	15.0% (34)	44.5% (101)	17.2% (39)	18.1% (41)	5.3% (12)
9. Preparing for the TAKS science assessments increased my ability to understand scientific concepts.	176	0.6% (1)	19.9% (35)	25.6% (45)	38.1% (67)	15.9% (28)
10. Preparing for the TAKS science assessments involved substantial class time dedicated to science projects and/or lab experiments.	175	1.7% (3)	14.3% (25)	21.1% (37)	44.6% (78)	18.3% (32)
11. TAKS science preparation emphasized memorizing scientific facts over inquiry-based learning strategies such as: individual or group projects, investigations, experiments, etc.	174	11.5% (20)	48.3% (84)	19.5% (34)	15.5% (27)	5.2% (9)

12. Preparing for the TAKS social studies	174	0.6%	20.1%	25.3%	39.1%	14.9%
assessments increased my knowledge and skills in social studies.		(1)	(35)	(44)	(68)	(26)
13. Preparing for the TAKS social studies assessments emphasized memorizing facts over inquiry-based learning strategies such as individual or group projects, role playing, classroom discussion, etc.	173	15.6% (27)	43.9% (76)	20.8% (36)	15.6% (27)	4.0% (7)
14. Learning the material included on the TAAS/TAKS stimulated my interest in school.	224	0.4% (1)	4.9% (11)	3.6% (8)	42.0% (94)	49.1% (110)
15. The pressure of the TAAS/TAKS caused me to increase my work ethic at school.	225	1.8% (4)	13.8% (31)	6.7% (15)	40.4% (91)	37.3% (84)
16. The TAAS/TAKS adequately assessed my creative abilities.	226	0.4% (1)	4.4% (10)	7.1% (16)	33.2% (75)	54.9% (124)
17. Preparing for the TAAS/TAKS increased my creative abilities.	225	0.0% (0)	4.4% (10)	5.3% (12)	38.2% (86)	52.0% (117)
18. The material included on TAAS/TAKS is a good representation of what students need to know to have success in entry level college courses.	223	0.9% (2)	14.8% (33)	14.8% (33)	26.0% (58)	43.5% (97)
19. Preparing for the TAAS/TAKS provided me with the reading skills necessary for success in entry level college courses.	228	0.9% (2)	18.4% (42)	13.6% (31)	36.4% (83)	30.7% (70)
20. Preparing for the TAAS/TAKS provided me with the writing skills necessary for success in entry level college courses.	225	1.3% (3)	20.4% (46)	8.4% (19)	35.6% (80)	34.2% (77)
21. Preparing for the TAAS/TAKS provided me with the math skills necessary for success in entry level college courses.	226	1.3% (3)	22.1% (50)	8.4% (19)	35.4% (80)	32.7% (74)
22. Preparing for the TAAS/TAKS provided me with the problem solving skills necessary for success in entry level college courses.	225	1.8% (4)	19.6% (44)	13.3% (30)	32.9% (74)	32.4% (73)
23. Preparing for the TAAS/TAKS provided me with the critical thinking skills necessary for success in entry level college courses.	227	1.3% (3)	14.5% (33)	14.1% (32)	36.1% (82)	33.9% (77)
24. Preparing for the TAAS/TAKS provided me with the study skills necessary for success in entry level college courses.	226	0.9% (2)	8.0% (18)	7.1% (16)	38.1% (86)	46.0% (104)
25. Preparing for the TAAS/TAKS provided me with the time-management skills necessary for success in entry level college courses.	227	1.3% (3)	5.3% (12)	7.0% (16)	41.4% (94)	44.9% (102)

Appendix B: Survey Instrument

High-Stakes Testing Policy

Attitudes of Young College Graduates

This survey is being conducted as a part of a graduate research project for the Master of Public Administration degree at Texas State University and has been approved (EXP2010K4313) by the University's IRB. Questions about this research project should be directed to Mark Featherston at mf1260@txstate.edu or his faculty advisor, Dr. Patricia Shields, at ps07@txstate.edu.

The purpose of this research project is to describe the attitudes of young college graduates in Texas regarding the efficacy of high-stakes testing policy in the K-12 public education system. By administering this survey, the author hopes to provide the perspective of those who experienced high-stakes testing during their K-12 public education and continued on to have postsecondary success. Due to the sampling methods used in this survey, the results of this survey will not be used to generalize for this particular population as a whole.

In order to participate, you must: be between the ages of 21-28, be college educated, and have participated in at least one K-12 statewide assessment in Texas. This survey should take approximately 5 minutes to complete. Participation in the survey is completely voluntary and all responses are anonymous. Thank you very much for your participation.

e survey is completely v	oluntary and all respons	ses are anonymous. Th	ank you very much for y	our participation.
1. Gender				
Male		○ Fema	ile	
2. Age				
21-22	23-24	25-26		27-28
3. College Major				
Business	Education	Liberal Arts	Engineering/Science	Other
4. Preparing for	the TAAS/TAKS re	ading comprehen	sion assessments	increased my
ability to compre	hend difficult read	ding material.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
5. Preparing for	the TAAS/TAKS w	riting assessment	s improved my wri	ting abilities.
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
6. The multiple-c	hoice format of TA	AAS/TAKS reading	and writing asses	sments
adequately asse	ssed my research	skills.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
7. Preparing for	the TAAS/TAKS m	ath assessments	increased my abilit	y to complete
complex mathen	natical problem so	lving.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree

ligh-Stakes Te	sting Policy						
•				wed me to answer			
questions witho	ut fully underst	anding the mathe	matical concept be	ing tested.			
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
9. Preparing for the TAKS science assessments increased my ability to understand							
scientific conce	pts.						
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
		nce assessments nd/or lab experim	involved substant	ial class time			
aculculcu to sel	Circo projecto di	nu/or lub experim	C111.3.				
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
11. TAKS science	e preparation e	mphasized memo	rizing scientific fac	cts over inquiry			
based learning	strategies such	as: individual or g	roup projects, inve	estigations,			
experiments, etc	c.						
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
12. Preparing fo	r TAKS social s	tudies assessmer	nts increased my k	nowledge and skills			
in social studies		tudico doocoomici	no moreasca my k	nowicage and okino			
in social studies).						
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
13. Preparing fo	r TAKS social s	tudies assessmer	nts emphasized me	morizing facts over			
inquiry based le	arning strategie	s such as individ	ual or group projec	ts, role playing,			
classroom discu			5 11 7	, , , , , ,			
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
14. Learning the	material includ	ed on the TAAS/T	AKS stimulated my	interest in school.			
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
15. The pressure	e of the TAAS/T	AKS caused me to	increase my work	ethic at school.			
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
16. The TAAS/T/	AKS adequately	assessed my cre	ative abilities.				
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			
17. Preparing fo	r the TAAS/TAK	S increased my cr	eative abilities.				
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree			

gh-Stakes Te	sting Policy			
18. The materia	l included on T	'AAS/TAKS is a goo	d representation o	of what students
need to know to	have success	in entry level colle	ge courses.	
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
19. Preparing fo	or the TAAS/TA	KS provided me wi	th the reading skill	s necessary for
success in entr	y level college	courses.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
20. Preparing fo	or the TAAS/TA	KS provided me wi	th the writing skills	necessary for
success in entr	y level college	courses.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
21. Preparing fo	or the TAAS/TA	KS provided me wi	th the math skills r	necessary for
success in entr	y level college	courses.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
22. Preparing fo	or the TAAS/TA	KS provided me wi	th the problem sol	ving skills necessary
for success in e	entry level colle	ege courses.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
		•	th the critical think	ing skills necessary
for success in e	entry level colle	ege courses.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
24. Preparing fo	or the TAAS/TA	KS provided me wi	th the study skills	necessary for
success in entr	y level college	courses.		
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
25. Preparing fo	or the TAAS/TA	KS provided me wi	th the time-manage	ement skills
necessary for s	uccess in entr	y level college cour	ses.	
Strongly Agree	Agree	Unsure	Disagree	Strongly Disagree
26. If you have a	any additional	comments about yo	our experience wit	h high-stakes testing
or your opinion	s regarding the	e effectiveness of h	igh-stakes testing	policy, please
provide them be	elow.			
	_			
	7			

Appendix C: List of Survey Participant Comments

Subject Area

- I believe the reading section on the TAAS test was done well, along with the math section. However, I don't think we were prepared for the science section at all in class, and I was not encouraged to do any studying for any of the sections outside of school time.
- I attended an elementary school and middle school that taught to the "TAAS" at the time. Because I was not taught material except that on the test, when I was given a reading comprehesion test in 9th grade I was actually reading 2-3 grades behind my classmates that attended schools that did not focus on that. The lack of schooling continues to present challenges on a daily basis in reading, writing, and spelling.
- TAKS and TAAS wasted so much educational time. I went to elementary school in Odessa and we didn't even start science until 7th grade because all we did in class was reading and math for TAAS. I consistently made near perfect scores on practice tests, and I learned almost nothing in school because my classmates could not answer the TAAS practice questions.
- The TAKS test was a joke. It was waste a time. I learned less in class due to the fact teachers had to teach to it because their raises were dependent on it. I didn't even learn trigonometry because there's at max two questions from that section on the TAKS and my teacher wanted to focus on geometry. Writing for the TAKS test actually made me write worse. Science part of the TAKS test was common sense. You didn't have to have much of an understand of science. Social studies was a waste of time as well. I didn't learn anything but TAKS test questions. TAKS is a horrible creation that lowers the level of teaching overall to match a standard that should be an absolute joke. It's not hard. It's not a gauge of actual intelligence. Don't waste any more students time and education quality by making them take the TAKS. Or any other standardize test.
- Considering I was in the first highschool year where TAKS was not just a practice run but the counted exit exam for highschool I am unsure if some of the answers I provided are fully reflective of the exam as it is used now. However, I felt that the exam was rather ridiculous and counter-productive to establishing the true extent of a students knowledge of the subject. I felt that the exam assumes that all students across the state would know the same material and would have understood the same material in detail. The writing of the TAAS was much easier to understand and complete, but the TAKS writting seemed off. Most of the questions asked for a straight forward answer, but then assumed that the student would provide "evidence" to support the answer when it was not absolutely necessary.

Difficulty/Challenge

- I didn't find preparing for the TAAS test a challenge because I didn't do so in my own time. The preparatory
 work was built into the daily curriculum.
- Too easy
- The testing was really a joke if you were a college bound senior. It was simply a formality of graduating in Texas. I can remember many off the top of my head, myself included, that missed probably 4-5 questions across all of the assessments. It was not an accurate representation of what you would need to work on in college, if that is in fact the intent for the testing.
- It's hard remembering the specifics of the tests. I remember thinking the tests were a waste of time then, and I found the TAAS/TAKS easier generally than regular classroom content and exams.
- TAAS was a joke, and TAKS was only marginally more difficult. Neither challenged me in any way. My AP classes provided a better assessment of my writing.
- Granted, I was an honors/AP student, but my teachers spent no time on test prep, we all passed anyway.
- I think high-stakes testing is a good thing, but the TAKS is anything but high-stakes. In AP English my junior year, our teacher actually taught us how to dumb ourselves down for the test by describing a very formulaic approach that fit in the tiny box provided for literary analysis.
- I graduated from a Texas high school, went to Vanderbilt and graduated summa cum laude double majoring in Economics and English, and am now in a PhD program at the University of Texas. Having to teach to such low standards on the standardized test literally "hamstrung" me for college.

- I graduated HS before TAKS so cannot comment on it, but TAAS was a joke. I was in all AP or GT classes and never "prepared" for TAAS but aced all sections anyway. Honestly, students in and teachers of those classes used to laugh about the test being a waste of time. As a graduate student, I instruct undergraduates. Their critical thinking and writing skills are, frankly, mostly poor to fair. In my opinion, Texas education standards are too low. Plus, not everyone needs to be in college. I wonder if public schools should encourage more trade school enrollment.
- standardized testing is an abomination. as a student you are taught HOW to take the test, but not actual material.
 furthermore, these tests are RIDICULOUSLY easy and did not in any way prepare me for college level courses.
 texas seems to have low standards with regard to the education of their students.
- When I was in school, preparing for these tests really took away from the information we were usually learning. It seemed like we were going backward and relearning information what was too simple to worry about. Most of my teachers did not waste time preparing us for TAAS or TAKS just because we would do fine on the tests and we really disliked going through the boring practices.
- I never really "prepared" for the TAKS. It was just some test you took and hoped you passed. I know today they have more remedial classes for the TASK, but I really don't think kids 'learn' anything from preparing for it. It is just about knowing how to work out certain problems without really understanding them.
- The TAAS/TAKS test is a standardized test which is so simple it will allow anyone to essentially graduate. Nothing on the test it similar to what is seem in college level courses. If anything, the TAAS/TAKS testing days were a day to relax and bubble in a few answers on a sheet of paper.
- I took honors, pre-ap and ap classes in high school. The TAKS practice material we used was well below out level of understanding the material already. The material would not have aided me in taking the TAKS since it was mostly regurgitate and would not have helped apply to anything on the TAKS. The TAKS prep would definitely not have helped me in college as I attended a university that expected us to do more than just regurgitate the material given in class.
- The TAAS/TAKS test is a joke. Schools these days do enough teaching to be able to teach students the material on that test so they can pass it and the school can get state funding. Our educational society is lazy and that is why we put so much money into our school system and rank amongst the lowest in the world in quality of education. We should be teaching students up to the level of the SAT or ACT, because THOSE tests will truly help prepare a student for college level classes.
- My opinion is that TAAS/TAKS is a complete waste of time. It forces teachers yo teach a set way and not allow as much creativity in class because certain things must be taught only one way to be considered standar and effective. Teaching for TAAS/TAKS completely bores students. No student I have ever met enjoys the end of the year when taking the test happens. We are forced to sit in a room and take a test, ten when finished be completely bored until the designated time is up. There is no creativity to the test whatsoever. The TAAS/TAKS is a complete waste of time.
- "Congratulations! You got 'Commended' on a minimal competency exam!" was the praise my high school teacher extolled while handing out our TAKS performance certificates.
- I don't feel I learned much from TAAS other than how to deal with stressful situations. The material tested wasn't overly challenging or difficult. I just remember being so worried I was going to do poorly (which probably wasn't anything to worry about) and that my teacher and I would get in trouble. I don't know that I even gained any useful study skills from taking these tests.
- I had many friends that did not care about school because there was so much pressure to do well on the TAAS and TAKS tests. They were interested in other aspects of life such social atmospheres, video gaming, sports, cars, and other skill that advance them in a way that cannot be tested in a standardized way. Many failed the tests multiple times and had to take summer course just to pass the test. Never mind if they learned useful things for life, what mattered was passing a test. I feel my tax dollars are being wasted on focusing on results rather than the process. If I had been instructed how to learn effective ways to study and manage my time, then maybe I wouldn't be a 23 year old freshman in college.
- I was a straight student throughout high school and I absolutely loathed having to work on TAAS/TAKS work, because it was far beneath my abilities. It felt like a waste of time and was very frustrating to have to sit through. We would cover stuff my junior year of high school that would be on the TAKS test that I had learned in 7th or 8th grade.
- I took the TAAS test & I fetl it was easy to pass. However I was fortunate enough to have taken accelerated classes since junior high school. All of the skills that are needed in an entery level college class were tested for. One skill that the TAAS did not prepare me for was study skills.

Throughout my public school education, I took the TAAS test, except for my last year of high school when my graduating class (2003) was chosen to be the test group for the TAKS test. If i remember correctly, we took portions of the it, but not the full test. We were told it would not be for a grade, so I honestly do not remember a whole lot about it. However, as far as the TAAS test goes, I would say it was a joke (in terms of how ridiculously easy it was). I never studied extra for the TAAS test and never felt anxious/nervous while preparing to take it. The TAAS test always seemed to me like a test geared to the dumbest person, to be blunt. The reading sections were always well below my reading level, and I remember the math portions being fairly remedial as well. Also, my mom was a 4th grade teacher (now retired), and I recall her stating quite often how she hated having to teach for the test, so to speak. With all the emphasis that the school administration put on TAKS scores, it essentially forces teachers to abandon any creative and thought-provoking lesson plans, and instead strictly teach material to enable the students to pass a silly test.

College Preparation

- The TAAS/TAKS test did absolutely nothing to help me out with preparing for college. It was just a test that stressed most students out because you had to pass it in order to graduate from high school. I think standardized testing should be thrown out of public schools, because it doesn't help you prepare for college at all. Its just a test to "refresh" your memory of things you learned in high school, but we have tests for those things, we don't need another one at the end of the year (when seniors also have to take SAT/ACT tests to get into college).
- I don't think a test can prepare you for success in college. I believe that the cumulative schooling experience
 leading up to entrance into college is one of the main determinants of success in college. How much teachers in
 primary and secondary schooling encouraged students to use critical thinking skills, creativity and problem
 solving in their classroom and a student's own ambition to succeed are the real catalysts for college readiness
 and success.
- I feel as if I received little to no positive or educational benefit from studying or taking as TAAS/TAKS test. The only benefit I received for doing well on these tests is a free day from school. I so feel as if it it helped me gain minimal test taking tricks when I am unsure of an answer. Example: B or C being the most common selection. Nothing that would prepare or benefit me in a college setting.
- I think that the TAKS test is a very poor measure of student readiness for college and the fact that the state only requires 60% to pass is very discouraging.
- First, I did not take the TAKS test so my answers regarding the questions specific to that test are not representative. I disagree with all standardized tests as a representative marker for individual students. They decrease individuality, creativity, and only teach shortcut methods to answering the questions rather than promoting the learning and understanding of the material. This holds true for SAT/ACT as well as Texas standardized tests. I also feel that they in no way prepare students for college level courses. Both my parents are teachers and I know that they feel the same. A common common complaint is having the tests 3/4 through the school year puts pressure on teachers to only cover tested material rather than teaching the whole of the course. It also removes any incentive for the students to continue learning once the test is completed.
- TAKS has no correlation on how well students do in college entry courses.
- I honestly believe that the TAKS test does not adequately measure a students ability and it was a waste of class time to prepare specifically for the exam when the material on the test does not provide a correct measure of college readiness. And as a current math instructor, I have experience that the TAAS and TAKS material taught in high schools are NOT preparing students for college mathematics.
- I always did well on the TAAS test, however I hated it because it did not prepare me for college and it was a
 complete waste of time. The Gifted and Talented program that I was in was what really cultivated my talent as a
 student and prepared me for the future work I would be exposed to in college.
- I was only in Texas for grades K-8, and I believe I received a strong base from my teachers and classes.
 However, I don't think the test preparation that I received taught me adequate study or time management skills. I didn't learn either of these things until I was forced to teach myself in college.
- I think standardized testing does not reflect accurately peoples success in college. I did horrible on my SAT's
 due to test anxiety, but had a 3.95 GPA when i graduated from college.
- The TAAS test was not useful at all in my preparation for college nor was it useful to my education as a whole. It was merely a nuisance that appeared from time to time that I took, did well on (I don't understand how you could not), and moved on.

- TAAS/TAKS provides a basic assessment which does not, in my opinion, provide a good foundation for college courses.
- I did not take the TAKS test (which I have heard is more difficult), but the TAAS test was no where near the
 level of difficulty to prepare students for entry level college courses. My high school AP courses however did
 prepare me for college.

Teaching/Classroom

- In all honesty, I don't feel that preparing for standardized tests is really the source of any type of educational improvement in students at the high school level; rather, I feel that the way that instructors teach in the classroom DOES have a large impact on the academic success and motivation of students taking classes, which may increase their overall ability to perform well on tests such as the TAKS and TAAS. The TAKS and TAAS may influence the type of material that high school adacemic courses cover in the classroom, but I think that the ultimate measurement of success in preparing for these tests and college courses should be more related to classroom environment and an instructor's ability to effectively motivate students to study and learn courserelated material. If an instructor performs well with respect to the relationship he/she can build with students in a classroom, then I think it would be fair to conclude that that specific instructor could also influence student performance in many different areas, to include a range of academic topics. Instead of focusing on changing course material and lesson plans to meet the requirements of exams such as the TAAS and TAKS, while also preparing students for college-level academics, it is possible that the biggest area of focus should be directed toward the quality and teaching-style of instructors hired into an academic institution. A high quality instructor can shape the growth of his/her students (to an extent, of course) in almost any area ranging from academics to personal values, which may be factors that can cause students to pursue excellence and success in all endeavors. In my opinion, improving student testing and preparation for college and higher-level education is based more upon the way that students learn the value of education and motivation to succeed from an instructor than the actual course material taught any given classroom. Granted, a student's performance is ultimately the result of how he or she took the test or finished a class, but the student's performance in a challenging academic environment is almost always influenced by a desire to do well, which is more than likely derived from some type of external source.
- As a teacher, it is difficult to determine if the skills I learned in school were due to teachers teaching to the test, or due to great teachers. After discussions with older teachers, I am realizing that the style of planning has changed drastically due to the TAKS test.
- These tests prohibit the teachers and students, of The State of Texas, from fully being able to practice the art of both teaching and learning. I felt cheated when my teachers had to teach to the test rather then getting into the heart of most lessons.
- high-stakes testing put unnecessary pressure/stress on both students & teachers. Too much time was spent learning to master the test & still many students needed to take it a second time. The tests did not prepare students for higher education what-so-ever, and I feel that it is a waste of time & money to have so much weighing on the test results. They are not a good indicator of the students abilities.
- Back in the 1990s, when it was still the TAAS test, teachers were able to teach freely, without teaching to the test. Now, teachers aren't able to be creative with their lessons because of the pressure to do well on these standardized tests. I enjoyed school much more without the added pressure of the tests. And teachers, I'm sure enjoy their jobs more when they aren't having to teach the TAKS test. Also, the math and reading skills tested are very basic and do not prepare an individual for college.
- Growing up in Texas I had to take the TAAS or TAKS test almost every year as they changed the frequency and years that students had to take it. I am a college graduate and did well, but only because of those teachers that refused to teach FOR the TAAS/TAKS test. These tests most often took away from any real learning that could be done in a class room. I went to college in North Carolina and would often find myself lacking in writing skills compared to my counter parts, which I can contribute somewhat to Texas education system and somewhat to teaching towards the TAAS (I was considered a strong writer in High School). In my policy classes professors often referred to the TAAS test in a failure for gauging student learning.
- Standarized testing is useless and I think a teacher could be more effective in reaching students' potential with different concepts in class rather teaching the test.
- Teachers teach to the test. There should be learning happening in our schools, not testing. Teachers should be trusted to teach what the children need to know. They should observed by supervisors and student work should

- be analyzed. I will never send my children to public school. I will homeschool. I do not agree with our education system in the US.
- TAAS/TAKS forces teachers to teach by the test, thus disallowing any sort of individuality in teaching style. Each student is different, and this test does not allow teacher's to use creativity to teach material to students because the teacher is too concerned with the overall class performance.
- High-stakes testing is a very poor tool to use in measuring progress in certain subjects. The preparation for these types of tests increase stress levels from the teachers on down to the students. Immense pressure is placed on teachers to produce immediate effective results from their students tests. Recognition from the state is very important to principals and superintendents for their schools to be seen as an institution that produces excellent marks in high-stakes testing.
- Preparing for the TAAS and TAKS test was the single objective of my middle school and high school teachers. They taught me and my classmates how the test was structured, what sort of problems to expect, and how to write in order to pass the test (or get a passing score). Taking the TAAS and TAKS tests were helpful in my future academic career, in only that they let me pass on to the next grade and eventually graduate high school. They are general tests and did not help/prepare me in any way for college. My teachers taught me other material specific to the subject they taught (math, science, art, music, English, etc.) besides the TAAS/TAKS test material, and that is what prepared me for college.
- At 23 I have completed a bachlors in Chemistry, a Masters in Marketing and am now working on my PhD in Management, all at Texas public universities. While I realize I am not the type of student that the high school level TAKS tests were designed for, I strongly disliked the pressure that was put on my teachers in honors classes requiring we devote hours of class time to TAKS, which was not relevant use of our time as we were preparing for AP tests to gain college credit. TAKS hours were quickly seen as a chore that was a wasteful use of valuable class time by both students and teachers.
- I never took the TAKS, so I could not adequately answer any of those questions. I honestly think the only good thing about standardized tests is it helps the state know if teachers are working. I honestly had some teachers who would not have taught had the TAAS not been there to regulate how they spent their time and given them an incentive to teach (ie. lose their job if everyone failed the test). I do not feel it is beneficial for teachers who truly want to teach. It bind them to much into covering certain areas that maybe the teacher doesn't have a strong interest in, while shortchangin those he/she does.

Memorization

- Preparing for the TAAS/TAKS consisted mostly of me learning how to memorize. Though I performed well on the TAAS and Intro TAKS (used as a pilot for my graduating class) it was because of what I was taught outside of the 15-20 minutes of class time dedicated to teaching me how to enhance my memory capabilities. Our typical lesson plans, which were seperated from our TAAS/TAKS preparation, were more difficult than what the test required. On a more positive note, the TAAS/TAKS exercises enhanced my memorization skills, a great aide when you're half paying attention in class as a freshman. Good luck and God Bless with your ARP!!!
- The TAAS/TAKS test encouraged rote memorization over critical thinking skills and often led to teachers
 drilling information that would quickly be forgotten. Had the teachers been able to present material in an
 interesting/critical way, I believe that would have engendered the basic skills necessary to succeed on these
 standardized tests.
- I took the TAAS test in 2001 and it was a waste of time. All the preparation for the test took away any time of actually learning anything because it was all about memorizing facts. I completed the test in an hour and then took a nap. It was a joke, just like standardized testing as a whole.
- I took the TAAS tests and they were never challenging in the least. Instructors teaching to the test was common
 and frustrating for high-level students, like myself (my opinion). Just like teaching how to reason for the SAT
 logical questions is ridiculous and not education/learning but memorization. I understand that the TAKS tests
 are more difficult good.
- I feel that this type of method promotes learning by memorization and does not promote creativity or critical thinking abilities.

Critical Thinking/Problem Solving Skills

- The TAAS/TAKS exams provided the just enough skills to get along in high school. Skills learn in taks lead to skills in the THEA which lead to skills in the SAT/ACT. However, thinking outside the box was prohibited in the essay part of the TAKS as we followed examples of successful TAKS papers only.
- No kids should learn how to pass the TAKS test.. They should LEARN!!
- I hated that TAAS took up class time that could have been spent on meaningful material that could have furthered my education. Furthermore, I feel that students like me with different learning styles are somewhat penalized for being terrible test takers.
- In the classes I took in high school (gifted/AP classes), teachers did not teach to the TAAS/TAKS tests, as the areas being assessed did not reach the same standards as the teachers' own expectations for classroom education. The level of knowledge/problem solving skills/etc needed for the TAAS/TAKS test was far below the levels expected of us. I can see how this test might be justified for lower performing students, but it is a nuisance in many other instances. I hope that my answers of "Strongly Disagree" are not interpreted as saying that I didn't learn enough to do well on the TAAS/TAKS; it is quite the opposite. The TAAS/TAKS meet minimum standards in comparison to the knowledge areas needed for success in elite schools and colleges today.
- I am not sure how representative I am in the population distribution of your study. I took the TAAS examination over 10 years ago. I personally am not a fan of high-stakes examinations as they typically are mechanical operation versus conceptual and application which is necessary in research. Due to a learning disability I am a slow and methodical test taker time constraints were greatly limiting. In my opinion a great deal of the education structure is teach to the test and not teach to enable.
- I know that the preparation for TAAS/TAKS only helped for the TAAS/TAKS, and in no way did that preparation help for any college courses, critical thinking skills, or problem solving skills in any way.
- TAAS/TAKS certainly did not bring out the strengths of students who were more creative and artistically talented rather than analytical and critical thinking students. However, it would be extremely difficult (too difficult in my opinion) to have a state-wide standardized test that carries as much importance as TAAS and TAKS to not be multiple-choice based. I believe that introducing subjectivity into 4 million students' testing procedures would create more problems than it solved.
- The TAKS isn't a hard test. We were taught to the test pretty exclusively. When this is how you prepare for an
 assessment, it doesn't promote critical thinking or out-of-the-box thinking that is actually necessary beyond a
 standardized test.
- To me, the preparation for these high-stakes tests can be beneficial. I remember the 4th grade TAAS writing test, and the preparation for that really helped me learn to organize my thoughts. Though, this measure of achievement may psychometrically indicate a correlation with college success, I feel that learning to dissect multiple choice problems is not reflective of the analysis and synthesis that occurs at the college-level, despite the fact that this dissection is a critical thinking skill. There is no easy answer. It is reasonable to use standardized testing to measure achieved knowledge; however, test bias and other factors that relate to error cause these tests to not necessarily be an accurate reflection of some children of what they can do. And to pin these numbers on them, send them into the future or hold them back, is incredibly unfair.

General Comments

- I enjoyed learning on a regular schedule rather than being forced to take a standardized test. In my opinion, thats works much better. At my high school, it felt forced, and tons of the other students in my classes just breezed through it, with no thoughts of going to college. If they would have, I personally feel that the TAAS test wouldn't have benefitted them at all.
- Standard testing does not test students true ability of knowledge!
- Necessary evil I suppose, not sure of a better solution but certainly open to discussion.
- Timed, standardized testing doesn't show the full potential of many students for various reasons. Some do not care enough to try their best, some cave under the pressure, others (like myself) run out of time because we need to take our time and think things through...we are perfectionists. What prepared me the best for the TAAS test was taking upper level classes taught by excellent teachers and having the personal drive to be a good student. I understand the principle of standardized testing, but the material tested doesn't prepare students for college or

- real life and too much emphasis is placed on school to increase their scores so that the subjects and concepts that REALLY need to be taught are left out. The system is faulty at best.
- TAAS/TAKS is a waste of students' abilities, teachers' time and the taxpayers' money.
- Other than the test itself, another issue is the people who are grading them.
- Taas testing is a good learning source but spending most of the school year learning how to test for it is unacceptable.
- The TAAS/TAKS system is a waste of time, energy, and budget for Texas schools.
- TAKS is an egregious waste of student's, parent's, and teacher's time/resources.
- When I took these tests it was the TAAS test. Just thought you should know. If it is anything like these tests you're asking about (I left for private school after 6th grade and never took this kind of test again), then my answers stand.
- I graduated high school before TAKS was implemented.
- I did not prepare for the standardized tests. I showed up and took them. I was busy learning things for school, which are applicable to whatever class I was in not general math or English rules associated with standardized tests. High Schools should offer courses in the standardized tests if colleges relay heavily on those scores for admission decisions. That is the purpose of a test. To filter students. High Schools have failed to prepare college bound students for the tests. My child will be much more educated on the political burocratic process that has become education, I hope I am able to pass as much wisdom as possible so their educational path will be less precarious than my own.
- At the high school I attended there was limited formal preparation for these standardized tests. Before the test
 we might review stuff for it, but preparation was mostly integrated into the class through the whole semester.
 Thus, its hard to tell if preparing for it helped me because I don't know whether it was simply from normal
 coursework or not.
- I don't remember anything from the TAAS preparation. I know it was a long time ago, but I had to relearn every bit of math to get through my college courses. Focusing on standardized tests for accountability is hurting our education system. It didn't help me in any way and was more of a stressor than anything. But then again, TAAS/TAKS isn't about teaching, it is and faulty assessment and about accountability incentives for funding.
- The High pressure of performance outcome on standardized tests created test anxiety and possibly worsened my performance.
- I feel my data may be skewed, since my TAKS prep was seamlessly integrated with the rest of my education. I went to Eanes/Westlake in Austin, which has phenomenal academics, plus I enjoyed standardized tests because I excelled naturally. As a current teacher in another district, I don't believe the kids are prepared for anything except the test and even then, it's not great. Perhaps it's a generational thing-- the work ethic and responsibility for actions seems utterly lacking in 97% of the kids I have taught.
- Taking the TAKS/TAAS test is a huge waste on educational resources and funds. Bring back the Arts, and intelligent discussion in classrooms.
- I am a very motivated student, so I was already interested in school and learning when TAKS time came around... I don't remember much about whether I felt adequately challenged by the TAKS, just that I wanted to do well. I don't even remember taking TAKS science or social studies, but I know I did. I don't agree with "teaching to the test" as is apparently common practice now, but I do believe that practice in areas of study (like practice in writing, math problem solving, etc) is good for students, not just in preparation for a test. By the way, preparing for any standardized test doesn't prepare you for future learning; it assesses where you're currently functioning at.
- Preparing for the TAAS/TAKS test didn't feel related to school work at all, more like a test we had to learn to pass.
- I never studied material outside of school for the TAAS, however I was very successful when I took the tests. I attribute this to knowing how the test would be scored and being taught effective test taking strategies.
- My high school, Coppell High, did not excessively emphasize preparation for the TAAS test that I can recall. I took a majority of AP and GT classes, which taught me to achieve far above the standards set out on the test itself. It was the preparation, challenge, and passion of my teachers in these course which translated into success for me on both the TAAS test and college coursework. Secondary institutions which excessively overemphasize preparation for high stakes testing miss the point. Instead they should utilize TEKS standards and TAKS expectations as a baseline for developing curriculum that will push students beyond just the basics, thus preparing them for a lifetime of learning and achievement.

Appendix D: List of Survey Link Postings and Email Recipients

Facebook Pages:

12th Man Foundation

Aggie Network

Austin Young Chamber of Commerce

Baylor Alumni Association

Citizens against Cutting Education in Texas

College Republicans at Texas

Education Reform in Texas

Just Educate

Rice University Office of Graduate and Postdoctoral Studies

Sam Houston Alumni

South Texas College of Law

Southern Methodist University

Southwestern University

SXSW Festival

Texans for Accountable Government

Texas A&M Basketball

Texas A&M College of Education and Human Development

Texas State Alumni

Texas Tech University College of Education

The Association of Southwestern University Alumni

The College of Education at The University of Texas at Austin

The University of Texas at Austin Graduate School

The University of Texas at San Antonio Alumni Association

Transgender Education Network of Texas

Travis County Democratic Party

University of Houston Athletics

University of Mary Hardin-Baylor

University of North Texas Alumni

University of North Texas College of Education

University of Pan American

Graduate Schools:

Sam Houston State University

Southern Methodist University

Stephen F. Austin University

Texas A&M University

Texas State University

Texas Tech University

University of Houston

University of North Texas

University of Texas

University of Texas at San Antonio

University of Texas El Paso