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The Relationship Of Participation In A Summer Transition Program For At-risk Ninth Grade Students And Their Progress Towards On-time Graduation

Joseph Harper
University of Central Florida

THE RELATIONSHIP OF PARTICIPATION IN A SUMMER TRANSITION PROGRAM FOR AT-RISK NINTH GRADE STUDENTS AND THEIR PROGRESS TOWARDS ON-TIME GRADUATION

by

TIM HARPER
B. A. Columbia College, 1990
M. S. Florida State University, 2007

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Major Professors: Rosemarye Taylor
Deborah Hahs-Vaughn

ABSTRACT

The purpose of this study was to explore the characteristics and relationships of participants and non-participants of the summer academic program in a local school district. The summer program also includes a component providing support to students as they progress through four years of high school. The study used 5,369 student records to conduct the study of the first cohort of students who entered their ninth grade in the 2009-2010 academic year.

The greatest gift this study can give is a more complete understanding of at-risk students, especially as it applies to the public school district used in the research. This paper is dedicated to the one student who may benefit from interventions, such as the summer transition program, designed to help him or her complete their high school education on-time and go to even greater accomplishments in this great nation.

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CHAPTER ONE: INTRODUCTION

The United States faces what many consider an epidemic. This epidemic, however, is not one to be fought with the instruments of medical science. Instead, it is a social epidemic and, more specifically, one that impacts the nation's educational system. Emphasis at the national, state, and local levels has been placed on the epidemic of students dropping out of high school so much so that some schools throughout the nation have been labeled as "dropout factories" (Balfanz, Bridgeland, Moore, & Fox, 2010). The National Governors Association (2005), in an effort to define a national metric, agreed upon one formula to calculate graduation rates in each of the 50 states and to make comparisons. To meet the challenge of decreasing high school dropout rates, school districts have turned to programs designed to improve the on-time graduation rates for at-risk students.

One of these potential solutions, the Transition Program, has been implemented to address the high school dropout issue and is the subject of this study. The What Works Clearinghouse of the U.S. Department of Education (2008) provides several recommendations for decreasing the dropout rate. Three of the recommendations focus on the use of specific interventions on at-risk students to mitigate the risks of dropping out of high school: (a) remaining in school, (b) on-time progression in school, and (c) on-time completion of school. The recommended interventions focus on the complex problem of high school dropout; one that educators have confronted for well over 100 years.

High school dropout concerns required the focus of educators throughout the 20th century and these concerns continue into the 21st century; especially in an era of accountability where graduation metrics are being used to determine the effectiveness of a school and its teachers. Since the separation of schools into separate grade levels, educators have been concerned with

keeping students in school (Smith, 1997). Denmark developed one of the earliest known transition programs in 1903, according to Smith. The primary goal of Denmark's transition program was to improve the staying power of students transitioning from elementary to secondary school.

Transition programs across the United States and within Florida historically have not distinguished between those focused primarily on the transition from middle to high school and those focused on other issues such as keeping students in middle school or the myriad of other academic and behavioral concerns (Smith, 1997). Yet research indicates that the transition period is one worthy of both comprehensive and intensive interventions, especially for students who may be at-risk of dropping out of school (Cauley & Jovanovich, 2006). The research and data both provide practitioners with evidence that the ninth grade experiences the greatest number of failures than any other grade level (Cauley & Jovanovich). Furthermore, Smith (1997) concludes that transition programs are making a difference when addressing the problem of ninth grade failures. She points to national data indicating that schools with comprehensive transition programs have fewer dropouts and that students tend to achieve at higher levels than schools without such programs.

So important is the issue of high school dropout and inverse of on-time graduation that the governors of all 50 states created and adopted a uniform formula for calculating the high school dropout rate (Balfanz et al., 2010). Prior to the development of a uniform graduation rate, states used a variety of methods to calculate their graduation rates, leading to confusion and accuracy issues, especially when trying to define the extent of the dropout problem. Among the many implications of inconsistent, at best, or inaccurate, at worst, methodologies used to calculate either dropout or graduation rates include the inability to apply and improve needed

intervention programs for at-risk students. The most recent national graduation rate, released in March, 2012, indicates that approximately 75% of freshmen graduated within four years of entering high school (Hefling, 2012). Yet positive news is on the horizon from a variety of locally implemented early warning and intervention programs dedicated specifically to students who are considered most at-risk of not completing high school (Balfanz et al.).

Florida is not immune to the epidemic of high school dropouts. Data available from the Florida Department of Education (FL-DOE), for the school year 2010-2011, reported Florida's graduation rate, using the Federal Uniform Rate, at 70.6%. Even more disconcerting are graduation rates among minority students, such as Hispanic and Black students. Minority students within gender present even greater challenges for on-time graduation. For example, Florida reports a graduation rate for Black, African American students at 58.6% and Hispanic/Latino students at 69.4%, both below the state mean. Drilling down into the data one level deeper reveals that Black, African-American males suffer from a graduation rate of 52.6% while the Hispanic/Latino male rate was 65.2% (Florida Department of Education, 2012).

As alarming as the ethnicity and gender rates may be, they are only two of many factors that may place a student in the category of at-risk in terms of graduating on-time. Other factors include, but are not limited to, socio-economic status, as determined by whether or not a student participates in the free or reduced lunch program, parental support, retention at one or more grade levels, high absenteeism, and relatively high rates of disciplinary incidents at school (Malloy, 1997). While some factors, such as ethnicity and gender, cannot be controlled, others can be controlled or, at least, mitigated in terms of risk due to repetitive behavior. These factors can individually or collectively lead to a student not graduating from high school on-time or completely dropping out of school (Malloy).

The transition program examined as part of this study was implemented in 2009 in a local public school district located in the Central Florida area. Funding for the operation of the transition program is supplemented by a sizeable contribution from a major corporation. The school district has eight comprehensive high schools serving high school students. Seven of the nine schools serve between 2,000 and 3,000 students and one serves approximately 3,200 students each year.

Each of the schools is given enough flexibility to implement and continue a transition program tailored to the needs of students served. The intent of providing flexibility is to avoid a one-size-fits all approach, taking into consideration that each high school has its own set of challenges in terms of at-risk students, on-time graduation, funding, and staffing. The approach the school district continues to take, in response to its transition program, is supported in both theory and practice by the adaptive leadership concept presented by Owens and Valesky (2007).

The school district's philosophy, regarding the transition program, embraces the body of literature addressing the need for leadership that is change adept at the school entity level. On-time graduation for at-risk students is a complex problem, requiring both technical expertise and adaptive abilities at all levels in a learning organization (Owens & Valesky). Understanding the complex frame within which the problem of on-time graduation exists, the school district requires each high school to provide a formalized transition program between the eighth and ninth grades for at-risk students, yet empowers each school with the necessary flexibility to adapt the transition program to the needs of their student population. However, the overarching component of each school-based program is to assist at-risk students during the critical transition period from middle to high school to realize the promise of success for each.

Lan and Lanthier (2003) indicated that the transition to high school is a high risk period of time for at-risk students and can have a significant effect on students completing high school on-time. Other commonalities of the school district's transition program include strategies such as mentoring, relationship building, a teach-forward concept, and ongoing support beyond the transition period. Figure 1 describes the transition program interventions and support from eighth grade to the senior year of high school.

<table>
<tr><td rowspan="2">8th Grade</td><td rowspan="2">Summer Transition Program</td><td>9th Grade</td><td>10th Grade</td><td>11th Grade</td><td>12th Grade</td></tr>
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Figure 1: Transition Program: Eighth Grade to Twelfth Grade

This study examines data from the first cohort of transition students within a public school district in Central Florida. The cohort transitioned to high school at the beginning of the 2009-2010 school year. At the end of the 2011-2012 school year, the cohort completed the second semester of their junior year of high school. While the research study will conclude prior to students graduating from high school, preventing the use of actual on-time graduation rates, certain academic characteristics can be defined and examined to determine if relationships exist between students participating in the transition program and their on-time graduation status. It is the intent of the researcher and the school district to use the results as information to better inform decision-makers on questions relating to transition program effectiveness, improvement, and potential expansion or increased investment of resources.

Statement of the Problem

A common national, state, and local public education concern is the number of students who do not choose to stay in high school and graduate on-time. While there are many variables

that impact the decision to drop out of high school, leaders at all levels are seeking solutions to the issues that are within their control.

Three individuals have conducted separate studies on the transition program being operated in a Central Florida school district. The three individual studies address two primary domains: affective and academic. Researcher 1 used a mixed-methods approach to gain insight to student perceptions after having participated in the program for three years. Researchers 2 and 3 used quantitative data to analyze academic progress and success of transition program participants. Researcher 2 examined data specific to student success in one of the four core academic subjects, Algebra I. Research 3, the author of this study, examined whether or not promise students are on-track to graduate with their cohort at the end of their junior year.

Purpose of the Study

The purpose of this study was to explore the characteristics and relationships of participants and non-participants of the summer academic program in a local school district. The summer program also includes a component providing support to students as they progress through four years of high school.

The study identified whether or not relationships exist between promise students in the transition program and their on-track graduation progress. Comparisons were also drawn between student-participants in the transition program and the population of students who were not in need of transition interventions. A second purpose was to compare students with multiple risk factors who are participating to those who are not participating, in terms of their on-track graduation status. Data were also used to describe student demographics of promise students and compare those demographics to the school demographic profile. The dataset of the cohort of students, used in this research, completed their junior year of high school in May, 2012.

Therefore, on-track status is a major metric since students have not formally completed the program nor have they graduated.

A further purpose of this study is to add to the body of knowledge on the effectiveness of transition programs in addressing the dropout rate experienced in high schools throughout the United States.

Significance of the Study

This study adds to the district's understanding of the effectiveness of its current transition program. The desired results of the school district are for transition students to maintain on-track status, referred to as academic achievement for purposes of this research, and by improved graduation rates. Cohen and Smerdon (2009) observed that the transition from middle to high school is a positive move for some students but "for others, particularly those who have struggled academically, the competitive and impersonal nature of high school takes a negative toll on their performance and behaviors" (p. 179). Hertzog and Morgan (2001) argue that assessing a program's effectiveness will result in a program design that benefits all stakeholders and "makes a difference in students' school and future success" (p. 16).

The study's findings inform the district in its efforts to accurately define its return-on-investment in the transition program and assist in the decision-making process revolving around program continuation, changes, and augmentation. By examining data at the district level and at the school level, the data identify certain school level programs in need of additional research.

Considering that this study examines a transition program within one school district in Florida, the results are not likely to be generalizable. The school district is a suburban public school district in the Central Florida region that is considered academically high-performing. Consequently, the transition program within the school district may not prove to be successful in

other school districts dissimilar in nature. Even in school districts of similar demographics and academic performance, the author cautions against assuming generalizability due to other variables and factors not included in the study.

Operational Definitions

The study defines certain words and phrases in operational terms. These terms include, but are not limited to, at-risk or promise students, on-time graduation rate, high school graduation cohort, grade point average (GPA), and high school credits. The following terms are defined for the purpose of this study.

Academic success

A student who is on-time to graduate with their 4-year cohort is also considered to be academically successful, for purposes of this paper. Academic success in this study is based on two areas: credits earned and state assessment success. Students who have completed their junior year at the end of the 2011-2012 school year, who are seven or less credits away from graduation, and have passed the state assessments will be considered academically successful.

At-Risk

Students who are ineligible for promotion from middle to high school, or eighth to ninth grade as is the case in the local public school district in this study, because they did not earn a 2.0 GPA, failed one or more academic course, are non-proficient in reading and math (as evidenced by their eighth grade FCAT performance), and/or have been retained two or more times. The term "promise students" is used interchangeably in an attempt to avoid using the common, negative "at-risk" description throughout the research.

Credits Earned for On-Track Status

A total of 18 credits must be accumulated to be considered on-track towards graduation at the completion of the student's junior year of high school.

Course Grades

Final course grades are awarded at the completion of course and term. The individual student receives performance marks, in the form of a letter grade. The letter grades, or marks, are reported as "A", "B", "C", "D", or "F". Each letter grade is defined numerically as a point-value range. An "A" is between 90-100 points, a "B" between 80-89, a "C" between 70-79, a "D" between 60-69, and a grade of "F" is equivalent to a point value range between 0 and 59.

Eligibility

Athletic eligibility is determined by the student's academic standing. Students who meet specific academic thresholds, such as a 2.0 GPA, are considered eligible to participate in school sponsored athletic or other extracurricular programs.

Florida Comprehensive Assessment Test (FCAT)

Students are currently required to have passing scores on both the mathematics and reading sections of the FCAT, in order to graduate. Both the reading and mathematics portions of the assessment are given in the student's tenth grade year.

Free and Reduced Lunch Program

This program is part of the National School Lunch program. Data used to identify students participating in the program is often referred to "Socio-Economic Status" or SES data and represents students who are considered economically disadvantaged according to the FL-DOE. For the purpose of this study, students identified as participants in the free and reduced lunch program will also be considered students of poverty. However, it is important to

distinguish the difference between national poverty thresholds and the threshold for eligibility in the free and reduced lunch program. The national poverty threshold for a family of four is an annual income $22,350 while the threshold for free meals is $29,055 and reduced meal price is $41,348 for a family of four according to the United States Department of Agriculture (2011).

Cumulative Grade Point Average

The cumulative grade point average, or GPA, is the numeric average of a student's grades. A 2.50 GPA is the midpoint between a "B" (3.0) and a "C" (2.0).

High School Credit

Students who complete a full-year course with a grade of "D" or better are awarded one high school credit for the course. The district currently requires 26 credits for graduation, many in specific core areas such as English, math, science, and social studies. Each student is able to complete at least seven credits each year, for a total of 28 prior to graduation.

High School Graduation Cohort

First time freshman students in high school, i.e. non-repeaters, are the population used to create the data set often referred to in Florida as the graduation cohort. Individual cohorts are monitored for four consecutive school years. Students are expected to graduate on-time and with a standard diploma within the four academic years of high school. The four years begin at the high school point-of-entry which is the initial ninth grade year. The population of students who graduate within the four years are considered on-time graduates.

On-track for Graduation

A student who is considered on-track for graduation will have accumulated at least 18 full credits at the completion of their junior year of high school.

Participant

A student who attends and completes the first summer of the transition program is considered a participant of the transition program.

Promise Students

The generally accepted term for the author's use of "promise students" is "at-risk" students. Individual students not eligible for promotion from middle to high school are considered promise students. These students are identified as such because they have an eighth grade GPA below 2.0, have failed one or more of their eighth grade core courses, have been identified as non-proficient in either mathematics or reading according to their eighth grade FCAT scores, or they have been retained at least once in elementary or middle school. In some cases, promise students have more than one of the above at-risk factors.

School Profile

A description of the school in terms of ethnicity, gender, free and reduced lunch, historical graduation rates, etc.

Survey 5

The Florida Department of Education collects data representing the culmination of each school year in August. Survey 5 data were reported on any student who attended a school within the district at any time during the school year. For the purposes of this research, Survey 5 data will be used from three school year, 2009-2010, 2010-2011, and 2011-2012.

Transition Program

The Transition Program uses a teach forward model in the school district used for this study. Students work on coursework in the core courses English, Algebra and Science, during the summer transition program as they move from middle to high school. In addition to the core

academics of the transition program, developing good study habits along with work in areas such as high school writing and reading skills are included. An affective component is also included as part of the summer transition program. Students are assigned mentors, often both adult and student mentors, as part of the program. Ongoing indicators, such as attendance and discipline, are monitored throughout the program.

Truancy

A student who is absent from school for an extended period of time or who exhibits a pattern of absences from school is considered truant. Truancy is applicable for students who are within the compulsory age to attend school. Florida's compulsory attendance laws do not apply to students who are 16 years of age or older.

Conceptual Framework

Emphasis on graduation rates has led states, school districts, and schools to focus on ways to reduce the number of high school dropouts in an attempt to boost graduation rates. The national, state, and local focus on the dropout crisis has led to the demand that schools do a better job not just in graduating more students but graduating more students on-time. Efforts to improve on-time graduation range from implementing formal interventions, such as transition programs, to improving systems used to track and report data related to the academic performance and progression of each student. The foundation of any effort to improve on-time graduation is the theoretical construct that the decision to drop out of high school is a process as opposed to a one-time event (Scheel et al., 2009). Embedded within the construct are two critical components, according to Scheel et al., that can contribute to the end result of dropping out of school: (a) academic success, and (b) student engagement.

Lack of Academic Success

Several factors place promise students in jeopardy of successfully completing high school on-time. Of these known factors, some of the more commonly identified in research include lack of academic success, failure on standardize tests, lack of support both at school and at home or in the community, low self-esteem, retention in previous grade levels, relatively high absenteeism rates, and discipline issues at school (Malloy, 1997). Understanding the significance of the factors allow educators to use them as indicators to identify students who may be at-risk of dropping out of high school.

Oftentimes, the indicators present themselves prior to entering high school. For example, a student may be retained one or more years in elementary school. Other students may excel in elementary school only to become derailed in middle school, losing academic focus and motivation which, in turn, may lead to increased absences from school. The negative results of these at-risk factors often culminate during the transition from middle school to high school. Students may need intensive individual support to refocus and reengage them in their education (Cohen & Smerdon, 2009).

Each of the above at-risk factors has the potential to be controlled using certain interventions. However, there are factors beyond the control of human or program interventions, yet are shown to contribute to potentially dropping out of high school, especially when combined with other at-risk indicators. Uncontrolled factors include students of poverty or low socio-economic status, as defined by participation in the national school lunch free and reduce lunch program, gender, and minority students (Rice & Roelke, 2003). Hispanic and Black students represent the largest minorities where gaps exist in graduation rates when compared to both the national mean and to their White and Asian counterparts. Scheel et al. (2009) report that

students of poverty were six times more likely to drop out of school compared to students who were not from poverty-stricken families. A 2005 report by Swanson (2008) represents the role ethnicity and gender play in graduating from high school. Swanson's analysis of Common Core of Data (CCD) from the U.S. Department of Education shows gaps in both ethnicity and gender when compared to the national mean and when comparisons are made within each sub-group. While the national graduation rate was reported at 70.6% for 2005, Native American students had the lowest rate at 50.6% followed by Black students at 55.3%. Female students had a 50.6% graduation rate compared to their male counterparts at 55.3% (Swanson, 2008).

At-risk students transitioning from eighth to ninth grade begin their final journey towards graduation at a disadvantage due, in part, to non-existent or insufficient support mechanisms (Scheel et al., 2009). These promise students are often derailed because of a myriad of complications, some social, some academic, but oftentimes a combination of the two areas. Derailed students experience increased school-related stress during the transition period. The already stressful period in a student's life, during transition, is brought about by the change in educational environment, increased campus and class sizes leading to limited and reduced interaction with adults who otherwise may serve as mentors, and overall reduced autonomy (Eccles, Lord, & Midley, 1991).

Lack of Student Engagement

Absenteeism, or truancy, is another factor leading to increased risks of dropping out of high school (Lever, Sander, Lombardo, Randall, Axelrod, Rubenstein, 2004). Oftentimes, absenteeism is coupled with relatively high incidents of disciplinary problems in school. Each of these at-risk factors contributes to decreased levels of engagement in school.

Transition programs are designed to re-engage students in their education through programs offered during the summer of the student's transition from eighth to ninth grade. Some programs extend beyond the middle-to-high school transition by offering support throughout the student's high school career. Student engagement is the primary purpose of most transition programs, considering that students who are engaged in their learning are less likely to drop out of high school (Rumberger & Larson, 1998). Academic, extracurricular, and social activities often help at-risk students re-engage in their learning (Rumberger & Larson, Goldschmidt & Wang, 1999).

Prescriptive interventions, such as the transition program being studied, may provide beneficial support to students whose academic career, prior to the transition to high school, included absenteeism and discipline at-risk factors. Research of other transition programs indicate the potential benefit of helping students remain in school, thus increasing their chance of graduating from high school (Hallfors, Vevea, Iritani, Cho, Khatapoush, & Saxe, 2002). Cauley and Jovanovich (2006) identify common activities that are part of transition programs and are designed to improve student engagement; they include meetings between at-risk students and administrators and guidance counselors before the ninth grade year begins and providing time for students to become familiar with their new high school before beginning their ninth grade year.

Increasing graduation rates continue to maintain a high profile at the national, state, and local levels. It is a metric that is calculated on an annual basis, leading to examination of districts improving, remaining the same, or declining in the number of students graduating with the cohort (Florida Department of Education, 2011b). Both district and school-level leaders are expected to improve on-time graduation rates within a range of acceptable limits. The concept of this proposed study operates within the framework of one school district's transition program,

using data to analyze relationships between the program and its participants. The author's hope is for the results to assist the district in its effort to help all students succeed in their K-12 career.

Research Questions

The following three questions are answered using data provided by the district. These data include student demographics such as ethnicity and gender as well as data indicating participation in certain programs. Also included in the data are credits earned for each of the first three years of high school. Credits earned is also operationally defined in the operational definitions section of this chapter.

1. How do the student demographics and school profiles of transition program participants and non-participants compare, in terms of student subgroups: gender, ethnicity, students with disabilities (SWD), English language learners (ELL), Free and Reduced Lunch (FRL), and attendance?
2. What is the relationship, if any, between transition program participants and non-participants, as determined by credits earned by the end of the junior year?
3. What is the difference, if any, between being included in a student subgroup (gender, ethnicity, SWD, ELL, FRL, and truant) and participation or non-participation in a transition program, as measured by credits earned, at the end of the junior year?

Table 1

Data Sources used to answer research questions

Research Questions	Data Sources	Dependent/Independent Variables	Method of Data Analysis
1	Transition program data and Student Demographic, Exceptional Student Education, and English Language Learners formats from Survey 5 during the 2009-2010, 2010-2011, and 2011-2012 school years.	Program Participation, Gender, Ethnicity, SWD, ELL, FRL, Attendance	Descriptive Statistics
2		Credits Earned/Transition Program Participation, non-participation	Chi-square for independence
3		Credits Earned/Gender, Ethnicity, SWD, ELL, FRL, Attendance and Transition Program Participation	Logistic regression using binary and continuous variables

Methodology

A correlational study encompassing both descriptive and relationship statistics was used in this research. Student data were obtained from the school district with restrictions of student confidentiality, as required by federal law and the Internal Review Board of the University of Central Florida. The school district maintains student data as part of its state reporting requirements and grant-funded transition program requirements. The researcher took all necessary and reasonable precautions to remove any and all personally identifiable information on each student, in accordance with the Family Educational Rights and Privacy Act (FERPA). Data have been reported in aggregate-fashion only, with no identifiable data at the individual student level.

Data Source

Data used in this research, as mentioned above, came from two areas: (a) that which is reported to the FL-DOE, and (b) that which is compiled and reported as part of the grant requirements. Data reported to the FL-DOE provides information on all students in the district transitioning to their 9th grade year during the 2009-2010 school year. These data included the necessary demographics and credits earned data as of August, 2012. Data compiled and reported as part of the grant requirements allowed the researcher to match students who participated in the transition program to data reported to the FL-DOE.

Data Analysis

The purpose of research question 1 was two-fold: 1) to compare data from students in the transition program disaggregated by school to data from respective schools as a whole; and 2) to compare data from students in the transition program, aggregated to the district-level, to data from the district as a whole. Data used to answer research question 1 include whether or not the student participated in the transition program, gender, ethnicity, English Language Learner (ELL), Free-and-Reduced Lunch (FRL), and students with disabilities (SWD). Attendance will be reported for the district and for each school for the entering ninth grade population and for the at-risk transition cohort population. Frequencies and percentages as well as means and standard deviations, where appropriate, will be reported.

The purpose of research question 2 was to determine the relationship, if any, between transition program participation and non-participation and remaining on-track for graduation at the conclusion of the junior year? The Chi-square test of association will be used to analyze data for this question. The independent variable is whether or not the student participated in the transition program offered by the local public school district. The dependent variable is whether

or not the student was on-track for graduation at the end of their junior year.

The purpose of research question 3 was to determine the extent to which being on-track for graduation at the conclusion of the junior year could be predicted by participation or non-participation in the summer transition program as well as gender, ethnicity, SWD, ELL, FRL, and truancy. Logistic regression will be used to analyze the data. The dependent variable is whether or not the student has earned the sufficient number of high school credits (as determined by the local school district's policy), at the end of their junior year of high school, to be considered on-track for graduation. Considering the role attendance played in other research, attendance will also be investigated to determine if there were significant differences in average daily attendance rates among the sub-groups. Attendance will be measured as days absent only for their ninth grade of high school and used to determine its effect, if any, in being on-track for graduation at the end of their junior year.

Population

The population included all 8th grade students who transitioned from middle school to high school at the beginning of the 2009-2010 school year. On May 27, 2012, 1,196 students were identified as eligible to participate in the local school district's transition program and 467 students were identified as participating in the transition program during the summer of 2009. Eligibility was determined by primarily by grade point average (GPA) but also may have included other academic at-risk factors. Academic risk-factors included failing at-least one core course, e.g. language arts, science, mathematics, or social studies, or a grade point average (GPA) below 2.0 during the student's eighth grade year.

Instrumentation

IBM's® SPSS® Version 20 was used to import and analyze transition program data and

data reported by the district to the Florida Department of Education. Outputs, or results, are included in the final report provided to the school district and the doctoral committee.

Procedures

Approval to conduct this research was obtained from the researcher's doctoral committee and committee chair and from the University of Central Florida's Internal Review Board (IRB). The author also submitted a written request to the school district for their approval to access and use student data to complete the research. Student data used in this study had all personally identifiable information removed prior to its use in this study.

Limitations

1. This study used data from a mid-sized, academically high-performing, public school district located in Central Florida. Consequently, it is likely that the study is not generalizable to other districts or schools that do not share similar characteristics.
2. While comparisons have been made and relationships, if any, between the transition program and participants have been identified using the data, the author does not imply causality in any output of statistical results.
3. Generalizability of the research may be limited due to confounding variables and factors not included in this study.
4. Student mobility was not accounted for in this study and may be a considerable factor in relation to participants continuing to maintain on-track status towards graduation.

Delimitations

1. The study was confined to the total transition program in the district. While some comparisons have been made, such as school profiles, most of the results encompass the transition program as a whole and not at each school level.

2. Data used in the study stops at the end of the junior year of transition program participants.
3. Attrition, or students who leave the school as a transfer-out during the period the study encompasses, are not reported.

Summary

Leadership in public education is under increasing pressure to improve the quality of education. Part of this quality is measured by using graduation rates. In recent history, news of high dropout and low graduation rates has been described as a crisis (Balfanz et al., 2010). Graduating from high school on-time is an integral part of each school's and district's accountability measure. As a result, each year this one metric receives considerable attention and many resources are invested to help students, specifically those who are at-risk, graduate on-time; consequently moving the metric in a positive direction. Investigating and reporting on the transition program of a local school district has resulted in the availability of quantitative data. The results provide the school district a more complete picture of the transition program; therefore facilitating the process of answering timely and relevant questions regarding program improvement. It is the hope of this author that district stakeholders will use the report to remind them of the importance for every child to experience academic success by graduating from high school, regardless of the many factors affecting their lives.

CHAPTER TWO: REVIEW OF LITERATURE

Introduction

The purpose of the review of literature is to present research and information relative to on-time graduation for at-risk students during and beyond the transition from middle to high school. While the focus of this study is the transition program in a public school district, a thorough understanding of the complex problem of achieving graduation, and particularly on-time graduation by at-risk high school students is relevant to any study attempting to determine relationships between transition programs and the student-participants. Therefore, this review will move from national, to state, to local school district topics relevant to high school graduation for students who are considered at-risk. Topics of interest will include research and information from a wide-range of perspectives; including graduation data, metrics for tracking and defining graduation rates, research about middle-to-high school transition, transition-type interventions that have been documented and studied, and the current transition program in a local school district within the Central Florida area.

The research problem centers on at-risk students who transition from middle to high school and their potential for on-time graduation when provided specifically designed intervention programs. Research exists on the positive effects of scalable intervention programs whose purpose is to help at-risk students to graduate on-time with their cohort peers (Balfanz et al., 2010). The transition period, for purposes of this paper, is defined as the period of time when a student moves from the eighth to ninth grade; or what may also be referred to as the move from middle to high school. The transition period has often been overlooked and undervalued as a critical period of time when students, especially those who are at-risk, have increased dropout potential (Lan & Lanthier, 2003). Yet, Cohen and Smerdon (2009) suggest that any serious

reform focused on improving high school graduation rates will include middle-to-high school transition programs.

Although a high school diploma does not guarantee success in any individual's life, it often leads to relative achievement when taking into consideration the paths of those who do not graduate from high school. While there is no exact science to predict the future of high school dropouts, sufficient data exist indicating that students who fail to complete high school are more likely to be unemployed, leading to a life of poverty and, in some cases, increased chances of becoming part of the penal system (Montgomery & Hirth, 2011; Ou & Reynolds, 2008). Balfanz et al., (2010) present the high school graduation and its reciprocal dropout problem within the context of quality of life in social terms. Their work posits that high school graduates, when compared to their peers who dropout, are more likely to gain access to better health care, improved potential for sufficient retirement and more ability to provide education for their children. Also, worthy of consideration is the 2002 figure by Thurlow, Sinclair, and Johnson indicating that 80% of inmates are high school dropouts. One estimate, published by Silva et al. (2012), suggests that "high school graduates will earn $130,000 more over their lifetimes than dropouts, and that high school graduates will generate more than $200,000 in higher tax revenues and savings in government expenditures over their lifetime." Logically, the implementation of yet another public program, such as middle to high school transition programs for at-risk students, takes additional resources but the alternative may be future costs dropouts place on society. One example of potential later burden brought to bear on society is the annual cost of approximately $51,000 to incarcerate an individual (Thurlow et al.).

Educational attainment, in general, and, more specifically, high school graduation has become a key focal point of many researchers, policy-makers, and educators over several

decades and its importance continues to expand as demand for an educated workforce grows (Day & Newburger, 2002). Furthermore, scrutiny of high school graduation has shifted to the framework of on-time graduation with emphasis on interventions for those students who are considered at-risk. The significance may best be described by Balfanz et al. (2010) using the Marshall Plan concept from World War II to reconstruct Europe. The new concept, titled the Civic Marshall Plan, focuses on building a nation of graduates by deploying resources to help improve on-time graduation for all students.

Literature used to build both the theoretical and conceptual frameworks of this study were found using exhaustive searches within several online databases. The databases are subscribed to by the University of Central Florida. The university's librarian was consulted at various times, either in person or by email, during the search for literature. Keywords used during the search for literature included "high school graduation", "at-risk graduation rates", "transition programs", "middle-to-high school transition", "middle school transition", "at-risk youths", "educational attainment", "dropout", "predicators", "on-track indicators", "graduation", "school dropout", "dropout prevention", and "graduation rates". Initial queries were limited to peer-reviewed articles within the past ten years, beginning with 2012. However, as contemporary literature was reviewed, the author realized the importance of the historical nature of on-time high school graduation; therefore, search constraints were relaxed, in terms of time, to include articles and research older than ten years. Research not directly related to transition programs nor related to high school graduation was used when appropriate.

The review of literature associated with on-time graduation and the importance of transition programs is organized and presented in a 2-tiered approach. Sub-topics are embedded within each tier as a method of placing the subject and supporting literature within the context of

the value of on-time high school graduation for all students. The first tier considers high school graduation from a more global stance while the second tier explores selected issues challenging the on-time graduation of at-risk students. Tier 1 reviews literature from a *Graduation Rate Perspective* and includes topics beginning with the *Historical Perspective* and then moving sequentially through high school graduation issues using a *National Perspective, Perspective in Florida,* and *Perspective at the Local Level*. Tier 2 will present on-time graduation from an issues perspective and, as such, is titled *Issues Impacting On-Time Graduation for At-Risk Students*. Topics presented in this section include *Transition Factors, Demographic Factors, Personal Factors,* and *Individual Factors*. Each of these *factors* has research-based literature to support their importance when examining interventions which may prove beneficial as treatment for students who may be at-risk of dropping out of high school.

Graduation Rate Perspectives

One of the more recent events increasing awareness of the high school graduation problem can be attributed to the phrase dropout factory coined by Robert Balfanz (2007). The Balfanz data of 2007 identified close to 1,700 schools, throughout the United States, that could be labeled as a dropout factory. Balfanz identified a school as a dropout factory using graduation rate as a metric. A school was labeled as a dropout factory if the senior class was made up of 60% or less of the original cohort who entered the ninth grade four years earlier. Interestingly enough, the phrase coined by Balfanz, whether intentional or not, carries a historical perspective simply by the use of one word, factory. Using the retrospective concept of factories within the context of the U.S. Industrial Revolution, the question becomes one of improving [factory] school efficiency through the use of specifically targeted strategies that improve [quality] student achievement and reduce the incidence of students dropping out of school.

Historical Perspective

High school graduation and its reciprocal dropout issue is not a new problem facing the United States. Earlier recorded works addressing high school dropout appeared as early as 1911 and focused on what was called the elimination of students in secondary schools in New York City (Barclay & Doll, 2001). Subsequent studies, cited by Barclay and Doll, were published throughout the first half of the 20th Century, each seemingly identifying common threads of factors either defining students as likely or not likely to graduation from high school. Smith (1943) indicated that students from lower income families made up less than 33% of the students who were taking advantage of high school. In fact, it was not until 1950 that the United States experienced more students successfully completing high school than those who did not (Schreiber, Kaplan, & Strom, 1965).

A significant study occurred later in the century by Fitzsimmons, Cheever, Leonard, and Macunovich (1969). Their research was geographically bound to the New England area, which is a limitation, but it did result in findings about students who today may be considered at-risk due to academic performance. Findings in their study included the potential for early identification of at-risk students in both elementary and middle school. Seventy-five percent of the sample of low performing students could have been identified by the fourth grade, according to their research. A more compelling argument for identifying at-risk students and providing intervention was evidence by their results indicating that 90% of the low performing students were considered as failing academically at the middle school level.

Aside from the academic factors, as described in the above paragraph, Barclay and Doll (2001) cite other earlier studies where additional at-risk indicators were used as variables to explain high school dropout. Factors in these earlier studies fell into areas such as sociometry,

family demographics, and student mobility (Davis, 1967; Schreiber et al., 1965). As of 2012, these factors continue to be studied and have been correlated with an increased chance of dropping out of high school.

At the same time, studies prior to the 1970s did not include evidence of the effect of individual student ethnicity (Barclay & Doll, 2001), requiring more research into the prominence of student ethnicity and its correlation to graduating on-time and the converse of dropping out. However, Barclay and Doll also posit that research of high school completion for at-risk students, regardless of the point-in-time the research is undertaken, has its greatest value when it draws a more complete understanding of those factors that increase student persistence in school. Likewise, a deeper understanding may ultimately lead to development, implementation, and improvement of intervention programs, such as middle-to-high school transition programs, with the hope of improving student achievement and, consequently, high school graduation rates.

A National Perspective

High school graduation is a national concern and one that may even play a small role in the continuation of the democratic ideals of this nation. Thomas Jefferson, as quoted by The Thomas Jefferson Foundation (2012), made the following comment in 1787 to James Madison; "Above all things I hope the education of the common people will be attended to; convinced that on their good sense we may rely with the most security for the preservation of a due degree of liberty." (para. 5) In the CBS News report, *US Makes Modest Gains in Graduation Rate* (Bryan et al., 2009), it appears that only one in four students in the United States graduates from high school. Yet the Alliance for Education (2009) reported that 69% of students graduate from high school. Regardless of the rate one chooses to rely or report on, both leave significant room for improvement even after 220 years of Jefferson's statement on the importance of educating the

common people.

Although the purpose of this paper is not to examine graduation rate methodology, it is important to note the variations in calculating graduation rates. Without a uniform method and algorithm for calculating graduation rates, it is impossible to accurately measure if improvements are being made over time. If measurements are inconsistent, at best, or even inaccurate, then it renders nearly impossible any attempt to gauge program effectiveness in the broader contextual framework of national graduation rates.

The need for a uniform graduation rate formula is being implemented across the nation through an initiative by the National Governors Association (Curran & Reyna, 2010). Governors of all 50 states have agreed to implement a uniform formula to calculate high school graduation rates. This new method for calculating graduation rates will provide the consistency needed to measure improvements at national, state, and local levels and will allow program evaluations to be compared to uniform rates at each level. All states will be measured against the uniform rate beginning in the 2011-12 school year (Balfanz, et al., 2010). Fitzpatrick, Sanders, and Worthen (2011) appropriately suggest in *Program Evaluation: Alternative Approaches and Practical Guidelines* that "society's concern over...pervasive and perplexing problems has intensified, so have its efforts to resolve them" (p. 4). Improving graduation rates among all students is described in the following paragraphs as a complex problem. Likewise, the nation as a whole has increased its efforts to resolve the complex problem of on-time graduation for at-risk students. Consistent measurement of graduation rates nation-wide may lead to program improvements, resulting in increased on-time graduation rates for at-risk students who receive intervention as part of transition programs (Balfanz et al, 2010).

Swanson (2009) provides data indicating the economic significance to the nation and the

individual of obtaining a high school diploma. For example, the U. S. workforce was made up of approximately 75% of individuals with a high school diploma or less in 1975, but by 2005 that margin had been reduced to less than 50%. Swanson's report suggests that students with a high school diploma make, on average, $9,000 more annually than their peers who did not complete high school. According to the U.S. Bureau of the Census (2006), this can equate to approximately $260,000 more over the lifetime of the individual.

Aside from the economic benefits of educational attainment, there are disconcerting data indicating that successful high school graduation remains elusive for many minority students and students from poverty. Although recent trends report improvement in the overall national graduation rate, data still indicate that 40% of African American, Hispanic, and Native American students leave high school prior to graduation (Bryan, 2012; Balfanz, et al., 2010). Socio-economic status, as measured by participation in the national Free and Reduced Lunch Program, appears to be another factor where a disproportionate number of students fail to complete high school. On average, students who are from low-SES families will experience academic difficulty ranging from low academic achievement, and its consequence of grade level retention, to dropping out of school (Gutman, Sameroff, & Cole, 2003). When these factors are combined, the individual student's chances of graduating become even less.

Additional at-risk indicators include factors mainly related to academic performance and engagement. National interest in data systems serving as early warning systems continues to grow (Balfanz et al., 2010). Such systems can provide an early indication of warning signs at the individual student level, allowing for the application of timely interventions at the local level. Systems such as these rely on indicators such as demographics and social-status, as described in the above paragraph, as well as attendance in school, discipline-related problems, and academic

performance (Balfanz et al.).

Florida Perspective

For reasons previously described from the national perspective, difficulties exist when comparing year-by-year graduation rates in Florida. However, there are enough data to suggest that Florida is improving in its on-time graduation rate along with the nation. According to the Florida Department of Education (2011b), state graduation rates have increased from 70.3% in 2006-07 to 80.1% in 2010-11, using the National Governors Association (NGA) rate. Graduation rates for African American students over the same period of time increased from 56.9% to 68.4%, Hispanic students increased from 64.3% to 77.3%, and Native American students 71.8% to 78.4% (FL-DOE, 2011). Both White and Asian students experienced a smaller percent of improvement from 2006-07, but both ethnic groups continue to maintain higher graduation rates than their peers who were African American or Hispanic. During the period of time from 2006-07, Florida graduation rates for White students increased from 78.6% to 86.8% and Asian students improved from 82.2% to 89.6% (FLDOE).

Examination of socio-economic status among Florida students, when considering graduation rates and using the Free-and-Reduced Lunch (FRL) program as a metric of socio-economic status, reveals graduation rates similar to the disproportionalities found in graduation rates between ethnic groups. Florida reported a 60.27% graduation rate among students participating in the FRL program while 77% of non-FRL participants graduated (FLDOE, 2010). Graduation rates using FRL subgroups use the Federal Uniform Rate and comparisons to prior years do not exists for this calculation method (FLDOE). The nearly 40% of SES students who do not graduate on-time with their cohort also supports the need for specifically targeted interventions for this particular subgroup and is consistent with prior empirical research

identifying students from low-SES families as at-risk of dropping out of high school (Rumberger, 1987).

Perspective at the Local School District Level

One public school district in the Central Florida area implemented a formal middle-to-high school transition program in response to recognizing the need to improve the success rates for high school graduation among at-risk students. The school district, one of the 10 largest in Florida, applied for and received a grant from AT&T® in 2008 to support existing transition programs that had evidence of reducing high school retention and, consequently, improved on-time graduation among specific groups of students the district identified as at-risk. Christenson and Thurlow (2004), using other research supporting the construct of dropout as a process rather than a one-time event in a student's life, suggest interventions provided early in the transition process are more likely to have a positive impact on the student's trajectory in high school and beyond. Likewise, the AT & T grant directed recipients to serve students transitioning from eighth-to-ninth grade. The school district's transition program begins during the summer of the student's transition from middle to highs school and its objectives are to engage, or reengage, students in the school community and improve academic performance (Christenson & Thurlow).

Another requirement of the grant was that it focuses interventions on moderately at-risk students. The on-time graduation concern for at-risk students is a complex issue, one that cannot be deduced to the reductionist view in which poor test scores alone explain academic failure (Scheel et al., 2009). At-risk characteristics of the student landed in the areas of academic performance, school engagement, and individual behavior. Similar at-risk characteristics, such as course failure, declining test scores, and behavioral issues, are referred to by Cohen and Smerdon (2009), who also recommend that high school reforms include provisions for transition

programs. Yet academic at-risk factors cannot stand alone in describing the complex issue of student failure when transitioning to high school. School engagement, as measured by student attendance, is also considered one of the core factors when developing prevention programs, according to work done by Johnson, Holt, and Bry (2008). Lastly, the component of individual behavior, as evidence in school discipline-related incidents, can place a student at-risk of graduating on-time from high school (Barclay & Doll, 2001).

The importance of interventions, such as transition programs, focusing on more than one risk factor is evident in increased effect sizes (Foxcroft, Lister-Sharp, & Lowe, 1997; Gorman, 1998). Designing multifaceted programs also aids in aligning the program within the theory that effective transition programs cannot be designed as a one-size-fits-all solution, especially considering that dropping out of school is a process that often begins prior to the middle-to-high school transition period (Cohen & Smerdon, 2009; Balfanz et al., 2010). The local school district's description of its transition program appeared to take into consideration that multiple at-risk factors should be addressed (AT & T, 2008).

The program's design includes activities to engage students in school, provided mentoring, both by peers and adults, and monitoring of academic performance. The program integrates a *teach forward* concept to provide students with summer work in mathematics, language arts, and science. Multiple strategies wrapped around the transition program effectively increases support resources available to at-risk students. This addresses the finding by Pharris-Ciurej, Hirschman, and Willhoft (2011) that lack of resources among at-risk students increases the chance of failure when immersed in the rigors of high school.

Issues Impacting On-Time Graduation for At-Risk Students

The problem of on-time graduation for at-risk students is a complexity comprised of

social, academic, individual, and family background issues. Bradley and Renzulli (2011) use pullout and pushout theories to describe the dropout issue from either the external pull out concept or the internal pushout concept. The pullout theory contextualizes the decision to leave school based on external factors such as the need to get a job. The pushout theory, by contrast, describes the process as one being initiated within the school environment, such as policies that reduce or eliminate the persistence of at-risk students to stay in school. For example, a significant policy that remains prevalent in public education today, and in the school district studied in this paper, is that of grade-level retention. Katz (2008) recommends intervention services in lieu of or in combination with grade-level retention as a remediation strategy. Katz further explains that her research uncovered that most retained students were found to also be students of low-SES. Among her research conclusions is that grade level retention rarely results in long-term improvement in student achievement but should rather be replaced with intervention programs.

Other research attempts to explain the problem in other terms, such as distal risks or demographic characteristics, learning disabilities, academic deficiencies, or family background. Demonstrating the staying power of variables affecting high school completion is a study referenced by Barclay and Doll and conducted by Schreiber (1964b):

> These were principally demographic studies, which showed that most students who did not complete high school (a) left by the 10th grade, (b) had been retained at least once in an earlier grade, (c) had parents who also had not finished high school, (d) were reading below grade level, and (e) had been classified as 'below average' in intelligence. A disproportionate number of these students had been suspended from school or were considered serious behavior problems. (Barclay & Doll, 2001, p. 359)

However the problem is approached, there is sufficient research pointing to the complexities of keeping at-risk students on-track for on-time graduation, but there is relatively little research on the effectiveness of intervention programs.

Transition Factors

Treatments are applied to a myriad of issues in public education and are often referred to as interventions. Interventions often referred to as "transition programs" are designed to help at-risk students graduate from high school, in general, and, more specifically, to help mitigate associated risks when transitioning from middle-to-high school among students exhibiting defined at-risk factors. Such interventions range from point-in-time interventions to more program-type interventions lasting well into the high school experience or, in some schools, throughout the high school experience (Rumberger, 1987; Neild, 2009).

Transition Program Characteristics

Interventions designed to reduce the chance of dropping out of high school or, conversely, help students maintain on-track graduation status with their cohort are often labeled as "high school transition programs". While the goal of such programs is to help at-risk students graduate from high school, their objectives differ as defined by scope of the individual program. Neild (2009) differentiates programs as those that are designed to help students become more familiar with their new high school setting, some are designed to support students while adjusting to the increased academic rigors of high school, and others may focus on student adjustments to the social scene at high school. Other researchers, such as Christenson and Thurlow (2004), have identified the importance of interventions focused on personal-affective areas, at the beginning of the program, and then shifting to academic-focused interventions.

While specifically targeted interventions are included in many prior studies, there is some

indication that the level of intensity can determine program effectiveness. Creating and implementing single, point-in-time activities, such as tutoring and counseling, are easy in comparison to full program development and implementation. Empirical research exists supporting the power of increased intensity of interventions when attempting to increase effect size and, consequently, enhance transition program relevance for at-risk students (Christenson & Thurlow, 2009). An understanding of the necessity of longer term intervention has the potential to move transition program effectiveness beyond that of the reductionist viewpoint, where single activities simply correct academic deficiencies based on test scores, to a place where the intervention program is complex and relatively more complete (Scheel et al., 2009). This approach also recognizes that the transition period is not a one-time event; rather it is an event that, for some students, extends well into their tenth grade year (Cohen & Smerdon, 2009).

More recent research suggest that transition programs should not be designed around the concept of one-size-fits-all but should rather use a flexible treatment approach where students receive the intervention they need, according to their deficiencies (Cohen & Smerdon, 2009; Bradley & Renzulli, 2011; Johnson et al., 2008; Neild, 2009). Admittedly, this design approach is more complex but it also acknowledges that at-risk students are deemed "at-risk" for varying reasons. As such, the transition program should address areas with the contexts of social, academic, and, as much as possible, community (Bradley & Renzulli).

The concept of transition program complexity is derived from research suggesting the at-risk graduation issue is wrapped around the complexity of several variables (Alexander, Entwisle, & Horsey, 1997). The transition program being studied in this paper was implemented in a local Central Florida school district during the 2009-2010 academic year. While the school district's transition program effectively begins during the summer transition from middle-to-high

school, it also extends beyond the summer period, providing service to program participants up to graduation.

Increased intensity often leads to a progressively developed transition program that stretches, in terms of time, well into the high school experience. Public schools, within the context as learning organizations, have themselves transitioned to more increased focus on outcomes and programs that help the organization reach well-defined outcome-based goals and objectives that are measureable, such as improved graduation rates among the at-risk students. Fitzpatrick, Sanders, and Worthen (2011) support the idea that programs of this nature can be evaluated for effectiveness, leading to greater decision-making power among policy-makers, such as governing school boards, district and school-based administrators, and teachers.

Transition Program Research

As previously discussed, transition programs represent a variety of treatments, from one-time interventions to more long-term programs whose goal is to correct the prevailing problem of dropping out of high school, especially among at-risk youth. Some transition programs are founded upon the need for more empirical data while others are more conceptual in nature. As of the mid-2000s, few transition programs had been researched in terms of effectiveness (Scheel et al., 2009). Two programs documented by Scheel et al., include *Tools for Tomorrow* and *Check and Connect*.

The *Tools for Tomorrow* program was developed in Boston, Massachusetts. The program is founded on theoretical constructs and, according to Scheel et al., does not provide enough empirical data to determine effectiveness. The program is based on individual motivation, grounded on the theory of Self Determination (Ryan & Deci, 1985), promoting the need for the at-risk student to develop life goals, thereby providing the necessary direction a

student needs to move forward with hope.

Check and Connect programs were initially used in the Minneapolis, Minnesota area by Sinclair, Christenson, Evelo, and Hurley (1998). The program is founded on student engagement principles, using the approach that dropping out of school is not a one-time event but rather a process of detachment that may begin years before the student transitions to high school (Finn, 1993; Cappella & Weinstein, 2001). The *check* part of the program employs monitoring strategies, where student attendance, discipline-related issues, and credits earned are watched by school-level educators. This part of the program ties into the research being conducted by the author considering that the variable of credits earned is an indicator or on-track for graduation purposes. The *connect* function of the program is twofold; using both family and school-based adults to provide interventions engaging the student in the school community (Scheel et al., 2009).

The previous paragraphs describe two specific programs, but there is limited research defining what a "good" intervention is for at-risk students transitioning to high school (Janosz, Le Blanc, Boulerice, & Tremblay, 2000). As of the mid-2000s, there was considerably more research identifying the dropout population and at-risk factors but little on transition or intervention programs (Christenson & Thurlow, 2004). Yet, research identifies the middle-to-high school transition as a time when most students, especially those considered at-risk, experience increased stress resulting in declining academic performance and disengagement in the school environment (Capella & Weinstein, 2001). Similar to differentiated instruction, effective intervention programs "closely match their content and didactic methods to the specific needs, vulnerabilities, and strengths of the participants" (Janosz et al., p. 172) and attributes the phrase of "differential intervention" to the treatment. The importance of this concept is its

emphasis that no one intervention can meet the various and complex needs of all at-risk student-participants.

Student Demographic Factors

Although little research exists about transition programs and their effectiveness, there is ample research concerning the relationship between demographic factors of at-risk students and their propensity to drop out of high school. In addition to the quantity of research, the research also spans across time, providing insight to the problem within a historical context as well as issues confronting educators and policy-makers in the 21st Century. As noted by Tesseneer and Tesseneer (1958), the root cause leading to the decision to drop out of high school is often not a solitary issue; rather it is a complex problem involving factors that affect each individual student in different ways, thereby placing the student at-risk of completing high school.

Ethnicity

The increase of minority populations across the United States has resulted in increased awareness of the relationship between student ethnicity and high school graduation. Rumberger (1987) suggests that increased attention to the dropout issue is due, in part, to statistics indicating that minority students consistently lag behind their white peers in graduation rates; the one exception being students of Asian descent. Focus on the reasons why minority students fail to complete high school has also resulted in increased interest in the relationship of ethnicity and high school graduation among all ethnic subgroups; due in part because the dropout rate of non-minority students has increased (Rumberger, 1993). Pharris-Ciurej et al. (2011) provide more recent statistics supporting the fact that a graduation gap between non-minority and minority students exists. Their research offers a comprehensive view of the issue by indicating that dropout rates are above the average for students who are African-American, Hispanic, or Native

American as well as for students who are born outside of the United States (Pharris-Ciurej et al.). Scheel et al. (2009) state that "African American and Latino youth in U.S. schools graduate only slightly more than 50% of the time." (p. 1148). Beyond the scope of this study, but still important enough to note, is research by Cappella and Weinstein (2001) reporting that African-American students were more likely to receive lower grades compared to Caucasian children and that lower marks continue, by comparison, throughout the rest of their public school education. The noteworthy significance of chronic lower academic marks among African-American students may relate to the development of other at-risk factors such as grade level retention, school discipline related issued, and overall disengagement from school and the learning process.

The significance of ethnicity is slowly moving away from emphasis on minority students toward a more universal approach; considering all subgroups and the relationship between ethnicity and successful high school completion. Researchers Janosz et al. (2000) acknowledge that while minority students are more likely to drop out of high school, dropouts in reality come from all ethnic backgrounds. The relevance of this approach is that all students are considered during the decision of whether or not to place a student, not just a minority student, into a transition program.

Gender

Previous reference has been made to school dropout as a process rather than a one-time event in the life of an at-risk student. In addition to other at-risk factors, Ou and Reynolds (2008) indicate that differences exist between genders during the processes leading to school dropout; with males experiencing higher dropout rates than females. The Florida Department of Education (2011) reports graduation rates for males and females to be 66.04% and 75.30%, respectively. However, there are studies that suggest gender alone is not an at-risk factor, year-

over-year, in parsimonious modeling (Gutman et al., 2003). Data, as reported by Chapman, Laird, Ifill, and KewalRamani (2011) for the National Center for Education Statistics (NCES), use an "event dropout rate" and a "status dropout rate" to report dropouts using age range between 15-24 for the event rate and 16-24 for the status rate. Chapman et al. report the following:

> There was no measureable difference in the 2009 event dropout rates for males and females, a pattern generally found since 1972. Exceptions to this pattern occurred in four years, 1974, 1976, 1978, and 2000, when males had measurably higher event dropout rates than females. (p. 5)

"Males ages 16-24 had a higher status dropout rate than females in 2009 (9.1% versus 7.0%)". (Chapman, et al., p. 8).

It is important to note that both event and status dropout rates used by the NCES are not based on a cohort but rather on an age range for defining their population.

Given that the status dropout rate is aligned closer to cohort rates, it is relatively safe to say that most data indicate a higher percentage of females graduating than males. In some research, gender is reported as a risk-factor but researchers may fail to control for gender when gender-specific interventions were used (Zvoch, 2006). The prevalence of gender in studies is evident in that 56% of the references (n=62) mention gender as part of the study. Furthermore, of those that include or mention gender as part of the research (n=35), 37% indicate that gender alone is often insignificant, when controlling for other variables.

Taking into consideration the contradictory nature of research when using gender as a graduation predictor, gender still remains a predictive variable, in most research (Gutman et al., 2003; Chapman et al., 2011; Janosz et al., 2000). The problem is twofold; 1) gender alone does

not provide enough empirical traction to make transition placement decisions, and 2) gender is a stronger predictor for the population but not as an individual factor for transition placement purposes when not combined with multiple risk models (Gutman et al.). Even though males tend to have a greater dropout statistic, gender, used as a single graduation predictor, failed to provide a level of significance in at least one prior study, Pearson χ^2 (3, N= 301) = 2.25, p = .52 (Janosz et al.) This does not imply that gender should not be used as one of many variables, but rather that gender alone may not be an indicator when used to provide or select the individual for intervention services, such as participating in a transition program.

Florida reported the Federal Uniform Graduation Rate for the school year 2010-2011 between male and female as 66.04% and 75.30%, respectively (FLDOE, 2012). The by-gender graduation rate for the local school district used in this research was reported as 74.25% for males and 83.62% for females, using the same reporting year (FLDOE). Considering the disparity between genders in both the Florida and the school district's cohort data, the use of gender is important to the study as both a single point of datum and among other at-risk data for relational purposes.

Individual Factors

The complex nature of studying student populations in terms of being at-risk and its negative consequence of dropping out of school or the inverse positive consequence of graduating from high school has necessitated the use of dichotomies within the population. Some research, such as Gutman et al. (2003) separate factors into categories labeled as "risk factor", "promotive factor", "protective factor", and "vulnerability factor". Other studies focused only on risk factors, some having further classified these factors as individual, contextual, or social, have used even more restrictive descriptors such as school climate (Janosz

et al., 2000; Ou & Reynolds, 2008). Research conducted for this paper defines individual factors as a learning disability, participating in the English Language Learner program, or being identified as student with a low-Socio-Economic Status, also referred to as low-SES.

Learning Disabilities

Some research supports the relationship between successful, on-time high school graduation and students who have learning disabilities. In many research cases, especially those using multiple risk modeling, having a learning disability is considered to be one of the many risk factors which will place a student at-risk of graduating high school with their cohort (Gutman et al., 2003; McIntosh, Flannery, Sugai, Braun, & Cochrane, 2008). While consideration of a student with learning challenges may be the starting point for at-risk identification, other factors in combination increase the likelihood of dropout; these additional factors include low-SES and certain ethnic backgrounds (Thurlow et al., 2002). Yet students with a learning disability are twice as likely to drop out of school, according to Thurlow et al.

Research conducted by Janosz et al. (2000), at-risk students were classified in one of three areas; disengaged, low achievers, or maladjusted. They classified students with learning challenges in the low achievers group and hypothesized that these students were in need of specific intervention strategies focused in the area of academics including the presence of a highly effective teacher. Thurlow and her associates (2002) also discuss the importance of adult-type relationships, such as mentoring, and school engagement in conjunction with strategies focused on academic achievement. Later research by Gutman et al. (2003) suggests that varying learning abilities were related to grade point average (GPA). Using GPA as an indicator of learning challenges by Gutman et al. was in reference to the use of school absences, also as an indicator of learning challenges. However, their research suggested that absences may better

reflect behavioral issues rather than academic deficiencies. Since graduating from high school with a standard diploma is contingent on GPA, the inference here is that learning disabilities are an at-risk factor to a certain degree.

When factoring in gender, some studies suggest that males who also are also at-risk due to a learning disability have lower graduation rates (Gunn, Chorney, & Poulsen, 2009). The Federal Uniform Graduation Rate categorizes students using "ESE", or exceptional student education, as a subgroup. Florida's statewide 2010-2011 ESE graduation rate was 44.37%, compared to 70.56% for the entire cohort population (FLDOE, 2011). The 2010-2011 ESE graduation rate in the local school district used in this study 54.46%, compared to the district rate of 78.77% (FLDOE). The disparity between the ESE and general [cohort] population was deemed sufficient enough by this author to include in the research that was conducted.

English Language Learners

Students whose first language is other than English are often considered at-risk due to language barriers. Yet the English Language Learner (ELL) factor is often temporary in nature and only represents approximately 2% of the student population (Pharris-Ciurej et al., 2012). Students identified as ELL spend between one and six years in the program, eventually exiting into general education classes without program support.

Rumberger (1987) found that students who were considered as part of the "language minority" population experienced a higher dropout rate than their counterparts. Of greater interest in Rumberger's study is that students with the combination of the at-risk factors of low-SES and a language spoken at home that is not English experience higher dropout rates. Compounding the issue of ELL as a factor is research that indicates low student performance in the early grades, leading to grade retention (Montgomery & Hirth, 2011). Again, research tends

to support the need to consider ELL as one of several factors and to control for other at-risk factors when considering the relationship of ELL to successful high school completion.

Socio-Economic Status

Much of the literature reviewed for this study pointed socio-economic status (SES) as one of the primary at-risk factors for on-time graduation. Within the context of this study, SES is measured using Free-and-Reduced Lunch (FRL) data. Even the transition phase, when a student moves from middle to high school, can be a barrier to low-SES students, resulting in either continuation of low academic achievement or the beginning of a downward spiral related, in part, to the impersonal environment of high school and lack of support at home (Cohen & Smerdon, 2009). Protective factors, such as those embedded in comprehensive transition programs, can improve the resiliency of low-SES students as they adjust to the high school setting (Johnson et al., 2008; Capella & Weinstein, 2001).

The transition to high school for low-SES students, particularly for those with multiple risk factors, requires intervention programs that are of relatively good quality; providing early and frequent activities wrapped around social and academic concepts (Johnson et al.). Interventions of this nature must not be designed as a one-size-fits-all solution but should provide a differentiated intervention approach (Janosz et al, 2000; Johnson et al.). One study, conducted by Smith (2001) takes the support concept for low-SES students one step further by suggesting that differential interventions and supports include both community and parental provisions. While this ideal seems to be logical, the challenge turns out to be one of cultural achievability when trying to include external resources over which schools have no control. Nevertheless, family or student SES has proven to be a strong predictor or dropout (Alexander et al., 1997).

In relation to the discussion about achievement gaps, typically revolving around gaps between ethnic subgroups, Carpenter and Ramirez have identified substantive gaps where SES is included as an at-risk factor (2007). When parental involvement is increased, Carpenter and Ramirez indicate an overall increase in student achievement in mathematics. However, this increase is also accompanied by a corresponding increase in student or family SES, a variable school districts cannot control.

Heck and Mahoe (2006) lead to a rather significant concept, suggesting that the culminating decision to leave high school is arrived at by the individual's educational trajectory and life contexts. Therefore, the significance of transition programs is its potential to positively impact both student academic trajectory and social integration as they move to the relatively impersonal environment of high school (Heck & Mahoe). Tangential results of implementing, increasing or improving interventions, such as those offered in transition programs, may be the decrease in achievement gaps among sub-groups; with potential to reduce the disparity of more than 13 percentage points in the dropout rate between high and low-SES students (Rumberger, 1987). The need to close the gap between these two groups is also apparent in graduation rates of the 2010-11 cohort at both the state and local school district level in Florida. The Federal Uniform Graduation Rate for 2010-11 in Florida was 60.27% for Free and Reduced Lunch students, also known as low-SES, compared to 70.56% to the general population (FLDOE, 2011). The disparity in rates at the school district level is even greater, with low-SES students graduating at the rate of 63.84% and the general school district population graduation rate at 78.77% in 2010-11, using the same data from the FLDOE.

School Factors

School factors, for purposes of this study, are considered grade level retention, grade

point average, attendance, and maintaining on-track graduation status in high school. Much of the literature used for this study included discipline-related events at school; however, discipline as an at-risk factor is not being considered within the scope of this research. Future research could focus on discipline as at-risk factor, taking into account interactive effects of discipline on at least one of the above at-risk factors, attendance, in the African-American subgroup (Gutman et al., 2003).

Regardless of the classification of each of the four at-risk factors to be discussed, and those that may be excluded from the study, their importance has been shown to be predictors of school dropout (Janosz, et al., 2000). For example, researchers Hess, Lyons, and Corsino , as cited in Janosz et al., established an 85% accuracy rate using student attendance as early as the third grade to predict dropout. Janosz et al., posit that classifying and grouping research-based at-risk factors are effective in identifying potential dropouts and, consequently, are valuable indicators for providing interventions such as those provided in transition programs.

Retention and Assignment

Concerns of grade level retention, its effect on a student's transition to high school and the relationship to successful high school completion is evident in the literature used for this paper. According to McCoy (1999), national estimates suggest that nearly 20% of students are retained at least once by the third grade. Assuming a 20% retention rate by the third grade, then grade retention presents a considerable population of at-risk students transitioning to high school in their later years.

Students who have been retained prior to entering high school are considered at-risk, regardless of other factors (Slavin & Madden, 1989). Grade level retention is not a new factor in research; it has been included in studies for 40 years or more and philosophies about grade level

retention as a remediation has shifted from one side of the spectrum to the other (Montgomery & Hirth, 2011). According to Roderick, Goldschmidt and Wang, as cited in Montgomery and Hirth, grade level retention at the elementary school significantly increased the chances of dropping out of school, possibly doubling the chance of becoming a dropout.

One consideration and suggestion for the school district being studied, in relation to grade level retention, is the review of grade level retention and assignment policies. Empirical data suggest a link between grade retention policies and school dropout in the later years (Christenson & Thurlow, 2004). McCoy (1999) comments on the resurgence of grade level retention policies to remediate poor academic performance. Jimerson et al. (1997) suggests that cumulative research indicates grade level retention, used as a remediation strategy, infuses more long-term risks when compared to the potential positive effects of retention.

Another consideration is the effectiveness of transition programs on grade level retention in the ninth grade. McCallumore and Sparapani (2010) report that ninth grade enrollment is generally the highest of all four years of high school; due mainly to a ninth grade retention rate of approximately 22%. Some schools using transition programs to support transition students have reported a decrease in first year retention among freshman (Morgan & Hertzog, 2001). Pharris-Ciurej et al. (2011) characterize the ninth grade as a period of "shock" for most freshmen, particularly for at-risk students. The ninth grade year is a critical year to the success of the at-risk student and is accompanied by an increase in grade level population followed by a decrease in population of the subsequent tenth grade year; evidence of both retention and dropout issues (Cohen & Smerdon, 2009). Neild (2009) refers to the increased number of transition programs being implemented in high schools as an intervention to reduce the nearly one-third of students nationally who fail to be promoted beyond the ninth grade.

Grade level retention is considered a primary at-risk factor for identifying at-risk students transitioning from middle-to-high school. Jimerson et al. (1997) studied 190 students in Minnesota and found that retained students were more likely to experience difficulties with social and academic adjustments throughout their education and were more likely to become disengaged in school. Unlike many of the other at-risk factors, such as ethnicity and gender, grade level retention may be used as a single at-risk indicator of potential struggles for the student who is entering their final phase of K-12 education. A primary, single metric useful for determining transition program effectiveness is grade level retention rates (Morgan & Hertzog, 2001).

Attendance

Ou and Reynolds (2008) consider school attendance as a "protective factor" and one that influences student resiliency. Beyond the scope of this paper, yet important for consideration in future research, are additional findings by Ou and Reynolds that students who attended a magnet school in Chicago are 60% more likely to graduate from high school. Attendance, within Ou's and Reynold's magnet school context, is presented as attending a certain type of school. However, attendance in the context of this paper is defined, in the basic sense, of being in school on a daily basis. Naturally, the inverse of being in school is the absence from school; and a history of poor attendance is what Christenson and Thurlow (2008) have identified as evidence of disengaging from school and, consequently, a strong at-risk indicator of school dropout.

Absence from school is often a problem for all students, regardless of achievement level, social status, ethnicity, or other challenges. Attendance is also a measure of the level of school engagement, especially at the upper levels (Alexander et al., 1997). One way of quantifying attendance is presented in a study by Neild, Balfanz, and Herzog (2007), where they were able to

identify transition students as at-risk if they had an annual attendance rate below 80% in middle school (Montgomery & Hirth, 2011). Using attendance to identify at-risk students prior to high school may be a way to provide intervening transition support as these students move into the ninth grade.

Comprehensive transition programs offer evidence of improving school engagement, as measured by improved school attendance, by reducing resistance to school (Morgan & Hertzog, 2001; Heck & Mahoe, 2006; McCallumore & Sparapani, 2010). Some at-risk students who lack support at home often find the transition program to be there only support mechanism; one that may provide the motivation to remain engaged in school (Neild et al., 2007).

Grade Point Average

Grade point average, or GPA, may be considered an at-risk indicator but may also be indicative of the existence of other at-risk factors, such as low-SES, learning disabilities, or poor attendance (Bradley & Renzulli, 2011). Their research considers two perspectives of GPA in relation to high school non-completion: one being "pulled out" of school and the other being "pushed out". Each perspective presents its own challenges and must be dealt with at different levels, such as societal influences on pull out students and policy influences on push out students.

An interesting statistic offered by Pharris-Ciurej et al. (2012) suggests that minimal dropout risks do not appear until GPA approaches the 3.0 level, using a 4.0 scale. Pharris-Ciurej and his colleagues use the phrase "9th grade shock" to describe the turbulent period for at-risk students during their first semester of high school. Their research used the GPA of students in the eighth grade and then again in ninth grade and found that by the time freshmen began second semester more than one-third of the sample population (n=7,441) had a GPA of less than 2.0 on a

4.0 scale. The result of their study provides evidence that poor GPA in the ninth grade is a predictor of eventual high school dropout.

GPA is a complex factor when considering possible causes of low GPA, but monitoring GPA for at-risk students may be one of the first steps in providing effective intervention to transition students (Bradley & Renzulli, 2011). Neild (2009) considers one possible school based intervention which, on the surface, may not be generally included as part of the transition program. She suggests that schedule changes during the ninth grade year for at-risk students add to the already disruptive nature of the transition from middle to high school. Her research of one transition program in Milwaukee reported that transitions students with GPAs of 2.0 or higher indicated that they had caring teachers. These two examples, one addressing school-level policy implications and the other addressing the possible influence of caring adult-relationships, such as student-teacher relationships, provide insight to strategies that may improve GPAs and can be included in transition programs.

Use of multiple risk indicators when modeling the drop out potential for at-risk students is often considered appropriate, but the disadvantage is oversight or lack of consideration of the influence of single indices, such as GPA (Gutman et al., 2003). In the research conducted by Gutman et al., GPA is more closely aligned to academic ability rather than other areas such as school engagement or social issues. However, their research also pointed to the importance of positive student-teacher relationships, peer relationships, and consistency in areas such as discipline; all of which should be considered as essential components of an effective transition program. Their study further suggests a relationship between GPA from first to sixth grade and the GPA from seventh to twelfth grades. The implication is that GPA may be an early indicator of at-risk characteristics, well before the transition to high school.

On-Track Graduation Status

A pattern in the research used to this point appears to point to the overall importance of school engagement, especially among at-risk students transitioning to high school. For purposes of this study, on-track graduation status is defined as the accumulation of credits to satisfy grade level promotion requirements in the local school district. Christenson and Thurlow (2003) refer to this as the "accrual of credits". On-track status is directly influenced by school district policy which requires that high school students successfully complete 26 full course credits in order to graduate; compared to 24 credits required for graduation by the State of Florida.

Frequent monitoring of credits earned or the risk of course failure is an important component to the transition program and to keeping students on-track for graduation purposes. The *Check and Connect* program, as presented by Scheel et al. (2009) incorporates the concept of credit checks in the *Check* portion of the transition program, using this one feature as a measure of individual student progression through each grade level in high school. In some cases, checking for credits is secondary to actual student understanding of the importance of credits in high school. Transition programs, at the outset, should include an educational component that explains the concept of credits in the high school setting, according to Morgan and Hertzog (2001). Since some school districts do not require credits for grade promotion in middle school, the concept of credit accumulation may be foreign to some students transitioning to high school.

Summary

According to Balfanz et al. (2010), the nation is well below the 90% graduation rate goal set for 2020. Using 2008 data from the United States Department of Education and considering subgroups by ethnicity, only Asian students meet or exceed the 90% goal with a graduation rate

of 91%; their counterparts, in comparison, are 81% for White students, 64% for Hispanic and Native American, exclusively, and 62% for African-American students. These data only point to one of the many groups of students not meeting the graduation rate goal.

Graduation rates by ethnic subgroups may provide insight to one area of possible at-risk indicators, but there are several indicators supported by research; each should make up part of the multiple risk models used to determine where the problems exists, which factors are present more of a relationship to potential dropout, and the extent to which interventions, such as transition programs, may reduce dropout potential (Gutman et al., 2003). At-risk factors, such as ethnicity, gender, language, socio-economic status, grade level retention, and attendance, are supported by research as being dropout predictors, to one degree or another, as students transition from middle-to-high school (Neild et al., 2007; Rumberger, 1987; Barclay & Doll, 2001). Each of these factors may be a single risk or may be part of a compilation of risks contributing to the "ninth grade shock", as described by Pharris-Ciurej et al. (2011), among all students, particularly those at-risk. However, Neild (2009) also suggests that local transition programs can mitigate these at-risk factors as students move from middle-to-high school.

Comprehensive transition programs, as defined by this researcher, are designed to begin interventions by the summer of the high school transition period and extend into the high school experience. One research article by McCallumore and Sparapani (2010) recommends the extension of transition programs at least into the ninth grade. Extending transition programs at least through ninth grade is supported by research over a thirty year period completed by Haney and cited in Neild (2009). This research, spanning from 1970 to 2000, indicates that ninth grade "increasingly became a primary bottleneck" in high school. In addition extending support into the high school career, comprehensive programs should include interventions focusing on both

affective and academic domains (Ehristenson & Thurlow, 2004).

Empirical evidence exists pointing to the role of at-risk factors in the process of dropping out of school. Studies also support the usefulness of transition programs in reducing the effects of these at-risk factors among middle school students entering high school. The author of this paper will examine the transition program of a local public school district in the Central Florida area to determine relationships between transition program participants and their on-track graduation status at the end of their junior year of high school. The population will also be studied by subgroups, using several of the at-risk indicators described in this review of literature. An improved understanding of at-risk students and their on-track status may lead to improvements in the current transition program; an outcome ultimately lending itself to more relevant and timely interventions in future transition cohorts.

CHAPTER THREE: METHODOLOGY

Introduction and Design

The purpose of this study was to provide information to the local school district about its transition program, as described in chapter one. The transition program in the local school district used for this paper is a program designed to provide intervention services to at-risk students beginning at the period of time when the student is transitioning from middle to high school and extending throughout the student's high school career. The program's overall goal is to provide support to those students defined as at-risk so that they may graduate on-time with their cohort. The information is derived from data specific to the initial cohort of transition students. The chapter is organized into three of the areas suggested by Lunenburg and Irby (2008): (a) selection of participants, (b) data collection, and (c) data analysis.

Each research question is wrapped within the greater context of students graduating from high school on-time. The problem statement, as given in chapter one, mainly identifies the challenges of keeping at-risk students on-track to graduate from high school with their cohort within the traditional four years of high school. Since the initial cohort of the local school district began their freshman year of high school during the 2009-2010 school year, the most recent data available are from the cohort's completion of their junior year of high school in 2011-2012. As such, on-time graduation cannot be absolutely measured for each transition student but may be projected; using each student's on-track status as measured by accumulated credits at the completion of three years of high school. Therefore, the on-track status is used as an indicator of relative success towards on-time high school completion.

The study is comprised of three research questions. The following questions, initially presented in chapter one, are restated as follows:

1. How do the student demographics and school profiles of transition program participants and non-participants compare, in terms of student subgroups: gender, ethnicity, students with disabilities (SWD), English language learners (ELL), Free and Reduced Lunch (FRL), and attendance?
2. What is the relationship, if any, between transition program participants and non-participants, as determined by credits earned by the end of the junior year?
3. What is the difference, if any, between being included in a student subgroup, (gender, ethnicity, SWD, ELL, FRL, and truant) and participation or non-participation in a transition program, as measured by credits earned, at the end of their junior year?

Selection of Participants

The target population for this study was the freshman class of the 2009-2010 academic year. The local school district operates schools at each of the following levels: elementary, middle, and high school. Elementary schools consist of prekindergarten through fifth grades, middle schools consist of sixth through eighth grades and high schools consist of ninth through twelfth grades. Students who move from eighth grade to ninth grade are either *promoted* or *assigned.* Students who met all academic requirements for promotion have the *promoted* status attached to their records in Survey 5. Each district in Florida is required to send student data to the FLDOE at various times of each academic year; these cycles are referred to as *surveys*. Survey 5 is student data reported to the Florida's Department of Education at the end of each school year. Data were provided, by the local school district, using files sent to the Florida Department of Education (FLDOE). Students who have not met the academic requirements may be *assigned* to the ninth grade pending approval by the principal of the student's sending middle school. A student who has been *assigned* has the accompanying code attached to their record for

reporting purposes in Survey 5. Students who have been *assigned* are also provided the opportunity to participate in the local school district's transition program. Although *assigned* students are given the opportunity to participate in the transition program they are not required to participate; an item of consideration when conducting this research. Students who are retained in eighth grade are likewise noted in their records and are not included in this study.

The local school district had 6,113 students eligible for either promotion or assignment during the middle-to-high school transition years of 2008-2009 to 2009-2010. Although 6,113 students were eligible for promotion or assignment, only 5,369 were accounted for at the actual start of the 2009-2010 academic year. The loss is primarily due to students who transferred out of the district during the summer months of 2009. Within the population of 6,113 students were 1,196 who were deemed eligible, by the local school district, to participate in the transition program. Of the 1,196 who were eligible to participate in the local school district's transition program, 511 students self-selected to participate in the summer transition program. At the start of the 2009-2010 academic year, 467 (91.4%) of the 511 summer transition program participants began school. Loss of population during the transition summer, or that period of time when the cohort of students transitioned from middle to high school, will not be accounted for in this research.

A total of 1,196 students participated in this study. The grade point averages (GPA) of the 1,196 participating students ranged from 0 to 2.0 on a 4.0 scale. The GPA for each student was calculated by the local school district using grades from the student's eighth grade year. Of this population of 1,196, 467 participated in the summer transition program. Of the 467 transition program students, 30 had GPAs higher than 2.0. Although GPA is the primary factor used to select students eligible for the program, other factors such as low scores on state

assessments, were considered by the local school district. The size of the populations, particularly the smaller participant population (N_p) will, at a minimum, fulfill the need for practical significance in this study (Krathwohl, 2009).

Data Collection

Quantitative methodologies were used for the entirety of this study. The study followed research protocol established and required by the local school district and the university. Furthermore, the study adhered to local, state, and federal policies and regulations, such as the Family Educational Rights and Privacy Act (FERPA), regarding student confidentiality (U.S. Department of Education, 2012). The initial phase of the data collection process is best described as processes of protocol and formality. Because the study is for a local school district and is the major requirement in a university doctoral program, there were two protocol paths required to navigate prior to actual data collection. The following paragraphs describe the local school district protocol, the university protocol, and data collection details.

Local School District Protocol

The local school district required the submission of a research application and approval of the application before granting access to the data. The application included information about the researcher, the topic of the research, data required to complete the research, and a description of how the research findings would be used. Chapter one, in its original proposal format, was required to accompany the application. The application and chapter one were submitted to the appropriate person at the local school district for approval. Approval was received within one week of the submission.

University Protocol

The university requires approval by its Internal Review Board (IRB) prior to conducting research. The author submitted application to the IRB and subsequently received approval from the IRB to conduct the research described in this paper.

Data Collection Details

The local school district provided the data used for this study. Data provided for the study adhered to local, state and federal requirements to maintain student confidentiality. One record for each student in the population and each of the two samples was provided to the researcher but any personally identifiable data were removed prior to receipt of any data files.

Requested data included the total population of eighth grade students in the 2008-2009 academic year who attended the local school district and whose data were reported to the FLDOE. Additionally, the data file identifying the initial cohort of transition students was requested. The transition program began during the summer of 2009; therefore, the initial cohort was the eighth grade class who began their high school career in the 2009-2010 academic year.

As described previously, Florida school districts submit data at the completion of each academic year as part of a process referred to as *Survey 5* (Florida Department of Education, 2011a). Four files were requested of the district: a) the *Student Demographic* format, b) the *Student Transcript* format, c) the *Student End-of-Year Status* format, and d) the *Prior School Status/Student Attendance* format. Data included in Survey 5 are submitted by the local school district to the FLDOE in August, approximately 2 months after the completion of prior 180-day school year. As a result, the assumption is that Survey 5 data were relatively accurate although some limitations to the data exist due to accuracy and timeliness occurring during data entry processes.

Specific data used for this study included student demographics, credits earned, English Language Learner (ELL) status, Exceptional Student Education (ESE) status, Free-and-Reduced Lunch (FRL) status used for SES, school attendance, grade point average (GPA), and indicators of transition program participation. The data, with the exception of the transition program participation indicator, are reported to the FLDOE.

Data Analysis

Data were analyzed using SPSS version 20. Question one uses descriptive statistics to portray a picture of the entering ninth grade class and the at-risk transition cohort, both disaggregated at the individual school level as well as aggregated at the district level. The class began their high school career as freshmen in the 2009-10 academic year. Chi-square test of association and logistic regression tests were used for questions 2 and 3; respectively. The number of credits earned, changed to a categorical variable per the local school district's policy for number of required credits at the end of the junior year of high school to maintain on-track graduation status, was used as a dependent variable for question 2. Question 3 will use the number of credits earned as the dependent variable and the variable will be treated as dichotomous. Independent variables include gender, ethnicity, FRL, SWD, ELL, and attendance. Program participation will also be included as an independent variable for questions two and three.

This study is comprised of three research questions. Each of the three questions is restated and the paragraphs that follow will describe the tests used for each of the questions.

1. How do the student demographics and school profiles of transition program participants and non-participants compare, in terms of student subgroups: gender, ethnicity, students with disabilities (SWD), English language learners (ELL), Free and Reduced Lunch (FRL), and

attendance?

2. What is the relationship, if any, between transition program participants and non-participants, as determined by credits earned by the end of the junior year?
3. What is the difference, if any, between being included in a student subgroup, (gender, ethnicity, SWD, ELL, FRL, and truant) and participation or non-participation in a transition program, as measured by credits earned, at the end of their junior year?

Research question 1 uses descriptive statistics to describe two populations, the general student population who entered ninth grade in 2009-10 and the population of students who participated in the transition program. Data are represented in tables and are given to represent the district for both populations as well as each school for both populations. Each profile also includes measures of central tendency to represent attendance for each of the populations, both at the district and school levels. Frequencies and percentiles are provided for the at-risk transition population. The purpose of research question 1 is to provide a numerical comparison of the populations. Information in research question 1 was requested by the local school district in order to better understand similarities and differences in characteristics between each of the populations.

Research question 2 will use a Chi-square test of independence test to determine the extent of differences in proportions, if any, between the categorical independent variable of transition program eligibility and participation and the categorical dependent variable of whether or not the student has maintained on-track graduation status using accumulated credits at the end of their junior year of high school. For example, is there a difference in proportion between students who self-selected to participate in the transition program compared to those who were eligible but selected not to participate, using a pre-determined number of credits earned at the

end of their junior year?

Research question 3 uses logistic regression to explore the impact various categorical variables, such as gender, ethnicity, and transition program participation, have on the dependent variable which is a binary variable that indicates whether or not the student earned eighteen credits, a number the school district advised would represent on-track status, at the end of their junior year of high school to be on track for graduation. Tests will also examine the predictive nature of certain categorical variables, such as gender and ethnicity, when holding transition program participation constant. Differences between transition program participants and their non-participant peers will be assessed using the results when program versus non-program participation is held constant. For example, are there differences between male students in the free and reduced lunch program, in terms of credits earned, when holding program or non-program participation constant? Questions of this nature will assist the local school district in identifying likely characteristics of at-risk students in future cohorts. The number of credits earned for question three is the dependent variable and is categorical. Gender, ethnicity, SWD, FRL, and ELL are also categorical variables.

Summary

Chapter three reviewed the statement of the problem and restated the research questions. The separate populations of students were obtained from the local school district. A detailed discussion of data collection, including the processes required prior to the collection of data, was also presented. The final section presented a description of data analysis within the study. Chapter four will present the results of the tests for each of the three research questions. Each question will be reviewed within the context of the results and tables will present the data of each test, as it relates to the research question.

CHAPTER FOUR: RESULTS

Introduction

The intent of this study was to provide demographic details of transition program participants in comparison to the entering student body as a whole, investigate relationships between transition program participants and non-participants using on-track graduation status as a comparison, and investigate any sub-group differences between participants and non-participants using gender, ethnicity, students with disabilities (SWD), English Language Learners (ELL), and free and reduced lunch (FRL) as descriptors. The study achieved its purpose 1) by providing demographic data of transition program participants and the total student body for the 2009-2010 freshman class of a local public school district and 2) through an examination of differences, using credits earned as an on-track graduation status metric combined with sub-group data, between program participants and their non-participating peers. Chapter four represents the findings to each of the three research questions with supporting results.

Research question one compares demographic data between transition program participants and non-participants: "How do the student demographics and school profiles of transition program participants and non-participants compare, in terms of student subgroups: gender, ethnicity, students with disabilities (SWD) English Language Learners (ELL), free and reduced lunch (FRL), and attendance?" Descriptive statistics were used to answer the first research question using discrete data for demographic variables. The number of days absent during the ninth grade year was used to compare attendance data; with attendance being defined as continuous data. Findings are presented in the form of district aggregated data and individual

school-level data for each of the nine high schools; school-level tables are available in APPENDIX B.

The Chi-square test of independence and logistic regression were used for research questions two and three, respectively: "To what extent do transition program participants differ from non-transition program participants, in terms of academic success, as measured by credits earned, at the end of the junior year?" and "What is the difference, if any, between transition program participants in academic success, measured by credits earned, at the end of their junior year when comparing variables such as gender, ethnicity, students with disabilities, English Language Learners, free and reduced lunch, and attendance?"

Research Question One

Question 1: How do the student demographics and school profiles of transition program participants and non-participants compare, in terms of student subgroups: gender, ethnicity, students with disabilities, English Language Learners, free and reduced lunch, and attendance? The first research question compares individual student demographics and school attendance among participants of the transition program. The school district's ninth grade transition program population in the 2009-2010 academic year represented less than 10% (n = 467, 8.7%) of the entire ninth grade population (n = 4,902, 91.3%). Data are presented for the public school district and for each of the nine high schools in the school district.

Setup and Rationale

Data were separated into two groups, one group representing students who participated in the transition program and the other representing non-participatory students. Frequencies were then obtained for all of the key demographic variables: FRL, SWD, gender, ELL, and ethnicity. The attendance variable is defined as the number of absences in a student's ninth grade year and

is considered a continuous variable rather than discrete. Due to the nature of attendance as a continuous variable, the mean and standard deviation were obtained in lieu of frequencies. The same data, with the exception of attendance, were also provided for each of the nine public high schools.

School District Results

Table 1 (found on page 67) provides frequencies for the school district as a whole. The transition program consisted of students who were considered at-risk and who were transitioning into their first year of high school in August 2009. The entire student body consisted of 5,369 freshmen who could be identified as first-time ninth graders for purposes of this study. Demographic information presented in Table 1 compares the population of transition program participants, making up less than 10% of the entire freshman student body (n = 467, 8.7%) to the population of non-participants (n = 4,902, 91.3%). Demographic data provide a relevant source of information describing the student makeup of the school district and each of its high schools. These data include FRL, SWD, gender, ELL, and ethnicity. Some student records were missing data but the extent of missing data was considered negligible by the researcher for purposes of this study. Missing data may have resulted during the process of matching various files prior to conducting tests, from data entry errors at the school-level, or from students whose families refused to provide the information.

Free and Reduced Lunch Results

Students whose families met established family income-level criteria were eligible to participate in the federal free and reduced lunch (FRL) program. The majority of transition program participants participated in the FRL program (n = 270, 57.8%). By contrast, nearly one-

third of the students who did not participate in the transition program received FRL program assistance (*n* = 1,595, 32.5%).

Students with Disabilities Results

Students with disabilities (SWD) receive additional services through the Exceptional Student Services program of the public school district as required by the Individuals with Disabilities Act (IDEA) of 1975. Most students participating in the transition program were non-SWD students (*n* = 370, 79.2%). Likewise, the majority of students who did not participate in the transition program were non-SWD students (*n* = 3,992, 81.4%).

Gender Results

Gender among students who did not participate in the transition program were relatively evenly split between female (*n* = 2,289, 49.7%) and male (*n* = 2,313, 50.3%). By contrast, a majority of transition program participants were male (*n* = 284, 64.1%) when compared to their female peers in the program (*n* = 153, 35.9%).

English Language Learners Results

Comparable to the SWD populations, data reveal similarities between transition program participants and non-participants in terms of the ELL program. A vast majority of transition program students were non-ELL students (*n* = 432, 97.5%). Likewise, most of the students who did not participate in the transition program were also non-ELL students (*n* = 4,496, 97.7%).

Ethnicity Results

Four categories was used to describe the ethnic composition of the student body: White, Black, Hispanic, and other. Native American and Pacific Island students are included in the 0ther category. The majority of transition program students were White (*n* = 219, 49.4%) as were most of the students who did not participate in the transition program (*n* = 2,865, 62.3%).

When considering the rank-order of ethnicity data, Hispanic students make up the second largest ethnic population in both groups; in the transition program approximately one-fifth of students were Hispanic (n = 98, 22.1%) while students not participating in the transition program made up a smaller percentage within their population (n = 791, 17.2%). Black students in the transition program also made up approximately one-fifth of the population (n = 95, 21.5%) while their Black peers not participating in the transition program made up approximately one-tenth of that population (n = 508, 11.0%). Students who were classified as other made up the smallest population in the transition program (n = 31, 7.0%) as well as in the non-participant group (n = 438, 9.5%).

Attendance Results

Transition program participants were absent more frequently, as measured by the number of ninth grade absences out of a 180 day school year (M = 12.0, SD = 12.4, n = 467), when compared to their peers of non-program participants (M = 7.3, SD = 7.9, n = 4,902). When considering the *mean*, on average students in the transition program were approaching nearly twice the number of absences compared to non-transition students. Test results in research question three add to the attendance data in research question one and will be elaborated on in chapter five as the results are discussed within the context of prior literature and possible future research.

Based on this data, the typical participant was male, either white, Hispanic, or black and received FRL. Participants were absent twice as frequently as non-participants. Few participants in the school district's transition program were SWD or ELL. The demographics of these two subgroups were relatively consistent with the school district's ninth grade population during the 2009-2010 academic year.

Table 2

Student Cohort Demographics

	Participant (n = 467)		Non-Participant (n = 4,902)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	197	42.2	3,307	67.5
Yes	270	57.8	1,595	32.5
SWD				
No	370	79.2	3,992	81.4
Yes	97	20.8	910	18.6
Gender[a]				
Female	159	35.9	2,313	50.3
Male	284	64.1	2,289	49.7
ELL[a]				
No	432	97.5	4,496	97.7
Yes	11	2.5	106	2.3
Ethnicity[a]				
White	219	49.4	2,865	62.3
Black	95	21.5	508	11.0
Hispanic	98	22.1	791	17.2
Other	31	7.0	438	9.5

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant n = 443. Non-Participant n = 4,602.

School Results

Demographic data for each of the nine high schools used for this study are provided in the tables found in APPENDIX B. Data reported for the high schools are the same demographic data reported for the school district, as a whole. However, attendance data were only analyzed and reported at the school district-level.

Figure 2 represents the percentage of the student body who participated in the transition program at each of the nine high schools and how it compares to the school district percentage. Participation ranges from 5.31% to 13.92% and compares to the overall school district participation of 8.7%.

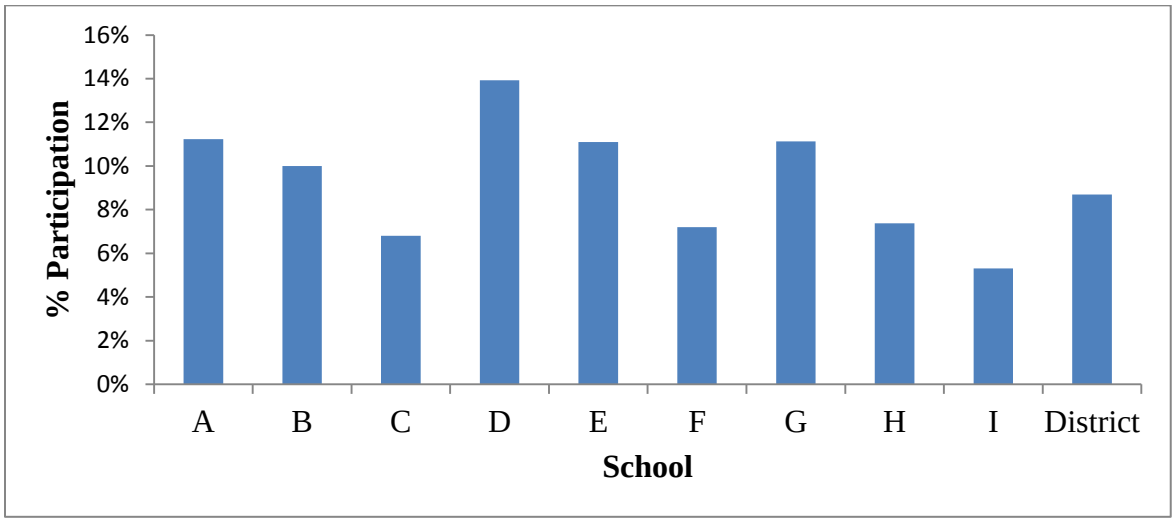


Figure 2: Percent of transition program participation for each of the nine public high schools and for the public school district.

Free and Reduced Lunch Results

Transition program participants at each of the schools varied in terms of participation in the FRL program. High school B had the highest percentage of transition students participating in the FRL program (81.6%) compared to the lowest percentage of FRL program participation

among transition program students at high school I (30.3%). Fifty percent or more of the transition students were FRL participants at six of the nine high schools.

Students with Disabilities Results

Each high school had a majority of transition students who were not classified as SWD. High school A had the highest percentage of SWD students in the transition program (34.7%) while high schools C and G each had the lowest percentage (9.1%).

Gender Results

Each of the nine high schools' transition programs had a majority of male participants. High school I had the largest majority of male transition program participants (78.1%) while high school C had the smallest majority (54.5%).

English Language Learner Results

Transition program participants who were also receiving ELL services represented a minority of students within the transition program at each of the nine high schools. The largest percentage of ELL students in the transition program occurred at high school G (6.9%). Three of the nine high schools had no ELL students in their transition programs (0.0%).

Ethnicity Results

Transition programs in the nine individual high schools consisted of a majority of White students. The largest majority of White students in the transition program occurred at high school I (65.6%) while the smallest was at high school B (33%). High school B had a larger percentage of Black students participating in its transition program (42.9%). Black transition program participants were the majority at the one aforementioned high school and were the second largest majority at three other high schools. Hispanic transition program participants represented the second largest majority at five of the high schools. Black and Hispanic students

represented either the second or third largest majority of transition program students at eight of the nine high schools. Transition program participants whose ethnicity is other were the minority at all nine high schools; high school D had the largest minority (14.7%) while high school C had no students identified as other.

Research Question Two

Question 2: What is the relationship, if any, between transition program participants and non-participants, as determined by credit hours earned by the end of their junior year of high school?

Setup and Rationale

Two variables were explored in this analysis: program participation (binary; participant vs. non-participant) and academic success (also binary; on-track for graduation or not on-track for graduation). Students were considered on-track for graduation if they earned at least 18 credit hours by their junior year of high school.

Because the variables in question are nominal, the Chi-square test of independence was utilized to analyze the relationship. The assumption for the chi-square test of independence requires expected cell counts to be at least five; both the participants and non-participants have enough observations to meet this assumption.

Results

The Chi-square test for independence showed a significant relationship ($\chi^2(1) = 311.84$, $p < .001$) between program participation and being on track for graduation; tests were conducted at the $\alpha = .05$ level of significance. There is a small to moderate effect size as indicated by the phi (φ) statistic ($\varphi = -.24$). Although tests indicate a significance between program participation and being considered on-track towards graduation, more program participants than expected were not

on-track (*SR* = 14.1); likewise, fewer non-participants than expected were not on-track (*SR* = -4.4). Standardized residuals of ± 2 are considered to be influentially different than expectations (Lomax, 2007, p. 376). Nearly three-quarters (73.4%) of non-participants were on-track towards graduation as compared to approximately one-third (34.3%) of the transition program population. Table 3 contains test results for research question two.

Table 3

Chi-Square Analysis for Program Participation and On-Track Graduation (N = 5,369)

Participation	On Track	Not On Track
Non-Participant		
Count	3,600	1,302
% of Row	73.4	26.6
Standardized Residual	2.9	-4.4
Participant		
Count	160	307
% of Row	34.3	65.7
Standardized Residual	-9.2	14.1

Note. $\chi^2 = 311.84$, $df = 1$, $p < .01$, $\varphi = .24$.

Research Question Three

Question 3: What is the difference, if any, among transition program participants in academic success, measured by credit hours earned, at the end of their junior year when

comparing variables such as gender, ethnicity, free and reduced lunch, students with disabilities, English Language Learners, and attendance?

Setup and Rationale

Academic success is a dichotomous variable rather than a continuous one and, as such, logistic regression provided the best method for answering research question three. Logistic regression, unlike linear regression, maps to a logistic curve, is designed for binary dependent variables, and is interpreted in terms of likelihood (e.g., condition 1 is *X* times more likely to occur than condition 2). A more specific example related to research question three is whether or not male students in the transition program were more likely to be on-track towards graduation than their female counterparts.

Variables were entered into two blocks to create the model for answering research question three. Demographic variables are contained in the first block while the second block includes the participation variable. Inclusion of the participation variable will help determine if program participation had a major effect on the model. As such, program participation is considered the predictor variable in this model. Cases for ELL students were omitted from the model because of the small number of program participants classified as ELL students ($n = 11$). Including these students may have led to possible interpretation of trends beyond the current data. There were no other exclusions to cases or variables.

Ethnicity was separated into several binary design variables in order to use one controlling factor for comparison purposes. Three non-White options, Black, Hispanic, and other, were coded by SPSS as design variables and White was the controlling factor. Therefore, the ethnic group White is excluded from Table 4. The purpose of this approach was to more

accurately illustrate the difference between minority (non-White) and non-minority (White) students.

Assumptions

Certain assumptions were required as part of the logistic regression test. Failing to meet the assumptions could lead to possible misleading results and incorrect interpretation of the data. The following is a description of the assumptions and their results.

Noncollinearity

There is a risk of multiple variables explaining too much of one another's variance. In order to test this, variable inflation factor (VIF) and tolerance values were used along with examination of condition indices. The VIF should be below 10 and the tolerance value should be above 0.10.

All VIFs were above 1.29 or below and the minimum tolerance value was 0.77. The maximum condition index was 4.36. Therefore, the assumption of noncollinearity was met for this test.

Linearity

This assumption was tested by multiplying each continuous independent variable by its natural log (*ln*) to ensure that the variable is not significant in the model. The only continuous variable in this model was absences. When multiplied by its natural log and entered into the model it was determined to that it was not significant (B = -0.01, SE = 0.01, Wald = 0.37, df = 1, p = .54). Because the test indicates that it is not statistically significant, there is evidence of linearity; therefore the assumption is met.

Independence of Errors

Standardized residuals were plotted versus each independent variable; the desired outcome was for standardized residuals to fall between -2 and 2 (Lomax, 2007). Most observations were within the approximate range of -2 and 2; therefore the assumption is met.

Outliers and Influential Points

The nature of outliers can change the shape of distribution and cause a regression to be misinterpreted as significant or not significant. Steps were taken to mitigate false assumptions due to outliers and influential points. These included Cook's distance, dfbeta (standardized Cook's), leverage values, and standardized residuals. Standardize residuals are usually considered outliers when they are smaller than -3.0 or larger than 3.0. However, for purposes of this study, the researcher decided to accept the standardized residual values of -3.2 and 4.0 due to the fact that all other points were within acceptable limits and that oftentimes in education and other social sciences, outliers can provide educationally relevant information.

Cook's distance should be less than 1 and was .03 in this test. Leverage values should be less than .2 and they were a maximum of .01. Dfbeta values were approximately .01 or less. Residual values were slightly larger than the acceptable range but since all other indicators suggested there were no highly influential points this assumption is considered met.

Results

Research question three results are presented in two distinct areas, demographics and program participation; each related to their respective block, block one or two, in the model. The number of cases expected, once ELL data were removed, was evident in the output (N = 5,045). For analyses related to research question 3, ELL students were excluded due to the small number

of cases (n = 11) so that misinterpretation of results is avoided. Table 4 contains results used to answer the question and as it relates to the two distinct areas aforementioned.

Demographics

Model 1, as shown in Table 4, provides results without inclusion of the independent variable, transition program participation. Logistic regression was used to determine if differences existed between several demographic variables and their on-track graduation status. The five variables used in the model were gender, ethnicity, SWD, FRL, and ninth grade absences. The model for Block 1, inclusive of the five variables mentioned above, was shown to be statistically significant ($\chi^2(7)$, N = 5,045) = 606.35, $p < .001$). Between 11.0% (Cox and Snell R square) and 17.0% (Nagelkerke R squared) of the variability can be explained by the variables in the model. Additionally, there was a good model fit as indicated by the results of the Hosmer and Lemeshow test ($\chi^2(8) = 6.26$, $p = .62$). A p-value greater than .05 is necessary in the Hosmer and Lemeshow test to indicate good fit (Pallant, 2010, p. 175). The logistic regression model accurately predicted 76.6% of the students, for all cases and without outliers omitted, as being on or off-track towards graduation without taking into account possible effects of the transition program as a controlling variable.

As a whole, the set of predictors distinguished students who were on-track for graduation from those who were considered off-track, using the 18-credit threshold at the completion of their junior year as the primary metric. Male students were 78% as likely to be on-track towards graduation as their female peers (Wald = 12.22, df =1, $p < .001$). When comparing Black to White students, Black students were 55% as likely to be on-track towards graduation (Wald = 30.65, df = 1, $p < .001$). However, being of Hispanic (Wald = 1.60, df = 1, $p = .206$) or other (Wald = .264, df = 1, $p = .607$) ethnicity did not significantly differ from White students in terms

of on-track graduation status. Students with disabilities were 83% as likely to be on-track towards graduation (Wald = 4.65, $df = 1$, $p = .03$). Students receiving FRL assistance were 44% as likely to be considered on-track towards graduation (Wald = 112.53, $df = 1$, $p < .001$). The results show that students not participating in the FRL program were more likely to be on-track towards graduation than students who participate in the FRL program. More will be said about students in poverty in chapter five. ELL cases were excluded from the model due to the low number ($n = 11$). Including the ELL cases could have potentially led to interpolation of trends beyond the data.

Ninth grade absences were observed to have a significant effect on the on-track graduation status (Wald = 250.95, $df = 1$, $p < .001$). Each additional day of absences accumulated by the student in ninth grade decreased their chances of being on-track towards graduation in the junior year by 7%.

Program Participation

Model 2 included program participation to determine if any differences existed between demographic subgroups and their on-track graduation status and to examine any effect program participation may have had on at-risk students when compared to their peers who were not in the program. Model 2, inclusive of program participation, was shown to be statistically significant ($\chi^2(8)$, N = 5,045) = 779.20, $p < .001$). Between 14.3% (Cox and Snell R square) and 21.1% (Nagelkerke R squared) of the variability can be explained by the variables in the model. Additionally, there was a good model fit as indicated by the results of the Hosmer and Lemeshow test ($\chi^2(8) = 12.04$, $p = .15$). The logistic regression model accurately predicted 78.0% of the students in the sample; 27.2% for those not on-track and 95.3% for those on-track.

The set of predictors were able to distinguish students who were considered on-track for graduation from those who were considered off-track, in terms of credits earned at the end of their junior year of high school. Male students in the transition program were 86% as likely to be on-track as compared to their female peers (Wald = 4.71, *df* = 1, *p* = .03). In comparing Black to White students, the resulting data indicate that Black students are 59% as likely to be on-track as compared to their White peers (Wald = 22.68, *df* = 1, *p* <.001). As in Model 1, where transition program participation was not considered, both Hispanic (Wald = 1.52, *df* = 1, *p* = .218) and other (Wald = .15, *df* = 1, *p* = .698) ethnicity students did not indicate a significant difference from White students in the program in terms of on-track status. Transition program students who were also identified as SWD were 82% as likely to be on-track compared to non-SWD students (Wald = 5.09, *df* = 1, *p* = .02). Transition program students who received FRL services were 48% as likely to be on-track when compared to those students not receiving FRL (Wald = 86.55, *df* = 1, *p* < .001).

Ninth grade absences were observed to have a significant effect on the on-track graduation status of transition program participants (Wald = 200.45, *df* = 1, *p* < .001). Each additional absence accumulated by the student in ninth grade decreased their chances of being on-track towards graduation in the junior year by 6%.

Participation in the transition program was considered statistically significant (Wald = 168.40, *df* = 1, *p* < .001) but not in the direction anticipated. When comparing program participation to non-participation, students who participated in the transition program were 23% as likely as their non-participating peers to be considered on-track towards graduation. The Kappa coefficient (κ = .28, *p* < .001) indicates that the model classified observations at a level of slightly to moderately greater than chance (Pallant, 2010, p. 226). The significance of transition

program participation, as a variable in Model 2, and its increased chance of accuracy, suggest the value of including the variable in the model for purposes of analysis. Table 4 is provided below with the results of the logistic regression tests used to answer research question three.

Table 4

Summary of Hierarchical Regression Analysis for Demographics and Program Participation Predicting On-Track Graduation (N = 5,045)

	Model 1 – Demographics			Model 2 – Participant		
Variable	*B*	*SE B*	e^B	*B*	*SE B*	e^B
Constant	2.27			2.29		
Gender	-.25**	.07	0.78	-.16*	.07	0.86
SWD	-.19*	.09	0.83	-.20*	.09	0.82
FRL	-.83**	.08	0.44	-.74**	.08	0.48
Ethnicity						
Black	-.59**	.11	0.55	-.53**	.11	0.59
Hispanic	-.12	.10	0.89	-.12	.10	0.89
Other	.07	.13	1.07	.05	.13	1.05
Absences	-.07**	.01	0.93	-.07**	.01	0.94
Participant				-1.46**	.11	0.23
χ^2		6.26			12.04	
df		8			8	

Note. e^B = exponentiated *B.* SWD = Students with Disabilities, FRL = Free or Reduced Lunch. Gender is coded as 1 for male and 0 for female. ELL, SWD, FRL, and the ethnicity predictors are all coded as 1 for yes and 0 for no. White ethnicity is the reference category.
*$p < .05$. **$p < .01$.

Summary

Chapter four began with a review of the intent of the study followed by introduction of the analyses that were to be discussed and how each analysis would be used to answer the three research questions. Use of student demographic data was also discussed along with the number of accumulated credits earned at the end of the junior year as a metric of on-track graduation. The class being studied was identified as those students entering high school as freshmen in the 2009-2010 academic year.

Demographic data used to answer research question one resulted in identifying a larger percentage of FRL, Black, and male transition students than their peers who were not in the transition program. It also shows that the demographics of transition program students mimic their peers not in the program when using percentage to compare SWD and ELL populations. When considering data at the school level, Figure 1 shows some variations in the percent of students in each school's transition program compared to other schools and the district's percentage of transition students. Likewise, it identified three high schools with no ELL students in their transition program while one high school's transition program was comprised of a majority of Black, male students.

Research question two results indicated that of those students who were not participating in the public school district's transition program, fewer than expected were considered off-track towards graduation when considering credits earned. On the other hand, more students in the school district's transition program were considered on-track towards graduation. Results were not expected in this instance and will be further discussed in chapter five.

The most significant result found in the data for research question three relates to the student absences and to the direction of statistical significance in terms of including transition

program participation as a variable. Attendance continues to be a deterrent to graduating on-time; true for students who participated in the transition program and for those who did not participate in the program. It is also noteworthy that the data show participation in the transition program does not appear to be making the anticipated impact on students considered at-risk.

The following chapter will summarize the results and link several of the findings to prior research included in chapter two's review of literature. Discussion of the findings will also include possible future research topics which have arisen as a result of this study.

CHAPTER FIVE: DISCUSSION

Introduction

Data and their analyses were presented in the previous chapter. The study will be summarized in this chapter and will be followed, in this order, by a discussion of the findings, implications for practice, the author's recommendation for future research, and the study's conclusion. While all parts of the study are important and are intended to add to the current body of knowledge regarding the effects of transition programs, it is also critical that further research continue in this area. Therefore, several recommendations will be made for future studies, specifically for the local public school district and school districts of similar characteristics.

Summary of the Study

The critical nature of at-risk students transitioning from middle to high school is multi-dimensional and includes academic, social, and behavioral elements, each requiring interventions which help students remain in school, progress on-time to the next grade level, and, consequently, progress on-time towards graduation (U.S. Department of Education, 2008). The theoretical framework of this study is founded on the premise that students who are at-risk during their transition to high school can benefit from interventions whose focus is on improving academics and school engagement. The conceptual element of keeping students in high school has historical context and was evident as a primary concern as early as 1903 when Smith attempted to improve student "staying power" as students transitioned from elementary to secondary school in Denmark. The transition concern, especially for at-risk students, remains to this day and school districts throughout the United States are looking for programmatic assistance to reduce the number of students who become off-track on their way to high school graduation.

The importance of on-time graduation as a measure of institutional success was evident when all 50 states in the U.S. adopted a uniform graduation rate (Balfanz, Bridgeland, & Moore, 2010). Even in an age of increased accountability, where schools, school districts, and states are compared to each other, there remains an important commonality in some of the literature used for this study; transition programs are making a difference but they must be comprehensive and intensive in nature (Cauley & Jovanovich, 2006).

Results within this study may statistically support the notion that the transition program implemented in the local school district is not accomplishing the desired outcomes. Indeed, more of the transition program participants than expected were not on-track towards graduation (65.7%). However, considering the opposite, that slightly more than one-third (34.3%) were on-track, a conclusion may be that the program did indeed provide the necessary interventions for some students to maintain their on-track graduation status. Regardless assumptions which may be drawn from the data, caution is in order when considering whether or not the program effected on-track status and further research, which will be discussed in the section on future recommendations, should be conducted among at-risk students who participated and those at-risk students who chose not to participate in the transition program.

One general evidentiary outcome for the school district, discussed more in the closing, is the need to improve the transition program. The freshman class of 2009-2010 consisted of 5,369 students, of which 467 participated in the transition program. Research question one provided demographics for both the freshman class and the transition program at the school district level and at each of the nine high schools. Research question two examined the differences between transition program participants and non-participants in terms of on-time graduation status using the credits accumulated at the end of the junior year of high school. Research question three

examines differences, if any, between transition program participants and non-participants among the variables of gender, ethnicity, students with disabilities (SWD), English Language Learners (ELL), Free and Reduced Lunch (FRL) program participants, and attendance. As did research question two, question three uses accumulated credits as the dependent, binary variable; meaning that the student was either on-track towards graduation or off-track.

Discussion of Findings

Research Question One

How do the student demographics and school profiles of transition program participants and non-participants compare, in terms of student subgroups: gender, ethnicity, students with disabilities, English language learners, free and reduced lunch, and attendance?

Ou and Reynolds (2008) point out gender differences in dropout rates, with male students having the highest rate when compared to female students. At the state level, Florida reported a graduation rate of 66.04% for male students while the female graduation rate was 75.3% (Florida Department of Education, 2011). Logically, the expectation is that the local school district's transition program would be made up of more male students then female. Demographics provided in research question one indicate that this was the case.

While students were relatively evenly split by gender in non-participatory population, more students in the transition program were male (64.1%) than female (35.9%). Research has found that males are considered more at-risk of not graduating from high school than their female peers (Gutman, Sameroff, & Cole, 2003; Chapman, Laird, Ifill, & KewalRamani, 2011; Janosz, Le Blanc, Boulerice, & Tremplay, 2000). Assuming that is the case in most school districts, then the results indicating a greater percentage of male students participating in the local school district's transition program is logical.

At the school district level, there were a greater proportion of students in the FRL program who participated in the transition program (57.8%) than those who did not participate in the program (32.5%). Participation in the FRL program is used as a measure of socio-economic status (SES). Cohen and Smerdon (2009) suggest that transitioning to high school for low-SES students is often a barrier to success in school. Individual student variables in the transition program are consistent when considering FRL students and this remains one of three variables, the other two being gender and ethnicity (more specifically Black students), that do not align with the overall percentages in these areas within the school district. Considering the challenges facing low-SES students, the assumption is that the transition program in the school district will continue to have a greater percentage of FRL students, given that these students need specific interventions to improve their chances of academic success leading to high school graduation.

Attendance results were not encouraging as one of the goals of the transition program should be to improve student engagement in school and therefore decrease the number of absences. The data in research question one show that transition program participants were absent more frequently, as measured by the number of ninth grade absences (M = 12.0, SD = 12.4, n = 467), as compared to those students not in the program (M = 7.3, SD = 7.9, n = 4,902). As the data indicate when using the mean provided above, transition program students had 64.4% more days absent than their peers who were not in the program; a considerable percentage of days considering the importance of school attendance as both a protective and engagement factor (Ou & Reynolds, 2008; Alexander, Entwisle, & Horsey, 1997).

At the school level, it is noteworthy that three of the schools had no ELL students in their transition programs, schools C, D, and I, but these schools also have relatively smaller ELL populations compared to the other high schools within the school district. Only one of the nine

high schools had a majority of Black students in their transition program, School B (42.9%). School B's ninth grade population is made up of a majority of White students (52.6%) and its second largest population of students is Black (20.0%) when considering the population of students who did not participate in the transition program.

The demographics, particularly at the district level, lead to additional questions regarding transition program participation. The instructional leadership team within the local school district has been considering strategies to improve the academic success, including promotion and eventually high school graduation, among Black males. Demographic data support both the need for continued focus on the Black male subgroup as well as those students who are low-SES.

Research Question Two

What is the relationship, if any, between transition program participants and non-participants, as determined by credits earned by the end of their junior year?

Results of research question two are both positive and not so positive. The good news is that fewer students were considered off-track towards graduation status among students not participating in the transition program (26.6%). However, this was not part of the research even though it is educationally relevant. The bad news is that more transition students than expected were off-track for graduation at the end of their junior year of high school (65.7%). There appears to be some value of the transition program, considering that 34.3% of its participants were maintaining on-track graduation status. What is not answered in these results is the question of who, generally, is on-track or off-track? For example, are white males more likely to be on-track than White females or are Black males generally more on-track than Black females? These questions are critical to further identification of who may benefit from the transition

program and these questions will be further discussed in the section on recommendations for future research.

Effectiveness of the transition program will ultimately be the number of at-risk students who graduate on-time; a data point still to be determined as the initial cohort of students will not graduate from high school until after the completion of this study. Yet, as some of the literature suggest, there are multiple factors that may contribute to being on or off-track towards graduation. Research question three looks at some of those factors.

Research Question Three

What is the difference, if any, between being included in a student subgroup (gender, ethnicity, SWD, ELL, FRL, and truant, and participation or non-participation in a transition program, as measured by credits earned, at the end of their junior year?

Noteworthy results include a gender-gap in on-track status, with male students being on-track towards graduation less often than female students in both participatory and non-participatory groups. The data indicate that the gap is relatively small, with male students in the transition program being 86% as likely as female students to be on-track, but remains an area of concern. This is consistent with gender-gap research and suggests that more needs to be done in the area of interventions focusing on high school graduation for male students (Chapman, Laird, Ifill, & KewalRamani, 2011).

Black students were less likely to be on-track compared to their White peers in both groups. Again, this is consistent with research on the gap between Black and White students in terms of high school graduation. Pharris-Ciurez, Hirschman, & Willhoft (2011) discuss the dropout issue between minorities and non-minorities and the local school district's data are consistent with their research with the exception of Hispanic students. Black students in the

transition program were almost half as likely (59%) to be on-track towards graduation than White students. By comparison, the data on Hispanic students indicate that they have better results relative to Black students, as they are 89% as likely as White students to be on-track. Each of the comparisons above were within the transition program but the data for the population of ninth graders at-large, those who did not participate in the transition program, were similar; Black students were 55% as likely to be on-track while the same 89% of Hispanic students were as likely to be on-track when compared to their White peers.

The significance of FRL, as an indicator of socio-economic status, is consistent with research placing them them at-risk of graduation. Scheel et al. (2009) indicate that low-SES students were six times more likely to drop out of school than students above the SES thresholds used to determine poverty. Data from this study indicate that students who were in the FRL program were more than half as likely (48%) as their peers not receiving FRL assistance to be on-track for graduation; this comparison being among transition program students. The data among non-transition students are actually worse as 44% of FRL students are as likely to be on-track as non-FRL students. Much of the literature provided in chapter two suggest that socio-economic status (SES) is a key indicator of students being at-risk. Poor school performance for low-SES students may be exacerbated while transitioning from middle to high school and may be a primary reason for remaining off-track towards graduation, according to Cohen and Smerdon (2009). They point to students' low achievement prior to entering high school and the impersonal nature of high school as key factors that sustain or even add to low student performance among SES students.

Implications for Practice

There is evidentiary value, such as inconsistencies among high schools in terms of the percentage of students participating in the transition program and among various demographics of participants (e.g. Black students and, to a lesser degree, Hispanic students). The school district should continue the use of its continuous improvement processes to review transition placement processes and associated criteria. This would include its procedures for identifying at-risk students and, subsequently, placing students in the transition program. Considering that past practices in the school district have been to provide the transition program as an opportunity-type intervention, as opposed to mandatory, another option to consider is extending invitations to a broader audience of students who may be not exactly fit within the school district's pure definition for being at-risk. Furthermore, the transition program was not investigated as far as its design and application are concerned. As mentioned in the first part of this study, the transition program was based on a teach-forward concept, in which the first few chapters of the textbooks of core subject textbooks, specifically mathematics, language arts, and science, are taught to students during the summer transition period. There is an opportunity for the district to review its transition program curriculum using the results of this study.

Both student and teacher perceptions of the transition program are important and may provide additional insight to the program's effectiveness and areas where improvements are needed. Asking students and teachers their opinion of what works within the context of the teacher forward model may provide information the district could use to make small yet meaningful adjustments to the concept of textbook previews prior to students actually beginning their ninth grade year. In the case of student perceptions, the district may want to disaggregate the data by subgroup to examine perceptions among male students or Black male students and

compare those perceptions to other gender and ethnicity specific groups. Considerations from this type of inquiry by the district may be lead to a type of intelligent response design where the transition program's curriculum incorporates concepts of differentiated instruction based on feedback from specific groups of students.

The school district, operating as a learning organization, should reflect on the high school experience, including the transition period from middle school, for at-risk students as a complex problem requiring adaptive strategies coupled with technical expertise at all levels within the organization, not just high school (Owens & Valesky, 2007). A possible outcome could be the addition of a director-level position whose responsibilities would focus on pathways to graduation outside of the college preparatory track, such as those often seen in curriculum at technical schools. Specific focus in this area may improve student success, especially among those students who have disengaged in school, due to factors such as high absenteeism, discipline issues, and lack of support from home, and are looking for alternative paths to graduation (Malloy, 1997).

An area of particular interest is absenteeism among students participating in the transition program. As previously mentioned, transition students have approximately 64% more absences (M = 12.0) than their peers who are not in the program (M = 7.3), when comparing the means. These results were evident in the first question of this study and point to the continued problem of student absences, especially among at-risk students. Question three also pointed out that one day of absence in ninth grade equated to a 6% chance of not being on-track towards graduation, for those students in the transition program, and a 7% change for non-transition students. Combining attendance results from questions one and three offer the conclusion that more effort needs to be made in keeping students in school on a daily basis.

A specific area of attendance the district could examine is attendance patterns well before reaching the transition-to-high school period and applying interventions developed to specifically address attendance. Interventions of this nature would most likely address school engagement issues while attempting to strengthen student resiliency (Ou & Reynolds, 2008). Students who lack the necessary support at home often find interventions such as the transition program or others designed to address school engagement to be their only support mechanism (Neild et al.).

Some research suggest using thresholds, such as an attendance rate below 80% in middle school, to identify at-risk students for purposes of providing interventions specifically targeted at school attendance issues (Neild, Balfanz, & Herzog, 2007). Considering the implications of poor school attendance not just for high school graduation but at all levels of schooling, the district may want to consider additional strategies to improve student attendance before the middle-to-high school transition period. Such strategies could use monitoring and reporting tools as part of an early warning system. Early identification of problems, such as a developing pattern of poor attendance, is one step in addressing the issue of school dropouts. Being able to identify patterns early rather than later may improve student turnaround chances considering that other at-risk characteristics often become part of the student's profile as they become more comfortable with missing school. It is important to consider research by Scheel, Madabhushi, and Backhaus (2009) who frame the dropout issue, and indirectly the problem of reduced school engagement, as one that occurs over time as opposed to an instant decision to quit school. Within this construct, the importance of early identification of warning signs becomes even more critical to reengaging the child in school. An approach of this type is one in which the school district shifts to a more proactive approach rather than one that is arguably, yet relatively, reactive. In other

words, identifying students early and, consequently, investing resources earlier may be a more efficient and effective use of limited resources.

While it remains the individual teacher's responsibility to record student attendance on a daily basis and to observe warning signs of increased absences, there is added value to informing a team of school-based and possibly district-based interventionists who can assist the child, the child's family, or both, when attendance becomes a concern. Beyond the four walls of the classroom are opportunities for at-risk students to build relationships with guidance counselors and other support personnel at the school, such as administrators. Possibly even more advantageous, according to Cauley and Jovanovich (2006), are meetings between at-risk students, high school administration, and high school counselors prior to entering the ninth grade. Regardless of strategies that may work with certain at-risk students, early identification of poor attendance should naturally lead to increased attention and resources given to the specific problem. These additional resources may achieve their desired results by reducing or removing the element placing the student at-risk and returning him or her to a position of success and on-track promotion or graduation.

The data seem to provide overwhelming evidence to the needs of low-SES students. Whether or not a student is in the transition program, the data show that low-SES students, identified as participating in the FRL program, are less than half as likely to be on-track towards graduation as those students not in the FRL program. Students who are not in the transition program are 44% less likely to be on-track while transition students are 48% less likely to be on-track. Students from low-SES backgrounds continue to experience challenges when it comes to graduating from high school. Low-SES students often have multiple at-risk factors affecting their learning. Research by Johnson, Holt, and Bry (2008) suggest that intervention programs of

relatively good quality that deliver early and frequent interventions wrapped around social opportunities and academic concepts may provide the most benefit for students in this category.

The school district may want to consider the use of FRL, as early as elementary school, as a primary at-risk indicator; thereby monitoring FRL students for additional at-risk characteristics and provide interventions tailored to the individual needs of the child. Another consideration for the district may be the coupling of FRL status with excessive absences in the primary grades. Students who fall within this category could then be provided with intense intervention related to getting the student to school more frequently. Early intervention at the elementary level may also provide more opportunity to work with parents or caregivers in more of a cooperative fashion to develop good attendance habits prior to the increased influences of peer pressure at the middle school level. The results may be a more effective approach to improving on-track to graduation status in high school by improving school engagement well before the child's high school years.

Another area of consideration by the school district is the student's age. While the district is able to effectively and accurately monitor student promotion for those children who begin their public school career in kindergarten in the district, it is oftentimes difficult to determine whether or not a student was retained if they have transferred from another school district; this is especially true for students transferring from an out-of-state school. Age appropriate grade level status is one means of measuring student progression. Although not part of this research, the author did recognize that some students in the transition program were older than expected during the ninth grade transition year. While the age appropriateness of a child within their grade level often includes unique challenges on its own merit and was not part of this study, the appropriateness still needs to be a consideration within the context of the transition

program. Appropriateness of the high school experience for a 17 year-old is quite different than appropriateness for a 20 year-old. The age of the child may also be influential in the curriculum; for example, is the text using age appropriate examples or are the adults able to foster relationships appropriate to the age of the at-risk student?

Overall, the transition program needs to be reviewed in terms of effectiveness. The data in research question two suggests that fewer transition program students are on-track to graduate than anticipated. Additionally, the results in research question three indicate that, when controlling for the effects of the transition program, participants are only 23% as likely to be on-track towards graduation as non-participants. There are implications of practice from Bradley and Renzulli's research (2001) using pullout and pushout theories that may benefit the school district's efforts to help students maintain on-track graduation status. Students who decide to leave school based on pullout reasons are often more difficult to help than students who are pushed out of school. Pullout reasons are embedded within the local community and, as the title of the theory suggests, the student is pulled from school by social influences outside of school. On the other hand, pushout reasons relate to internal factors that, as the title of the theory suggests, push students away from school. The district should strengthen its resolve to ensure that students are not ostracized from school and, consequently, prematurely pushed out of school for reasons that are well within the control of either the school or district. Pushout reasons may be closely tied to school district policy or school procedures. It also includes the difficult but necessary task of making sure that at-risk students have the best teachers available in their academic schedule. Another area that may reduce the influence of both pullout and pushout elements is the continuation of a transition period, where the student becomes familiar with their

new environment and has an opportunity to build relationships necessary to adjust to high school and one that provides support continuity.

In an attempt to improve the transition program, the school district could examine a more complete picture of the original cohort of students in the transition program, or those who began their high school career as freshmen in the 2009-2010 academic year. Barclay and Doll (2001) posit that researching high school completion for at-risk students returns far greater benefit when it draws a more complete understanding of factors contributing to student persistence in school. This deeper understanding should result in improvements to intervention programs, such as the transition program in the school district used in this study, and to increased graduation rates for at-risk students.

Recommendations for Further Research

Data and their results presented in this study focused on individual groupings of students, such as gender and ethnicity. While examining the nature of these individual variables within the framework of potential effects the transition program may have on them, it is critical to reframe the problem of at-risk students graduating on-time as one that is multidimensional. Too shallow is an approach of only examining the effects of interventions on gender or ethnicity when a combination of variables may provide greater understanding of the problem, leading to program improvements for the benefit of these disadvantaged students.

Tesseneer and Tesseneer (1958) point out that high school dropout is a complex issue and that the challenges of getting students to graduate on-time usually involves several at-risk variables as opposed to one. One example is the sole use of gender as an at-risk factor. Debate exists as to the true value of using gender as a graduation predictor yet it remains a predictive variable in most research (Gutman et al., 2003; Chapman et al., 2011; Janosz et al., 2000). As

was presented in the second chapter of this paper, gender alone does not provide a strong enough argument, based on empirical data, for transition program placement. Furthermore, gender is a stronger predictor of how the transition program demographics may look but again is not useful as a sole placement predictor at the individual student level (Gutman et al.).

The original transition cohort included an element of self-selection by students, especially when considering the voluntary basis of the program. An area of interest for the school district may be a comparison of transition participants and non-participants prior to the summer transition program. Comparison of data such as GPA, test scores, absences, and the number of grade level retentions would be interesting and helpful to the district in gaining a more complete understanding of the differences between the two populations. Considering some of the findings in this paper, it is possible that the data may indicate that the two populations are not comparable.

One strength of this study is the depth of research question one. The first question of this study, "How do the student demographics and school profiles of transition program participants and non-participants compare, in terms of student subgroups: gender, ethnicity, students with disabilities, English Language Learners, free and reduced lunch, and attendance?", sought to answer began at the school district level but went one level deeper by examining data at the school level. The data helped describe both the freshman class of 2009-2010 and the transition cohort embedded in the student body. On the other hand, the major weakness of this study is the lack of depth in research questions two and three.

Research questions two and three were framed to only include data at the school district level, creating a gap of knowledge that could have answered specific questions related to how transition students are doing at each of the school; using data disaggregated at the school level.

Although some assumptions may be drawn from the data regarding transition program effectiveness, especially in the third research question, it is impossible to determine if there is a school effect simply by considering results from aggregated data at the district level. The problem now becomes whether or not the transition program at one or more individual schools is having a greater effect on at-risk student academic performance as they transition from middle to high school.

Research question two, "What is the relationship, if any, between transition program participants and non-participants, as determined by credits earned by the end of the junior year?" may be reframed for future research by asking the same question at the school level. An example of the reframed question may be "What is the relationship, if any, between transition program participants and non-participants, at the individual school level using credits earned at the end of the junior year of high school?" During an educational trip by the researcher to Toronto, Canada, it was found that an approach of this nature is being used in all Ontario public school districts. Ontario public school districts monitor the number of credits earned by students at the end of their sophomore year rather than the junior year. Future research may want to use this same milestone, the end of the sophomore year. Reframing the question to include school level data will provide better information of potential individual school effects rather than the broader stroke that the current study has answered.

Research question three, "What is the difference, if any, between being included in a student subgroup (gender, ethnicity, SWD, ELL, FRL, and truant) and participation or non-participation in a transition program, as measured by credits earned, at the end of their junior year?" As stated in the above paragraph, this question could be restated for future research purposes as "What is the difference, if any, between being included in a student subgroup

(gender, ethnicity, SWD, ELL, FRL, and truant) and participation or non-participation in a transition program at the individual school level, as measured by credits earned, at the end of their junior year?" Answering the question at the school level and then comparing to the results of this study may help determine whether or not there is greater significance of the effects of the program at the school level.

Future research to reframe questions two and three at the school level could use the same data set applied to this study. An approach of this nature would answer the question as it relates to the initial transition cohort in the school district. It also would streamline the research process as the data set is already available and in such a state that is ready to use for statistical testing purposes. The third and final benefit is that of consistency. Using the same data set means that the results contained herein at the school district level will be the same data disaggregated by school. This will increase both validity and reliability in terms of cross-research comparison.

Analysis at the school level could take the approach of matching participants using propensity score analysis. After the matching process, a hierarchical logistic regression could be conducted to allow for students nested within schools. An approach of this nature would increase the internal validity through the use of matching, thereby decreasing selection bias. Variations between schools would be manifest using this method of analysis.

Between school variations, or what may be called the school effect, would be useful data when combined with data that compares transition program students to non-participants prior to their summer transition period. As mentioned earlier in this section, a descriptive or effect size analysis of the two populations, using data such as GPA, test scores, attendance, and discipline, will help educators in the school district and transition program sponsors understand any differences between the two populations of students. The data may point to significant

disadvantages among transition program participants when compared to non-participants. If the disadvantages are evident at various levels, then the question becomes how much worse would transition program participants have done if they had not participated in program?

One specific area that was neglected in this study was student discipline. Future research warrants investigation of both the frequency and nature of student discipline referrals and their potential effects on high school graduation or on-track status. Studies from researchers such as Maloy (1997) discuss discipline as a known factor contributing to the increased likelihood of dropping out of school. However, it is important to consider that Maloy's research also indicated the significance of multiple factors when addressing the high school dropout problem.

Understanding how the effects of combined variables, such as gender, ethnicity, and FRL, will improve the body of knowledge in this school district. Cohen and Midgley (2000) discuss the importance of considering and examining the multiplied effects of a combination of variables during the transition period. They suggest that the interaction of more than one variable often explains the stress a student may be feeling both outside of school and their poor academic performance. Therefore, one possible consideration for future studies may be the effects, if any, that the transition program has on Black, male students who participate in the FRL program. Data suggest the relevance of the usefulness of this in future studies when considering that Black students were represented almost twice as much in the transition program as those who were not in the program in the school district, 21.5% compared to 11.0%, respectively.

Another potential area that needs to be studied more is student attendance. This study analyzed ninth grade attendance but did not consider student attendance prior to or beyond that grade level. Attendance issues often appear as a pattern or trend over time. However, this study

did not compare student attendance prior to the transition program to accurately determine the effects, if any, of the transition program on at-risk students. Nor did the study examine attendance data beyond the ninth grade. Attendance beyond one grade level warrants investigation in future studies in the school district. One example of a future research question may be the effect, if any, the transition program has on student attendance when comparing attendance at the middle school to the first three years of high school? Research of student attendance extending as far back as elementary school may also prove valuable. Other studies point to the importance of student attendance and that it is one of the few variables that cut across all other factors, regardless of achievement level, ethnicity, socio-economic status, gender, etc. (Ou & Reynolds, 2008). Other research on attendance may be include surveying of students, of both participants and non-participants, to determine any underlying factors motivating students to attend school or to miss school.

What may also be of interest, is an opportunity to study at-risk students who did not participate in the transition program and compare how they are doing compared to those in the program. The results may indicate that at-risk students not in the transition program tend to overcome the middle to high school transition and turn around their academic performance. Nevertheless, Capella and Weinstein (2001) indicate that transition programs intended to be comprehensive and that embed protective factors, can improve student resiliency especially among those most at-risk, such as students from low-SES families.

A future study may include the use of the data set from this study to determine the actual outcome of the transition program participants at the end of four years of high school in the 2012-2013 academic year. The question then becomes, did students manage to graduate on time and what effect, if any, did the transition program have on their success? Even though the data

are not what was expected, in terms of on-track graduation status, there remains the question of the academic relevance of the transition program within the school district. Fewer students in research question two were on-track towards graduation (34.3%) than expected and program participation did not have the effects expected; participants were only 23% as likely to be on-track when compared to their non-participating peers. Yet Cauley and Jovanovich (2006), when studying fifty-six Georgia and Florida high schools, found that schools operating transition programs had lower dropout rates when compared to schools without transition programs.

Conclusions

The results of this study have added to the body of knowledge concerning transition programs for at-risk students, particularly at the local level using a public school district in the Central Florida area, and yet many questions remain unanswered calling for additional research. Prior research combined with the results of this study point to three key considerations; 1) a need for comprehensive transition programs exists, 2) the transition program studied at the local school district in this paper provides opportunities for improvement, and 3) further research should be conducted to provide a more detailed explanation of what is working and what is not working within the program.

The beginning of this paper discussed the fact that additional research was being conducted on the school district's transition program. Two other researchers concurrently studied separate areas of the transition program. Researcher 1 used a mixed-methods approach to gain insight to student perceptions after having participated in the program for three years. Researchers 2 quantitative data to analyze academic progress and success of transition program participants in terms of their end-of-course grades in select academic core courses at the end of their ninth grade year. Researcher 2's results should provide insight to the academic

performance of at-risk students during their first year of high school. Research 3, the author of this study, examined whether or not at-risk students are on-track to graduate with their cohort at the end of their junior year. The culmination of all three studies will paint a picture of the first cohort in a local school district's transition program, implemented in 2009, and will offer suggestions on how to improve the program for future at-risk students. It is the responsibility of all educators to gain the knowledge necessary to ensure that all students, regardless of ethnicity, socio-economic status, abilities, or otherwise, are given the opportunity to an equitable and quality education. The unique needs of at-risk students can be met during their transition to high school through appropriate interventions tailored the needs of the individual student. A comprehensive transition program can meet those needs and the school district used in this study is now in its fourth year of the transition program. They have and continue to improve upon the program with the hope that more students will achieve success in school and life.

APPENDIX A: LETTER FOR PERMISSION TO USE DATA

Dear District Administrator:

Thank you for taking time to consider this request. As you know, I am involved in studying your district's current transition program. The study requires the use of student data to complete the study. Data must be for students who entered ninth grade during the 2009-10 school year. Per the Family Educational Rights and Protection Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99), all student data will be have personally identifiable data removed. In not instance will the resulting research include data to identify students, staff, faculty, or schools.

Your approval for use of student data is required before analysis and reporting can begin. I also agree that all data provided by your district remains sole custody of the district. If at any time you believe the study is not satisfying the needs of the district, you may demand that use of the data be suspended. By signing in the space provided below, you agree that the data may be used for purposes of this study.

District Representative/Approver Date	Researcher Date

Thank you in advance for your approval. I hope that the results will be both informative and helpful to your mission of providing a quality and equitable education to all students in your district.

Sincerely,

Tim Harper
Doctoral Candidate, University of Central Florida

APPENDIX B: INSTITUTIONAL REVIEW BOARD APPROVAL

University of Central Florida Institutional Review Board
Office of Research & Commercialization
12201 Research Parkway, Suite 501
Orlando, Florida 32826-3246
Telephone: 407-823-2901, 407-882-2012 or 407-882-2276
www.research.ucf.edu/compliance/irb.html

From : **UCF Institutional Review Board #1**
FWA00000351, IRB00001138

To : **Joseph T. Harper**

Date : **August 22, 2012**

Dear Researcher:

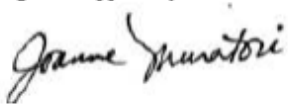
On 8/22/2012 the IRB determined that the following proposed activity is not human research as defined by DHHS regulations at 45 CFR 46 or FDA regulations at 21 CFR 50/56:

Type of Review:	Not Human Research Determination
Project Title:	The Relationship of Participation in a Summer Transition Program for At-Risk Ninth Grade Students and Their Progress for On-Time Graduation
Investigator:	Joseph T. Harper
IRB ID:	SBE-12-08622
Funding Agency:	
Grant Title:	
Research ID:	NA

University of Central Florida IRB review and approval is not required. This determination applies only to the activities described in the IRB submission and does not apply should any changes be made. If changes are to be made and there are questions about whether these activities are research involving human subjects, please contact the IRB office to discuss the proposed changes.

On behalf of Sophia Dziegielewski, Ph.D., L.C.S.W., UCF IRB Chair, this letter is signed by:

Signature applied by Joanne Muratori on 08/22/2012 01:53:57 PM EDT



IRB Coordinator

APPENDIX C: DATA FOR DEMOGRAPHICS BY SCHOOL

Table C1

Student Demographics, High School A

	Participant (n = 72)		Non-Participant (n = 569)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	36	50.0	392	68.9
Yes	36	50.0	177	31.1
SWD				
No	47	65.3	419	73.6
Yes	25	34.7	150	26.4
Gender[a]				
Female	23	33.8	278	51.7
Male	45	66.2	260	48.3
ELL[a]				
No	66	97.1	524	97.4
Yes	2	2.9	14	2.6
Ethnicity[a]				
White	37	54.4	342	63.6
Black	16	23.5	63	11.7
Hispanic	13	19.2	84	15.6
Other	2	2.9	49	9.1

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant n = 68. Non-Participant n = 538.

Table C2

Student Demographics, High School B

	Participant (*n* = 98)		Non-Participant (*n* = 882)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	18	18.4	552	62.6
Yes	80	81.6	330	37.4
SWD				
No	75	76.5	771	87.4
Yes	23	23.5	111	12.6
Gender[a]				
Female	33	36.3	455	56.0
Male	58	63.7	358	44.0
ELL[a]				
No	89	97.8	804	98.9
Yes	2	2.2	9	1.1
Ethnicity[a]				
White	30	33.0	428	52.6
Black	39	42.9	162	20.0
Hispanic	13	14.3	100	12.3
Other	9	9.9	123	15.1

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant *n* = 91. Non-Participant *n* = 813.

Table C3

Student Demographics, High School C

	Participant (*n* =11)		Non-Participant (*n* = 162)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	3	27.3	92	56.8
Yes	8	72.7	70	43.2
SWD				
No	10	90.9	128	79.0
Yes	1	9.1	34	21.0
Gender[a]				
Female	5	45.5	57	36.1
Male	6	54.5	101	63.9
ELL[a]				
No	11	100.0	155	98.1
Yes	0	0.0	3	1.9
Ethnicity[a]				
White	6	54.5	78	49.4
Black	3	27.3	31	19.6
Hispanic	2	18.2	34	21.5
Other	0	0.0	15	9.5

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a] Non-Participant *n* = 158.

Table C4

Student Demographics, High School D

	Participant (*n* = 36)		Non-Participant (*n* = 465)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	17	47.2	356	76.6
Yes	19	52.8	109	23.4
SWD				
No	30	83.3	402	86.5
Yes	6	16.7	63	13.5
Gender[a]				
Female	15	44.1	228	50.9
Male	19	55.9	220	49.1
ELL[a]				
No	34	100.0	443	98.9
Yes	0	0.0	5	1.1
Ethnicity[a]				
White	17	50.0	327	73.0
Black	7	20.6	39	8.7
Hispanic	5	14.7	57	12.7
Other	5	14.7	25	5.6

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant *n* = 34. Non-Participant *n* = 448.

Table C5

Student Demographics, High School E

	Participant (*n* = 58)		Non-Participant (*n* = 523)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	22	37.9	317	60.6
Yes	36	62.1	206	39.4
SWD				
No	42	72.4	419	80.1
Yes	16	27.6	104	19.9
Gender[a]				
Female	25	43.9	199	41.5
Male	32	56.1	281	58.5
ELL[a]				
No	56	98.2	472	98.3
Yes	1	1.8	8	1.7
Ethnicity[a]				
White	27	47.4	297	61.9
Black	9	15.8	58	12.1
Hispanic	18	31.5	88	18.3
Other	3	5.3	37	7.7

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant *n* = 57. Non-Participant *n* = 480.

Table C6

Student Demographics, High School F

	Participant (*n* = 55)		Non-Participant (*n* = 709)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	29	52.7	482	68.0
Yes	26	47.3	227	32.0
SWD				
No	45	81.8	555	78.3
Yes	10	18.2	154	21.7
Gender[a]				
Female	18	32.7	351	52.8
Male	37	67.3	314	47.2
ELL[a]				
No	54	98.2	636	95.6
Yes	1	1.8	29	4.4
Ethnicity[a]				
White	28	50.9	399	60.0
Black	9	16.4	51	7.7
Hispanic	16	29.1	147	22.1
Other	2	3.6	68	10.2

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Non-Participant *n* = 665.

Table C7

Student Demographics, High School G

	Participant (*n* = 66)		Non-Participant (*n* = 527)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	26	39.4	309	58.6
Yes	40	60.6	218	41.4
SWD				
No	60	90.9	419	79.5
Yes	6	9.1	108	20.5
Gender[a]				
Female	18	31.0	227	47.5
Male	40	69.0	251	52.5
ELL[a]				
No	54	93.1	455	95.2
Yes	4	6.9	23	4.8
Ethnicity[a]				
White	28	48.3	267	55.9
Black	6	10.3	27	5.6
Hispanic	17	29.3	131	27.4
Other	7	12.1	53	11.1

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant *n* = 58. Non-Participant *n* = 478.

Table C8

Student Demographics, High School H

	Participant (*n* = 38)		Non-Participant (*n* = 477)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	23	60.5	320	67.1
Yes	15	39.5	157	32.9
SWD				
No	33	86.8	385	80.7
Yes	5	13.2	92	19.3
Gender[a]				
Female	15	40.5	236	51.4
Male	22	59.5	223	48.6
ELL[a]				
No	36	97.3	448	97.6
Yes	1	2.7	11	2.4
Ethnicity[a]				
White	25	67.6	318	69.3
Black	3	8.1	39	8.5
Hispanic	8	21.6	77	16.8
Other	1	2.7	25	5.4

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant *n* = 37. Non-Participant *n* = 459.

Table C9

Student Demographics, High School I

	Participant (*n* = 33)		Non-Participant (*n* = 588)	
Descriptives	*Frequency*	*%*	*Frequency*	*%*
FRL				
No	23	69.7	487	82.8
Yes	10	30.3	101	17.2
SWD				
No	28	84.8	494	84.0
Yes	5	15.2	94	16.0
Gender[a]				
Female	7	21.9	282	50.1
Male	25	78.1	281	49.9
ELL[a]				
No	32	100.0	559	99.3
Yes	0	0.0	4	0.7
Ethnicity[a]				
White	21	65.6	409	72.6
Black	3	9.4	38	6.8
Hispanic	6	18.8	73	13.0
Other	2	6.2	43	7.6

Note. FRL = Free or reduced lunch. SWD = Students with disabilities. ELL = English language learner.

[a]Participant *n* = 32. Non-Participant *n* = 563.

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