**Academic Factors Impacting the Performance of School Districts that Meet Standards and School Districts that Don't Meet Standards in Texas**

**By**

**Tyler McBride**

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Faculty Approval:

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Patricia Shields, Ph.D.

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Thomas Varacalli, Ph.D.

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Jeff Lund, MPA

**ABSTRACT**

*Purpose*: The purpose of this explanatory research is to identify the factors that distinguish a school district, which meets standards from those, which do not meet standards. This paper will focus on a brief history of educational policies that impacted academic performance in the United States and a data driven analysis emphasizing school district performance in Texas.

*Method*: This research paper explores four hypothesis (teacher pay, male teachers, teacher experience, and pupil to teacher ratio) developed from the Texas Education Agency Texas Academic Performance Report. A total of 26 school districts were selected for the 2016-2017 academic year that did not meet requirements and were compared to 26 school districts that met standards. The comparison school districts were selected based on similar academic criteria to the school districts that did not meet requirements. Academic performance was then evaluated at both sets of school districts using aggregated data to create the framework for the data. After, a quantitative analysis is used to determine the significance of the academic results from the school districts chosen in Texas.

*Findings*: The research hypothesis states that school districts that do not meet standards would have lower teacher pay, male teachers, teacher experience and higher pupil to teacher ratios than schools that met requirements. Actual results, however, only supported half of the hypotheses. The research found there is a significant difference in teacher pay and teaching experience in underperforming districts and districts that meet requirements.

**ABOUT THE AUTHOR**

Tyler McBride is a graduate student in the Master of Public Administration (MPA) program at Texas State University − San Marcos; he also holds a Bachelors of Business Administration degree from the University of Texas at San Antonio. He is a Data and Intelligence Analyst at the Texas Health and Human Services Commission (HHSC) Office of Inspector General. His previous roles with the State of Texas include Contract Manager for the Healthy Texas Women Program and Medical Benefits Support Program Specialist at HHSC. He can be contacted at ty.mcbride@hhsc.state.tx.us.

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**CHAPTER ONE:**
**INTRODUCTION**

INTRODUCTION

Within the United States (US), improving educational policy has remained a federal and state administration goal to ameliorate student performance. Providing students with the best education possible has emphasized an increase in test performance. New requirements for academic performance meant developing new education policies, which caused school district standards to change. School districts have become complex systems that are expected to meet the needs of administration, faculty and students. As state and local government continue to regulate school district requirements, student performance still remains a topic open for discussion.

One state that experienced numerous education changes is Texas, which spans over 1,200 school districts. Among Texas's many school districts, a total of 42 did not meet requirements for the 2016-17 academic school year. Both charter schools and Independent School Districts (ISD) are among the list of 42 schools below standards. There are 26 ISD's that did not meet requirements, which will be the focus of the research for this paper. The performance of each ISD will reveal what factors impact student performance and why they are significant to improve education in Texas.

RESEARCH PURPOSE

The purpose of this research is to examine how teacher pay, male teachers, teacher experience and pupil to teacher ratios affect school districts which meets standards from those, which do not meet standards in Texas. The study seeks to assess the ability of school district performance spanning the 2016-17 academic school year. The research provides examples of school districts that are making substantial progress in student performance and how they differ from their counterparts. The findings highlight how individual ISD's perform and draw attention to academic areas that can increase student achievement.

This research is compelling, because Texas is a vast state that caters to populations across rural, urban and suburban areas. The Texas Education Agency 2017 State Accountability Results point out "more than five million students were enrolled in Texas public schools" during the 2016-17 school year (2017 State Accountability Results, p. 1). There are a total of 1,203 districts in Texas and only 42 were rated below standards (2017 State Accountability Results, p. 2).

In addition, each district has its unique geographical location, demographic characteristics, history, and other features that impact academic standards. All of these factors should alter the outcome of any study based on state academic performance. This evaluation of academic performance will help measure the quality of learning from different perspectives. This research focuses on districts that did not meet requirements and relies on the Texas Academic Performance Reports to produce the data.

CHAPTER SUMMARIES

Chapter two contains a review of the literature including an overview of policies that influenced education. It summarizes the history of educational policies and how school districts were affected at the state level. It discusses the reasons policies were created and amended to change education standards. Also, the chapter examines a few reasons why a school may experience low performance, introduces the research hypotheses, and conceptual framework. The conceptual framework illustrates the relationships among the research and how the information is related to the performance of school districts.

The third chapter operationalizes the hypotheses and describes the methodology developed to address the research question. The research method selected is an analysis of existing data. The data was combined from several aggregated measurements of large independent school district data sets to produce the information in this chapter. The process used to select both the group of underperforming districts and comparison group districts are explained. A statistical analysis is possible due to collection of the quantitative data. The statistical tests measuring the difference between the two groups are describe in this chapter.

Chapter four is the results chapter. The results of the statistical procedure used are explained. The results are summarized in tabular form and then interpreted in the text. The chapter concludes with a comparison model to determine if the outcomes were supported or not supported. The results showed based on the hypotheses only half were statistically significant, while the other two were not supported.

The fifth chapter summarizes the conclusions drawn from the results in chapter four. The final chapter includes recommendations for future research and any necessary closing remarks. This study provides an opportunity to highlight academic achievement. This research is intended to shed light on the different school districts in Texas and their academic performance.

**CHAPTER TWO:**
**EDUCATIONAL POLICY LITERATURE**

INTRODUCTION

The purpose of this literature review is to identify various policies that shape education factors, which influence how school districts are measured. First, this chapter examines key laws and educational policies, which influence educational standards. After, the chapter develops hypotheses to identify the factors that distinguish a school district, which meets standards from those, which do not meet standards.

THE ELEMENTARY AND SECONDARY EDUCATION ACT (1965)

The long road to No Child Left Behind (NCLB) and school district standards began with the Elementary and Secondary Education Act of 1965 (ESEA), which set a strong foundation for education (Harris, 2010). According to Anderson, "the ESEA critically increased federal support for K-12 education" and brought aid to states in need of education reform (p. 8). When the ESEA was first enacted in 1965, Title 1 funding was introduced to award financial aid to schools and school districts serving disadvantaged students (Dee and Jacob, p. 154). Under the ESEA, grants were awarded, which required states to develop or adopt curriculum content as well as academic achievement and assessments related to educational standards (Harris, 2010, p. 25). The ESEA focused on disadvantaged students and aiding their academic needs to close the achievement gap between high and low performing school districts (Brown and Davies, 2012, p. 3). The ESEA required "states to monitor and evaluate the academic achievement of students" as an accountability mechanism for receiving federal funding (Forte, 2010, p. 77).

Critics of the ESEA point to problems such as its focus on certain schools, which limited federal funding to school districts. ESEA tests focused on student achievement, but were limited in determining how to focus on performance. The ESEA's scope was problematic because school outcomes failed to reflect the performance of all students. Underreporting occurred because schools did not have participation rates, and the lowest-performing students were the focus of the ESEA (Forte, 2010, p.79). The need to test students wasn't receiving much attention, but this changed when the National Assessment of Educational Progress (NAEP) was established in 1969. The program involved a "limited testing program" which was administered to representative samples of students (Jost, 2001, p. 332). By the 1970's and 1980's, weak test scores became a highlight of public concern (Jost, 2001, p. 333). As the need to improve test performance increased, the ESEA's scope broadened to include the Education for All Handicapped Children Act of 1975.

THE EDUCATION FOR ALL HANDICAPPED CHILDREN ACT (1975)

After the Elementary and Secondary Education Act of 1965, the Education for All Handicapped Children Act of 1975 followed. During the early years of the ESEA many children with disabilities received little or no schooling (Anderson, 2005, p. 10). *Education for All* rectified this omission and set the stage for comprehensive education for children with disabilities. Like the ESEA, the federal government provided funding and demands accountability. *Education for All* includes regulations, which allowed states to adopt assessments based on alternate standards for students with disabilities (Harris, 2010, p. 35).

Regulations passed, which allowed states to adopt assessments based on a percentage of students with disabilities (Harris, 2010, p. 35). Harris (2010) classifies alternative tests as "modified achievement standards," which stimulated short-term and long-term policy changes

(p. 35). In the short-term states were allowed to consider proficiency scores for groups of students with disabilities (Harris, 2010, p. 35). This method proved inadequate and led to long-term modification of "academic achievement standards," including formal assessments for students with disabilities (Harris, 2010, p. 36). *Education for All* led to additional responsibilities at all levels of government and ushered in the cabinet level Department of Education.

## THE DEPARTMENT OF EDUCATION (1979)

The creation of Department of Education (ED) arose from federal education programs growing to the point that more centralization was required to contain them. President Jimmy Carter's administration established the ED, as the policy was important to him on a personal level (Stallings, 2002, p. 3). Carter was concerned creating the ED meant the federal government was "positioning itself to take control of the schools," which caused uncertainty (Anderson, 2005, p. 11). This led the federal government to reevaluate its role. As a result the ED brought change to the national education debate and upcoming policies for education (Stallings, 2002, p. 13). Concerns sparked when the creation of an entity enforcing educational policy determined the future of school districts across the United States.

The ED became a major policy force in primary, secondary and higher education at the national, state and local levels (Stallings, 2002, p. 13). Aside from contributing to educational policy, the ED raised issues to address the future of students and their performance. Despite different perspectives both conservatives and liberals eventually became supporters of federal education policy (Anderson, 2005, p. 12). The ED was an "ideological lightning rod" that didn't receive immediate congressional support, but become an example of bipartisan support for the federal government (Anderson 2005, p. 12). The ED connected federal and national education reforms as a critical entity for bipartisan support and student performance (Stallings, 2002, p.

13). Hence, it is not surprising more policy changes would follow with requirements focused on student performance. President Ronald Reagan's A Nation at Risk did just that.

## A NATION AT RISK (1983)

A Nation at Risk was a report created in 1983 by the Reagan administration that touched on local, state and federal education reform efforts and warned of a "rising tide of mediocrity" in American schooling (Mehta, 2015, p. 20). A Nation at Risk is sometimes, regarded as ending the long-standing threat to end the Department of Education (Stallings, 2002, p. 5). The report emphasized the importance of education in relation to economic competitiveness and why American schools were failing in comparison to international competitors (Mehta, 2015, p. 20). The report raised the awareness of different educational factors within the US and how, "the educational foundations of our society are presently being eroded" (Maranto, 2015, p. 2). The report recommended accountability from schools regarding higher performance. The report argued that performance should be measured by external testing (Mehta, 2015, p. 20).

The report also called for a longer school year, extending school days, more homework, tighter university admission standards, testing as indicators of proficiency, and higher teacher certification standards (Mehta, 2015, p. 21). Educators resented the report's implication that economic problems should be laid at their feet. The report focused on schools themselves as the prime enforcers of new expectations. At the elementary and secondary level, attention focused on reading and math (Maranto, 2015, p. 25). A Nation at Risk rejected the view that school performance is a result of both societal and school performance (Mehta, 2015, p. 25). It placed the blame solely on the schools themselves.

The report, faced criticism from professional researchers and academics (Mehta, 2015 p. 22). For example, some believe "the international comparisons were unfair because other countries were more selective about which students took the tests," which became an unfair representation of performance (Mehta, 2015 p. 22). Another critique from the report was the declining SAT scores, which overlooked the increasing number of minority students taking the test and scores had in fact increased since 1980 (Mehta, 2015 p. 22). The release of the report created a bipartisan demand for intervention and became a decisive moment for data collection in the disciplines of math and reading that progressed education reform (Maranto, 2015, p. 2). A Nation at Risk led the federal government to reauthorize the ESEA and create Goals 2000.

GOALS 2000: EDUCATE AMERICA ACT (1994)

Goals 2000: Educate America Act passed in 1994 by President Bill Clinton's Administration represented a new structured federal role in education reforms at the state and local levels (Brown and Davies, 2012, p. 4). The purpose of *Goals 2000* was three fold: to promote national achievement by the year 2000; raise expectations for parents, teachers and students; and give state and local reform efforts more flexibility (Stallings, 2002, p. 9). *Goals 2000* became a precedent for NCLB, because it blended similar legislative and education objectives that would eventually pass in 2001 (Anderson, 2005, p. 13). *Goals 2000* created the National Education Goals Panel (NEGP) that would provide national oversight and direction to education reform with Title III funding (Brown and Davies, 2012, p. 5). Title III, an important part for *Goals 2000,* authorized funds for state and local systemic improvement grants (Anderson, 2005, p. 13). Title III's provisions required states to submit formal plans for a standards-driven school improvement strategy, subject to NEGP approval (Anderson, 2005, p.

14). The NEGP was in charge of annually reporting state and local progress towards *Goals 2000* education objectives (Brown and Davies, 2012, p. 5).

*Goals 2000* awarded state grants that were contingent on states using a voluntary national curriculum model and constructing performance standards (Anderson, 2005, p. 14). States that declined the voluntary national curriculum model were given the option to create their own. During the time *Goals 2000* was implemented, states were given flexibility around the definition of implementing Adequate Yearly Progress (AYP) indicators as long as performance was reflected on the state's tests (Forte, 2010, p. 79). AYP are components, measures, and standards by which schools, districts, and states are held accountable for student performance. Concerns resulting from *Goals 2000* were related to the government's role in education and whether legislation was a federal effort to centralize and standardize education (Brown and Davies, 2012, p. 6). NCLB combines ideas of *Goals 2000* and builds on them, but also departs from previous federal education policies and principles. The Department of Education and the Clinton Administration recommended changes to the ESEA that led to the Improving America's Schools Act, and this was possible after the passage of *Goals 2000*.

## THE IMPROVING AMERICA'S SCHOOLS ACT (1994)

The education provisions from ESEA Title-1 funding created new policy changes and brought forth the Improving America's Schools Act of 1994 (IASA). The IASA operated under Title I-A grants, and continued to apply to states that maintained eligibility (Harris, 2010, p. 24). The objective of the IASA was to raise the instructional standards of Title I programs, and expectations for participating students (Brown and Davies, 2012, p. 6). According to Harris, the Title I-A eligibility required states to have, "standards-based assessments for in reading and mathematics for grades 3-8 by the end of the 2005-2006 school year (p.21)." The IASA

increased statewide standards for all students in grade 3-8, along with high school (Forte, 2015, p.77). States receiving funding were required to develop and adopt curriculum content standards, and academic assessments (Brown and Davies, 2012, p. 6).

Title I-A grants that funded IASA objectives focused their attention on academic and independent instruction programs within schools (Harris, 2010, p. 24). The IASA attempted to make tests and evaluations more impactful and timely by using state-developed or adopted assessments (Brown and Davies, 2012, p.6). Title I-A did not require an enforcement of standards and assessments statewide to all school districts that were applicable (Brown and Davies, 2012, p. 6). States were also required to make "adequate yearly progress" to meet performance standards, which resulted financial rewards awarded to "distinguished" schools and corrective actions to "unsuccessful" ones (Brown and Davies, 2012, p.6). States were given a deadline of 1997-1998 to meet IASA requirements, due to various stages in developing instructional goals, curriculum frameworks and assessment systems (Harris, 2010, p.25). About half the states failed to meet the beginning 1997-1998 deadline provided by Title I-A for the development of content standards (Brown and Davies, 2012, p. 7).

The standards and assessments to meet Title I-A eligibility requirements had to be consistent for all states (Harris, 2010, p. 25). Title I-A programs lacked integration with "regular" instructional programs and required extensive testing that offered minimal instructional or diagnostic value (Brown and Davies, 2012, p. 7). As a result, parents were more involved in supporting their student's education and development (Harris, 2010, p. 62). After the conclusion of the IASA and the end of the 1990's, a new period of education policy began with the passage of the No Child Left Behind Act.

THE NO CHILD LEFT BEHIND ACT (2001)

The enactment of the No Child Left Behind Act of 2001 passed by President George W. Bush's administration expanded the federal government's role in supporting standards-based instruction and test-based accountability (Brown and Davies, 2012, p.2). The goal of NCLB was to ensure that by 2014, all children meet grade-level proficiency in reading and math (Mantel, 2005, p. 473). NCLB was a major expansion of federal influence upon several aspects of public K-12 education. It focused on increasing accountability of public schools and improving the achievement outcomes of school systems by the end of the 2013-2014 school year (Harris, 2010, p. 1). NCLB moved "regulations into more schools and districts than earlier laws," which set high expectations for students and teachers (Anderson, 2005, p. 15). The act increased the required number of highly qualified teachers and Title II authorized Teacher and Principal Training and recruitment funding to assist schools in meeting new requirements (Brown and Davies, 2012, p. 37).

NCLB also faced challenges such as mismatches between services that lagged behind the actual needs of schools requiring improvement (Forte, 2015, p. 76). NCLB overwhelmed "states without the administrative staff to implement the law," which created difficulties in meeting requirements (Mantel, 2005, p.472). States were now held accountable for their performance and schools districts that did not meet requirements were labeled "in need of improvement" and faced reduced federal funding (Mantel, 2005, p. 475). The act required more qualified teachers and raised minimum teaching qualifications (Hayes, 2015, p. 52). Dee and Jacob (2010) found, NCLB increased the performance of mathematics in younger students, teacher compensation and the amount teachers with graduate degrees (p. 149). In order for teachers and schools districts to meet new standards, adequate yearly progress was required for improving school performance.

In order for school districts to comply with NCLB standards, they were required to meet targets specified in AYP standards. States and school districts that consistently failed to meet AYP benchmarks faced risk of the state restructuring individual schools, including replacing school administrators and other staff (Hayes, 2015, p. 52). The motivation to improve performance rested on publicized detailed information on school test performance and a connection between performance and meaningful sanctions. The AYP process was designed to improve the direction and performance of public schools (Dee and Jacob, p. 149). States were expected to improve the quality of education in the classrooms. School "sanctions and rewards" were based on their AYP status (Dee and Jacob, p. 154). Sanctions kicked in when a school didn't achieve AYP for two consecutive years (Mantel, p. 475). The sanctions distinguished between low and high income schools. Low-income schools that didn't meet AYP after two consecutive years were ineligible to receive Title I funds, which designated them "in need of improvement" (Mantel, 2005 p. 475). Higher income school districts that didn't meet AYP were allowed to "revise their already existing campus improvement plans" giving them more flexibility to work toward improvement (Maranto, 2015, p.4).

Since the introduction of AYP, the Title I requirements applied to all schools, but few states developed or employed rigorous academic performance models (Forte, 2010, p. 79). Many states excluded English language learners and students with disabilities from testing performance expectations established by AYP (Forte, 2010, p.79). AYP required states to test at least 95 percent of students in a subgroup, meet state attendance requirements and improve high school graduation rates (Mantel, 2005, p. 475). When a school is designated as "in need of improvement" they are required to receive Supplemental Educational Services (SES). SES

encompasses "tutoring, remediation and other supplemental academic enrichment services" offered by individuals or organizations at schools (Forte, 2010, p.82). A focus on accountability also helps with school improvement.

## ACCOUNTABILITY

Accountability has been a debated topic since NCLB, which caused legislators to have a rigid perception of its importance (Mantel, 2005, p. 476). Accountability is described as, "outcomes that will lead to behavioral changes by students, teachers and schools" to align with the NCLB performance goals for school districts (Dee and Jacob, 2010 p. 151). NCLB was modeled on earlier state-level school accountability systems (Dee and Jacob, 2010, p. 161). School districts with accountability plans before NCLB led to faster growth in achievement and new school districts created accountability systems. Brown and Davies (2012) found assessments of NCLB accountability systems should require more decisions be made at the state and local levels (p.24).

Accountability ensures teachers at school districts aren't "teaching to the test" and continue to develop students' academic abilities (Jost, 2001, p. 327). Educators have learned, too much time on test preparation can be at the expense of learning. Accountability helped increase the proficiency of all students, including disadvantaged students and students with disabilities (Brown and Davies, 2012, p. 22). School districts are held to stricter requirements, which motivates teachers to create effective learning curriculums in classrooms.

CONCLUSION

The creation of educational policies leading up to the passage of the No Child Left Behind Act in 2001, refocused America's attention on efforts to reform the US public education system. This section should have summarized some difficult issues surrounding education and how school districts must adapt to new requirements. Researchers and lawmakers are still determining what can improve the quality of public education through various policies, such as accountability standards. Accountability concerns led to recognition of teacher quality as a critical component of successful education, this in turn led to policies designed to improve teacher performance through the use of incentives and test performance. The next section will introduce the hypothesis for successful and underperforming school districts.

SUCCESSFUL AND UNDERPERFORMING SCHOOL DISTRICTS

The following sections examine characteristics of Texas Independent School Districts through primary and secondary education test results provided by the Texas Education Agency (TEA). The information is related to the State of Texas Assessments of Academic Readiness Program, which are tests given to ensure standard progress and achieve acceptable academic performance (TEA Accountability Manual, 2017, p. 4). TEA will give schools and school districts an accountability rating of meets standards or improvement required. According to the TEA Accountability Manual (2017) schools and districts that meet standards are defined as, "acceptable performance" that's assigned to districts and campuses if they "meet the targets on all required indices" (p. 15). TEA Accountability Manual (2017) labels schools and districts that do not meet standards as "improvement required," which is an underperformance rating "assigned to districts and campuses, including charter districts, that do not meet the targets on all

required indices" (p. 15). The hypotheses will define characteristics used to determine school district performance and the possible outcomes they have on academic performance.

**H1: Teacher Pay**

One factor that affects student performance and school districts is teacher pay. Teacher pay is set by local school districts, using a salary schedule set by the state that permits local districts to pay a certain salary range (Brown and Davies, 2012, p. 43). Teachers, like any other employee, respond to financial incentives. They will change schools in response to higher pay. Schools have an incentive to hire high quality teachers, because this should enhance their overall performance. Teacher compensation has gained attention regarding education within school districts and student performance. All other things being equal, school districts that pay the highest salaries should attract the best teachers. A single salary system related to student learning, makes teachers more responsive when their work is conducive to improving performance (Pham et al., 2017, p. 8).

Teacher pay can change from one school district to another, which raises debates over salaries (Brown and Davies, 2012, p. 43). Pay is also determined by how hard certain positions are to fill and subjects where teachers are limited (Brown and Davies, 2012, p. 43). Conversely, districts with relatively low salaries would lose their best teachers to higher paying districts. One would expect this to affect student performance across districts. School districts also use a single salary schedule, which faces criticism due to the inability of public school administrators to adjust teacher pay to reflect performance or labor market realities (Pham et al., 2017, p. 7). Due to the criticisms of compensation, more school leaders at the federal, state and local levels are proposing merit pay systems in addition to teacher compensation (Pham et al., 2017, p. 3).

Despite the criticism for compensation and salary schedules, the single pay scale model used makes up for 95 percent of school district uniform salary schedules (Pham et al., 2017, p. 7).

Therefore, one would expect:

*H1: School districts, which do not meet standards, will have lower average teacher pay than higher performing districts in Texas.*

**H2: Male Teachers**

Current statistics show that roughly one-quarter of all classroom teachers are male and that distribution decreases about ten percent in primary grades (Johnson, 2008, p. 1). Gosse's (2009) surveys conducted found one respondent stating, "Some boys could benefit from having male role models," showing that males teachers can make a difference (p. 118). There is a variance between the amounts of women to men; the absence of men in teaching is more of a universal trend (Johnson, 2008, p. 1). The majority of women in teaching and administration suggest segments of the population are disproportionately encouraged to choose careers in education (Johnson, 2008, p. 3). If women seen as teachers are a social norm then, "boys at a younger age must have strong male role models" (Johnson, 2008, p. 2). A social need for more male teachers in classrooms, can yield increases in student performance within school districts (Gosse, 2009, p. 121).

Classrooms cause interactions between students and teachers to be different based on cultural backgrounds or having a male or female instructor, which influences social experiences in classrooms. (Gosse, 2009, p. 127). School districts with limited male teachers are due to the care, nurturance, and domesticity, which places the profession outside masculine practices (Johnson, 2008, p. 4). Students lacking a male role model outside of school, may look to male

instructors within school districts to lead and support them (Gosse, 2009, p. 124). Gosse (2009) surveyed students and found that some boys relate well to male teachers in elementary schools, and that factor can lead to improvement in student performance. More effort is needed to hire men into teaching and to support those currently in the profession (Johnson, 2008, p. 5).

Therefore, one would expect:

*H2: School districts, which do not meet standards, will have a lower proportion of male teachers than higher performing districts in Texas.*

**H3: Teacher Experience**

A substantial portion of student performance and their accomplishments is attributed to teacher experience (Hammond, 2000, p. 2). A teachers' competence and the relationship to student performance can be measured by their academic ability, education achieved and years of teaching experience (Hammond, 2000, p. 3). Teachers show more productivity gains during their first few years on the job after which their performance levels off (Rice, 2010, p. 1). Teaching experience varies by the teacher's level of education and the subject area they were hired to teach (Rice, 2010, p. 2). For example, students with certified mathematics teachers experienced larger gains in achievement than teachers not certified in mathematics, because they are more knowledgeable in the subject matter (Hammond, 2000, p. 4).

The idea is that experience should enhance the productivity, knowledge and skills of teachers (Rice, 2010, p. 1). Despite the amount of experience a teacher has, inexperience allowed them to learn and improve. Rice states, "Teachers with three or fewer years are more likely to be teaching in high-poverty schools," which factors into their inexperience and the performance of

students (2010, p. 3). Having many years of teaching experience matters, but more is not always better (Rice, 2010, p. 1).

Therefore, one would expect:

*H3: School districts, which do not meet standards, will have teachers will less experience than higher performing districts in Texas.*

**H4: Pupil to Teacher Ratio**

Research about the optimal class size in our nation's schools has existed since the system of universal public education (Chingos, 2013, p. 3). Class size is a factor that changes based on the financial state of school districts or due to a change in enrollment. School districts expenditures on instruction and administration are positively related to class size, with increased spending generating smaller classes (Wenglinsky, 1997, p. 221). For example, schools districts with increased enrollment or decreased funding face challenges to maintain existing class sizes (Chingos, 2013, p. 3). Previously from 1999-2001 the federal government provided 1.2 to 1.6 billion per year to distribute the funding to state school districts and reduce class sizes from K-8 to roughly 18 students per class (Chingos, 2013, p. 4). Students will learn more in smaller classes because of increased opportunities to receive more attention from the teacher (Chingos, 2013, p. 3).

Class-size reduction policies have received some public support, but this likely stems from influenced student learning that's subject to legislative action (Chingos, 2013, p. 5). Smaller classes create difficulties for policymakers to increase class size, but allow for other investment opportunities in school districts (Chingos, 2013, p. 39). Reducing class size affects

academic achievement in school and educational attainment within school districts (Chingos, 2013, p. 14). If school districts can understand that teacher to pupil ratios influence student achievement, then more districts can improve their curriculums. Per-pupil expenditures on instruction positively influence teacher-student ratios and the average level of education of teachers (Wenglinsky, 1997 p. 244).

Therefore, one would expect:

*H4: School districts, which do not meet standards, will have higher pupil to teacher ratios than higher performing districts in Texas.*

## SUMMARY OF HYPOTHESIS

To find characteristics which distinguish successful and low performing school districts is summarized in Table 2.1. This conceptual framework table lists the hypotheses used in this study and links them to the relevant literature.

Table 2.1 - Conceptual Framework Table: Academic Factors

| Title: Academic Factors that Impact School Districts that Meet Standards and School Districts that Don't Meet Standards in Texas | |
| --- | --- |
| Purpose: The purpose of this explanatory research is to identify the factors that distinguish a school district, which meets standards from those, which do not meet standards. | |
| Hypothesis | Supporting Literature |
| H1: School districts, which do not meet standards, will have lower average teacher pay than higher performing districts in Texas. | Phillips, E. (2009); Vicki E. Alger (2014) |
| H2: School districts, which do not meet standards, will have a lower proportion of male teachers than higher performing districts in Texas. | Johnson, Sean (2008); Gosse, D. (2011) |
| H3: School districts, which do not meet standards, will have teachers will less experience than higher performing districts in Texas. | Rahman, T., Fox, M.A., Ikoma, S., and Gary, L. (2017); Clotfelter, C. T., Ladd, H. F., Vigdor, J. L. (2007); Phillips, E. (2009) |
| H4: School districts, which do not meet standards, will have higher pupil to teacher ratios than higher performing districts in Texas. | Chingos, M. M. (2013); Wenglinsky, H, H. (1997); Jost, K. (2001) |

CONCLUSION

Academic factors continue to change the dynamic of education, which can change the outcomes of students in a classroom. The hypotheses of teacher pay, male teachers, teacher experience and pupil to teacher ratios are some characteristics that can affect school district performance. Each characteristic shows the ways in which test performance can distinguish a student performance and how school districts may experience different results. The future of testing and school district performance will continue to undergo changes across all states and the research serves to highlight some potential outcomes. Education is about helping students within classrooms as they are the future of the country we live in.

# CHAPTER THREE:
# METHODOLOGY

## INTRODUCTION

This chapter describes the steps taken to test the hypothesis discussed in the previous section. The research model gives a visual representation of the methodology and the data collected to examine differences between school districts in Texas, that meet educational standards and those that do not. The data used to test differences between school districts was drawn from the 2016-17 Texas Academic Performance Report (TAPR).  This chapter also discusses how the underperforming districts and comparison group districts were selected. In addition, the statistical procedures used to test the hypothesis are discussed. All concepts presented in this chapter explain the procedures that address the research question. After, the results of the research will draw new conclusions about the links between school districts that met requirements and school districts that need improvement.

## RESEARCH MODEL

The research model in this chapter is a quasi-experimental design. White and Sabarwal state that quasi-experiments, "identify a comparison group that is as similar as possible" to the research group being studied" (2014, p. 1). A quasi-experimental design by definition lacks random assignment, which if the comparison group was selected randomly and assigned, it would be a true experimental design. Researchers use the quasi-experimental design when randomization is not possible.

OPERATIONALIZING THE HYPOTHESIS

The purpose of this section is to describe the existing data used for this hypothesis and the relationship they have to school district performance. The data pulled comes from the 2016-17 Texas Academic Performance Report and accountability ratings on TEA's website. The reports combine district and campus academic performance, financial reports and information about staff, programs, and demographics. Per the Texas Education Code §39.306, each district's board is required to publish an annual TAPR report on their school website. Each TAPR has an improvement plan that includes academic objectives and compiles most data sets at a specific point in time to create an annual statistic. The accountability ratings are from the office of academics at TEA and list all districts that met standards and districts that did not meet standards.

The TAPR breaks down an individual campus, district, region or state report to give more breadth for results. The information accurately comes from each ISD and identifies performance results. The results allow for comparisons across school districts, which for example breaks down gender, grade level and subjects for a targeted review. The accountability ratings breakdown the school districts that need improvement, which serves as the foundation for the underperforming districts and comparison group. The list of schools has both ISD and charter schools, for this methodology the focus are school districts.

Table 3.1 operationalizes the hypotheses. It identifies the independent and dependent variables, specifies the direction or the hypotheses, and shows how the variables are measured and the source of the data. The research model used for this design was develop from existing literature and models framework used to operationalize the hypotheses (Shields and Rangrajan, 2013). The hypotheses are concerned with the effects of teacher pay on school district

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performance (e.g., teachers would receive higher pay at districts that meet standards and less at those that improvement is required). In addition it is expected that school districts with more male teachers would be higher performance. Teacher experience should be higher in districts that meet standards that districts that do not meet standards. Lastly, school districts with higher teacher to pupil ratio would be less likely to meet standards and those with fewer students per teacher.

<p style="text-align:center">Table 3.1 - Operationalization Table</p>

| Variables | Meets Requirements | Improvement Required | Measurement | Sources |
|---|---|---|---|---|
| Dependent Variable | | | | |
| School District Performance | | | 1= met performance standard<br><br>0= did not meet performance standards | TEA Final 2017 Accountability Ratings |
| | | | | |
| Independent Variables | | | | |
| H1: Teacher Pay | + | - | Average Teacher Compensation/Merit Pay in Texas ISD | 2016-17 Texas Academic Performance Report (TAPR) |
| H2: Male Teachers | + | - | % of Male Teachers working in Texas ISD | 2016-17 TAPR |
| H3: Teacher Experience | + | - | Average Years' Experience of Teachers for Texas ISD | 2016-17 TAPR |
| H4: Pupil to Teacher Ratio | - | + | Teacher to Pupil Ratio by enrollment in Texas ISD | 2016-17 TAPR |
| Control Factors | | | | |
| Region | | | 1 to 20 | 2016-17 TAPR |
| Economic Disadvantaged | | | % Disadvantaged in Texas ISD | 2016-17 TAPR |
| English Language Learners (ELL) | | | % English Language Learners | 2016-17 TAPR |

Table 3.2 is a figure of the Texas School's by Region. There are a total of 20 different regions in Texas that serve more than five million students. Across the whole state are a total of 1,203 districts for the 2017 school year (State Accountability Results 2017, p. 1).

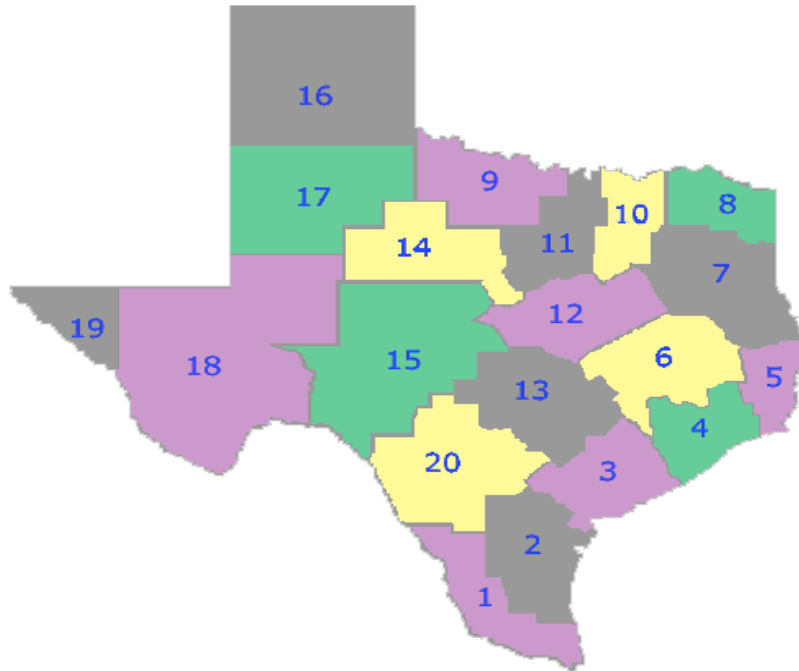Table 3.2 - Texas Independent School District Regions

Table 3.3 is an illustration of a TAPR pulled for Hearne Independent School District (HISD), which did not meet requirements. This report is pulled for each ISD from underperforming districts and districts that met requirements. The highlighted results shown are for the percent of economically disadvantaged and English Language Learners (ELL). The columns used for this research are the percent at this district, which the economically disadvantaged has 94.4% and the ELL totals 16.2%. The detailed report will also provide a count that specifies how many are affected. Also, the very last column provides the state average and represents each district measure to the state average.

<u>Table 3.3 HISD Economically Disadvantaged and ELL Percent's</u>

District Name: HEARNE ISD
County Name: ROBERTSON
District Number: 198905

TEXAS EDUCATION AGENCY
**Texas Academic Performance Report**
**2016-17 District Profile**

| Student Information | District Count | District Percent | State Count | State Percent |
|---|---|---|---|---|
| Total Students: | 875 | 100.0% | 5,343,834 | 100.0% |
| Students by Grade: | | | | |
| Early Childhood Education | 2 | 0.2% | 13,821 | 0.3% |
| Pre-Kindergarten | 55 | 6.3% | 223,833 | 4.2% |
| Kindergarten | 54 | 6.2% | 371,682 | 7.0% |
| Grade 1 | 64 | 7.3% | 395,568 | 7.4% |
| Grade 2 | 69 | 7.9% | 408,582 | 7.6% |
| Grade 3 | 56 | 6.4% | 412,581 | 7.7% |
| Grade 4 | 71 | 8.1% | 410,882 | 7.7% |
| Grade 5 | 78 | 8.9% | 400,016 | 7.5% |
| Grade 6 | 51 | 5.8% | 398,017 | 7.4% |
| Grade 7 | 66 | 7.5% | 396,001 | 7.4% |
| Grade 8 | 60 | 6.9% | 392,231 | 7.3% |
| Grade 9 | 83 | 9.5% | 431,486 | 8.1% |
| Grade 10 | 72 | 8.2% | 395,057 | 7.4% |
| Grade 11 | 58 | 6.6% | 363,655 | 6.8% |
| Grade 12 | 36 | 4.1% | 330,422 | 6.2% |
| Ethnic Distribution: | | | | |
| African American | 415 | 47.4% | 673,291 | 12.6% |
| Hispanic | 349 | 39.9% | 2,802,180 | 52.4% |
| White | 96 | 11.0% | 1,499,559 | 28.1% |
| American Indian | 2 | 0.2% | 20,701 | 0.4% |
| Asian | 0 | 0.0% | 224,834 | 4.2% |
| Pacific Islander | 1 | 0.1% | 7,687 | 0.1% |
| Two or More Races | 12 | 1.4% | 115,582 | 2.2% |
| Economically Disadvantaged | 826 | 94.4% | 3,155,117 | 59.0% |
| Non-Educationally Disadvantaged | 49 | 5.6% | 2,188,717 | 41.0% |
| English Language Learners (ELL) | 142 | 16.2% | 1,010,168 | 18.9% |
| Students w/ Disciplinary Placements (2015-2016) | 28 | 2.7% | 74,803 | 1.4% |
| At-Risk | 436 | 49.8% | 2,685,789 | 50.3% |
| Students with Disabilities by Type of Primary Disability: | | | | |
| Total Students with Disabilities | 127 | | 467,611 | |
| By Type of Primary Disability | | | | |
| Students with Intellectual Disabilities | 61 | 48.0% | 207,935 | 44.5% |
| Students with Physical Disabilities | 27 | 21.3% | 102,283 | 21.9% |
| Students with Autism | ** | ** | 58,444 | 12.5% |
| Students with Behavioral Disabilities | 26 | 20.5% | 93,082 | 19.9% |
| Students with Non-Categorical Early Childhood | * | * | 5,867 | 1.3% |

Table 3.4 is an illustration of a TAPR pulled for HISD. The highlighted results shown are for the percent of male teachers and the count of pupil to teacher ratio. The percent of male teachers totals 26.6% and count of students per teacher is 11.9. The report also provides a comparison of the district averages to the state.

Table 3.4 HISD Male Teacher Percent and Student to Teacher Ratio

| Staff Information | District | | State | |
|---|---|---|---|---|
| | Count | Percent | Count | Percent |
| Total Staff | 165.0 | 100.0% | 705,007.9 | 100.0% |
| Professional Staff: | 94.4 | 57.2% | 451,253.5 | 64.0% |
| Teachers | 73.3 | 44.4% | 352,756.1 | 50.0% |
| Professional Support | 10.9 | 6.6% | 70,392.1 | 10.0% |
| Campus Administration (School Leadership) | 6.2 | 3.7% | 20,492.1 | 2.9% |
| Central Administration | 4.0 | 2.4% | 7,613.2 | 1.1% |
| Educational Aides: | 22.8 | 13.8% | 67,934.0 | 9.6% |
| Auxiliary Staff: | 47.7 | 28.9% | 185,820.3 | 26.4% |
| Total Minority Staff: | 103.6 | 62.8% | 346,378.5 | 49.1% |
| Teachers by Ethnicity and Sex: | | | | |
| African American | 26.5 | 36.2% | 35,986.3 | 10.2% |
| Hispanic | 8.0 | 10.9% | 93,694.5 | 26.6% |
| White | 37.8 | 51.6% | 211,028.1 | 59.8% |
| American Indian | 0.0 | 0.0% | 1,243.7 | 0.4% |
| Asian | 1.0 | 1.4% | 5,383.5 | 1.5% |
| Pacific Islander | 0.0 | 0.0% | 1,521.6 | 0.4% |
| Two or More Races | 0.0 | 0.0% | 3,898.4 | 1.1% |
| Males | 19.5 | 26.6% | 83,544.8 | 23.7% |
| Females | 53.9 | 73.4% | 269,211.3 | 76.3% |
| Teachers by Highest Degree Held: | | | | |
| No Degree | 0.0 | 0.0% | 4,333.3 | 1.2% |
| Bachelors | 53.5 | 73.0% | 262,745.0 | 74.5% |
| Masters | 16.8 | 22.9% | 83,426.6 | 23.6% |
| Doctorate | 3.0 | 4.1% | 2,251.2 | 0.6% |
| Teachers by Years of Experience: | | | | |
| Beginning Teachers | 7.0 | 9.5% | 27,413.0 | 7.8% |
| 1-5 Years Experience | 31.0 | 42.3% | 98,846.9 | 28.0% |
| 6-10 Years Experience | 9.0 | 12.3% | 73,646.0 | 20.9% |
| 11-20 Years Experience | 16.5 | 22.6% | 98,156.2 | 27.8% |
| Over 20 Years Experience | 9.8 | 13.4% | 54,694.0 | 15.5% |
| Number of Students per Teacher | 11.9 | n/a | 15.1 | n/a |

Table 3.5 lists the average years' experience of the teachers per district and the average teacher salary for HISD. The columns used for this research are for the district amounts, which the average years of experience is 3.2 and average salary is $47,141. The detailed report has a comparison of the district averages to the state averages for teacher experience and salary.

Table 3.5 HISD Average Teacher Years of Experience and Average Salary

| Staff Information | District | State |
|---|---|---|
| Experience of Campus Leadership: | | |
| Average Years Experience of Principals | 14.5 | 19.5 |
| Average Years Experience of Principals with District | 4.5 | 12.2 |
| Average Years Experience of Assistant Principals | 0.5 | 15.7 |
| Average Years Experience of Assistant Principals with District | 0.0 | 10.1 |
| Average Years Experience of Teachers: | 9.1 | 10.9 |
| Average Years Experience of Teachers with District: | 3.2 | 7.2 |
| Average Teacher Salary by Years of Experience (regular duties only): | | |
| Beginning Teachers | $42,388 | $46,199 |
| 1-5 Years Experience | $43,035 | $48,779 |
| 6-10 Years Experience | $44,939 | $51,184 |
| 11-20 Years Experience | $51,426 | $54,396 |
| Over 20 Years Experience | $58,319 | $60,913 |
| Average Actual Salaries (regular duties only): | | |
| Teachers | $47,141 | $52,525 |
| Professional Support | $51,102 | $61,728 |
| Campus Administration (School Leadership) | $50,071 | $76,471 |
| Central Administration | $57,554 | $100,397 |
| Instructional Staff Percent: | 56.0% | 64.6% |
| Turnover Rate for Teachers: | 53.0% | 16.4% |
| Staff Exclusions: | | |
| Shared Services Arrangement Staff: | | |
| Professional Staff | 0.0 | 1,112.5 |
| Educational Aides | 0.0 | 216.4 |
| Auxiliary Staff | 0.0 | 454.3 |
| Contracted Instructional Staff: | 0.0 | 2,110.5 |

DEVELOPMENT OF THE T-TEST

This study compares two groups, the underperforming group represents districts that did not meet requirements and the comparison group represents school districts that met requirements. This study uses the 2017 TAPR to extract data for school districts within the same geographic regions, similar English language learner rates and economic disadvantaged rates. The underperforming group consists of 26 independent school districts from the list of 42 schools overall for the 2017 Final Accountability Ratings.

The list is comprised from accountability ratings set by TEA. The met standard is the comparison group, which in an experimental design should relate to the experimental group in as many relevant criteria as possible to test for valid outcomes. The information used to select the comparison group came from using the 2017 TAPR search engine from the TEA website. Data for the 2017 accountability ratings were pulled from a total of 1,121 school districts that met standards. For any districts that did not have a matching region by criteria, the closest geographic region was provided. The schools districts that did not meet requirements and met requirements are listed in table 3.6.

Table 3.6 –Paired Texas Independent School Districts

| Not Meet Requirements | Pair # | Met Requirements |
|---|---|---|
| La Villa ISD | 1 | La Feria ISD |
| Nordheim ISD | 2 | East Bernard ISD |
| Hempstead ISD | 3 | Galena Park ISD |
| Spurger ISD | 4 | Sabine Pass ISD |
| Buckholts ISD | 5 | Navasota ISD |
| Calvert ISD | 6 | Onalaska ISD |
| Hearne ISD | 7 | Goodrich ISD |
| North Zulch | 8 | Snook ISD |
| Trinity ISD | 9 | Mumford ISD |
| Etoile ISD | 10 | Broaddus ISD |
| Zavalla ISD | 11 | Overton ISD |
| Winfield ISD | 12 | Mt. Pleasant ISD |
| Three Way ISD | 13 | Lake Worth ISD |
| Groesbeck ISD | 14 | Evant ISD |
| Marlin ISD | 15 | Chilton ISD |
| Bartlett ISD | 16 | Elgin ISD |
| Dime Box ISD | 17 | Luling ISD |
| Prairie Lea ISD | 18 | Flatonia ISD |
| Trent ISD | 19 | Hawley ISD |
| May ISD | 20 | Brady ISD |
| Hart ISD | 21 | Memphis ISD |
| Anton ISD | 22 | Lamesa ISD |
| Wilson ISD | 23 | Spring Lake-Earth ISD |
| Dell City ISD | 24 | Ysleta ISD |
| Sierra Blanca ISD | 25 | Canutillo ISD |
| Natalia ISD | 26 | Poteet ISD |

Table 3.7 reveals paired t-tests used to verify the equivalency of the comparison group. According to Emerson (2017), the paired t-test is a statistical test that compares the mean scores for certain groups. The t-test is considered to be equivalent for both underperforming districts and districts that met requirements based on the two selected variables. The test will determine the strength of the relationship between the two groups and their compatibility. Equivalency is vital to establishing the validity of the comparison group and to controlling for intervening variables. In this case, no significant differences were found between the underperforming

districts and districts that met requirements for economically disadvantaged and English

language learners.

Table 3.7 – Paired t-test Results

| Testing for Validity of Comparison Group Using Paired t-tests | Results |
|---|---|
| Economically Disadvantaged<br>   1.   Not meet requirements (N=26)<br>   2.  Met requirements (N=26)<br>   3.  Mean Difference<br>   4.  t-test<br>   5.  p value | <br>1.  .750<br>2.  .718<br>3.  .032<br>4.  .894<br>5.  .188 |
| English Language Learners<br>   1.  Not meet requirements (N=26)<br>   2.  Met requirements (N=26)<br>   3.  Mean Difference<br>   4.  t-test<br>   5.  p value | <br>1.  .108<br>2.  .131<br>3.  .023<br>4.  -1.70<br>5.  .212 |

DATA ANALYSIS

Once the underperforming and comparison groups were deemed comparable, data relating to the independent variables were collected for the 2016-17 academic year, which is the most current data available to provide accurate information. The four independent variables are teacher pay, male teachers, teacher experience, and teacher to pupil ratio. Data was collected from the TEA website, which annually receives the information from each school district in Texas. All data can be accessed for free through TEA's academic performance databases for all school districts.

The next step in the research was to determine if any observed differences between the two groups were significant. According to Emerson (2017) a t-test makes several group-to-group comparisons to determine if the samples are equal or significantly different. Each value associated with the data should be independent of one another. Since the objective is to measure the difference between two independent groups of school districts, a t-test was selected for this purpose.

School performance measures (aggregated at the district level) were used as the independent variables. The influence of academic performance was examined using four independent t-tests. The tests will show whether or not there was a significant difference between the performance measures of underperforming school districts and districts that met requirements. The next chapter will discuss the results of these tests and whether they support or fail to support the research hypothesis.

CONCLUSION

This chapter discussed the methodology selected in the completion of this study regarding student performance. Existing data was used to both evaluate the comparison group and to test the hypothesis that districts that met requirements and did not meet requirements are related according to the research hypothesis. A comparison group was selected and tested for comparability using paired t-tests. As a result of the t-test, both groups were found to have no significant differences. Next, a quantitative data analysis, in the form of independent t-tests, will be used to test the hypothesis of the four independent variables. The next chapter will introduce and describe the results of the four independent t-tests performed for the research groups.

# CHAPTER FOUR:
## RESULTS

### INTRODUCTION

This chapter tests the research hypothesis and gives the results of the statistical procedures performed for this study. Four separate t-tests were performed in order to test if school districts, which do not meet standards would have lower teacher pay, male teachers, teacher experience and higher pupil to teacher ratios than schools that met requirements. The results of these tests are summarized and presented in tabular form.

### INDEPENDENT T-TEST RESULTS

Table 4.1 depicts the results of the data analysis, which reveals there is a significant difference between the underperforming districts and districts that met requirements for two of the four academic performance hypotheses. Half of the expected results failed to support the hypothesis for districts that met performance and districts that did not.

Teacher pay showed variation between the underperforming groups and comparison groups. The underperforming group had an average of $43,291.77, the comparison group had an average of $46,173.42, and the difference in pay was $2,881.65. The hypothesis is supported and the t-test revealed the results for teacher pay did achieve statistical significance.

The proportion of male teachers had different results than expected. The underperforming schools had 28% male teachers and the comparison group totaling 24%. The underperforming school districts actually had more male teachers than schools that met performance. The results were fairly close, with the difference in percent totaling .04%. Based on evidence from the data revealing more male teachers in underperforming districts, the hypothesis is not supported.

Teacher experience revealed underperforming districts averaged 4.73 years of teacher experience and the comparison group with 7.02 years. There was a slight difference in experience of 2.29 years. The hypothesis is supported and the t-test revealed the results for teacher experience did achieve statistical significance.

The pupil to teacher ratio showed a significant difference, but not what was expected of the hypothesis. The ratio was in fact lower at underperforming schools, which averaged 10 students per teacher and the comparison group with 12 students. Both groups having a small amount of students per class is due to being located in rural areas. Along with smaller pupil to teacher ratios in most rural areas, there are also less schools within each ISD for students to attend. Due to having less students in underperforming districts, the hypothesis is not supported.

Both the districts that did not meet requirements and met requirements saw some very significant differences in their averages. A higher percentage of male teachers was present at underperforming school districts and a greater pupil to teacher ratio at districts that met requirements. It appears that two of the four hypothesis are not supported as a result of the data pulled.

Based on the findings of the two groups, the data showed that teacher pay and teacher experience were the only groups with significant statistical differences. The t-test proved teacher pay and teacher experience has an impact on student performance and how well a school district performs. The evidence from the report failed to support that school district performance is significant for half of the hypotheses. Table 4.1 illustrates the independent variables used and the data calculated from the t-test for underperforming districts and districts that met requirements.

Table 4.1 - Independent t-test Results

| Independent Variable | Results |
|---|---|
| Teacher Pay<br>    1.  Not meet requirements  (N=26)<br>    2.  Met requirements (N=26)<br>    3.  Mean Difference<br>    4.  t value<br>    5.  p value | <br>1.  43291.77<br>2.  46173.42<br>3.  2881.65<br>4.  -2.24<br>5.  .015 |
| Male Teachers (Percent)<br>    1.  Not meet requirements (N=26)<br>    2.  Met requirements (N=26)<br>    3.  Mean Difference<br>    4.  t value<br>    5.  p value | <br>1.  .28<br>2.  .24<br>3.  .04<br>4.  1.32<br>5.  .096 |
| Teacher Experience (Years)<br>    1.  Not meet requirements (N=26)<br>    2.  Met requirements (N=26)<br>    3.  Mean Difference<br>    4.  t value<br>    5.  p value | <br>1.  4.73<br>2.  7.02<br>3.  2.29<br>4.  -2.815<br>5.  .003 |
| Pupil to Teacher Ratio<br>    1.  Not meet requirements (N=26)<br>    2.  Met requirements (N=26)<br>    3.  Mean Difference<br>    4.  t value<br>    5.  p value | <br>1.  10.09<br>2.  12.78<br>3.  2.69<br>4.  -3.57<br>5.  .000* |
| *The findings were in the opposite direction, with a significant difference in both groups that is not supported by the hypothesis. | |

Table 4.2 represents the summary of results table, which summarizes the findings of the hypotheses and the results. The last column indicates whether the findings provided sufficient evidence to support the hypothesis. Only H1 (Teacher Pay) and H3 (Teacher Experience) were supported and H2 (Male Teachers) and H4 (Pupil to Teacher Ratio) failed to support the hypothesis.

Table 4.2 Summary of Results

| Variables | Meets Requirements | Improvement Required | Evidence (Supported/Failed to Support) |
|---|---|---|---|
| Dependent Variable | | | |
| School District Performance | | | |
| | | | |
| Independent Variables | | | |
| H1: Teacher Pay | + | - | Supported |
| H2: Male Teachers | + | - | Failed to Support |
| H3: Teacher Experience | + | - | Supported |
| H4: Pupil to Teacher Ratio | - | + | Failed to Support |

CONCLUSION

This chapter describes the results of the quasi-experimental study collected for the underperforming districts and districts that met requirements. The hypothesis was that school districts that do not meet standards would have lower teacher pay, male teachers, teacher experience and higher pupil to teacher ratios than schools that met requirements. The tests showed that there were only two significant differences, which were teacher pay and teacher experience. The next chapter discusses some of the possible explanations for these results along with suggestions for future research.

# CHAPTER FIVE:
## SUMMARY AND CONCLUSIONS

## RESEARCH SUMMARY

The purpose of this research was to identify the factors that distinguish a school district which meets standards from those which do not meet standards. Chapter one introduced the topic of the research. Chapter two began a review of the literature with a comprehensive history of educational policy. Discussed were the governmental policies, acts that shaped American education systems. This research project used a comparative analysis to study the differences between the two groups of school districts. The conceptual framework and research hypothesis can also be found near the end of this chapter.

The third chapter describes the research methodology developed to address the research question. An analysis of existing data was selected as the research model. The underperforming group consisted of Texas Independent School Districts that did not meet requirements for the 2016-17 academic year. A comparison group was selected and verified using the paired t-tests. A statistical analysis was utilized to measure the difference between the underperforming and comparison groups, since the data is largely quantitative.

Chapter four was the results chapter. The results show there is a statistical difference between two hypotheses, which are teacher pay and teacher experience. The key finding was that teachers in underperforming districts have significantly less teacher pay and teaching experience. The results supported are factors that distinguish performance in school districts and only half of the hypotheses were statistically significant.

POSSIBLE EXPLANATIONS

There are a few explanations for the results that were obtained through this research. One idea is the period of time used for this research is only one academic school year, which targets current performance and not performance over a longer period of time. The average teacher pay, experience, male teachers and pupil to teacher ratios could have different results if a ten year study was conducted. A longer timeline for the research could help distinguish other factors unaccounted for in this study and draw further conclusions to factors affecting school district performance.

Another factor to consider are the results of the study point to the benefits of teacher experience in school district performance. A majority of the school districts for the underperforming group were in rural regions of Texas, which had less experience and pay. Pay and experience impact teacher retention and would likely leave lower paying districts to pursue higher income elsewhere. Therefore, school districts with lower salaries are more likely to have teachers with less experience, which affects student performance.

Finally, one last idea to consider is that school districts are focused on meeting state requirements for testing that the quality of education in classrooms can diminish. School districts are focused on meet expectations or they risk receiving less funding to provide the best education available. School districts have to maintain adequate yearly progress and keep up with current requirements for academic performance.

# RECOMMENDATIONS FOR FUTURE RESEARCH

Sometimes the actual results can be unexpected. This study was performed to look at the Texas education system and how well school districts perform. Due to results being unexpected for this study, another approach is to look at different regions throughout Texas and determine what the impacts are on school district performance. The state of Texas is vast, with 20 different education regions that can provide a different explanation on student performance.

Another factor to consider is the highest degree held by teachers and how a majority of teachers have a bachelor's degree, but not an advanced degree. Having an advanced degree not a requirement at independent school districts. The level of education obtained can change how well students perform in classrooms and the overall quality of education for a school district.

# CLOSING REMARKS

This research does not in any way undermine the hard work to maintain adequate student performance and the amount of time faculty contributes to provide the best education possible. If anything, this research has highlighted factors impacting school districts and identifies key components affecting student performance. If school districts are expected to meet requirements, they need all the resources possible to meet those expectations.

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