

THE RELATIONSHIP BETWEEN ACADEMIC PERFORMANCE AND STUDENT  
MOBILITY, GENDER, ETHNICITY, SOCIOECONOMIC STATUS, AND  
NUMBER OF MOVES

A Dissertation

by

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December 2020



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## ABSTRACT

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This study analyzes the relationship between student mobility, reading and math scores, gender, ethnicity, socioeconomic status (SES), and the number of moves by students during their academic years. Data were taken from four different high schools during the 2015-2016, 2016-2017, and 2017-2018 school years. The purpose of this study was to determine if student mobility when considering gender, ethnicity, SES, and number of moves impact a student's reading and math scores. The study will provide educational leaders, community, and parents with valuable data to make informed decisions with regards to instructional adjustments and school changes for mobile students. The null hypothesis for this study was tested with an  $F$  distribution with an alpha level of .05.

Since the establishment of the Federal *No Child Left Behind Act of 2001 (NCLB)*, and the accountability system that schools are continually being evaluated on; school administrators and district leaders have tried to adjust instruction to meet all student's needs. With this study the researcher attempts to identify the implications that student mobility based on gender, ethnicity, socioeconomic status, and frequency of mobility had on student's academic performance in reading and math. In this quantitative correlational research study, the research consisted of correlational research, which was conducted by using SPSS software program, PEIMS data and STAAR EOC state assessment results to determine how mobility impacted a student's academic

performance when compared to nonmobile students. The research analyzes the data to determine if mobile students are more prone to struggle when comparing success on state assessment in reading and math. The research was conducted by collecting data from four different high schools in a school district along the Rio Grande Valley of Texas that was identified as having higher than state average mobility rates. The data will be collected from the Texas Education Agency (TEA) and district PEIMS school records.



## DEDICATION

The completion of my doctoral studies would not have been possible without the total support of my family. First, I must give thanks to my wife, Lina who motivated and persisted that I could do more than I thought was possible. Likewise, thanks to my children Sophia, Sarah and John who continually gave me reasons and examples of what one can do when we set our mind to a goal. I also must give thanks to my mom, who is the strongest and most determined woman that I know and her never give up attitude continually drives me to reach new heights. Finally, I would like to thank my extended family, sisters Becky and Elena, brother Lupe, my aunts Emma, Licha, Lupe, my uncle Joe, all my cousins, nieces and nephews for continually understanding my warped sense of humor and sharing your love and support for me to continue with what seemed like an endless journey.

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## CHAPTER I

### INTRODUCTION

Student mobility is not a new phenomenon to public education and American children and families have the highest mobility rate in the industrialized world (Mehana & Reynolds, 2004). The effect that mobility is having on student's performance, has become a concern for everyone from campus teachers and administrators to district leadership (Mehana & Reynolds, 2004; Rumberger, 2003; Heinlein & Shinn, 2000). Although mobility may be difficult for educators to control, the strategies with which mobile students are educated can be adjusted to improve their success (Heinlein & Shinn, 2000; Thompson, 2011). Research clearly shows that mobility has been recognized throughout the educational arena as a significant factor to student's educational growth (Rumberger, 2003). In 1990-91 only 17 percent of third grade students participating in the mathematics portion of the National Assessment of Educational Progress (NAEP) had attended three or more schools since first grade, however by 1998, 34 percent of fourth graders had changed schools at least once in the previous two years (U. S. Government Accountability Office, 1994). School mobility has not only been linked to have a significant effect on student academic performance, but also on high school completion rate (Osher, Morrison & Bailey, 2003).

While some student mobility impacts all students because they are planned and built into the academic growth of students, such as from elementary to middle school and eventually high school, this study looks to focus on unintended moves. The issue with student mobility is not

limited to a specific race, ethnic group, or any socioeconomic class, however it may have a larger effect on minorities and students from low socioeconomic status (Heinlein & Shinn, 2000; Gullion, 2009; Wolk, 2009). In Rumberger (2015) data gathered indicated that the majority of students (41.9%) in the U.S. make at least one non-promotional school move between kindergarten and fifth grade, with a sizable minority (24.1%) making two or more moves. As more research is conducted on student mobility and the educational effects of such continued movement, it is evident that this phenomenon is not limited to children of migrant farm workers as was prevalent during the mid-1900's (Parke & Kanyongo, 2012; Gibson & Hidalgo, 2009).

Research conducted by Mao, Whitsett and Mellor (1998) and Thompson (2011) indicated that mobile students score lower on state standardized test, and negative relationships became stronger with students from low socioeconomic backgrounds. Mobile students also show lower academic achievement and an increase in behavior problems when compared to the general non-mobile population (Thompson, 2011). Thompson (2011) also reported that research which focused on minority students from African American and Hispanic ethnicity groups were more likely to be mobile than their middle-income white peers. Gruman, Harachi, Abbott, Catalano and Fleming (2008) found that students with changes during their elementary years tend to participate less in classroom discussion and experience a decline in academic performance. Similarly, Heinlein and Shinn (2000) found that there was a strong correlation with academic performance between third-grade achievement and high mobility with scores of more than 6 percentage points lower in math and 3 points lower in reading.

In addition to mobile students performing lower on state standardized test, teachers also start viewing nonmobile students as more academically competent than students who experience a high rate of mobility (Wolff Smith & Beretvas, 2017). While the causes of student mobility

range from personal decisions to behavior; the most common cause for a change of school is a change in residential status (Rumberger, 2003). Sometimes student mobility is initiated by families or students in search of a better educational environment or to enroll in a specific program of study such as an early college or career academy (Rumberger, 2015). More recently, mobility has increasingly been caused by school district's open enrollment policies as student enrollment are declining due to charter schools moving into a district and drawing students from traditional public schools (Pharr-San Juan-Alamo ISD, 2014; McAllen ISD, 2014). School districts have been forced to consolidate campuses and close schools due to decline in student enrollment and budget shortfalls. Rumberger (2015) indicates that all moves can have a significant effect on student achievement, however, voluntary moves are often planned and take place between school years and minimize disruptions. Contrary to involuntary moves that often occur during the school year causing disruptions to the student's educational experience. Additionally, students may be forced to move schools due to discipline reasons, such as suspension and or expulsions (Rumberger, 2015).

In studies conducted by Parke and Kanyongo (2012) only 38% of students in Chicago Public Schools attended the same elementary school throughout their elementary years, while in southern California, schools reported four to ten new students enrolling every month. Although, students from both high and low socioeconomic classes move throughout a school year, studies by Wright (1999) identified that higher income student's mobility are into or out of a district, while lower income students tend to move more often within the same school district. In studies by the U.S. Government Accountability Office (2012), 34% of students from poor backgrounds moved at least twice between kindergarten and 8<sup>th</sup> grade; and of those an overwhelming number are students with disabilities and English language learners.

With more schools opting for school of choice options or open enrollment policy, school mobility will only become a larger issue throughout Texas and the U.S. Since the inception of the Federal *No Child Left Behind Act of 2001 (NCLB)* more districts have been required to offer school of choice when students are in underperforming schools which has only added to the occurrence of student mobility (Phillips, Housman & Larsen, 2012). While district leaders may feel that the choice of school option will maintain enrollments, research reveals that students with multiple transfers have more academic, social and behavior issues than students with stable household and schooling (Thompson, 2011). In a Texas study reported by Rumberger (2015) research found that student mobility in schools had a dramatic negative effect on student achievement for all students in the school.

### **Statement of the Problem**

Public school students change schools many times between the time they start in kindergarten to their final year in high school (Phillips, Hausman & Larson, 2012; Fordham, 2012; Heinlein & Shinn, 2000). Some of these school moves are normally planned into a student's social growth, such as middle school or high school, while others are not. Larger school district may have several more moves based on facilities, while some smaller school districts may not have any promotional school moves as students attend the same school from kindergarten through high school graduation. The effect that these moves can have on a student's academic success can be magnified when looking at academic success in reading and math. Although school moves for promotional reasons were only one aspect of this study; the movement of students based on family needs and or personal decisions can also have a major impact on how students perform on state mandated standardized test.



Student mobility in the United States has for years had a major impact on how students interact in schools and perform on standardized state assessments (Phillips, Hausman & Larson, 2012). Since, more school districts have adopted some type of open enrollment or school of choice policy in order to increase or maintain student enrollment, school mobility has become a common practice throughout public schools along the Rio Grande Valley and the Texas/Mexico border region. This constant mobility has caused school administrators and teachers to attempt different intervention strategies like tutoring, flexible scheduling, additional time in remedial classes and/or placement in classes designed for struggling students to ensure their success on state assessments (Isernhagen & Bulkin, 2011).

Student relocation may be due to a multitude of reasons from family issues, such as divorce, change in employment or other family concerns (Thompson, 2011). The complexity of school moves can be classified in three different categories. Voluntary which are moves initiated by parents and or students and occur for a multitude of reasons. Parents choose to move their children for family, financial, or convenience, such as a move closer to home, or a parent workplace. These moves are the most common moves and are usually the moves that effect most students, especially students from minority ethnic backgrounds or lower socioeconomic households (Thompson, 2011).

Involuntary moves are moves initiated by a school or district and usually involve or are generated due to a school expulsion or placement at an alternative schooling campus. Likewise, these types of moves have the largest impact on minority and students from low socioeconomic status (Thompson, 2011). A similar category of school moves that fall into this involuntary category is schools impacted due to low performance or low enrollment. In schools and district throughout the country, budget cuts, declining enrollment, and academic underperformance has

forced students to transfer to other district schools (Rumberger, 2015). With the ever-increasing number of new charter schools throughout the state, public school district enrollment has taken a toll on enrollment numbers.

The third and final type of moves are a structural move and although these moves are also initiated by a school or campus, these moves impact all students. These moves occur to transition students during the natural socio development of age progression. Each of these moves whether voluntary, involuntary, or structural, can have a different and or significant impact on a student's academic success (Rumberger, 2015).

### **Need for the Study**

Research that has investigated variables such as reading and math academic success with regards to gender, ethnicity, socioeconomic status, and number of moves in one and the same study is limited. With the recent increase of districts opting for school of choice, student mobility has become more common with some schools' mobility rate increasing from 15.7% in 2016 to 39.7% in 2017 (TEA School Report Card, 2019). Some of the studies that have been conducted, focus on academic achievement and either reading or math and compared with mobility, however none have looked at how the variables selected for this study effect a student's academic success (Parke & Kanyongo, 2012; Fiel, Haskins & Lopez-Turley, 2013; Mehana & Reynolds, 2004). What is known is that researchers found negative correlation between mobility and academic performance (Parke & Kanyongo, 2012; Guillion, 2009; Phillips, Housman & Larsen, 2012), when considering how other factors influence mobility with classroom participation, retention rates, and increase in dropout rates (Gruman et al. 2008) and Mehana and Reynolds (2004) explained the specific ecological reasons. Thus, a study such as this was necessary and needed to inform the educational communities, specifically those servicing

students with high mobility rates, low socioeconomic status, and minority ethnicity groups of the effects mobility has on a student's academic performance.

### **Purpose of the Study**

The purpose of this study was to identify the relationship that student mobility has had on students' reading and math academic performance with regards to gender, ethnicity, socioeconomic status, and number of moves. With this research the researcher attempted to identify the relationship between student mobility, student's academic success and a selected number of other variables in the hopes of helping the educational community identify strategies, or interventions to minimize or reduce the effects that mobility has on students. Fiel et al. (2013) identify several interventions that helped reduce negative effects caused by a students' mobility such as building relationships, academic interventions, and a strong home support mechanism. However, with the constant mobility of students, their gaps in learning are at times overwhelmingly larger than what can be recovered in a school year. The research focused on how mobility may be impacting some students more than others based on gender, ethnicity, and socioeconomic status. Additionally, the researcher attempted to bring to light for the educational community that when at all possible, structural or involuntary mobility caused by schools and or districts should be limited if not prevented.

A second purpose of the research was to gain in-depth information on how too many moves can significantly impact a student's academic success. While a family's reason to move may be voluntary, in many instances school district mandate a student's move for disciplinary, rezoning, and other reasons beyond a family's control. Informing school districts and campus administrators on how mobility can impact a student academically may help educational leaders minimize the involuntary moves that students are required to make because of district decisions.

## Research Questions

The research questions that guided the researcher in the conduct of the study were as follows:

1. What is the relationship among academic performance on state assessment in English I 2015-2016 school year and mobility when measured with number of moves, gender, ethnicity, and SES?
2. What is the relationship among academic performance on state assessment in English I 2016-2017 school year and mobility when measured with number of moves, gender, ethnicity, and SES?
3. What is the relationship among academic performance on state assessment in English I 2017-2018 school year and mobility when measured with number of moves, gender, ethnicity, and SES?
4. What is the relationship among academic performance on state assessment in English II 2015-2016 school year and mobility when measured with number of moves, gender, ethnicity, and SES?
5. What is the relationship among academic performance on state assessment in English II 2016-2017 school year and mobility when measured with number of moves, gender, ethnicity, and SES?
6. What is the relationship among academic performance on state assessment in English II 2017-2018 school year and mobility when measured with number of moves, gender, ethnicity, and SES?

7. What is the relationship among academic performance on state assessment in Algebra I 2015-2016 school year and mobility when measured with number of moves, gender, ethnicity, and SES?
8. What is the relationship among academic performance on state assessment in Algebra I 2016-2017 school year and mobility when measured with number of moves, gender, ethnicity, and SES?
9. What is the relationship among academic performance on state assessment in Algebra I 2017-2018 school year and mobility when measured with number of moves, gender, ethnicity, and SES?

### **Overview of Methodology**

In this quantitative correlational research approach (Gay, Mills & Airasian, 2012) using multiple linear regression analysis, the researcher attempted to determine if a student's mobility showed a significant relationship among a student's academic performance with regards to reading and math, gender, ethnicity, socioeconomic status, and number of moves. A multiple linear regression study describes the degree that one or more independent variables influence a dependent variable using a regression coefficient (Gay et al., 2012). In this case the researcher will analyze how academic performance in reading and math is influenced by number of moves, gender, ethnicity, and low socioeconomic status. The researcher analyzed numerical data from several sources in four different high schools in the Rio Grande Valley of Texas who have been determined to have a high mobility rate (TEA, School Report Card, 2019). Through an analysis of PEIMS data and STAAR state assessment results a determination was made if students who experience multiple moves throughout their school years scored lower on standardized state assessments.

The data were gathered on an excel spreadsheet and transferred onto a statistical software package known as Statistical Package for Social Science (SPSS). The SPSS program allows for the substituting and managing of independent variables (moves, gender, ethnicity, and socioeconomic status) to determine if the dependent variable (academic performance) in reading and math was influenced. More detailed information on research methods is discussed in Chapter 3 Methodology.

### **Definition of Terms**

Some terms used in this study have a special meaning and are defined in this subsection of the dissertation.

Algebra I- Mathematics course take by all students either in middle school or high school and required for graduation.

End of Course (EOC) - exam taken by all high school students after completion of a course and required for graduation

English I/II- English course take by all freshmen and sophomore high school students and required for graduation.

ELA – English Language Arts

English Learners (EL) - students classified by the state as student who have not completely mastered the English language.

Hispanic - ethnic classification for students of Latin decent enrolled in a public school.

Mobility - the number of times a student moves from one school to another.

Public Education Information Management System (PEIMS) - encompasses all data requested and received by TEA about public education, including student demographic and academic performance, personnel, financial, and organizational information.

Social Economic Status (SES) – term used to identify student’s parents’ financial status; usually used to determine if students qualify for free or reduced lunch.

Statistical Package for Social Science (SPSS) – software program used to analyze data. Program allows for the controlling of independent variables to determine the effect that each may have on a dependent variable.

State of Texas Assessment of Academic Readiness (STAAR) – annual assessment designed to test students learning and administered to all students from grades 3-11.

Texas Education Agency (TEA) - state agency that oversees primary and secondary public education.

### **Significance of the Study**

This study attempted to shed light on the importance of student mobility and the effect that mobility is having on a student’s academic performance. As research demonstrated that while minority students and those from lower economic backgrounds tend to have higher mobility rates, even student from affluent homes and backgrounds perform lower on standardized test when affected by higher mobility throughout their educational lifetime (Gullion, 2009; Phillips, Hausman & Larsen, 2012; Parke & Kanyongo, 2012). Stites, (2012) presented in his research of military dependent children that although the constant moves by military children had little effect on the social emotional well-being; the effect on academic achievement was adverse with the frequent relocations. Heinlein and Shinn (2000) found that in New York City, students with high mobility scored 6.2% lower in mathematics and 3% lower in reading as compared to students with less or no mobility. In a 2011 study conducted by Thompson, Meyers and Oshima, mathematics, language, and reading scores of students who had multiple moves within a school district also showed moderate to high negative correlation on

standardized test scores. Finally, in a study conducted by Gullion (2009) the movement of students between states showed to have a significant impact on student performance especially for minority students with Hispanics scoring 26% lower than students identified as white.

With the continued increase in open enrollment across the state and throughout the Rio Grande Valley, this study can bring to light some of the negative effects that mobility is having on students. Educational leaders and administrators may be able to gain some knowledge on how students from low socioeconomic backgrounds, minority, and families that are highly mobile can be better served throughout their districts and communities. Since research is limited on this topic and variables, the results of this study will inform educational leaders about the current state of student mobility in South Texas, and by doing so some recommendations for practitioners may evolve from this knowledge.

### **Limitations of the Study**

The study was limited to the data gathered from the participating high schools and district and may not fully represent a state-wide trend. While student mobility has been a common occurrence throughout the history of public education, the recent state and federal accountability system has placed a more significant importance on the effect that this has on student outcomes. Since there is little to no federal or state data reporting on mobility, data gathering from districts is limited to that which each school district could provide for this research.



## CHAPTER II

### REVIEW OF LITERATURE

This chapter is divided into several subsections that address issues of current student mobility and the effect that this mobility has on students' academic success. The first section on mobility and test scores provide some current research on how students who have a high mobility rate are affected by the result of a student's more than normal moves. The sub-section on intra-district mobility draws attention to the concerns of school districts that have opted to allow students to attend any school within their district without regard to school boundaries. Currently, more and more districts in the Rio Grande Valley and throughout the state have changed enrollment policies and accept students into their schools without regard to school or district boundaries. The intra-state section brings to light issues with the mobility of students moving from one district to another, from state to state or migrating for temporary agriculture employment. Many families in the Rio Grande Valley migrate in search of seasonal farm work which causes many students to leave school early or arrive after the beginning of the school year. This section addresses some effects that these seasonal moves have on a migrant student's academic success. Finally, the last two sections of the chapter identify some additional effects that mobility has on students' academic performance and some initiatives by district to help curtail or counter the negative effects student mobility is having on students' state assessments.

Student mobility is a growing concern throughout the United States and the effect that it is having on student success is continually being analyzed, with much discussion being generated on whether a student's academic performance is affected by his or her constant mobility. The United States has one of the highest mobility rates of any developed country with nearly one fifth of all-American children moving annually (U.S. Government Accounting Office, 2010). Several studies have focused on how mobility impacts school performance and most studies have found a negative correlation with mobility and academic performance (Parke & Kanyongo, 2012; Gullion, 2009; Phillips, Hausman & Larsen, 2012). Academic performance is only one, but not the lone factor impacted by student mobility; Gruman, et. al., (2008) also revealed that classroom participation, retention rates and an increase in dropout rates are factors that increase due to student mobility.

Mehana and Reynolds (2004) concluded that although children change schools for a variety of reasons, from dissatisfaction of school to residential changes, there are many studies that revealed that school mobility increase the risk of academic difficulties to include low academic achievement and an increase of suspension from school. The ecological impact that changing schools has on a child, increases the risk factor of interrupting the learning environment. Consequentially, Mehana and Reynolds (2004) identified three explanations why school mobility is associated with lower academic achievement. First, the difference in curricular from one school to another, disrupts the student's instruction. Second, the relationships that students build with classmates can be disrupted, thus affecting a student's social environment and finally, mobility is a result of economic hardships in a child or families lives, which is also associated with low socioeconomic status, minority ethnic backgrounds, and homes whose primary language is not the English language (Mehana & Reynolds, 2004; Rumberger, 2015).

A study conducted by the U.S. Government Accountability Office (GAO) in 2010, followed a cohort of kindergarten students from 1998 to 2007 and found that 13% of the students changed schools four or more times, 18% changed schools three times, 65% changed schools once or twice and only 5% of the students did not change schools by the time they reached eighth grade. Student mobility is commonly linked to be most damaging to students from certain subgroups such as, students from urban school districts, low income and minority students (Welsh, 2018). Likewise, parents continue to be a major factor in the increasing phenomena since many causes of school mobility are generated from parental or family decisions such as change in employment, marriage or divorce, or other family situations causing a change in residency (Parke & Kanyongo, 2012). Although initial analysis of the results presented show that students who have a high mobility rate do in fact perform lower on standardized assessment, many other factors must be considered before a conclusion can be reached (Wright, 1999).

While student mobility is not only common among or limited to a specific race or ethnic group studies have found that Black and Hispanic students, English language learners, students of low socioeconomic status, students from single parent homes, and students with disabilities have a higher risk of being affected as a result of student mobility (de la Torre & Gwynne, 2009; Fong, Bae, & Huang, 2010; Jimerson, Anderson, & Whipple, 2002; Rumberger & Larson, 1998). Evidence suggest that most students moves are initiated by the students and/or parents' decisions, however some student mobility is initiated by the schools. In more recent years with the inception of charter schools, many districts have opted to implement some type of open enrollment policies allowing students to apply and transfer schools without regard to established district boundaries (Pharr-San Juan-Alamo ISD, 2014; McAllen ISD, 2014; Donna ISD, 2019; Weslaco, 2019). In addition, schools offering early college academic programs, specific fine arts

programs, and or athletic programs have also had a significant impact on why student mobility has increased (Rumberger, 2003; PSJA ISD, 2014).

Mobility in early grades has also been associated with negative results in language arts, math and reading performance. In a study conducted by Gruman et. al. (2008) of over 1000 students in grades 2<sup>nd</sup> through 5<sup>th</sup>, teachers reported that students were negatively impacted both academically and in classroom participation. Studies have also concluded that students who move during their middle school years face adverse outcomes, including lower high school graduation rate, increases in depression, and criminal activity in their later teen years (Gruman et al. 2008). South, Haynie, and Bose (2007) reported that more mobile students tend to have smaller peer networks, which lead to lower levels of school involvement, lower academic performance, less parental involvement, and ultimately higher dropout rate among these students. Furthermore, South et al. (2007) also found that mobile students who have changed both residency and schools are twice as likely to drop out of school over years' time.

A student's gender can also have a significant effect on the impact caused by school mobility. While males and females develop differently, research shows that the effects of school mobility also impact students of different age levels differently. In a study conducted between 2006-2014 of over 1900 students in the Tulsa Public School system which analyzed if mobility affected a gender more than another, results showed that boys and girls in the elementary levels are not significantly impacted one way or another (Anderson, 2017). However, there was a significant difference in mobility and gender at the middle school level, with boys being impacted less when comparing GPA's with girls. Girls displayed a lower GPA and demonstrated higher symptoms of depression when compared with their teen male counterparts (Anderson,

2017). In general, both male and female students who experienced mobility in middle school demonstrated significant lower math scores in addition to lower GPAs (Anderson, 2017).

During the early part of the 2000's, a study by Thompson, Meyers and Oshima (2011) revealed that an overwhelming number of Title 1 schools failed to meet Adequate Yearly Progress (AYP) as specified by the NCLB Act of 2001 in large part because of their low performance in reading and math scores. In interviews with school administrators, two-thirds of those surveyed listed school mobility as a major cause of the school's low academic performance (Thompson, et al., 2011). School administrators attributed their school's low performance in reading and math scores to the high number of mobile students and their lapses in a complete educational curriculum due to multiple moves throughout a school year (Thompson, et al., 2011). While many factors can be considered when determining why students experience mobility, one major factor is poverty. The high rate of poverty in families throughout the United States causes children from lower socioeconomic statuses to experience more disruptions in a stable educational setting (Friedman-Krauss & Raver, 2015).

### **Mobility and Test Scores**

In research conducted by Heinlein and Shinn (2000) of 764 sixth grade students from one of New York City's most mobile school districts; students with a high mobility rate scored 6.2% lower in mathematics and 3% lower in reading scores when compared to children with lower or no mobility. This study examined largely minority, low income students which consisted of 54% females and 46% males (Heinlein & Shinn, 2000). The socioeconomic status was controlled by the eligibility for free or reduced lunch, which consisted of 96% of the students qualifying for free or reduced lunch, while the independent variable was school mobility derived from the

number of admissions and discharges in the student's records (Heinlein & Shinn, 2000).

However, in a study contradicting the theory of mobility having a larger impact on students from low socioeconomic backgrounds; Anderson (2017) found that students with paid and reduced lunch experienced more significant declines in math, reading and GPA scores than their free lunch peers, especially when the mobility occurred in the middle school grades.

Additionally, not only does mobility influence academic success, but the age at which the mobility takes place also has an impact. Heinlein and Shinn (2000) also reported that students with two or more moves prior to Grade 3 scored lower than their peers in reading and math and are less likely to be on grade level by Grade 6. Between grades 3<sup>rd</sup> and 6<sup>th</sup> students are likely to have a 20 or more-percentage point decline in reading and math due to multiples moves prior to them reaching 3<sup>rd</sup> grade (Thompson, 2011).

Studies also show that students who have mobility without a change in residence, score lower on standardized state assessments (Heinlein & Shinn, 2000). While more school districts with multiple high schools are choosing to establish open enrollment this phenomenon of student mobility will become a continued issue as students and parents look to move for personal reason as opposed to need. In additional studies, moves between the same school systems shows that some moves are due to the structure of the district organization itself. In school districts with either K-2 or K-3 children were required to move at least once during their early elementary years which can also influence the emotional support of children (Parke & Kanyongo, 2012; Alexander et al., 1996).

## **Intra-district Mobility**

Recently or since the passage of the Federal *No Child Left Behind Act of 2001*, the continued support of the school of choice option has become a widespread phenomenon. However, as discussed in research by Phillips, Housman and Larsen (2012) this school of choice option doesn't provide the same advantages for all students. Research conducted in a small urban school district of roughly 30,000 students, results showed that while almost 20% of the student population participated in intra-district transfers, half of the participants came from disadvantage households, and a small percentage of the transfers were English language learners (27%) as compared with the district population of 43% (Phillips et al., 2012). In other studies, we see that English language learners are more likely to be mobile sometime during their educational school years (Wolk, 2009).

Mobility within a district is also attributed to moderate to high negative correlation between math, reading and language arts achievement in a 2011 study by Thompson, Meyers and Oshima. In addition to high mobility the same study also found that student mobility was more common in mostly single parent homes of students from minority ethnic groups and low socioeconomic statuses. The subject area most affected by the students' mobility was reading, which is also attributed to student's low performance on standardized college acceptance exams (Thompson, et al., 2011).

In a study conducted by LeBoeuf (2013) of over 10,000 students in the School District of Philadelphia slightly more than half (52.8%) of African American students did not experience a school move, while only a little less than a quarter (23.3%) of white students experienced no school moves between first and third grades. Likewise, 47.3% of students experiencing school

moves were either free or reduced lunch with 7.6% making three moves before the end of third grade (LeBoeuf, 2013). Hispanic, special needs, and English language learner students also include a large portion of students affected by mobility, with roughly 20% of each category experiencing at least one school move between first to third grade (LeBoeuf, 2013).

LeBoeuf and Fantuzzo (2018) conducted a study of all third graders in the Philadelphia School District with significant results that demonstrates students who change schools at least once scored almost 10 percent lower in reading than non-mobile students. The study also indicated that a move in first grade was equally harmful than a move in third grade when considering academic results in reading. In research question 2, Leboeuf and Fantuzzo (2018) analyzed the effect that cumulative intra-district mobility had on 3<sup>rd</sup> grade students. Their findings discovered that the average student reading achievement declined by 4.43 points after one school move, and as much as 6.96 points after three school moves. Also identified in other studies school moves require children to readjust to new routines, change in expectations, curriculum, and adapting to a new social environment which may all contribute to the decline in academic achievement for many students (LeBoeuf & Fantuzzo, 2018; Rumberger 2008; Thompson, et al. 2011; Phillips et al., 2012).

In a study in Tulsa, Oklahoma with school choice, administrators rejected the fact that school of choice options are used by parents to seek out higher performing schools, instead parents' use the school of choice options for nothing more than avoiding discipline or personal convince (Rabovsky, 2011). The research conducted by Rabovsky (2011) shows that only 37.5% of respondents labeled the schools performance for their desire to transfer, 41.7% listed discipline or behavior issues and 58.3% identified accessibility to location from home as the main reason for seeking a transfer. While this research did not address the transfer student's



academic performance, we see in other research that the mobility a student has throughout his or her educational lifetime will have a significant impact on their academic performance (Parke & Kanyongo, 2012; Wolk, 2009; Isernhagen & Bulkin, 2011; Gullion, 2009).

### **Interstate and Migrant Mobility**

In similar research by Gullion (2009), movement of students from one state to another show to have a significant impact especially on minority ethnic groups. While the passing rate on the 10<sup>th</sup> grade English and Math sections of the Indiana Statewide Test of Educational Progress Plus (ISTEP+) for children labeled white was 67%, blacks and Hispanics passing rates lagged considerable behind at 26% and 34% respectively (Gullion, 2009). This finding is supported by other studies which show that minorities are also the most mobile groups throughout the country (Alexander et al., 1996; Fiel et al., 2013).

While we see in previous studies that curriculum within a district can vary significantly between one campus to another, curriculum from state to state will have an even greater variance, making gaps in educational continuity that much larger (Gullion, 2009). Even with the push for all states to adopt common core standards, Texas is one of only 4 states who have refused to buy into these standards and have instead held their own state established educational standards (TEA, 2019).

The children of migrant farmworker families are always at risk of failing or not finishing high school due to their high mobility rate. In studies by the U.S. Department of Education, it is estimated that almost half of all migrant children living in the United States do not graduate from high school (Gibson & Hidalgo, 2009). In 1966, the federal government established the Migrant Education Program to help these children finish high school and today, although conditions have

improved many school districts continue to have interventions in place and programs to help migrant children be successful (Gibson & Hidalgo, 2009). One intervention is that of a Migrant Education Advisor. In a research study of 160 migrant students with the Class of 2002 at Hillside High School, a suburban public high school along the California coast 80% of the migrant students who began ninth grade in the fall of 1998 graduated from high school (Gibson & Hidalgo, 2009). This feat was possible despite 75% of the parents having only attended school for 8 years or less and only 4% had a high school diploma themselves (Gibson & Hidalgo, 2009).

### **Effects of Student Mobility**

While mobility may be a result of school of choice, residency change or family structure; change from school to school has a negative effect not only on student performance, but also on social and emotional adjustments on the child (Parke & Kanyongo, 2012). Today, more and more movement of students occur from one school to another within the same district or city. In Chicago, only 38% of elementary students attend the same school throughout their entire elementary school years and of those who move 82% moved within the city of Chicago (Parke & Kanyongo, 2012). In the same study from Parke and Kanyongo, (2012) students who moved more than three times within a 6-year period were reported to be at least one full academic school year behind in their studies. In other studies, conducted throughout the country time after time mobility was a major factor in academic success (Parke & Kanyongo, 2012; Alexander, et al. 1996; Wolk, 2009).

In studies conducted comparing rural to urban school mobility, it is evident that while the mobility rates may be higher in urban schools these moves are usually associated with a change in residential status (Isernhagen & Bulkin, 2011; Gullion, 2009). The research conducted by

Isernhagen and Bulkin (2011) clearly depicts how students with high mobility rates consistently scored between 15 to 21 percentage points lower than non-mobile students in Nebraska standardized state assessment in Math, Reading, Science and Writing. The study also displays how the gap between mobile and non-mobile students widens between early elementary grades (4<sup>th</sup> Grade) and secondary grades (11<sup>th</sup> grade).

While in general a change in household for a child can have a negative effect on academic success, there are many variables which should be considered. If a change of household is accompanied with a promotion to a higher paying job for a parent, it may lead to a positive outcome for the child, however even positive moves for parents may be stressful for children (Voight, 2012; Gullion, 2009). Often a family move involving employment may have a significance effect on a student's performance. While a family move due to a loss of a job may determine a move into a lower socioeconomic residential area, which in turn may mean less affluent schools, a move due to a job promotion, may signify a move into a more affluent neighborhood and better schools (Gullion, 2009).

The effect of a financially strapped move for a parent, a divorce, and foreclosure on a home can be an added burden for a young child trying to concentrate and be successful in school. Parents who struggle with financial burdens around housing are also more common to suffer from depression, anxiety and increased working hours from second and third jobs and are unable to provide assistance to the educational needs of their children (Voight, 2012). In studies conducted by Voight (2012), it is evident that household moves not only affect academic success, but also reduce the likelihood of high school completion for students impacted by school mobility.

Some additional factors that have a major impact not only on mobility, but on the academic success are a student's social economic status, ethnicity, and home environment. In a study by Wolk (2009) Hispanics (18%) had the highest mobility rate followed by Blacks (17%). With such high rates of mobility, it comes as no surprise that in predominately Hispanic school systems like Santa Ana Unified School District in California, student mobility rates exceed 40% in four of their seven comprehensive high schools during the 2007-2008 school year (Wolk, 2009). Likewise, the four of eleven intermediate schools reported mobility that also exceeded 40% and two reported over 50% during the 2004-2005 school year (Wolk, 2009).

The more students moved, the more likely they are to be English Language Learners (Wolk, 2009). In Wolk's (2009) report, 58.5% of mobile students were English Language Learners, while 69.1% of the highly mobile students were English learners and displayed lower overall performance in English language arts (ELA) and mathematics scores. Wolk (2009) also found that there was a statistical difference in results on the California Standards Test for mobile and highly mobile students as compared to their non-mobile classmates in ELA and math. The study revealed that mobility does have a significant effect on academic success, additionally it also identified that English learners are more likely to be classified as mobile or highly mobile students (Wolk, 2009).

Research by Fiel, Haskins and Lopez-Turley (2013) shows that student mobility can even influence the non-mobile students. Studies show that schools and classrooms with high mobility rates influence academic achievement of non-movers as well (Fiel et al., 2013). While schools are affected with weaker academic performances, classrooms are affected with increased chaos, decreased teacher moral and higher frustration from students and teachers due to more generic teaching approaches (Fiel et al., 2013). Although the potential harm exists for students from all

ethnic or socioeconomic levels, schools with higher levels of minorities and poor students are affected at greater levels (Fiel et al., 2013).

While many different ideas on how to reduce student mobility have been explored, one promising trend is by building social networks where families and parents are encouraged to stay as opposed to moving. In a study by Fiel et al. (2013) a cluster of children that targeted first graders in Phoenix, Arizona and San Antonio, Texas shows early signs of some success. The program known as Families and School Together (FAST), an intensive 8-week program designed to promote empowerment of parents, building trust between families and schools and promote child resilience was implemented in the study (Fiel et al., 2013). Although FAST is not designed to reduced mobility, its goal is to build and strengthen relationships which addresses one major factor that causes school mobility (Fiel et al., 2013). Still in its early stages, data in FAST schools shows that 73% of families that consented to participate attended at least one session and 33% attended six or more of the eight sessions (Fiel et al., 2013). In the early stages of research of students and families participating in FAST, the mobility rate of Hispanics has remained practically unchanged, however Black students have seen a decline of 29% in mobility (Fiel et al., 2013).

While academic success is one factor influenced by a high mobility rate, another is graduation from high school. There is overwhelming evidence that student mobility diminishes the possibility of graduating from high school (Rumberger, 2003). Longitudinal studies conducted by Rumberger (2003) discovered that mobility of students between 1<sup>st</sup> to 8<sup>th</sup> grade, or changes in residencies between 8<sup>th</sup> and 12<sup>th</sup> grade increase the chances of students dropping out of school prior to 12<sup>th</sup> grade. According to results in a study of almost 1400 eighth graders of a larger urban school district in California, students with even one non-promotional move between

grades 8-12 were less likely to graduate from high school (Wolk, 2009). Students with frequent moves are less likely to be socially engaged or involved in extracurricular activities which increases the likelihood of dropping out of school (South et al., 2007).

The factor of lower academic success with highly mobile students effects the classroom teacher moral and stability as well. Teachers' feel frustrated when attempting to close the performance gap in students who arrive in their classroom after up to six moves and with significant gaps in their educational (Isernhagen & Bulkin, 2011). School districts throughout the country are attempting different initiatives such as specific classroom assignments, teacher classroom strategies, and extra instruction programs for struggling students in an effort to close the achievement gap between mobile and non-mobile students (Isernhagen & Bulkin. 2011).

### **Summary**

Although student mobility is difficult to control or eliminate, its effect on student academic success is severely impacted especially with students from low socioeconomic backgrounds and minorities. The research presented has provided us with an insight into the effects that student mobility can have on student's performance and while at times the mobility is necessary the effect that it has on students cannot be overlooked by school officials or parents (Stites, 2012). Although the research provided identifies that a mobile student can and will more than likely have lower academic success much research must still be conducted to identify if in fact non-mobile students are better prepared for academic success. Student mobility and their numerous moves throughout a student's K-12 school years can have a significant effect on the academic performance to include the greater possibility of dropping out of school before completing a high school diploma (Parke & Kanyongo, 2012; Isernhagen & Bulkin, 2011). While in some research the effect can be reduced based on identified interventions and building

of relationships between educators and children, the overwhelming impact that mobility has on student academic success is undisputable (Fiel, et al., 2013).

## CHAPTER III

### METHODOLOGY

School mobility is nothing new to public education, however as school accountability focuses on ensuring that all students perform at high levels on state mandated accountability high stakes testing; the issue facing most district with student mobility is requiring school and district administrators to search for solutions to the ever-present problem. Chapter three is divided into nine subsections which begin with the quantitative methods research design that will begin by analyzing numerical data from four different high schools. The schools selected were based on a higher than average mobility rate as determined by a review of the 2016, 2017 and 2018 school report cards or accountability summary (TEA, 2019). The high schools were selected after a comparison of several schools throughout the Rio Grande Valley area of South Texas with higher than average mobility rates when compared to the state average. These schools experienced an increase in student mobility of anywhere between 3.1% to 24% from 2016 to 2017. Additionally, further analysis will be conducted to control for gender, ethnicity, socioeconomic status, and the number of moves.

Sections two through nine consist of the research questions, null hypothesis, site and participant selection, gaining access, population and sampling, data sources, the data collection process, and a summary. Data analyzed was gathered from four different high schools selected from a multiple high school district in the Rio Grande Valley of Texas, data was analyzed



comparing mobility and academic success, while controlling for variables of gender, ethnicity, socioeconomic status, and number of moves.

### **Research Design**

This quantitative correlational research design method used correlation and regression analyzing the relationship between mobility, gender, ethnicity, socioeconomic status and number of moves and academic success as measured by the state assessment in reading and math (Gay, et al., 2012). The study was conducted with four comprehensive high schools in the Rio Grande Valley of Texas identified as having a higher than state average mobility rate. As was evident in Heinlein & Shinn (2000) a student with a higher mobility rate is more likely to perform lower on standardized testing due to the lack of continuity in the student's curriculum. This research analyzed quantitative data collected through the collection of PEIMS and campus academic performance results during the 2015-16, 2016-17 and 2017-18 school years. The following equation will be generated for the years:

$$\hat{Y}_1 = b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 \pm a$$

$$\hat{Y}_2 = b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 \pm a$$

$$\hat{Y}_3 = b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 \pm a$$

where  $X_1$  is frequency of move,  $X_2$  is gender,  $X_3$  is ethnicity,  $X_4$  is SES,  $Y_1$  is reading performance in English I,  $Y_2$  is reading performance in English II, and  $Y_3$  is math performance in Algebra I. The dependent variables are  $Y_1$ ,  $Y_2$ , and  $Y_3$  and the predictor or independent variables are  $X_1$  through  $X_4$ .

The goal of this investigation is to provide insight into a phenomenon that is associated with student's academic performance, thus having a greater impact on educational institutions and the accountability which these institutions are measured by. This quantitative approach method will help campus and district leaders plan and implement strategies to combat the inevitable challenge of student mobility while trying to ensure academic success for all students. Through the analysis of this design the study examined if the amount of mobility that a student experienced whether in a school year or during his or her academic career impacted his or her academic success as measure by the scaled score on the student's state assessments English I, English II, and Algebra I; while controlling for the independent variables of gender, ethnicity, and SES.

### **Research Questions**

A quantitative research design using multiple linear regression was used to determine if a relationship exist between the number of school moves a student makes, gender, ethnicity, SES and the number of moves had and a student's academic performance. In relating the variables, the student's academic performance was the dependent variable, and the gender, ethnicity, SES, and number of moves were the independent variable. The following research questions were addressed:

1. What is the relationship among academic performance on state assessment in English I 2015-2016 school year and mobility when measured with the number of moves, gender, ethnicity, and SES?
2. What is the relationship among academic performance on state assessment in English I 2016-2017 school year and mobility when measured with the number of moves, gender, ethnicity, and SES?

3. What is the relationship among academic performance on state assessment in English I 2017-2018 school year and mobility when measured with the number of moves, gender, ethnicity, and SES?
4. What is the relationship among academic performance on state assessment in English II 2015-2016 school year and mobility when measured by the number of moves, gender, ethnicity, and SES?
5. What is the relationship among academic performance on state assessment in English II 2016-2017 school year and mobility when measured by the number of moves, gender, ethnicity, and SES?
6. What is the relationship among academic performance on state assessment in English II 2017-2018 school year and mobility when measured by the number of moves, gender, ethnicity, and SES?
7. What is the relationship among academic performance on state assessment in Algebra I 2015-2016 school year and mobility when measured by the number of moves, gender, ethnicity, and SES?
8. What is the relationship among academic performance on state assessment in Algebra I 2016-2017 school year and mobility when measured by the number of moves, gender, ethnicity, and SES?
9. What is the relationship among academic performance on state assessment in Algebra I 2017-2018 school year and mobility when measured by the number of moves, gender, ethnicity, and SES?

## **Null Hypothesis**

If there is no significant relationship between a student's academic performance and the number of moves in an academic school year, gender, ethnicity, or SES the null hypothesis will be accepted as a true statement. The following null hypothesis were tested:

1. English I performance in 2015-2016 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
2. English I performance in 2016-2017 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
3. English I performance in 2017-2018 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
4. English II performance in 2015-2016 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
5. English II performance in 2016-2017 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
6. English II performance in 2017-2018 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
7. Algebra I performance in 2015-2016 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
8. Algebra I performance in 2016-2017 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.
9. Algebra I performance in 2017-2018 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

### **Site and Participant Selection**

The high schools selected were chosen based on state data which clearly identified a higher than average mobility rate when compared to the state rate. The district chosen is in the upper Rio Grande Valley of Texas along the US and Mexico border and is made up of approximately 34,000 students with four comprehensive high schools that serve 9-12 grade students. The four high schools were analyzed using a quantitative method study to determine the relationship between academic performance in reading and math, and gender, ethnicity, socioeconomic status, and number of moves. The participants selected were all students who were administered the STAAR English I, English II or the Algebra I, exam for the first time during the 2015-2016, 2016-2017 and 2017-2018 school years. The district was selected based on three factors: 1) the district must have an open enrollment policy, and 2) the district must have multiple high schools from which students can choose to attend any of them, 3) the district has a higher than average mobility rate when compared to the state average, based on the Campus School Report Card.

### **Gaining Access**

Following approval by the Institutional Review Board at the University of Texas Rio Grande Valley and other institutions involved in this study, data collection was taken from TEA and the individual schools and school district for the school years 2015-2016, 2016-2017 and 2017-2018. Data were analyzed from four different high schools with an enrollment population between 1700 to 2500 students from the same school district. A personal letter request was sent to the Superintendents from several school districts meeting the previously mentioned criteria to gain access to the PEIMS and school enrollment reports of all their high schools to analyze the specific demographics before selecting the final four high schools to be studied. The three school

districts selected were due to the multiple high schools within their school district so that additional studies can be made on the inter-district mobility and its effect on student achievement.

The collection of quantitative data did not require parental or subject consent as no individual interviews or subjects were personally interviewed, only existing PEIMS and public academic data were collected or analyzed. The study was approved by the Institutional Review Board at UTRGV.

### **Population and Sampling**

This quantitative study made use of data gathered from the Texas Education Agency (TEA) and individual school districts PEIMS records during the school years 2015-2016, 2016-2017, and 2017-2018. The data analyzed were drawn from the populations of 9<sup>th</sup>-12<sup>th</sup>, grade high school students who completed the STAAR EOC English I, English II, and Algebra I in the previously mentioned academic years using a simple random sampling of 9<sup>th</sup> to 12<sup>th</sup> grade students who meet the description of mobile students from the participating high schools. Mobile students were identified as students who have experienced at least one move in the previous five academic years, not including institutional promotional moves. Data were analyzed from four different high schools with a minimum enrollment of 1700 student in a district with higher than state average mobility rate. All high schools studied had similar demographics (i.e. student population, ethnic makeup, economically disadvantage, migrant, etc.) to best represent of the target populations. Student population demographics were gathered from the TEA STAAR Accountability Summary, School Report Card, the Academic Excellence Indicator System

(AEIS) report obtained from TEA, and the district PEIMS student data center. Additionally, migrant population information was gathered from the individual independent school district.

Student mobility data were obtained from the TEA School Report Card and the schools Public Education Information Management System (PEIMS) school leaver and entry reports for each academic school year beginning on day one and ending on the last day of school. Mobile students are categorized as any student who made a non-promotional school move during a school year from one school to another within the previous five years or transferred from one school to another during the summer break. Once a student was identified as a mobile student he or she was then further categorized as highly mobile if school records showed more than two moves in the previous school year.

The sample drawn was from the target population of all students who were identified as mobile students through the review of district and school leaver and entry records. The students were selected from similar high schools in a school district along the Rio Grande Valley which include any school east of Laredo, west of Brownsville and south of Falfurrias. Once students were identified as mobile a sample was selected using the simple random sampling through a table of random numbers until a minimum of 1000 students had been selected for this study. After subjects were selected demographics were examined to ensure that a diverse population with equal representation of ethnicity, social economic status, English language learners and migrant students had been identified.

### **Data Sources**

The data sources consisted of existing records from TEA and the school district.

## **Existing Records**

The data used to select the participant schools was form the TEA School Report card to identify the comparison of economically disadvantaged students, mobility rate, and total school population. The data analyzed also was selected from the district PEIMS and school records. The data were analyzed and interpreted using the bivariate method in which a student's mobility was analyzed to determine if it relates to the student's academic success, followed by a regression analysis where the amount of variance in student academic success was measure using various predictor variables.

The STAAR EOC, English I, English II and Algebra I exam were utilized as the dependent variable. These state assessments are administered to all ninth and tenth grade students throughout the state and are used to measure a student's understanding of what they have learned and if they are able to apply knowledge and skills as specified in the Texas Essential Knowledge and Skills (TEKS) as identified in the state curriculum (TEA, 2019). The independent variables were the student's gender, ethnicity, SES, and number of moves.

## **Data Collection Procedures**

The data were collected and analyzed to determine if a relationship exist either positive or negative among gender, ethnicity, socioeconomic, number of moves and students' academic performance. The data were pre-analyzed using bivariate correlational procedures followed by multiple linear regression analyses. The multiple linear regression analysis contained dichotomous and continuous variables in order to "assess how much variance is predicted uniquely by each individual predictor variable when other predictor variables are statistically controlled" (Warner, 2008, p.423). The test of significance was a F-distribution and the .05 alpha



level was used. Additionally, exploratory, and confirmatory analyses were used side by side (Tukey, 1977).

### **Summary**

In this study the researcher attempted to determine if a student's mobility, gender, ethnicity, socioeconomic status, and number of moves related to academic achievement in reading and math. Districts throughout the Rio Grande Valley and Texas continue to see a stagnant or declining enrollment as charter schools continue to gain popularity and student mobility increases. The increasing number of districts changing enrollment policies to some form of open enrollment has not helped the number of non-promotional school moves that students make throughout the academic school year and without any end in sight; this phenomenon will continue to be a concern for the educational community for years to come.

## CHAPTER IV

### DATA ANALYSIS

The mobility of students in the US is an ever-increasing phenomenon with more and more students changing schools daily for a multitude of reasons. As districts struggle to maintain enrollment numbers, they are forced to ease requirements or eliminating school zone boundaries to permit students to attend any school without regard to residency zoning requirements. While data or statistics may clearly identify that mobility has a significant impact on a student's academic performance, it is difficult for districts to restrict enrollment or prohibit students and parents from choosing to transferring from one school to another as they so choose. The expansion of charter schools and districts into areas where large number of low socioeconomic families reside, has drastically impacted student enrollment on the local public schools as parents seek out better rated schools for their children.

The purpose of this study was to research and understand the relationship among student mobility, gender, ethnicity, socioeconomic status, and number of moves and a student's academic performance on reading and math scores. Reading scores were compared by using results from the state STAAR EOC English I and English II exams and comparing scores between students who were non-mobile, with students who experienced one or more moves in the previous five years. Likewise, math scores were compared by using the results from the state

Algebra I STAAR EOC exam and comparing scores between non-mobile students to students with one or more moves in the previous five years.

Data were collected for three school years from 2015-2016 to 2017-2018 on four different high schools with a total of 6998 students in the data set, who tested for their first time on any one of the three-state assessment in reading and math. All information to include assessment scaled score, gender, ethnicity, socioeconomic status and total number of moves in the previous 5 years was collected for a total of 2387 students who tested Algebra I STAAR EOC exam during the three years, while the same data were collected on a total of 2351 students who tested English I STAAR EOC and 2260 students who tested English II STAAR EOC exam during the years analyzed. This study sought to identify the relationship between academic performance and gender, ethnicity, mobility, and a student's SES.

### **Detailed Data Analysis**

The following statistical hypotheses were tested to answer the research questions:

H<sub>0</sub> 1: English I academic performance in 2015-2016 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

While the SPSS data did not yield a significant,  $p > .05$  (.327 see Table 1, Appendix E) value during this school year in English I the null hypothesis must be accepted, however it must be noted that only 112 students were reported to have tested during the school year of which 50 students had a campus move in the previous 5 years. When analyzing students with moves for this cohort, 29 students had two or more moves of which only 4 (2-males/2-females) of the 29 students met the passing standard designated by the state. This student group was made up of 28 Hispanic students and all 29 were low SES. When considering the passing rate of highly mobile

students we see a passing rate of 14% for students with multiple moves during the previous 5 years.

H<sub>0</sub> 2: English II academic performance in 2015-2016 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

This data set consisted of 18 students reported to have taken the English II EOC with the SPSS report showing no significant relationship,  $p > .05$  (.802 see Table 2, Appendix E), thus the null hypothesis must also be accepted. Likewise, when performing a more detailed analysis of the data set it must be noted that of the 18 students 9 had more than one non promotional campus move in the previous 5 years. The English II data yielded similar results to English I, with all the 9 students being Hispanic and low SES. The group consisted of 7 males and 2 females and again only 2 of the 9 students met the state passing standard for a 22% passing in student's with high mobility.

H<sub>0</sub> 3: Algebra I academic performance in 2015-2016 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

During the 2015-2016 Algebra I STAAR EOC exam period 430 students were tested with there being a significant relationship,  $p < .05$  (see Table 3, Appendix E)  $p = .000$  for both number of moves and low SES being identified in the SPSS data results. Therefore, the null hypothesis number three is rejected. In further analysis as depicted in the SPSS model summary using the enter method (Table 4, Appendix E), the predictor variables, significant and not significant combined, attributed with 13.1% of the total variance in the dependent variable, Algebra I. Additionally, when analyzed using stepwise model summary we see the R square in Table 5 Appendix E amounted to 12.9% with mobility contributing with 9.6% of the total

variance and low SES added an additional 3.3% to the total variance in academic performance of students in Algebra I for the 2015-2016 school year.

H<sub>0</sub> 4: English I academic performance in 2016-2017 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

The data provided in 2016-2017 provides a clearer picture of how academic success is affected by mobility. This year we see 2127 students tested in English I with a significant relationship,  $p < .05$ , value in moves, gender, and low SES ( $p = .000$  as depicted in Table 6 Appendix F). Therefore, null hypothesis four is rejected. In more detailed analyzes of the data using SPSS enter method (Table 7 Appendix F) the predictor variables, significant and not significant combined, attributed with 9.5% in the dependent variable English I. Additionally, when analyzed using stepwise model summary we see the R squared in Table 8 Appendix F amounted to 9.4% with mobility contributing 4.8% of the total variance, gender contributing with 3.6%, and SES contributing 1% to the overall variance of 9.3% in academic performance of students in English I.

H<sub>0</sub> 5: English II academic performance in 2016-2017 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

In this data set we only have a total of 82 students tested and although no variable meets the  $p < .05$  value, mobility had a remarkably close significant results of  $p = .057$  as shown in Table 9 Appendix F. Since the  $p > .05$  value was not met the null hypothesis must be accepted. In further and more detailed analysis if the 82 students tested, we see that a total of 19 students with at least two moves were reported. From the 19 students tested only one female student, non-Hispanic, with 2 moves in the previous 5 years met standard on English II. This averages to a passing rate of 5% for students identified in the data set and the school year 2016-2017.

H<sub>0</sub> 6: Algebra I academic performance in 2016-2017 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

Algebra I data subset for this year also provides some significant relationship with 1804 students tested we see that there is significant relationship,  $p < .05$  (Table 10, Appendix F)  $p = .000$  for both moves and gender as identified in the SPSS data set. Based on the results from this data set the null hypothesis is rejected. In further analysis as depicted in the SPSS model summary using the enter method (Table 11, Appendix F), the predictor variables, significant and not significant combined, attributed with 6.3% of the total variance in the dependent variable, Algebra I. Additionally, when analyzed using stepwise model summary we see the R square in Table 12 Appendix F amounted to 6.2% with mobility contributing with 5.4% of the total variance and gender adding an additional .6% to the total variance in academic performance of students in Algebra I for the 2016-2017 school year.

H<sub>0</sub> 7: English I academic performance in 2017-2018 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

During the 2017-2018 only 112 students were report as taking a 1<sup>st</sup> time test in English I, however a significance  $p < .05$  value of  $p = .033$  is still identified in the moves variable as noted in Table 13 of Appendix G. Although a small significant relationship the null hypothesis must be rejected. In further analysis as depicted in the SPSS model summary using the enter method (Table 14, Appendix G), the predictor variables, significant and not significant combined, attributed with 5.7% of the total variance in the dependent variable, English I. Additionally, when analyzed using stepwise model summary we see the R square in Table 15 Appendix G amounted to 4.4% with mobility contributing to the total variance in academic performance of students in English I for the 2017-2018 school year.

H<sub>0</sub> 8: English II academic performance in the 2017-2018 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

The data for English II consisted of 2160 students testing during this calendar school year. In Table 16 Appendix G we see that a significance relationship  $p < .05$  with a  $p = .000$  for gender, number of moves, and low SES being identified in the SPSS data. Therefore, null hypothesis number eight must also be rejected. In further analysis as depicted in the SPSS model summary using the enter method (Table 17, Appendix G), the predictor variables, significant and not significant combined, attributed with 13.5% of the total variance in the dependent variable, English II. Additionally, when analyzed using stepwise model summary we see the R square in Table 18 Appendix G, amounted to 13.5% with mobility contributing with 8.8% of the total variance, gender contributing with 3.8% of the total variance, and SES added an additional .9% to the total variance in academic performance of students in English II for the 2017-2018 school year.

H<sub>0</sub> 9: Algebra I academic performance in the 2017-2018 is not a function of student mobility in high school students when considering the number of moves, gender, ethnicity, and SES.

Algebra I data for the 2017-2018 academic school year provided a total of 153 students. In Table 19 of Appendix G, we see that although number of moves was slightly above the  $p < .05$ , with  $p > .063$  it does not fall into the significant relationship category; therefore, the null hypothesis must be accepted. By analyzing the data further, it is noted that 39 students had more than two moves in the previous 5 years. The 39 students included 100% Hispanic and low SES, 14 females, and 25 males. The passing rate for Algebra I from mobile students is more than 2 times better than that of English I with 31% of students with 2 or more moves passing their math

end of course exam. It is significant to note that no student with more than 5 moves met the passing standard on their Algebra I exam during this school year.

In one final analysis the data gathered were examined combined for an overall view of how academic success during the three-year study was impacted when considering the independent variables studied of number of moves, gender, ethnicity, and SES. All three exams of English I, English II and Algebra I showed significant relationship  $p < .05$  values on three of the variables studied. In English I a total of 2,351 students were tested over the three-year period with significant relationship,  $p < .05$ , for gender, number of moves, and SES being identified in the SPSS data as noted in Table 20 Appendix H. In further analysis as depicted in the SPSS model summary using the enter method (Table 21, Appendix H), the predictor variables, significant and not significant combined, attributed with 12.1% of the total variance in the dependent variable, English I. Additionally, when analyzed using the stepwise method, the model summary R square in Table 22 Appendix H amounted to 12.1% with mobility contributing with 7.6% of the total variance, gender contributing with 3.4% of the total variance and SES added an additional 1.1% to the total variance in academic performance of students in English I for the 3-year period studied.

While English II tested slightly less students at 2260 the total R squared value also showed a significant relationship  $p < .05$  for gender, number of moves, and SES being identified in the SPSS data as noted in Table 23 Appendix H. When analyzed further as depicted in the SPSS model summary using the enter method (Table 24, Appendix H), the predictor variables, significant and not significant combined, attributed to a correlation with 14.0% of the total variance in the dependent variable, English II being explained. Additionally, when analyzed using stepwise method the model summary R square in Table 25 Appendix H amounted to



14.0% with mobility contributing with 9.3% of the total variance, gender contributing with 3.7% of the total variance and SES added an additional 1.0% to the total variance in academic performance of students in English II for the 3-year period studied.

In Algebra I a high percentage was not seen when considering the R squared model summary, however the same three variables showed a significance relationship,  $p < .05$ , as noted in Table 26 Appendix H. In more detailed analysis as depicted in the SPSS model summary using the enter method (Table 27, Appendix H), the predictor variables, significant and not significant combined, attributed to a correlation with 9.1% of the total variance in the dependent variable, Algebra I. Additionally, when analyzed using stepwise method the model summary R square in Table 28 Appendix H amounted to 9.1% with mobility contributing with 7.9% of the total variance, gender contributing with .6% of the total variance and SES added an additional .6% to the total variance in academic performance of students in Algebra I for the 3-year period studied.

### **Summary**

When answering the research questions presented in chapter three all data were analyzed, including charts, graphs, and descriptive data (see Appendices E-H), to formulate the best answer and the following responses are noted:

RQ 1: What is the relationship among academic performance on state assessment in English I 2015-2016 school year and mobility when measured with the number of moves, gender, ethnicity, and SES? Answer: There was no relationship when considering all four variables, however when considering only students with multiple moves their passing rate was 11%.

RQ 2. What is the relationship among academic performance on state assessment in English I 2016-2017 school year and mobility when measured with the number of moves, gender,

ethnicity, and SES? Answer: There was a strong relationship among academic performance and three of the four variables during the 2016-2017 school year for students who tested English I.

RQ 3. What is the relationship among academic performance on state assessment in English I

2017-2018 school year and mobility when measured with the number of moves, gender,

ethnicity, and SES? Answer: There was a slight relationship among academic performance and one of the four variables during the 2017-2018 school year. Additionally, only 14% of students with multiple moves met standard on the state assessment.

RQ 4. What is the relationship among academic performance on state assessment in English II

2015-2016 school year and mobility when measured with the number of moves, gender,

ethnicity, and SES? Answer: There was no relationship when considering all four variables, however when considering only students with multiple moves their passing rate was 22%.

RQ 5. What is the relationship among academic performance on state assessment in English II

2016-2017 school year and mobility when measured with the number of moves, gender,

ethnicity, and SES? Answer: There was no relationship when considering all four variables, however when considering only students with multiple moves their passing rate was 5%.

RQ 6. What is the relationship among academic performance on state assessment in English II

2017-2018 school year and mobility when measured with the number of moves, gender,

ethnicity, and SES? Answer: There was a strong relationship among academic performance and three of the four variables during the 2017-2018 school year for students who tested English II.

RQ 7. What is the relationship among academic performance on state assessment in Algebra I

2015-2016 school year and mobility when measured with the number of moves, gender,

ethnicity, and SES? Answer: There was a strong relationship among academic performance and two of the four variables during the 2015-2016 school year for students who tested Algebra I.

RQ 8. What is the relationship among academic performance on state assessment in Algebra I 2016-2017 school year and mobility when measured with the number of moves, gender, ethnicity, and SES? Answer: There was a strong relationship among academic performance and two of the four variables during the 2016-2017 school year for students who tested Algebra I.

RQ 9. What is the relationship among academic performance on state assessment in Algebra I 2017-2018 school year and mobility when measured with the number of moves, gender, ethnicity, and SES? Answer: There was no relationship when considering all four variables, however when considering only students with multiple moves their passing rate was 31%.

Chapter five will begin with an overview of the study and summary of the findings. A discussion and elaboration of implications will be followed by recommendations and possible future research.

## CHAPTER V

### SUMMARY, IMPLICATIONS, RECOMMENDATIONS AND CONCLUSION

Throughout the state and country most educational leaders continue to search how to adjust instruction, schedules, and instructional practices to meet the needs of all students. In an ever-increasing profession of high stakes academic accountability, state and federal policies continue to hold districts, campuses and ultimately educational leaders and teachers responsible for the education outcomes of their students (Dufour & Marzano, 2011; Isernhagen & Bulkin, 2011). However, as more and more districts opt for some form of an open enrollment policy and make the transfer of students from one campus to another easier, student mobility will continue to increase for students from all socioeconomic and ethnical backgrounds (McAllen ISD, 2014; Weslaco ISD, 2019; Donna ISD, 2019). As research has demonstrated, student mobility is no longer limited to migrant, military or students who are displaced due a multitude of family issues or natural disasters, student mobility is and will be more prominent throughout our educational system as student and parents now have a choice of what school to attend regardless of place of residency (Parke & Kanyongo, 2012; Gibson & Hidalgo, 2009; Fiel, et al., 2013; Mehana & Reynolds, 2004).

With the demand from state and federal governments to improve student performance, teachers and administrators continue to face the challenge of increasing result of students who have historically struggled to find success (Dufour & Marzano, 2011). In a study by the

McKinsey Group, findings show that black and Latino students are two to three years behind their white peers in graduation rates and academic achievement (Alliance for Excellent Education, 2008). Likewise, students from low economic backgrounds are equally as challenged with an average of a two-year gap in learning as compared to students from a home with an income of greater than \$90,000 yearly (Dufour & Marzano, 2011). No generation of educators has been tasked with doing so much in terms of academic achievement in an era of continued financial cuts and with some of the most challenging educational obstacles than what we ask teachers and administrators to do today (Dufour & Marzano, 2011). Even through the multitude of obstacles and challenges, today's educators continue to improve academic achievements yearly.

School mobility is generally accepted to have an adverse effect on a student's life, with negative consequences in achievement, increases in dropout rates and juvenile delinquency (Mehana & Reynolds, 2004; Rumberger, 2003). Mobility had often been viewed as normal or common from children who come from poor homes, single-parent homes, children from unemployed adults, or parents that failed to graduate from high school (Heinlein & Shinn, 2000). However, we now see that school mobility is becoming more common within each school district as open enrollment becomes a common practice throughout the Rio Grande Valley and state of Texas. In a study conducted by LeBoeuf and Fantuzzo, (2018) of intra-district moves the findings concluded that students in 1<sup>st</sup> through 3<sup>rd</sup> grade that experienced a school move scored 3.11 points lower than non-mobile students at the end of each grade. In this study we analyzed the effects that mobility has on students in high school and we see that the effects continue to negatively impact student's academic performance.

## **Summary**

The purpose of this study was to measure the relationship between academic performance of English I, English II, Algebra I and mobility, gender, ethnicity, and economically disadvantaged students. The data clearly depicts that students with a high mobility rate are more prone to suffer adverse effects in academic performance. In previous studies of mobility and student's success some significant findings had demonstrated that a significant relationship exist in mobile students; placing them at higher risk of dropping out of school, participating less in classroom discussion, and falling into the trap of juvenile delinquency (Gruman et al., 2008). In the data gathered for this study we see that students who have experienced multiple campus moves are at greater risk of suffering academically in addition to the added stress of adjust socially to a new school, making new friends and learning new school procedures. This study focused on data gathered from four different high schools in one school district in the Rio Grande Valley of Texas. The district selected for this study has an open enrollment policy and admits students from the surrounding districts. Additionally, students within the district are free to attend any high school of their choosing without regards to district boundaries. The following three subsections provide a more detailed analysis of the effects that mobility has on a student's academic performance.

### **English I**

The English I EOC state assessment is the exam with the lowest passing rate across the State of Texas for all students, with a 63% passing rate during the 2019 Spring Administration (TEA Summary Report, 2020). The data reviewed for the students tested during the 2015-2016 through 2017-2018 school years clearly showed that the total variance in English I from students

with excessive mobility, whether male or female, and economically disadvantage has a R squared value of 12.1%. With 37% of statewide students already in danger of failing the state assessment, mobility, gender, and economically disadvantaged are only added multipliers to student's low performance.

While gender and a student's economic background have a significant effect on performance, mobility was the independent variable that mostly added to the negative effect on academic performance. Adding to the issue of academic performance, the campuses in this study also contain anywhere from 22.6% to 35.2% mobility which is 6.6% to 19.2% higher than the state average of 16%. As has been identified in my research, student mobility has always been a significant factor with academic performance. District's continually allowing or making transferring from one campus or district to another easier, only adds to the ever-present problem of academic success.

The data reviewed by year is somewhat deceptive as in 2016 only 112 students tested English I in this cohort. These are usually students that are advanced students taking English I in middle school thus taking a 9<sup>th</sup> grade exam during their 8<sup>th</sup> grade. However, when analyzing only mobile students we see that only 14% or four students of the 29 highly mobile students met the passing standard. Considering that these students are classified as advanced students in comparison to their grade level peers, the extremely low percentage rate of them meeting standard is of great significance. This is a significantly lower number of students than the state average of 63% passing rate.

In 2017 and 2018 we see how the effect of mobility continues to have a significant effect on academic performance. During the 2017 administration all three variables of mobility, gender,

and low SES had a significant impact on the academic performance in English I. This data supports results found in previous studies in which Welsh (2018) found that students in minority ethnic groups and low-income households who experienced high rates of mobility were significantly impacted in reading performance. Likewise, although 2018 was a smaller student sample, the results of mobility still reflect a significance in student performance. It is evident through the research that mobility, gender, and SES have a significant impact on a student's academic performance.

## **English II**

The second most difficult end of course state assessment that students must pass to graduate high school is English II with an average passing rate of 67% statewide (TEA Summary Report, 2020). In the total data reviewed for the school years 2015-2016 through 2017-2018 a strong correlation exists when considering the variables English II and mobility, gender, and socioeconomic status. We see that students with all three variables are 14% more likely to perform poorly on their state assessment. In this case, mobility accounts for 9.3% variance when considering it as a stand-alone variable, while gender and SES account for the other 4.7%.

As is the case with English I, the significance is a non-factor during the 2015-2016 and 2016-2017 school years with such small number of students testing, however as was the case in English I, passing percentages were extremely low with 22% and 5% respectively, meeting standard in the two years. In the final year of the study, we see that a strong correlation exists between the three variables of moves, gender, and SES with an impact of more than 13% in the total variance in English II performance. This data clearly demonstrates that reading and writing



performance at the high school level are significantly impacted when students have excessive mobility and are from low socioeconomic households.

Although districts make attempts to standardize their curriculum, classrooms teachers adjust their curriculum based on student's needs. This is supported in studies from Thompson et al. (2011) and LeBouf and Fantuzzo (2018) in which math, reading, and language arts achievement was significantly impacted in students who experienced high mobility within their own district. With the added ease that many districts are implementing of openly allowing students to transfer from one school to another without regards to zoning guidelines adding to mobility, it is having a significant effect on these students who decide to transfer schools.

### **Algebra I**

In Algebra I, we see that both 2015-2016 and 2016-2017 school years show a strong significance in academic performance and student's mobility, gender, and SES. The average state passing rate for Algebra I is much higher than English I or II, however there is still 16% of students taking the exam that are not meeting standard on their first attempt. The highest R squared value for Algebra I was during the 2015-2016 administration when a total variance of 13.1% was depicted, likewise when all three years were analyzed together a significant 9.1% variance is reported of students who are highly mobile, and low SES.

Although students across the state are performing almost 20% higher in the Algebra I state assessment, the effect that students' who experience mobility, and low socioeconomic status have on academic results is still rather significant. This data agrees with results gathered in Mattes (2017) in which the findings of students taking the Algebra I Common Core Regents exam showed significant results in students who experienced mobility. Additionally, Mattes

(2017) study also found that teachers agreed that mobile students negatively impact the learning environment for even non-mobile students, and they lacked the planning time to adequately meet the needs of the mobile students. Administrators and educators across the state and region are continuously challenged to provide additional time on task, doubling math class, tutoring, and providing extended instructional time to ensure that students meet state standards at the end of the year. The results of this study clearly demonstrate that a relationship exists on how students perform in math when considering their mobility, gender, and socioeconomic status.

### **Limitations of the Study**

Although the research was conducted and analyzed using four independent variables, the ethnicity variable was irrelevant because close to 100% of the subjects studied were of Hispanic ethnicity. If the same study were conducted in a different region of the state with a larger variety of ethnic groups, the results for that independent variable could show some additional significance in the findings.

### **Implications of the Study**

As educational leaders we are tasked to ensure that we provide the best learning environment for our students, while ensuring that they are prepared to move on to college and or a career field of their choice. The decisions that are made daily in schools throughout the state and country effect the learning environment of all children whether they are highly mobile or not. It is important that as educational leaders and school board trustees, we understand that when a student moves from one school to another, the move will affect them not only socially, but academically as well. With mobility rates continuing to rise every year in districts throughout the Rio Grande Valley and state it is important that our policies and educational practices are

also adjusted to meet the needs of all students (TEA, 2019). Charter schools will continue to pop up throughout the state and mobility will continue to be a challenge for teachers, administrators and district leaders to face every year; however, continuing to make open enrollment policies to combat the loss of students must be carefully reviewed as more mobility will continue to significantly impact student's academic performance.

In response to making open enrollment more accessible, district leadership and school boards should consider policies and programs such as the Families and School Together (FAST) program currently used in the Phoenix, Arizona and San Antonio, Texas areas, where schools work with communities to build a stronger trusting relationships and promote students' self-esteem (Fiel et al., 2013). Additionally, building stronger support channels for Migrant students can help provide a stronger foundation for a mobile community that has suffered academic challenges for decades. The use of Migrant Counselors and a staff designated to work closely with these students as they depart early from schools in search of Summer seasonal employment and return late to school; are at a greater disadvantage and should be supported with instructional supports to help bridge the educational gaps lacking with the extended breaks in schooling (Gibson, & Hidalgo, 2009).

One of the biggest challenges for mobile students is missing curriculum as they transfer from one school to another or between districts. Mehana and Reynolds (2004) identified that gaps and differences in curriculum is one of three factors that contributes to student's academic achievement. While districts and states have tried to standardized curriculum standards, classrooms and teachers across districts and the state adjust classroom instructional curriculum as the needs of their student's demand (Guillion, 2009). District administrators must make every

effort to ensure that curriculum is standardized across classrooms to ensure that lapses in curriculum for mobile students are reduced if not eliminated.

Ultimately, the excessive mobility of students is having a significant effect on the academic performance of both mobile and non-mobile students in classrooms across the state and country. Policies implemented by leaders which makes it easier for students to transfer from one school to another are having a much larger impact on the academic success of students in classrooms throughout the country as the mobility not only hurts the mobile students, but the non-mobile as well (Fiel et al., 2013).

The research in this study clearly demonstrates that student mobility is having a negative impact on academic performance for our most mobile students (LeBoeuf & Fantuzzo, 2018; Rumberger 2008; Thompson, et al. 2011; Phillips et al., 2012). School district and educational leaders should pay attention to changes in their policy that make mobility easily accessible for students without regards to zoning boundaries. While this study did not analyze the reasons for student mobility, disciplinary placement is considered a type of mobility that interrupts a student's instructional learning throughout a school year. When at all possible discretionary disciplinary placement at alternative educational campuses should be limited to minimize the effects that mobility and instructional interruptions have on student's academic performance (Mehana & Reynolds). While mobility will never be eliminated from our public educational institutions, the ease with which students and parents can move from one campus to another or from district to district, could be minimized or if at all possible reduced to provide students greater opportunities for academic success.

## **Recommendations for Future Studies**

It is evident that the constant non-promotional mobility that students experience throughout their educational career has a significant impact on their academic performance. Much research is still required to further analyze how mobility can be limited, managed, or reduced for students who fall into the low economic status that continues to plague the heavily populated Hispanic region of the Rio Grande Valley. This study agreed with similar research and found that mobile students are likely to be free or reduced lunch students, Hispanic, English learners, and special needs students (LeBoeuf, 2013). Likewise, in a study conducted by Anderson (2017) both male and female students suffered academically however, the impact that mobility had on students was equally as significant. The following are recommendations for future studies to enhance this research and validate these findings:

Examine the same study with students in elementary and middle school grades to determine effect mobility has on students in different stages of educational career.

Examine surrounding district who also have an open enrollment, however lower mobility rates to determine if these findings are specific to this district. There are several districts that fall into the open enrollment category, however, have a mobility rate at or below the state average.

Examine a district and high schools with a more diverse ethnicity population. The district researched in this study has a 99% Hispanic ethnicity makeup, so the data on ethnicity had no relevance.

Examine what are the causes of student mobility. This study researched the number of moves by a student, however much data can be gathered on what causes students mobility and if

certain reasons have more of an impact on academic success than others. A survey can be taken with students to determine why moves are made and classified as mandatory or voluntary.

Examine teacher's perception on student's entering or withdrawing throughout the school year. There is some research that provides data on teacher's negative attitude towards students who transfer in and out of classrooms throughout the school year. A study can be conducted to determine if teacher's perception is influenced by mobile students' disruption of instruction.

### **Conclusion**

While school leaders struggle to maintain enrollment numbers and compete with local charter and surrounding school districts, it is evident that student mobility continues to be an increasing challenge for most schools across the state. With the state mobility rate average at 16% this trend of student mobility will continue to be at the forefront for teachers, campus, and district leaders for years to come (TEA, 2019). While district leaders and education school boards throughout the state and country struggle to combat the loss of students to competing education institutions, simply opting to offer open enrollment comes with its consequences. The feasibility and easy access for students to transfer between schools or districts increases the probability of mobility for students which in turn can have a significant effect on academic success, especially for our most vulnerable populations of students.

This research substantiates the evidence that students regardless of gender, SES, Hispanics and African American, who experience multiple moves during their educational years are at a greater risk of significantly struggling in reading and math (Parke & Kanyongo, 2012; Mehana & Reynolds, 2004; Rumberger, 2015; LeBoeuf & Fantuzzo, 2018; Anderson, 2017). Education is a profession that requires much studying and reviewing of state and national data or

trends. Leaders at all levels are tasked with making decision that are in the best interest of students and communities. While mobility will never be eliminated from our public schools, decisions or policies that help increase student mobility should be calculated carefully by leaders and school boards.

On a final note, readers of this research are reminded that the research presented here is specific to a school district within the Rio Grande Valley of Texas; where the findings may be impacted by the demographics, curriculum and cultural diversity of the populations. Further research is necessary to fully gather a clearer picture of the issue associated with student mobility and its effects on academic success.

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## APPENDIX A

## APPENDIX A

### SAMPLE PERMISSION TO CONDUCT RESEARCH STUDY

DATE

Dear Superintendent of Schools,

My name is Juan C. Garza and I am a doctoral student at the University of Texas Rio Grande Valley conducting a dissertation research study. The purpose of this study is to examine the effects that student mobility has on a student's academic success, when considering gender, ethnicity, socioeconomic status, and the number of moves. The data to be analyzed will consist of student demographic, mobility, and academic success as measured from the STAAR EOC state assessment in English I, English II, and Algebra I, during the 2015-16, 2016-17, 2017-18 school years. I believe that the knowledge gained from this research will benefit your district as well as surrounding district who have implemented "open enrollment" policies in recent years.

The data gathered will not identify students other than by a random assigned ID number and all data gathered will be kept strictly confidential. I will be the sole custodian of all student information throughout the study. Although studies on student's mobility and academic success have been conducted, this study will be unique in that it will analyze specific variables relevant to the Rio Grande Valley.

I am seeking permission to gather data from all high school students in your district who were administered a STAAR EOC English I, English II, or Algebra I exam in the school years specified in paragraph one. The data required can all be compiled from the PEIMS Department with the following identifiers:

- Random ID
- Gender
- Ethnicity
- SES
- Number of moves in the previous 5 years
- English I RAW score
- English II Raw score
- Algebra I Raw Score

I have provided a sample template that may be used and forwarded to me via email at [juan.c.garza01@utrgv.edu](mailto:juan.c.garza01@utrgv.edu). For any additional questions I can be contacted at: (956) 460-5265.

I would like to thank you in advance for your time and hope that you agree to the benefits this study can have for your district. I look forward to hear back from you soon.

Sincerely,

Juan C. Garza  
Doctoral Student Cohort 11



## APPENDIX B

## APPENDIX B

### SAMPLE TO GRANT PERMISSION TO CONDUCT RESEARCH STUDY

DATE

Juan C. Garza

10205 N 26<sup>th</sup> St

McAllen, Tx. 78504

Dear Mr. Garza

I have reviewed your request to conduct a research on “The relationship between academic performance and student mobility, gender, ethnicity, socioeconomic status, and number of moves” with student data from my district.

I understand that as a researcher you will be the sole custodian of the information gathered and analyzed throughout the study. I also understand that the information will not identify any student and the data gathered will be used strictly for the purpose of your study.

I approve this study and have advised my PEIMS Department to work with you on gathering the data requested.

Sincerely,

Superintendent of Schools

## APPENDIX C

## APPENDIX C

### EMAIL APPROVAL TO CONDUCT RESEARCH

Thu 2/13/2020 10:58 AM

To: Juan Garza

Cc: Marie Simonsson

ISD Mobility Data data request 2\_13\_2020.xlsx

353 KB

Dear Mr. Juan Garza,

Attached you will find an Excel spreadsheet with de-identified student level data from our educational records for the purpose of conducting your dissertation study.

We have attached a code to each record that will allow you to match information from our same data warehouse source. If needed your institution IRB committee is welcomed to ask confirmation regarding the aforementioned determination before approving your research protocol.

We are soliciting not to be recognized by name in your dissertation study and/or any other publications or presentations, and only to be referred as a public-school district in Hidalgo County, Texas.

Sincerely,

**Grant Management, Research and Evaluation** Administrator

## APPENDIX D

APPENDIX D



**OFFICE OF RESEARCH COMPLIANCE**

THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY

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*1201 West University Drive, Edinburg, Texas 78539*

September 18, 2020

To: Juan Garza

From: Office of Research Compliance

Subject: Determination – Non-Human Subjects Research

**Project Title: Academic Success and Mobility**

Dear Mr. Garza:

We have determined that this project does not meet the HHS or FDA definition for human subjects research. Under this determination your project, as written, requires no further IRB oversight. If your project is modified, please contact our office to confirm that your project remains in the "Non-Human Subjects Research" category.

If you have any questions about this determination, please contact the UTRGV Office of Research Compliance at (956) 665-2093.

Sincerely,

A handwritten signature in black ink that reads "Kimberly Fernandez". The signature is written in a cursive, flowing style.

Kimberly Fernandez  
Sr. Research Compliance Specialist  
Office of Research Compliance

## APPENDIX E

APPENDIX E

**2016 Data**

**Table 1**

*Regression Coefficients for English I STAAR EOC 2015-2016*

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	4301.843	744.826		5.776	.000
	Gender	-51.570	118.910	-.042	-.434	.665
	SES	-461.294	360.030	-.122	-1.281	.203
	Moves	-31.900	32.406	-.096	-.984	.327

a. Dependent Variable: score

**Table 2**

*Regression Coefficients for English II STAAR EOC 2015-2016*

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	2879.638	664.435		4.334	.001
	SES	247.666	362.430	.174	.683	.505
	Moves	-16.601	65.197	-.065	-.255	.802

a. Dependent Variable: score



**Table 3***Regression Coefficients for Algebra I STAAR EOC 2015-2016*

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	4827.758	553.804		8.717	.000
	Gender	-41.331	61.058	-.031	-.677	.499
	Hispanic	214.897	261.128	.037	.823	.411
	Moves	-218.922	32.763	-.303	-6.682	.000
	SES	-469.478	115.243	-.186	-4.074	.000

a. Dependent Variable: score

**Table 4***Model Summary for Algebra I STAAR EOC 2015-2016 (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.362 <sup>a</sup>	.131	.123	630.52029

a. Predictors: (Constant), Hispanic, Moves, Gender, SES

**Table 5***Model Summary for Algebra I STAAR EOC 2015-2016 (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.310 <sup>a</sup>	.096	.094	640.74438
2	.359 <sup>b</sup>	.129	.124	629.91373

a. Predictors: (Constant), Moves

b. Predictors: (Constant), Moves, SES

## APPENDIX F

APPENDIX F

**2017 Data**

**Table 6**

*Regression Coefficients for English I STAAR EOC 2016-2017*

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	5088.970	290.625		17.510	.000
	Gender	-193.960	21.833	-.184	-8.884	.000
	Hispanic	-198.883	140.115	-.029	-1.419	.156
	Moves	-137.938	13.179	-.216	-10.467	.000
	SES	-230.343	47.970	-.100	-4.802	.000

a. Dependent Variable: score

**Table 7**

*Model Summary for English I STAAR EOC 2016-2017 (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.308 <sup>a</sup>	.095	.093	502.54423

a. Predictors: (Constant), Hispanic, Moves, Gender, SES

**Table 8***Model Summary for English I STAAR EOC 2016-2017 (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.220 <sup>a</sup>	.048	.048	514.95721
2	.289 <sup>b</sup>	.084	.083	505.37211
3	.307 <sup>c</sup>	.094	.093	502.66432

a. Predictors: (Constant), Moves

b. Predictors: (Constant), Moves, Gender

c. Predictors: (Constant), Moves, Gender, SES

**Table 9***Regression Coefficients for English II STAAR EOC 2016-2017*

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5476.119	1090.143		5.023	.000
	Gender	-256.356	169.690	-.168	-1.511	.135
	SES	-868.906	534.198	-.176	-1.627	.108
	Moves	-95.679	49.510	-.214	-1.932	.057

a. Dependent Variable: score

**Table 10***Regression Coefficients for Algebra I STAAR EOC 2016-2017*

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	4682.358	354.046		13.225	.000
	Gender	-91.481	24.974	-.084	-3.663	.000
	Hispanic	-135.086	168.017	-.018	-.804	.422
	Moves	-141.844	13.827	-.235	-10.259	.000
	SES	-77.184	58.928	-.030	-1.310	.190

a. Dependent Variable: score

**Table 11***Model Summary for Algebra I STAAR EOC 2016-2017 (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.251 <sup>a</sup>	.063	.061	529.55119

a. Predictors: (Constant), Hispanic, SES, Gender, Moves

**Table 12***Model Summary for Algebra I STAAR EOC 2016-2017 (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.233 <sup>a</sup>	.054	.054	531.48373
2	.248 <sup>b</sup>	.062	.060	529.60999

a. Predictors: (Constant), Moves

b. Predictors: (Constant), Moves, Gender

## APPENDIX G

APPENDIX G

**2018 Data**

**Table 13**

*Regression Coefficients for English I STAAR EOC 2017-2018*

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	4134.599	1533.082		2.697	.008
	Gender	-182.714	152.237	-.112	-1.200	.233
	Moves	-86.619	40.046	-.203	-2.163	.033
	SES	-276.171	751.319	-.035	-.368	.714

a. Dependent Variable: score

**Table 14**

*Model Summary for English I STAAR EOC 2017-2018 (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.240 <sup>a</sup>	.057	.031	744.39745

a. Predictors: (Constant), SES, Gender, Moves

**Table 15***Model Summary for English I STAAR EOC 2017-2018 (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.210 <sup>a</sup>	.044	.035	742.78210

a. Predictors: (Constant), Moves

**Table 16***Regression Coefficients for English II STAAR EOC 2017-2018*

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5162.323	376.442		13.713	.000
	Gender	-275.364	28.996	-.190	-9.497	.000
	Hispanic	-95.655	180.773	-.011	-.529	.597
	Moves	-215.511	14.874	-.291	-14.489	.000
	SES	-294.102	64.216	-.092	-4.580	.000

a. Dependent Variable: score

**Table 17***Model Summary for English II STAAR EOC 2017-2018 (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.367 <sup>a</sup>	.135	.133	672.93093

a. Predictors: (Constant), Hispanic, Gender, Moves, SES



**Table 18***Model Summary for English II STAAR EOC 2017-2018 (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.297 <sup>a</sup>	.088	.088	690.35097
2	.355 <sup>b</sup>	.126	.125	675.98012
3	.367 <sup>c</sup>	.135	.134	672.81856

a. Predictors: (Constant), Moves

b. Predictors: (Constant), Moves, Gender

c. Predictors: (Constant), Moves, Gender, SES

**Table 19***Regression Coefficients for Algebra I STAAR EOC 2017-2018*

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3818.153	979.437		3.898	.000
	Gender	16.069	142.461	.009	.113	.910
	Moves	-76.683	40.955	-.153	-1.872	.063
	SES	-278.912	490.603	-.046	-.569	.571

a. Dependent Variable: score

## APPENDIX H

## APPENDIX H

### 3-Year Combined Data

**Table 20**

*Regression Coefficients for English I STAAR EOC 3-year combined*

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	5127.951	288.132		17.797	.000
	Gender	-210.121	22.544	-.181	-9.321	.000
	Hispanic	-186.483	137.145	-.026	-1.360	.174
	Moves	-156.779	11.273	-.270	-13.907	.000
	SES	-273.070	51.756	-.102	-5.276	.000

a. Dependent Variable: score

**Table 21**

*Model Summary for English I STAAR EOC 3-year combined (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.348 <sup>a</sup>	.121	.120	545.85915

a. Predictors: (Constant), Hispanic, Gender, SES, Moves

**Table 22***Model Summary for English I STAAR EOC 3-year combined (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.275 <sup>a</sup>	.076	.075	559.54494
2	.332 <sup>b</sup>	.110	.109	549.16186
3	.347 <sup>c</sup>	.121	.120	545.95786

a. Predictors: (Constant), Moves

b. Predictors: (Constant), Moves, Gender

c. Predictors: (Constant), Moves, Gender, SES

**Table 23***Regression Coefficients for English II STAAR EOC 3-year combined*

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5285.466	360.754		14.651	.000
	Gender	-277.916	28.795	-.189	-9.652	.000
	Hispanic	-147.108	171.764	-.017	-.856	.392
	Moves	-207.208	13.529	-.300	-15.316	.000
	SES	-313.380	65.155	-.094	-4.810	.000

a. Dependent Variable: score

**Table 24***Model Summary for English II STAAR EOC 3-year combined (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.374 <sup>a</sup>	.140	.138	683.61726

a. Predictors: (Constant), Hispanic, Gender, SES, Moves

**Table 25***Model Summary for English II STAAR EOC 3-year combined (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.305 <sup>a</sup>	.093	.093	701.44541
2	.361 <sup>b</sup>	.130	.130	686.99300
3	.373 <sup>c</sup>	.140	.138	683.57688

a. Predictors: (Constant), Moves

b. Predictors: (Constant), Moves, Gender

c. Predictors: (Constant), Moves, Gender, SES

**Table 26***Regression Coefficients for Algebra I STAAR EOC 3-year combined*

<b>Coefficients<sup>a</sup></b>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4877.723	319.764		15.254	.000
	Gender	-99.173	24.788	-.078	-4.001	.000
	Hispanic	-92.400	152.089	-.012	-.608	.544
	Moves	-177.179	12.482	-.278	-14.195	.000
	SES	-220.257	56.631	-.076	-3.889	.000

a. Dependent Variable: score

**Table 27***Model Summary for Algebra I STAAR EOC 3-year combined (Enter Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.302 <sup>a</sup>	.091	.090	605.35764

a. Predictors: (Constant), 1=Hispanic, 1=Gender, Moves, 1=SES

**Table 28***Model Summary for Algebra I STAAR EOC 3-year combined (Stepwise Method)*

<b>Model Summary</b>				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.281 <sup>a</sup>	.079	.079	609.07518
2	.292 <sup>b</sup>	.085	.085	607.10400
3	.302 <sup>c</sup>	.091	.090	605.27750

a. Predictors: (Constant), Moves

b. Predictors: (Constant), Moves, Gender

c. Predictors: (Constant), Moves, Gender, SES

## BIOGRAPHICAL SKETCH

Juan C. Garza, son of Yolanda T. Garza was born on November 12, 1965 in McAllen, Texas. He graduated from Pharr-San Juan-Alamo High School in 1984. He enlisted in the United States Army and served 21 years as an Airborne Ranger Infantryman from June 1984 until his retirement in August 2005. While in the military he graduated with an Associate of Liberal Arts from St. Leo College, Florida in 1996 and a Bachelor of Arts in History from Northwestern State University in Natchitoches, Louisiana in December 2001. He earned a Master of Liberal Arts in Military History in August 2005 from Louisiana State University in Baton Rouge, Louisiana. He received a Doctor of Education in Educational Leadership from the University of Texas Rio Grande Valley in December 2020.

Juan began his educational career at PSJA Memorial High School as a Social Studies teacher in August 2005 where he taught for 3 years. He was an assistant principal at PSJA Memorial High School for 1 year and PSJA High School for 2 years, until he became principal at Alamo Middle School for 3 years. He was then promoted to principal at PSJA Memorial Early College High School where he worked for 4 years and followed that with being the Director of the ACT-RGV until September 2019.

Juan resides with his wife, Lina Maria and their daughter Sophia in McAllen, Texas. He can be reached at [jcgarza88@yahoo.com](mailto:jcgarza88@yahoo.com).