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Triple A: Alternative for At-Risk Adolescents?

by

Shelly Mills-Walker

A Dissertation Submitted to the Education Faculty of Lindenwood University

in Partial Fulfillment of the Requirements for the

Degree of

Doctor of Education

School of Education

Triple A: Alternative for At-Risk Adolescents?

by

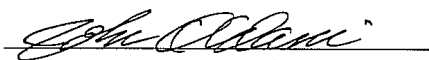
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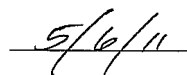
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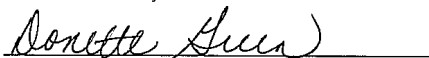
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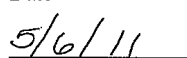
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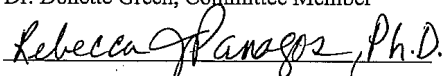
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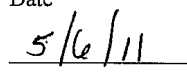
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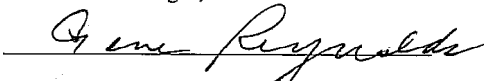
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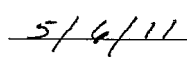
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Dr. Gene Reynolds, Committee Member



Date

Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon my own scholarly work here at Lindenwood University and that I have not submitted it for any other college or university course or degree here or elsewhere.

Full Legal Name: Shelly Mills-Walker

Signature: Shelly Mills-Walker Date: 5/6/11

Acknowledgments

I would like to recognize the encouragement and contribution of those who assisted me through the completion of my dissertation research. Many people guided, inspired, challenged, and sustained me. I wish to acknowledge their support with deep respect and gratitude.

Thank you to my dissertation committee chair, Dr. John Oldani, and my dissertation committee members, Dr. Rebecca Panagos, Dr. Donette Green, Dr. Gene Reynolds, and Dr. Sheryl Wilson, for their willingness to serve on this committee and for supporting and encouraging me during this amazing learning experience. I also thank all of you for allowing me to travel this road as an individual with a very independent writing style.

I especially thank Dr. Max Wolfrum for editing my dissertation project from start to finish; I will forever be in his debt. Thank you to other district personnel who continually inquired about my progress and always encouraged me. I want to thank my secretary, Jennifer Schumacher, who persevered through tumultuous changes in our office but always remained calm and steady.

To my dear friends, namely, my best friend Leslie Harrington, Dorlita Adams, and Dee Byres, as well as my sister, Suzanne Bates, who motivated and encouraged me, offered suggestions and ideas, and listened as I processed information. I say, "Thank you." I particularly appreciated you all on those days when I was most doubtful.

Most importantly, I want to send my sincerest thank you and deepest gratitude to my family, beginning with my wonderful children, Erica Mills, Scott Mills and Lesley Walker, whose love, support, and encouragement have led me through the completion of

two other degrees prior to pursuing the doctoral degree. I am where I am because of you. To my wonderful husband, Calvin Walker, I want to say a special thank you for there is no way I would have been able to finish this degree without you being there for me on every level possible. Thank you to my amazing mom, Shirley Black, for being an advocate of educational attainment since I was a little girl and for holding high the banner of achievement. You also have supported me through each degree I have pursued. Last, I thank my other siblings, Wandamaria, Karen, and Cliff, my Aunt Jeannie, my in-laws, and my nieces and nephews for their encouragement and support.

Abstract

The purpose of this quantitative, causal comparative study was to examine the extent to which attending an alternative educational program at some point during high school could likely influence the graduation rate of at-risk students in an urban school district in the state of Missouri. Four years of nonrandom samples of graduation data from 2006 through 2010 were retrieved from the district's student information system specific to race, ethnicity, gender, socioeconomic status, and special education services. The 4 years of nonrandom samples were averaged, and the mean graduation rates of these populations of adolescents were calculated and compared to measure statistical significance. Statistical analysis of the data using the *t* test, *F* test, and variance analysis suggested the African-American students with discipline issues who attended an alternative school at some point during high school experienced statistically significant higher mean graduation rates compared to the African-American students with discipline issues who only attended the traditional high school. Other variables statistically assessed for higher rates of graduation were the student's socioeconomic status, ethnicity (non-African-American), gender, and special education services. Although in some cases the mean rate of graduation of the students who attended an alternative program was higher than their like-peers in the traditional school, the results from these variables did not show evidence of statistical significance. The implications suggest the need for educational leaders to assess the qualities specific to an alternative school setting that may assist African-American. Furthermore, the data raises a question regarding the effectiveness of the traditional high school staff and school environment in meeting the needs of the African-

American population of students receiving special education services in a traditional school setting.

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Chapter 1

The legendary quote, “To Be or Not to Be” by William Shakespeare, comes to mind when thinking about alternative education for the 21st century. Who are the students in attendance at alternative schools? A vast body of research consistently assumes that alternative high school populations generally consists of students identified as at-risk and more likely to drop out of school (Kerka, 2005; Lehr & Lange, 2003; Ruzzi & Kraemer, 2006; Tissington, 2006; Wagner, Wonacott, & Jackson, 2005). The extent of this practice is suggested by the National Center for Education Statistics, which reported that for the 2007-2008 school year 577,500 students were in attendance in alternative schools with several thousand students either placed on a waiting list or sitting out of school until space is available (Public elementary/secondary school universe survey, 2007-08).

Indeed, some researchers have noted the need for more alternative schools to provide educational services to at-risk students as attention to the dropout rate and school accountability continues to increase (Aron, 2006; Tissington, 2006). Research therefore clearly confirms that at-risk students are frequently placed in alternative education programs. One of the issues dealt with in this study is whether or not alternative schooling should “Be” or “Not Be” a possible intervention for at-risk adolescents.

A preliminary issue is determining who is the potential dropout. Can distinguishing characteristics of a student, such as ethnicity, gender, socioeconomic status, or behavioral tendencies, be indicators suggesting whether or not the adolescent is likely to graduate from high school? In his white paper presentation on identifying potential dropouts, Craig Jerald (2006) would say the answer to this could be “yes,”

depending on how many at-risk factors the adolescent displays. So, if the at-risk student is the primary population of the alternative educational institution, does the student's participation in such a school or program increase their likelihood to reach matriculation? The answer should determine whether or not alternative educational programs should "Be or Not Be" utilized as an intervention for the at-risk student.

Background of the Study

The Missouri Department of Elementary and Secondary Education recently began requiring school districts to provide more accurate and extensive data to the state and federal governments by utilizing a uniform system of data collection called The Missouri Student Information System. The system was implemented to provide the state and federal governments greater ability to hold all school districts more accountable to the requirements of The Federal No Child Left Behind Act (NCLB) of 2001 and to make better decisions regarding public education. This new data-collection system was introduced to Missouri schools when each district was required to assign every student in attendance a state identification number. By the 2007-2008 school year, Missouri school districts and postsecondary institutions were required to report to the state a plethora of data on the student, the educator, and the institution by uploading it into MOSIS (Missouri Student Information System Reference Manual, 2009).

This method of data reporting has added a new dimension to accountability in the state of Missouri. Prior to MOSIS, when a district reported data to the state, ambiguity of the student data allowed districts to shroud performance results. For example, if a district reported a graduation rate of 98% to the state, the district was saying that almost all of its eligible seniors graduated. What was not reflected in the 98% graduation rate, since the

identity of the student being reported was indistinct, was that over the course of the 4 preceding years, an unidentified number of potential seniors had dropped-out, moved, or simply disappeared. Thus, when a student new to the district enrolled after the start of his freshman year and graduated, the student was counted in the total of those graduating so it appeared as though the district had very few dropouts.

In response to the need to report more accurate data, state governors committed to developing a common method of calculating the high school graduation rate (Curren, 2006). With the arrival of MOSIS, the ability to include new students in the graduation count to replace students who had dropped was eliminated in Missouri. In the above example, if a district lost half its incoming freshmen over the course of 4 years to dropping out or moving but new students enrolled, because each student was identified by a state identification number, the district would have to report a graduation rate which reflected those students who dropped as well as those who graduated. Thus, instead of reporting a 98% graduation rate, a district would have to report a rate much lower.

This change is important to understand for this study because funding is attached to accountability (Goodlad, 1994), and now with data coming to the state through MOSIS, districts are even more accountable to meeting requirements for accreditation and funding purpose. This study focuses specifically on accountability at the state and federal levels in relation to graduation rate, a standard each school system must meet because of the writer's goal of establishing the correlation between alternative programs for at-risk students and graduation and matriculation.

Interestingly, in 2000, according to Aron and Zweig (2003), 10.9 % of youth between the ages of 16-24, approximately 3.8 million students, had not successfully

completed high school and were not enrolled in any educational program. Today, Chapman, Laird, and KewalRamani (2010) cited that the average percent of students who dropped in 2008 was only 3.5%, a decrease that has steadily trended downward from 1972 when data were first collected. Despite this decline in the number of students choosing to drop from school, national concern over the graduation rate prompted Congress to include it as an accountability measure through the NCLB (Aron, 2006), thereby requiring educational policy makers to take a closer look at the issues of equity and accountability for underserved youth (Epps & Morrison, 2003). Thus, the necessity for districts to ensure students are not dropping out of school has taken on an entirely new sense of urgency (Jerald, 2006).

Although the dropout rate has remained relatively the same over the past several years, the increased attention to this issue is due largely to an increased awareness that American students who do not reach matriculation significantly impact our nation's economy and ability to compete in a more global society (House, 1998; Jerald, 2006). The National Center of Education Statistics recently assessed data, which led it to conclude that America suffers a net loss of revenue in America due to dropouts of roughly \$230,000 per dropout over the span of his or her lifetime (Chapman et al., 2010). The chart below highlights data collected from the U.S. Census Bureau showing the yearly number of dropouts in America between 2005 and 2008, by ethnicity.

Table 1

Percent Annual High School Dropout Rates (DOR) by Ethnicity: October 2005 to 2008

Year	All Students	Blacks	Whites	Hispanics
2008	3.3	6.1	2.8	4.9
2007	3.3	4.3	2.8	5.5
2006	3.5	3.7	3.5	6.4

2005	3.6	6.9	3.1	4.7
------	-----	-----	-----	-----

Note: Adapted from *U.S. Census Bureau, Current Population Survey*. Retrieved May 19, 2010, from <http://www.census.gov/population/socdemo/school/TableA-4.xls>.

The disparity in the dropout rate across the different ethnic groups accounts for issues of equity for underserved youth becoming a focus of school accountability measures.

For this study, persistence to graduation across the varying ethnic groups was explored through one school district in Missouri with a reported rate of dropouts just slightly lower than average in the state of Missouri. This metropolitan school district located in the county of St. Louis, Missouri, has been in existence since the mid-1800s. Nine schools house the district's student population of over 6,000 students. Over the last 5 years, the district has had a steady influx of minority students and presently serves a population of about 45.3% white and 54.7% minority. Of those 54.7% minority, approximately 39.4% are African American and 12.3% are Hispanic. Data reported by this district to DESE in 2009 show an attendance rate of 94%, compared to Missouri's attendance rate of 94.2%. The graduation rate reported was 86%, compared to the state's average of 85.7%, and the dropout rate was reported at 2.6%, compared to the state average dropout rate of 3.5%. The district's expenditure per pupil was slightly less than \$9,101.00, compared to the state's average of a little over \$9,751.00 per pupil. This district's location, demographics, achievement and performance, and dependence on state and federal funding make it an ideal study, particularly when looking at the effectiveness of alternative programming because the district provides an array of alternative school options for its students. During the 2006 through 2010 school years, approximately 240 students attended Program A, 320 students went to Program B, Program C served five

students, 80 students were served by Program D, and Program E saw approximately 75 students.

Table 2

Alternative School Options Provided by District of Study

Name	Type	Location	Instructional Focus	Student Characteristics
A	II and III	Off-Campus	Computer-based 3 hours per day	Behind in credits Deviant school behavior Excessive absenteeism Older-aged Pregnant Suspended Parent
B	I	Off-Campus	Hands-on Specific trades of study Half day and full day	Behind in credits Has a disability (IEP) Struggles with academics
C	I, II and III	Off-Campus	Teacher-driven instruction Initial focus on math & language High school credit College level credit Partial school day	Behind in credit Deviant school behavior Likely to drop-out/has dropped Suspended
D	II and III	On-Campus	Teacher-driven instruction Four core content areas Full-day program Provides therapeutic support	Between the ages of 14-16 Deviant school behavior Suspended
E	II and III	On-Campus	Computer generated 3 hours per day at school 3 hours per day at home	Behind in credit Between the ages of 16 - 18 Deviant school behavior Likely to drop out/has dropped Suspended

The first type of alternative programming offered by this district, vocational, or technical school, is generally populated by special needs students and other adolescents identified as less likely to succeed in the traditional high school setting. Raywid (1994) classified vocational and technical alternative programs as Type I schools because they provide curriculum with programmatic outcomes allowing the student a skill or trade for employment purposes beyond high school. Also, the student chooses to attend a vocational or technical school, unlike Raywid's Type II and Type III alternative schools where the student is generally required to attend. However, for the purpose of this study, specific attention will be on students attending alternative programs defined by Raywid (1994) as Type II and Type III. These two typologies of alternative education are alike in focusing on correcting the individual students' behavior and disposition. However, they differ in that Type II programs are termed "last chance" or "soft jail" programs (Raywid, 1994, p. 27), and Type III programs are more therapeutic or remedial programs. The district under study provides Type II and Type III alternative programs, making it an ideal district in which to study the effectiveness of alternative programming.

Statement of the Problem

Today's society is inundated with a greater awareness and use of the term *alternative*. It is used to refer to concepts such as energy, music, lifestyles, attire, medicine, or even education. In the educational arena, many policies, practices, and program alternatives can relate to include alternative assessments, alternative instruction, and alternative schooling, all of which have been extensively researched due to the varying types of students that schools today must be equipped to serve. Looking specifically at alternative education, despite the variety of research available to support

aspects of alternative education such as the types of programs that exist, the types of students who attend, and the characteristics of effective alternative programs, there is still a great need for more “scientifically based, rigorous evaluations establishing what [alternative] program components lead to various positive outcomes for youth” (Aron, 2006, p. 11). Therefore, the positive outcome for adolescents in this causal-comparative study of alternative education was designed to measure whether or not attending an alternative program increases the likelihood that an at-risk student will persist to graduation.

Purpose of the Study

The educational leader addresses the number of high school dropouts in America because the NCLB Act of 2001 and other educational reform measures continue to raise levels of accountability (Lange & Sletten, 2002) and, more importantly, because our leaders and our work force must be prepared to interact in a more global society if our country is to remain a leading nation. According to several studies, students who do not graduate from high school are negatively impacted socioeconomically (Aron, 2003; Aron & Zweig, 2003; Bottoms, Presson, & Johnson, 1992; Christle, Jolivet, & Nelson, 2007; Corcoran & Goertz, 2005; Epps & Morrison, 2003; *The Forgotten Half: Non-College Youth In America*, 1988; Maeroff, 1982). Practices designed to assist educators with ensuring students do not drop out of school must be measured and evaluated. For decades, data have been collected on the types of students who drop out of school, how many students drop out of school, and the types of alternative programs serving these students. However, “It should be emphasized that much of the evaluative information on the effectiveness of alternative schools is anecdotal and/or testimonials rather than

systematic scientific evidence” (McDill, Natriello, & Pallas, 1987, p. 128). Determining whether or not alternative programs are a beneficial outcome to adolescents, as measured through persistence to graduation, would benefit all schools and systems across the nation. This study was designed to assess the effectiveness of alternative programming, specifically for at-risk students. The measurement of effectiveness is based on the student’s persistence to graduation; for example, did the student graduate and receive a high school diploma? This research was undertaken on the thesis that there is a significant difference in the graduation rate of at-risk students who attend an alternative program at some point in their high school careers compared to those at-risk students who do not attend alternative programs during high school.

Research Question and Hypotheses

Research question. Does the mean graduation rate of at-risk high school students who attended an alternative education program differ from the mean graduation rate of at-risk high school students who attended the traditional high school?

Null hypothesis. The graduation rate of at-risk students who attended an alternative education program is less than or equal to the mean graduation rate of at-risk students who attended the traditional high school.

Alternate hypothesis. The mean graduation rate of at-risk students who attended an alternative education program is greater than the mean graduation rate of at-risk students who attended the traditional high school.

Definition of Terms

Accountability. “Consistently enforced codes of conduct” (House, 1998, p. 21)

Adolescence. “The time of life between puberty and maturity; youth” (Guralnik, 1974, p. 10). “Adolescence is a time when the young person prepares for the transition to life on his own” (Ingersoll, 1988, p. 17). “Adolescence is a time of transition and change. It is a time when youth work toward educational and vocational goals, take on exciting new responsibilities, and prepare for their transition to adulthood” (Aron & Zweig, 2003, p. 3).

Alternative education. Alternative education can include “all educational activities that fall outside the traditional K-12 school system” (Aron & Zweig, 2003, p. 20).

At-risk. “Youth who are currently struggling to be successful in their roles as adolescents and who are socially, educationally, and economically disadvantaged relative to their peers” (Aron & Zweig, 2003, p. 3).

Dropout. Students who are “not enrolled in school and had not earned any type of high school credential” (Aud, Fox, & KewalRamani, 2010a, p. 89).

Graduate. “Graduates are those students who are reported as diploma recipients. These are individuals who are awarded a regular high school diploma or a diploma that recognizes some higher level of academic achievement” (Stillwell, 2010, p. 1).

Matriculation. Point at which a student is able to enroll in a college or university. (Guralnik, 1974, p. 462).

Persistence to graduation. A student who receives a degree or a diploma by continually engaging in the course of study or program would persist to graduation. (Guralnik, 1974, pp. 325 & 555).

Schooling. “The learning that takes place in formal institutions” (DeMarrais & LeCompte, 1999, p. 2).

Traditional/regular school. “Schools with traditional structures, but with a commitment to providing all students with a rigorous curriculum which prepares them for college or a family-wage job” (Bridgeland, DiIulio, & Morison, 2006, p. 14).

Limitations

The sample came from one school district and would therefore not necessarily be representative of the general population of at-risk students (Pillowsky & Somers, 2004). However, the researcher considered several years of data on the sample to increase the reliability of the results. Also, the population of students was not sufficiently large to allow for the possibility of a truly randomized study (Pillowsky & Somers, 2004). When assessing the persistence to graduation of the alternative group of students against the nonalternative group of students, even though matching of the two groups on some demographic and academic characteristics provided a degree of closeness, each individual is unique with varied life events that could not feasibly be considered or addressed by the study (Connor & McKee, 2008). The calculation of graduation rates across the nation has been diverse for decades, and just recently efforts are being made to follow a universal process of calculation (Stanley & Plucker, 2008). Thus, when comparing the results of this study, it is imperative to be aware of this disparity when making generalizations and declarations specific to graduation rates. Relying on secondary data to form analysis and conclusions regarding alternative programs and their effectiveness can result in a greater margin of error due to possible inconsistencies and human error with data (Christle et al., 2007). Using secondary data also limits the

researcher's ability to look for patterns or to zero in on criteria that might be of interest or play a role in the outcomes from the analysis of the data. Lastly, operationally characterizing the at-risk student could be misleading (Christle et al., 2007). For example, determining the socioeconomic status of students via their categorization of being free, reduced, or paid-for meals at school could cause misrepresentations of whether the students should be considered at-risk in that area or classification.

Conclusion

Chapter 1 begins with an array of questions suggesting alternative schooling as a possible intervention for preventing at-risk students from dropping out of school. A brief account of the changes related to the measures of accountability specific to graduation rates at the state and federal levels was highlighted, along with how these changes have influenced educational institutions today. A background of the district under study was provided followed by the statement of the problem and the purpose of the study. The chapter concluded by defining the research question and hypotheses, acknowledging the study's limitations, and defining the special terms. The ensuing chapter traces the historical development of the public education system in America through the establishment of alternative education as a viable mode of educating children. It explicates the concept of alternative schooling and the relationship to this study and describes experiences of the at-risk adolescent in relation to dropping out of school, to heighten awareness of the need to measure the effectiveness of alternative schools as an intervention in response to heightened accountability measures regarding graduation rates at the state and federal levels.

Chapter 2: Review of the Literature

Knowledge of the origin and evolution of public schooling will help to understand the origin and evolution of the alternative educational movement today. This historical review establishes the intrinsic purposes society expects of their learning facilities and how government and educational policy makers have channeled society's vision for public education through reform measures that today result in powerful measures of accountability (Lange & Sletten, 2002). These accountability expectations consistently spawned reform within the educational arena. The area of reform in education focused upon in this research centers on alternative educational programs and institutions. Understanding why the alternative school is suggested as an intervention to accountability involves knowing about the at-risk student and why this population of students' educational well-being is significant to our world today. Thus, the question of whether alternative educational institutions are effective in helping school districts meet the accountability expectation of ensuring all students graduate from high school is the leading factor that establishes the significance of this research study.

History of Education

The origin of public education. After liberation from the oppression of England, the fledgling country established two areas of focus: governing and government, which produced the Constitution, and an informed citizenry and responsible citizenship, which led to the need for and plans for public education (Rueben, 2005). Despite these laudable initial plans, it should not be surprising that early efforts fell short of the ideal. Significant education was only provided to male children of the wealthy, whose families

had the means to pay for tutors who would perpetuate the family values and resources (Wright, 2006). However, as the colonial period evolved, children of lesser means began receiving an education in their homes and local churches. It was not until after the 1830s that Congress was able to establish a formal public education system (Reuben, 2005). This system took shape as a one room school house where students of all ages were taught basic reading, math, and social skills (Wright, 2006). As industrialization and the expansion of the market created a different type of citizen, in order to prevent division among the classes and to deter social unrest regarding common values and purpose, the notion of uniformity among schools grew in popularity (Reuben, 2005).

Eventually, around the 1860s, a significant change materialized in the public schools. The one-room schoolhouses had evolved into “graded” schools, which have survived as the dominant model for educating students even today (Wright, 2006). However, after the Civil War, because of issues with inclusion for Catholics and African Americans, the expansion of public education stagnated (Reuben, 2005). Nevertheless, educational reformers such as Horace Mann insisted that schools address the issues of race, ethnicity, and class diversity (Reese, 2007). So, according to Reuben (2005), these issues precipitated the idea of offering different types of schools to meet the variety of learning patterns instead of one common school to educate all children. Furthermore, the United States experienced dramatic change at the turn of the century with rampant westward migration and labor strife due to greater industrialization and political scandal. To minimize the impact of these changes, efforts ensued to target perceived dangerous classes to contain their influence on the nation (Reuben, 2005).

Thus, the first alternative programs emerged to “fulfill the commitment to educate

all students within the public school system, no matter their circumstances or educational issues” (Tissington, 2006, p. 23). Not only were alternative schools desirable to address the rising issues of diversity, but they also emerged due to many Americans’ opposition to the educational system as it existed at that time (Aron & Zweig, 2003). Research from the Quaqu Society Inc. (Witte, n.d.). and Lange and Sletten (2002) cited other significant historical factors such as separation of church and state, increased religious freedom, women’s rights, and civil rights as reasons for the formation of alternative schools. Lange and Sletten further contended that alternative education, as we know it today, stemmed from the civil rights movement because the educational system at that time was known for being racist and for supporting the success of a limited few.

The purpose of public education. This brief overview of the origin of educational institutions also reveals America’s expectations of its public schools. With an established educational system evident after the War of Independence, the hope and responsibility placed with public schools was to instruct children in the ways of democracy so that they would become responsible, participating citizens (Comer, 1994). Although expounded upon from various perspectives, researchers Corcoran and Goertz (2005); Fuller and Rasiah (2005); Goodlad, (1994a); Lewis (1989); Maeroff (1982); Reese (2007); Reuben (2005); and Wirt and Kirst (1989) shared the belief and made the argument that schools were expected to instill aspects of responsible citizenry in students. Although schools were primarily controlled at the state and local levels, as the academics and structure of schools evolved, focus never veered from ensuring an understanding and development of citizenship (Reuben, 2005). Nevertheless, as public schooling gained additional attention, more policies that were educational were formulated by state and

national leaders in response to state and national concerns (House, 1998). For example, when addressing the issue of poverty, President Johnson saw the public school system as the primary means of intervention and cited this in the Elementary and Secondary Education Act of 1965 (Goodlad, 1994b; Lange & Sletten, 2002). Goodlad (1994b), provided another example of the cumulative purposes assigned to schools to address the needs of society in pointing out Vice President Hubert Humphrey's statement that America's educational system would be recognized in the future for defining schools that addressed and surmounted "problems of illiteracy, unemployment, crime and violence, urban decay, and even war among nations" (p. 33). Lastly, Reuben (2005) noted that "the purpose of school shifted from citizenship to economics. Individuals were encouraged to pursue education in order to get better jobs and make more money" (p. 20). The result was that over the last century, schools have become multipurpose institutions that have made them easy targets to criticize and the object of ceaseless calls for reform (Reese, 2007, p. 159). Consequently, "school reform... must follow fundamental social reform" (Goodlad, 1994a, p. 3). That is, as the needs and expectations of society have changed, new and diverse reform efforts have been initiated, significantly impacting the evolution, structure, and purpose of our schools (The Forgotten Half: Non-College Youth In America, 1988). This evolution and accumulation of the purposes of public education were shaped through plans and initiatives emanating from America's political leadership which was responsive to the demands and expectations of its constituents (Lewis, 1989), even to the point, as Fuller and Rasiah (2005) highlighted, that parents and voters governed schools through various venues, one being "accountability reforms advanced by elected legislators" (p. 81). All of these changes to public education stemmed from this

nation's belief that schools must prepare their students to participate fully in the democratic beliefs and attitudes of society (Reuben, 1995). Understanding their evolution and the massive responsibilities placed on the public school system heightens awareness of the present challenge facing schools today. It is an easy and logical progression to the belief and goal that all children, despite differences related to diversity, achievement, and behavior, should at the very least receive a high school diploma; and to the mandate that state and federal education agencies attempt to hold public schools accountable for achieving this challenging goal.

Educational Reform

Reform at the federal level. Even when the nation was founded, society recognized the need for and the value of public education in shaping the learning experiences of its children (Reuben, 2005). But, to gain a more in-depth understanding of America's continually evolving educational system and alternative education programs, it is necessary to examine the role of the state and federal governments in shaping schools through many educational reform mandates. As noted earlier, House (1998) identified that as further attention was given to public schooling, state and national leaders, in response to state and national concerns, formulated policies that were more educational. From these policies came expectations and requirements for public school accountability, an inducement in driving the need for options such as alternative programming for students struggling in school (Lange & Sletten, 2002; Tissington, 2006).

Although the Constitution placed the responsibility for education with the states (Reuben, 2005), Corcoran and Goertz (1995) maintained that as equity issues identified in public schooling emerged along with other societal realities such as increased diversity,

the federal government assumed some of the responsibility of the state and local governments. This transfer of responsibility happened when the federal government began to respond to equity issues in public education through legislation such as the Elementary and Secondary Education Act of 1965; the Education for All Handicapped Children Act, known today as the Individuals with Disabilities Act of 1975; Improving America's Schools Act of 1994; and the NCLB of 2001 (Lange & Sletten, 2002; Wong & Nicotera, 2007). From 1965 through 1981, thousands of school district reforms and initiatives were funded through federal grants (Elmore & Milbrey, 1988). Epps and Morrison (2003) also substantiated that the NCLB Act provided federal aid to public education systems to impact both equity and achievement. One of the most substantial and long-lasting examples of federal aid to schools is Title I, which was initially implemented through the ESEA in 1965. Over the years it has undergone modifications so that today it provides resources needed to help schools develop and implement more aligned testing, more rigorous academic standards, and to hire highly qualified teachers for increased accountability through NCLB (Epps & Morrison, 2003).

Although the expectations and requirements set forth in these acts were usually accompanied by limited funding, the federal government has nevertheless been able to require specific outcomes for schools (Bennis, 1997; Corcoran & Goertz, 2005; Gibson, 1997; Naisbitt, 1997; Wong & Nicotera, 2007). The most conspicuous and onerous example is probably the NCLB's current requirement that all schools attain Adequate Yearly Progress (Corcoran & Goertz, 2005; Epps & Morrison, 2003; Understanding Your Adequate Yearly Progress, 2009). AYP is a standards-based accountability system imposed by the federal government's NCLB Act. Each state's educational leadership

must respond to NCLB with its own plan designed to measure a school's effectiveness in ensuring every student reaches a certain level of academic excellence and attends school regularly (AYP, 2009).

While there is substantial diversity and variation in difficulty in the assessment and measurement tools from state to state, any school that receives funding from the federal government must compile a report card highlighting the progress of their students in the areas of math, language arts, and science (Epps & Morrison, 2003). This report card must conform to the state's AYP reporting based on the NCLB's designation of "subgroups." The subgroups consist of students in the school population with certain defined aspects set forth by NCLB. These subgroups consist of English language learners (ELLs); all ethnic subgroups wherein the student population of the subgroup is greater than 30 such as African-Americans, Hispanics, and Whites; Free and Reduced Lunch; and students with disabilities (Epps & Morrison, 2003). NCLB also specifies yearly targets that schools must attain in order to meet the standard of the federal government in ensuring all students receive an equitable public education. Ultimately, by the year 2014, the progressively higher targets require that 100% of the student population achieves at the mastery level of proficient in all three academic subject areas (AYP, 2009). In Missouri, DESE established annual AYP targets, which had to be approved by the U. S. Office of Education. Achievement levels on Missouri's assessment program (MAP), as well as attendance and graduation rate data, determine whether all subgroups of students in each school, each district, and the state of Missouri make AYP (Understanding Adequate Yearly Progress, 2009). Therefore, accountability for school districts to ensure students are graduating is embedded at the state and federal levels.

Thus, determining whether alternative schooling is an intervention for at-risk adolescents who might otherwise drop out of school is important to consider for educational leaders today.

Reform at the state level. As mentioned earlier, the federal government has legislated a series of mandates for educational institutions during the last half century, while the state also had schools beholden to an assortment of guidelines and regulations. Corcoran and Goertz (2005) asserted that with the advent of NCLB and increasing levels of federal funding, states have had no choice but to assume a much greater regulatory role in order to enforce the federal mandates. They further pointed out that this increased federal and state involvement has been especially targeted at traditionally low achieving subgroups of students, particularly disadvantaged children.

The state accountability and assessment practices across the nation were required by NCLB to align with and cover five areas of focus: curriculum and instruction, governance, finance, assessment and accountability, and teacher preparation (Corcoran & Goertz, 2005). For example, Missouri's state accountability is administered and measured through MSIP, Missouri's School Improvement Plan (Understanding APR, 2009). Implementation of MSIP in relation to accountability is achieved through the Annual Performance Report, which sets forth 14 standards by which the performance of each school district is measured (Understanding APR, 2009). Seven of the standards are specific to student academic performance and measured by Missouri's academic achievement test referred to earlier as the MAP. The MAP " is designed to identify the knowledge, skills, and competencies that Missouri students should acquire by the time they complete high school and to assess student progress toward these academic

standards” (Missouri Assessment Program Grade Level Assessments, 2009, p.1). Using the MAP, Missouri measures the percentage of students who meet proficiency levels in the academic areas of math and language arts, with a bonus point possible in science, at grades 3 through 8. Certain end-of-course exams substitute for the MAP at the high school level. When a school's mastery level either meets the expected target or demonstrates a pattern of improvement, that school earns one APR point (Understanding APR, 2009). The seventh possible academic APR point for a school is based on the high school student's performance on the American College Test (ACT). The other areas measured through APR are the number of advanced courses offered by the high school, the attendance rate, career education courses, percent of college placement, career education placement, and the graduation rate (Understanding APR, 2009).

It is the last criterion listed, the graduation rate, which relates most closely to, justifies, and makes relevant this study of alternative education. Although the format and assessment tool described above to measure student achievement is unique to Missouri, this report card on student performance must be presented annually, by every state, as required through NCLB (No Child Left Behind: A Parent's Guide, 2003). Because of this annual requirement, states maintain a significant role in educational funding and regulation; and state policy agendas are rife with educational reform and accountability issues (Corcoran & Goertz, 2005). The federal and state governments, over time, have slowly assumed more and more responsibility for public schooling and, in doing so, have created a standard of achievement by which all schools must be measured. At the federal level, this standard is derived from the NCLB Act and measured through AYP in an effort to ensure equity of education for all children. At the state level, in Missouri, the standard

of measurement is the APR. These measures of accountability are forcing schools to publish data on the achievement and success of their students, which is teasing out the harsh reality that a disturbing number of students in the public educational system never reach the point of matriculation in postsecondary education.

This significant and unacceptable dropout rate brings us back to the essence of this research as it relates to alternative programming. The history of public education, the purposes of public education, and the impacts of reform at the state and federal levels are significant when seeking to determine the effectiveness of alternative education. As will be discussed later, there are as many purposes for creating alternative programs as there are types of programs. Specifically, due to NCLB reporting requirements at the state and federal levels, districts must identify the performance, or lack of, for every student within the district, as well as document the assurance that all students are being held to a high standard of achievement (Tissington, 2006). This required and specific reporting has generated an awareness of the alarming number of students in this country who are not achieving their potential and the impact their lack of achievement is bound to have as this great nation faces an increasingly competitive global society and economy (Bottoms et al., 1992). It is a condition and challenge that cannot be disregarded. Therefore, consideration of alternative schools as an intervention to increase the likelihood students will pursue graduating is an important and necessary phenomenon.

Alternative Education

To embrace the essence of this research study, it is important to understand the realm of alternative education starting with reviewing what alternative education is, the various models of schooling considered alternative, and the vast number of students in

need of alternative schooling. Following this review, a look at the common characteristics that amass an effective alternative program and the types of students served by alternative programs will ensue.

A synopsis of alternative education. Society has focused on the education of its young since time began. While establishing itself, for the purposes of socialization and public good, our nation's primary purpose for public schooling was to teach children the concepts of patriotism and democracy (Reuben, 2005). However, significant historical factors such as the civil rights movement were responsible for causing major changes in our country and educational institutions and could be noted for driving the need for separate or alternative schools (Morley, 1991). For example, to promote equality and democratic rights, freedom schools emerged in the summer of 1964 to provide African-American high school students a more comprehensive school experience (Chilcoat & Ligon, n.d.). American society utilized the educational system to address societal ills and "With government backing and funding, a new wave of alternatives was spawned that was meant to offer equal and meaningful education to disadvantaged and minority students" (Lange & Sletten, 2002, p. 9). From this era of reform, in the late 1960s, alternative programs and schools emerged creating what was considered two types of alternatives: those within the school setting and those alternative programs outside the regular school setting (Lange & Sletten, 2002). In 1992, Morley compiled a report for school reorganization that detailed information about alternative education. In the report, he stated "alternative education is a perspective, not a procedure or program. It is based on a belief that there are many ways to become educated, as well as many types of environments and structures within which this may occur" (p. 8). In an effort to better

understand alternative education, Katsiyannis and Williams (1998) surveyed all 50 states looking for specific information about alternative programming and state initiatives.

“Specifically, respondents were asked to provide the state-adopted definition of alternative education, identify target populations, describe entry and exit criteria, indicate availability of legislation and/or policy, and address the existence and nature of technical assistance” (p. 277).

Of the 38 states that responded to their survey, 22 states confirmed legislation and 25 states verified policies that addressed alternative education. Of the states that had legislation and that provided the researchers with copies of the legislation, Katsiyannis and Williams (1998) recognized that “legislation included the presence of two components across all states, a state definition of alternative education and a listing of who is eligible to receive services within the context of that definition” (p. 279).

Commonalities were found within the state-adopted definitions of alternative education, such as the location, curriculum, instruction, and desired outcomes for alternative programs. For example, the state of Wisconsin, in its Statute 115.28(7)(e)1, defined *alternative education* as follows:

An instructional program.... that utilizes successful alternative or adaptive school structures and teaching techniques and that is incorporated into existing, traditional classrooms or regularly scheduled curricular programs or that is offered in a place of regularly scheduled curricular programs (Primary and Secondary School, 2009).

Missouri statutes did not offer a legal or operational definition of alternative education but instead, provided a definition of the type of student best fitted for an alternative

program, which will be discussed later in this research review. Therefore, as Lange and Sletten (2002) surmised, “However, while succinct, entirely inclusive definitions of current alternative schools and programs are elusive, several characteristics are common among the options currently in existence” (p. 5).

At the national level, the U.S. Department of Education defined the various types of schools. An alternative education school is “a public elementary/secondary school that addresses the needs of students that typically cannot be met in a regular school program. The school provides nontraditional education; serves as an adjunct to a regular school, and falls outside the categories of regular, special education or vocational education” (U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, 2010, p. 20). An example of a nontraditional educational program is the Montessori school. Dr. Maria Montessori, a physician of pediatrics and psychiatry, studied the young and underserved child and discovered that “these experiences [working with children of the working class and poor] convinced her that intelligence is not rare and that most newborns come into the world with a human potential that will be barely revealed” (Selbin, 2010, p. 4). So, in the early 1900s, Montessori pioneered nontraditional alternative educational institutions in America for the young child. Her model of the nontraditional school gave way to what are known today as very nontraditional approaches to teaching children such as the open classroom, manipulative learning materials, and individualized instruction (Selbin, 2010).

In 2001, The National Center for Education Statistics conducted the first national survey of alternative schools and determined the availability of and involvement in alternative programs for at-risk students. The survey logged 6,400 alternative schools

housed in facilities separate from the regular school. There were 450 programs in juvenile detention centers and 350 community-based programs. Overall, the study cited 612,900 students attending public alternative schools and programs (Kleiner, Porch, & Farris, 2002). An overview of alternative education, as presented by Laudan Aron (2006), synthesized prior research and data on alternative schooling to determine the array of alternative institutions and programs in existence in America. The survey data presented other information including, but not limited to, the characteristics of effective programs, the types of students who attend alternative programs, and funding sources, which are discussed later. However, the data collected divulged a wide array of alternative schooling models that meet any one of the definitions cited above.

Table 3

The Design and Outcome of Types of Alternative Programs

Type of Alternative Program	Design of the program	Outcome of the Program
Career Academies	Small learning community for 30-60 students	Coursework in a career path as well as academic studies and internship opportunities provided outside the classroom setting
Early and Middle College high schools	Small high schools for first-generation English Language Learners and other minority students	Opportunity to attain a high school diploma and associates degree
Job Corps	Residential program for primarily high school drop-outs	Provides educational and vocational training
Gateway to College	Program facilitated at the local college for 16- 20 year old drop-outs or students significantly	Opportunity to attain a high school diploma and associates degree

behind in credits

Twilight Academies	After hour programs for suspended or incarcerated students	Opportunity to earn credits and re-establish oneself to return to the general education setting
ISUS (Improved Solutions for Urban Systems)	Charter school setting for out of school youth	Ability to earn high school diploma and college credits in focused areas of training

Note. Adapted from: An Overview of Alternative Education.

These school district or community-based educational programs provide underserved youth alternative options for earning high school certification and represent some of the varied learning institutions termed today as alternative educational programs (Aron, 2006). Although the vast majority of students in America attend traditional public elementary and secondary schools, Table 4 indicates how many students in the central states of America, during the 2007-2008 school year, attended some type of alternative program or facility (Public elementary/secondary school universe survey, 2007-08).

Table 4

Number of Students in Membership in Operating Public Elementary and Secondary Schools by School Type: 2007-2008

State or Jurisdiction	Regular School	Special Education	Vocational Education	Alternative School	Charter School	Magnet School
Illinois	2,074,359	24,791	3,480	10,175	24,753	230,062
Indiana	1,043,028	399	0	2,500	11,120	11,592
Iowa	477,035	996	0	4,173	691	†
Kansas	467,878	366	†	51	3,047	13,352
Kentucky	658,018	670	0	7,537	†	39,757
Mississippi	493,918	204	0	0	375	3,217
Missouri	910,624	2,570	1,928	2,066	14,877	16,825
Ohio	1,812,624	7,333	834	844	81,539	†
Tennessee	958,578	1,471	2,417	1,373	2,742	17,686

Note. Adapted from “Department of Education, National Center for Education Statistics, Common Core of Data (CCD Public Elementary/Secondary School Universe Survey,”

2007–08, Version 1a.), † Not applicable. Membership reported as not applicable or some states do not have charter school authorization and do not designate magnet schools.

According to these data, Indiana served approximately 14% of its youth through alternative schooling, followed by Kentucky and Mississippi, which served over 7% of its students. Missouri and Ohio had the next highest rates of serving students in alternative programming, landing a rate slightly over 4%. Comparing the results from the 2001 National Center for Education Statistics survey, which showed 612,900 students participating in alternative educational programs against this survey done in 2008, suggests the magnitude of the need for alternative venues to continue. “The sheer numbers compel educators, parents, students, policy makers, program developers, and taxpayers to pay more attention to this rapidly growing sector of public education” (Farris-Berg, Schroeder, Jolderie, & Graba, 2003, p. 2). With such an assortment of alternative programs serving so many students, it is necessary to be clear about the aspects of alternative schools this research study focused upon when measuring the effectiveness of alternative schooling.

Types of alternative programs. With the various definitions of alternative education and the varying types of facilities, determining an all-inclusive lists of the many types of alternative programs that exist is difficult (Lange & Sletten, 2002). However, several approaches to cataloguing the kinds of alternative schools in existence have been identified, according to researcher Laura Tessington (2006), who noted that “although alternative education encompassed many types of programs, researchers were able to categorize the programs based on common characteristics” (p. 14). Researchers

Aron and Zweig (2003, pp. 37-38) suggested several ways by which to categorize alternative programs:

- “General type of alternative education (separate school; separate program; perspective/strategy with a regular-12 school)”
- “Target population (women/girls; pregnant/parenting teens; suspended/expelled students; recovered dropouts; delinquent teens; low achievers; all at-risk youth)”
- “Focus/purpose/and mix (academic completion/credential; career preparation/credential; disciplinary, etc.)”
- “Operational setting-proximity to K-12 (resource rooms; pullout programs; schools within a school; separate self-contained alternative school)”
- “Operational setting-location of activity (regular school during school hours; school building during nonschool hours; community or recreation center; juvenile or detention center, etc.)”
- “Educational focus (short-term bridge back to schools for students who are off-track; students prematurely transition into adulthood; students who were very far behind educationally)”
- “Sponsor or administrative entity (nonprofit and community-based organizations; state or local education agency; charter school)”

While surveying alternative educational facilities in Illinois, Foley and Pang (2006) catalogued each program type based on characteristics such as the location of facility, the funding source, the predominant management approach, and the condition of the program. Their work validated the diversity of ways and options researchers have when organizing the vast array of alternative programming. Ruzzi and Kraemer (2006)

classified the alternative programs surveyed in their study by academic goal, teaching methods used/learning environments, and instructional leadership. Aron (2003), in his compilation of research on the typology of alternative education, captured a typology by Melissa Roderick while she spoke at a roundtable on alternative education at the University of Chicago in April 2003. Aron captured Roderick's theory that a student's educational problems or challenges should be the focus when organizing alternative programs:

- Students minimally "off-track" and need a chance to recovery (goofing off in school, suspended for a short term, etc.) and are capable of going back to high school
- Children transitioning to adulthood prematurely (immigrants, teen pregnancy, etc.)
- Young adults substantially "off-track" who have returned to try and finish school
- Students who are academically behind but overage for their grade

Within this typology, alternative programs would be established to address the student's educational challenges faced today. A final approach to organizing alternative programs stems from the work of Dr. Mary Ann Raywid (1994), who organized alternative education based on program goals or outcomes. Dr. Raywid looked at the characteristics of existing alternative edifices and programs and identified three main types:

- Type I – students with special needs (educational)
- Type II – students with short-term behavior problems (disciplinary)
- Type III – students with serious emotional or behavioral problems (therapeutic)

Tissington (2006) wrote a summary of Raywid's typology and noted that Type I schools are alternative programs of choice that attract students because of some common trait such as the pregnant, gifted, truant, substance abuse, or special need student. While also summarizing Raywid's work, Aron (2006) stated programs sponsored by school districts and developed for students at-risk; particularly, those students inclined to drop out or who have dropped out, are Type I and are generally "referred to as popular innovations or true educational alternatives" (p. 4). In a prior account of alternative goals, Aron (2003) identified "schools-within schools to magnet schools, charter schools, schools without walls, experiential schools, career-focused and job-based schools, dropout-recovery programs, after-hours schools, and schools in atypical settings like shopping malls and museums (p. 11)" as examples of type I programs based on Raywid's research.

The goal of Type II schools centered on creating an environment for students deemed as "bad" students who challenged educators in the regular school setting (Raywid, 1994). Type II schools provided one last opportunity for such students to earn a diploma instead of facing consequences such as expulsion and "are not schools of joy, and they usually emphasized behavior modification" (Raywid, 1994, p. 21). Generally, students do not chose to attend Type II schools, and the aim of the type II alternative school is to "segregate, contain, and reform disruptive students" (Aron, An Overview of Alternative Education, 2006, p. 4). Last--chance schools and in-school suspension centers are examples of type II schools (Raywid, 1994).

Type III schools are for "students in need of academic and social or emotional remediation or rehabilitation" (Gable, Bullock, & Evans, 2006, p. 7). They are thought to

be therapeutic and seasonal because students generally return to the general educational setting (Raywid, 1994). Treatment programs are considered Type III alternative schools. The district assessed in this study has alternative programs that fall in line with all three categories of alternative programs according to Raywid's typology.

Alternative schools can have traits from Type I, II, or III schools and therefore be a mixture. Raywid separated Type II and III programs from Type I, noting the latter types are focused on fixing issues within the individual student, compared to the former which focused on matching the student to a program best suited to meet the needs of the adolescent. Raywid also cited research from prior years on all three program types and explicated the following results. Type I and III programs showed evidence of success. Type II programs showed no evidence of success according a study Raywid cited on Florida schools that collected data on and analyzed the use of in-school suspension programs, considered Type II, in impacting the rates of students dropping out, receiving referrals, or being suspended or expelled from school. The results did not show this form of alternative schooling as beneficial to the student. Type III schools are believed to be effective, according to Raywid, because of the nurturing and caring environment they provide to the struggling student. However, once a student exits a Type III program and returns to the traditional school, the student digresses toward old behaviors and attitudes bringing him to the alternative program in the first place. Raywid did find Type I programs as beneficial and the least costly of all three because the student to teacher ratios are similar to those in the traditional school, and the program design is on the curriculum of interest to the student. Understanding the varying definitions of alternative

education and the various types of programs, it is necessary to turn attention to the characteristics, identified through research, as aspects of an effective alternative program.

Characteristics of effective alternative programs. Raywid (1994) noted the varying types of alternative educational programs and spoke about two characteristics typically present, “They have been designed to respond to a group that appears not to be optimally served by the regular program, and consequently they have represented varying degrees of departure from standard school organization, programs, and environments (p. 26).” Because it is an area of alternative education that has been extensively researched, there is an abundance of sources available which discuss many of the positive characteristics of an effective alternative program (Aron, 2006; Bullock, 2006; Farris-Berg et al., 2003; Foley & Pang, 2006; Katsiyannis & Williams, 1998; Kerka, 2005; Lange & Sletten, 2002; Ruzzi & Kraemer, 2006). One highly documented attribute involves the ratio of staff to students. Studies on alternative programs identified as effective report small class sizes and low teacher-to-student ratios (Aron, 2006; Bullock, 2006; Kerka, 2005; Meier, 2004; Wagner, Wonacott, & Jackson, 2005). With this notion of smallness and low teacher-to-student ratios is another well-documented outcome of alternative programming which is caring. A caring environment is consistently correlated with effective alternative schools. One such study by Schussler and Collins (2006) used observations, faculty interviews, and in-depth interviews with students to gain an understanding of students’ perceptions of their alternative learning environment. The results from the study showed that students wanted to be cared for and wanted to care for others (Schussler & Collins, 2006). Furthermore, when high levels of caring existed, there were more positive outcomes within the alternative setting (Schussler & Collins,

2006). An assessment of alternative schools in Minnesota asked about the effectiveness of the alternative schools and why the enrollment numbers were increasing so rapidly. Students surveyed indicated “personalized, trusting relationships with teachers and administrators. The students feel cared about and get the individual attention they need to learn” (Farris-Berg et al., 2003 p. 6). This view of caring is also documented through the research of Quinn, Poirier, Faller, Gable, and Tonelson (2006) where three urban school districts’ alternative programs were examined to determine the characteristics that contributed to their success. The results indicated that a consistent and underlying variable by the students was the belief that their teachers, administrators, and other staff cared about them and valued them as individuals. Quinn and her colleagues also identified that while in attendance, fairness and rapport between the student and the staff attributed to the success of the students in the alternative program. This outcome was also noted in a report on Minnesota Alternative Schools compiled by Farris-Berg et al. (2003).

Another well-documented attribute of an effective alternative program centers on instruction and curriculum. Instructionally, alternative schools that offer a wide array of choices for the student to ascertain learning with instructional techniques that are relevant and engaging and allow the student to be successful have been noted as being more effective (Aron, 2006; Kerka, 2005; Lange & Sletten, 2002). Similarly, curriculum presented in an alternative setting that is relevant or career focused, culturally appropriate, and engaging is identified as a strength of an effective alternative program (Aron, 2006; Kerka, 2005; Lange & Sletten, 2002; Tissington, 2006). Other attributes, documented by these researchers, include the following:

- Programs that have purposeful professional development (Aron, 2006; Lange & Sletten, 2002; Tissington, 2006).
- A strong sense of community (Aron, 2006; Hughes & Adera, 2006; Kerka, 2005).
- Flexible and individualized support of student's social and emotional needs as well as a focus on transitioning and follow-up (Aron, 2006; Bullock, 2006; Farris-Berg et al., 2003; Hughes & Adera 2006; Kerka, 2005; Lange & Sletten, 2002; Tissington, 2006).
- Leadership with high expectations, clear-cut rules and routines, and holding themselves accountable (Kerka, 2005; Meier, 2004).

Research conducted by Darling and Price (2004) surveyed over 900 students who exited one of 105 alternative programs in California to determine the characteristics of an effective alternative program through the eyes of the student. The results of this study further verified the attributes of a successful alternative program to be about students feeling cared for and safe, having teachers who were knowledgeable and able to make the learning relevant, and who offered curriculum that was career focused with support to the student on transitioning to the next level, whether work or secondary education. When describing the characteristics of effective alternative school programs, Aron and Aweig (2003) noted that effective alternative program characteristics have many of the same features established through research as necessary for effective K - 12 programs, so why would there be a need for alternative schools? This leads to the next section, the types of students that attend alternative educational settings, particularly Type I and II programs.

Types of students attending alternative programs. Early research on alternative education as reviewed by Lange and Sletten (2002) recognized that alternative programs have typically served many types of students. However, they go on to note that more recent studies surrounding alternative schooling identify particular student populations being served in alternative settings. Foley and Pang (2006) conducted a study to identify aspects of alternative education programs in Illinois in relation to governance, funding, facilities, student population, and educational and support services. Using a questionnaire, the researchers contacted program directors and principals of alternative schools and asked a variety of questions to yield data in the areas listed above. Specifically, their research outcomes identified the male, Caucasian, and the emotionally/behaviorally disordered as the most common types of students attending the programs in their study. Regarding gender, their participants responded 53.6% of the students were generally males and 35.5% were female. Ethnically, the race most represented in the alternative programs surveyed was Caucasian (62.9%), followed by African-American (31.3%), Hispanic (15.1%), Native American (3.7%), and Asian (1.6%). As indicated above by the research from Foley and Pang (2006), and according to most research focused on the type of student in attendance at an alternative program, consistently the male is the leading candidate in need of alternative schooling. However, this study identified the Caucasian student, when looking at ethnicity, as the leading race most likely to attend an alternative program. This result conflicts with other studies that have found the minority as the predominant race placed in an alternative setting (Aron, 2006; Orfield, 2004; Stanley & Plucker, 2008). However, Foley and Pang (2006) looked at the research published in 1992 by Franklin and pointed out there had been conflict in

the research regarding whether there was a predominant ethnic group placed in alternative programs. Therefore, they cited their own research, stating the population of students being served in alternative programs was not based on ethnicity, but the demographics of the community in which the adolescent lived (Foley & Pang, 2004). Interestingly, the data collected from the U.S. Department of Education, National Center for Education Statistics (2010) drew attention to the possibility that minority ethnic groups did have the highest dropout rates. But, because there is disparity in how the dropout rate has been calculated across the nation according to the National Governors Association (Curren, 2006), there is cause to hesitate in emphatically saying that race does play a role in the likelihood of a student being a dropout.

Table 5

Status Dropout Rates of 16- Through 24-year-olds, by Race/Ethnicity: 1980-2008

Year	Total	White	Black	Hispanic	Asian/Pacific Islander	American Indian/Alaska Native
1980	14.1	11.4	19.1	35.2	—	—
1985	12.6	10.4	15.2	27.6	—	—
1990	12.1	9.0	13.2	32.4	4.9!	16.4!
1995	12.0	8.6	12.1!	30.0	3.9	13.4!
1998	11.8	7.7	13.8	29.5	4.1	11.8
2000	10.9	6.9	13.1	27.8	3.8	14.0
2001	10.7	7.3	10.9	27.0	3.6	13.1
2002	10.5	6.5	11.3	25.7	3.9	16.8
2003	9.9	6.3	10.9!	23.5	3.9	15.0
2004	10.3	6.8	11.8	23.8	3.6	17.0
2005	9.4	6.0	10.4!	22.4	2.9	14.0
2006	9.3	5.8	10.7	22.1	3.6	14.7

2007	8.7	5.3	8.4	21.4	6.1	19.3
2008	8.0	4.8	9.9	18.3	4.4	14.6

Note. Adapted from the U.S. Department of Education, National Center for Education Statistics. (2010). *The Condition of Education 2010* (NCES 2010-028), [Table A-19-2](#).

Lastly, Foley and Pang (2006) identify the student with special education services as more likely to be placed in an alternative facility than a student without such services. Their survey results indicated that 49.9% of alternative students were emotionally/behaviorally disabled, with 26% of the students diagnosed with attention deficit disorder or attention deficit hyperactivity disorder. Learning disabled (10%), mentally impaired (6.4%), communication disorder (4.7%), and sensory impaired (1.6%) were categorized last. These results were confirmed through the research of Lehr (2004) and Tissington (2006), which showed students who repeatedly misbehave or suffer from mental disorders as those most likely to be present in alternative educational programs today.

Data collected on students attending alternative programs in Texas identified 25.8% of the students enrolled were African-American, 48% were Hispanic, and White students comprised 25.8% of all students assigned (Disciplinary Alternative Education Program Practices, 2007). This same study claimed the male population accounted for 73.9% of all students assigned to the alternative program. Students of low socioeconomic status accounted for 62.1%, and 23.9% of the students received services through Special School District. However, other studies identify the types of students served by alternative schooling according to life circumstances instead of the more obvious common characteristics of race or gender. Research has shown that the intent of alternative education program leaders is generally to serve certain types of students,

particularly students with at-risk characteristics (Farris-Berg et al., 2003; Gable, Bullock, & Evans, 2006; Lange & Sletten, 2002; Raywid, 1994; Stanley & Plucker, 2008), which is why such programs become termed alternative. In turn, the curriculum or approach of such a program is geared toward the needs of that population. Examples include (a) women/girls, (b) pregnant/parenting teens, (c) suspended or expelled students, (d) recovered dropouts, (e) delinquent teens, and (f) low-achievers (Aron & Zweig, 2003; Tissington, 2006). This next section of the review focuses specifically on the at-risk adolescent.

At-Risk of Dropping Out

Are students considered at-risk potential dropouts? Kerka (2005) stated, “Youth identified as at-risk are often those who do not fit the mainstream; their learning styles, learning disabilities, or life experiences may be factors in low achievement or behavior considered unacceptable” (p. 15). A dropout, according to DeMarrais and LeCompte (1999), is a student who stops coming to school and is eventually coded in the school district’s database with an unknown status. Research conducted over the years identified a host of variables that influence an adolescent’s decision to abandon schooling. The causes consistently named by most studies include low socioeconomic status, academic failure, and behavior problems (Black, 2003; Christle, Jolivette, & Nelson, 2007; Connor & McKee, 2008; Darling & Price, 2004; Ekstrom, Goertz, Pollack, & Rock, 1987; Golden & Kist, 2005; Jerald, 2006; Plank, Deluca, & Estacion, 2005; Suh & Suh, 2007). Interestingly, poor academic performance and disruptive school behavior are two of these same variables recognized as primary characteristics of at-risk adolescents (Kerka, 2005;

Lehr & Lange, 2003; Tissington, 2006). Thus, it is safe to answer affirmatively that at-risk adolescents are potential dropouts.

Factors influencing the decision to drop out. In a report on the identification of dropouts, Jerald (2006) summarized what other researchers have asserted regarding the process of dropping out: There is no single variable or cause and a student deciding to drop from school has encountered years of feeling disengaged or disconnected from the learning process and schooling. By conducting their own research and through data analysis, Christle et al. (2007) and Suh & Suh (2007) articulated the same outcome. As Bridgeland (2007) studied the phenomena of what causes a student to drop from school, he discussed a pattern or clustering of variables. His supposition of theme was captured in the chart below, which highlights the overarching predictors of the many studies and reports on the exact variables likely to affect a student's decision to stay in school.

Table 6

A Summary of the Research Findings on Why Students Drop Out of School

Researcher	Overarching Predictors	Explicit variables within the larger context
Suh & Suh (2007)	Academic risk	Low GPA, expectations to stay in school the next year, perceptions of teachers, percent of peers planning to go to college, residence in metropolitan area
	Low SES risk	Low SES, whether lived w/both parents, physical environment, number of household members
	Behavior risk	Suspensions, absenteeism, first sexual experience
Bridgeland (2007)	Academic environment	Classes not interesting, failing in school, uninspired teachers, not required to work hard
	Real life events	Absent frequently thus unable to catch up, pregnant, had to work, had to help parent
	Lack of motivation and guidance	Hanging out with others already disconnected from school, lack of supervision and structure, uninspired students
Christle, Jolivet, &	Focused solely on school	Demographics; policy; environment; disciplinary procedures; classroom atmosphere and teaching;

Nelson (2007)	characteristics	student, administrator, and staff characteristics; beliefs, dispositions, and actions
Jerald (2006)	Social background Educational experiences School characteristics	Poor students, minorities, males, students from single parent families, students overage, pregnancy, working Academic performance and educational engagement Large enrollments, poor relationships between students and adults, low rigor and engaging curriculum
Mann (1987)	School-related Work-related Family-related Other	51% things about school 21% economic reasons 5% family reasons 23% other reasons
Ekstrom, Goertz, Pollack, & Rock (1987)	Background Achievement Attitudes Individual behaviors	SES, Race/Ethnicity, single-parent family, large family, living in south or large city Low test scores & low grades Dissatisfied with school, low self esteem, no plans for postsecondary education Delinquency, truancy, employment, pregnancy, enrollment in general or vocational curriculum

Initially, educators believed that influences outside of the school's control were responsible for students deciding to drop out of school (Jerald, 2006). Therefore, acting on this belief, Wehlage and Rutter (1987) decided to look at influences within the school to discern differences in why some students stay in school while others drop out. In the end, researchers concluded that variables outside of school and within school influence a student's decision to persist to graduation with some variables emerging from both venues.

Variables outside school likely to impact dropping out. The most consistently documented feature outside of school that is a deterrent to graduating is when a student comes from a low socioeconomic background (Christle et al., 2007; Ekstrom et al., 1987; Golden & Kist, 2005; Jerald, 2006; Suh & Suh, 2007). Survey data collected nationally

substantiates the lower a family's income, the higher the risk of that student choosing or needing to drop out.

Table 7

Event Dropout Rates and Number and Distribution of 15- Through 24-Year-Olds Who Dropped Out of Grades 10–12, by Selected Characteristics: October 2007

Characteristic	Event dropout rate (percent)	Number of event dropouts (thousands)	Population enrolled (thousands)	Percent of all dropouts	Percent of population enrolled
Family income ³					
Low income	8.8	132	1,503	34.5	13.7
Middle income	3.5	223	6,351	58.2	57.9
High income	0.9	28	3,113	7.3	28.4

Note. Adapted From: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October 2007. Table 1. <http://nces.ed.gov/pubs2009/dropout07/tables.asp>

However, in addition to low SES background, there are other external variables affecting a student's decision to persist to graduation. An in-depth study of the dropout issue was conducted by researchers Suh and Suh (2007). They provided a comprehensive list of factors, as identified by students who participated in the National Longitudinal Survey of Youth (NLSY97), affecting the decision to drop out. From this cohort of students, some other external school variables beyond low SES included (a) whether the student lived with both parents, (b) first sexual experience at age 15 or prior, (c) number of household members, (d) physical environmental, and (e) residence in a Metropolitan area or region. Other researchers (Ekstrom et al., 1987; Jerald, 2006) have also identified where a student attends school as a variable likely to influence persistence to graduation. Data collected through the U.S. Department of Commerce Census Bureau identified that 4.2% of students who live in the western region of the United States have a higher rate of

dropping out of high school; whereas students living in the Northeast only comprise 2.9% of dropouts between the ages of 15-24.

Table 8

Event Dropout Rates and Number and Distribution of 15- Through 24-Year-Olds Who Dropped Out of Grades 10–12, by Selected Characteristics: October 2007

Characteristic	Event dropout rate (percent)	Number of event dropouts (thousands)	Population enrolled ¹ (thousands)	Percent of all dropouts	Percent of population enrolled
Region					
Northeast	2.9	58	2,007	15.2	18.3
Midwest	3.1	82	2,642	21.4	24.1
South	3.6	135	3,757	35.2	34.3
West	4.2	108	2,560	28.1	23.3

Note. Adapted From: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October 2007. Table 1. <http://nces.ed.gov/pubs2009/dropout07/tables.asp>

Another widely disclosed variable likely to influence dropping out is a student's race (Christle et al., 2007; Ekstrom et al., 1987; Golden & Kist, 2005; Jerald, 2006). Recent census and educational surveys on students who have dropped out of school consistently identify the African American and Hispanic student as the largest populations of dropouts (Aud, et al., 2010; Chapman et al., 2010; Stillwell, 2010). Table 9 synthesizes dropout data by race and validates, according to the Current Population Survey (CPS), Hispanics with the largest rate of dropping out.

Table 9

Event Dropout Rates of 15- Through 24-year-olds Who Dropped Out of Grades 10–12, by Sex and Race/Ethnicity: October 1972 Through October 2007

Year ²	Total (percent)	Sex (percent)		Race/ethnicity (percent) ¹		
		Male	Female	White, non-Hispanic	Black, non-Hispanic	Hispanic
2002	3.6	3.7	3.4	2.6	4.9	5.8

2003	4.0	4.2	3.8	3.2	4.8	7.1
2004	4.7	5.1	4.3	3.7	5.7	8.9
2005	3.8	4.2	3.4	2.8	7.3	5.0
2006	3.8	4.1	3.4	2.9	3.8	7.0

Note. Source: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October (1972-2007). <http://nces.ed.gov/pubs2009/dropout07/tables.asp>

Studies related to at-risk students and alternative programs recognize the African-American and Hispanic populations as the primary at-risk groups of students expected to dropout prior to attaining a high school diploma (Connor & McKee, 2008; DAEPP, 2007). Contrarily, there are other studies that indicate race is not one of the top variables likely to influence whether a student persists to graduation (Christle et al., 2007; Suh & Suh, 2007). In relation to students attending an alternative school and dropping out, as cited earlier, Foley and Pang (2006) produced results that expressed the Caucasian as the primary race attending an alternative setting. Yet, it is difficult to ignore the consistency in national survey data as identified in Table 9 that repeatedly identifies the minority as the most frequent dropout. The purpose of this study is to determine statistically the chance of citing alternative education as an intervention to dropping out of school specific to the populations most identified through research who typically attend alternative schools.

The gender and the age of the student are distinguished variables identified as possible catalysts for influencing a student's decision to drop out as well.

Table 10

Event Dropout Rates and Number and Distribution of 15- Through 24-Year-Olds Who Dropped Out of Grades 10–12, by Selected Characteristics: October 2007

Characteristic	Event dropout rate (percent)	Number of event dropouts (thousands)	Population enrolled (thousands)	Percent of all dropouts	Percent of population enrolled
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Sex					
Male	3.7	206	5,548	53.8	50.6
Female	3.3	177	5,419	46.2	49.4
Age ⁴					
15–16	3.2	101	3,177	26.4	29.0
17	2.1	82	3,870	21.4	35.3
18	4.0	113	2,832	29.4	25.8
19	4.1	34	823	8.8	7.5
20–24	20.3	54	266	14.1	2.4

Note. Adapted From: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October 2007. Table 1. <http://nces.ed.gov/pubs2009/dropout07/tables.asp>

Data from the Current Population Survey (1972-2007) indicated male and female dropout rates were somewhat comparable, although Aud, et al. (2010) stated in *The Condition of Education 2010* that “a higher percentage of males than females were status dropouts” (p. 68). Plank et al. (2005) also stated, from the results of their study on the impact of career and technical educational classes on students dropping out of high school, that “males were somewhat more likely than females to drop out, and less likely than females to receive diplomas or GEDs” (p. 16). As far as age, Table 10 shows the 20-24 year category with the highest percentage of students dropping out at 20.3%, with age 17 being the lowest percentage at 2.1. Conversely, 17 year-old students are the highest percentage of students enrolled and the 20-24 year-old students are the lowest percentage enrolled. Other documented variables likely to influence whether a student persists to graduation include (a) family involvement (Christle et al., 2007; Jerald, 2006); (b) multiple school transfers (Jerald, 2006); (c) a mother who dropped out of high school (Jerald, 2006).

Variables within school likely to impact dropping out. The primary factor within the school setting as the most likely to affect a student’s decision to stay in school is academic failure (Black, 2003; Christle et al., 2007; Connor & McKee, 2008; Darling & Price, 2004; Ekstrom et al., 1987; Golden & Kist, 2005; Jerald, 2006; Plank et al., 2005;

Suh & Suh, 2007). However, there are other factors identified within school that play a role in students' perceptions and ultimately influences whether they chose to persist to graduation. Wehlage and Rutter (1987) noted "most research on high school dropouts has been based on the desire to find the causes, correlates, or motives underlying the actions of dropouts" (p. 71), Wehlage and Rutter (1987) decided to gather data on factors within the school's control that could help research analyst better sort the potential dropout from the student who persists to graduation. In 1982, surveying students from the original 1980 High School and Beyond (HS&B) study who had dropped out of school, Wehlage and Rutter found statistically significant evidence that there are many variables affecting a student's decision to stay in school that are possibly influenced by the efforts and interventions of the educator. Their survey data indicated that "they leave because they do not have much success in school and they do not like it" (p. 72). Therefore, Wehlage and Rutter (1987) advocated for schools to reshape policy and practices to better serve students and encourage future studies to look more closely at "understanding the institutional character of schools and how this affects the potential dropout" (p. 72).

Consequently, future studies have identified a host of other school experiences likely to sway a student regarding the decision to drop out beside academic failure. But a closer look at academic failure must ensue to understand the many dimensions it covers regarding students not choosing to remain in school to reach matriculation. Low levels of rigor is a frequently cited predictor connected to high dropout rates (Black, 2003; Golden & Kist, 2005; Jerald, 2006). Black (2003) recommended schools offer more challenging classes, with less remedial courses, to increase the level of academic rigor. Using more

instructional strategies, according to Christle et al. (2007), could improve the lack of engaging curriculum and instruction, which aligned with low levels of rigor and cited consistently in research as influential in affecting a student's decision to stay in school. Black (2003), Jerald (2006), and Golden and Kist (2005) also identified a lack of engaging curriculum and instruction as a primary predictor of students choosing to leave school early.

Immediately behind academic failure as a leading cause that influences a student's decision to stay in school is discipline. However, discipline can be the result of variables within, as well as, outside of the school setting. Within school, "The disciplinary system is based on a clear, strict, and fair discipline code that serves to develop student coping skills, self-control, and problem-solving abilities. The system includes positive and negative consequences for student behavior" (DAEPP, 2007, p. 7). Responsibility is placed on the teacher and school leadership to provide structures within the school environment to promote appropriate behavior. Otherwise, students are more inclined to make choices that end in suspension or expulsion, which researchers have clearly noted can influence decisions on dropping out (Black, 2003; Jerald, 2006; Suh & Suh, 2007). Also, boredom (Goodlad, 1994) and the teacher's attitude toward the student (Farris-Berg et al., 2003; Golden & Kist, 2005) can affect the student's behavior in school. Students perceived by the teacher as poorly motivated and not completing homework get into trouble with their teacher and are often found on detention lists (Golden & Kist, 2005). Repeatedly receiving feedback suggesting a lack of worthiness to perform well in school can impact a student's behavior while at school (Golden & Kist,

2005) and ultimately, the student is forced to leave school (Jerald, 2006); meaning being suspended or expelled.

Golden and Kist (2005) spoke extensively about the impact teacher relationships and interactions with students has on students' perceptions about schooling and whether they belong. An example from their study featured a student who shared how when going through a difficult time at home, the teacher talked down to her and displayed negative feelings toward her. The student said, "I have always felt that teachers have a lot of power to really help or really tear down a person. As a teacher, you can't show negative feelings...It might make the difference between a student staying in school and a student not" (Golden & Kist, 2005, p. 311).

Counseling staff are influential in students' choices to stay in school as well. A study conducted by Johnson, Sparks, Lewis, Niedrich, Hall, and Johnson (2006) sought to determine the impact of counseling services on students suspended long term. The counselors provided a range of services such as (a) providing individual counseling; (b) taking students to and from hearings; (c) helping with paperwork; and (d) providing training, resources and information for family members. The results indicated students who received 10 or more contacts with the counselor re-enrolled 69% more often than those who did not. The implication from this study suggests the power and influence a counselor can wield in assisting at-risk students.

Other studies also address the increased likelihood that, if students do not experience positive relations and interactions with teachers and staff, their inclination to drop out of school is heightened (Black, 2003; Darling & Price, 2004; Golden & Kist, 2005; Suh & Suh, 2007). Additional variables, within the school context and noted for

influencing a student's disposition of whether or not to remain in school include (a) the number of fights and peer conflict (Suh & Suh, 2007), (b) being retained (Christle et al., 2007; Jerald, 2006), (c) poor school climate (Christle et al., 2007), (d) inadequate school facilities (Christle et al., 2007), and (e) mandatory high school exams (Black, 2003; Golden & Kist, 2005). Interestingly, what the varying researchers also noticed were several significant factors influencing a student regarding the decision to drop out that spanned both categories of external and internal school factors.

Variables outside of and within school likely to impact dropping out.

Consistently identified as one of the three primary causes for students dropping out of school is behavior problems. Some of the causes of a student's disruptive behavior can stem from events within school already mentioned that are the cause of the teacher and school not providing clear structures and boundaries (DAEPP, 2007). Contrarily, a student portraying disruptive behavior at school can also experience events outside of the school setting that impact or cause disruptive behavior at school. Cantrell (2000), in his dissertation on the implications of students with disabilities, discussed how having a disability can cause a student to display disruptive behaviors while at school. Goodlad (1994), in the book, *What Schools Are For*, pointed out the connection between children with behavior problems stemming from the home and not dealt with at home, and therefore brought to school. A second aspect swaying a student's decision to remain in school is truancy. Not attending school is a student behavior widely discussed as a characteristic of the at-risk student (Lehr & Lange, 2003; Tissington, 2006). However, the causes of why a student is absent, tardy, or truant from school can be linked to traits such as (a) disliking school (Jerald, 2006; Suh & Suh, 2007), (b) not being engaged in

school (Black, 2003; Jerald, 2006; Suh & Suh, 2007), (c) feeling alienated (Black, 2003; Christle et al., 2007), (d) being older than classmates (Plank et al., 2005), and (e) facing social pressures (Golden & Kist, 2005), all characteristics that can be triggered by events within or outside of school. A final variable cited as a precursor to dropping out and that can derive from experiences within or outside of school is the student's lack of personal motivation. Having poor perceptions of self in relation to school performance can cause a negative attitude toward school (Plank et al., 2005; Suh & Suh, 2007). Students are generally aware when their level of performance is behind their peers. Living in a home where there are no expectations related to positive school performance or where there is little support of learning can cripple a student's motivation while at school (Jerald, 2006). Variables within the home can prevent a student from completing homework, as well as variables at school. In turn, a student who does not complete homework can be referred to as unmotivated (Black, 2003). Regardless of whether a student is influenced by nonschool-related variables, aspects within the school environment, or a combination of both, the decision to drop out is a process of disengagement from school over a long period of time (Bridgeland et al., 2006; Christle et al., 2007).

Furthermore, the study conducted by Suh and Suh (2007) yielded quantifiable results related to risk factors and dropping out. After reviewing all their data, Suh and Suh shared the likelihood to drop out of school if a student displays only one risk factor as 17.1%. If a student exhibited two risk factors, the possibility of dropping out increased to 32.5%. Worse, if a student demonstrated three risk factors, the chance a student might drop from school ascended to 47.7%. Thus, it is strongly recommended that educators look to early interventions during elementary school to decrease the likelihood children

will incur multiple risk factors as they reach adolescence and ultimately decide to drop out of school (Christle et al., 2007; Suh & Suh, 2007). If it can be determined through data analysis that alternative programs show evidence of influencing a student's likelihood to reach matriculation, then educators and policy makers should look to address the dropout crisis through alternative programming, which is the purpose of this study. A look at the social and financial impact and implications to this nation is necessary to further encourage the decision making of educationalist to look at the impact on society when students drop out of school.

Societal impact of dropping out of school. According to House (1998), in the book, *Schools For Sale*, prior to the mid-1980s it was believed that if a person, even those persons deemed poor and those of an ethnicity different than white, embraced education and sought to achieve in the academic arena called *schooling*, better and more secure jobs would be accessible. Thirty years ago, when adolescents dropped out of school, they could still expect to find a decent job earning a decent wage (Jerald, 2006). The 1983 report, *A Nation at Risk*, provided by the National Council on Excellence in Education (NCES), evidenced how the U.S. was behind other industrialized nations academically. When Americans awakened to this data, the impact to our country's economic prosperity was realized (McDill et al., 1987; Suh & Suh, 2007). Wirt and Kirst (1989) cited how the report connected declining educational standards to the ability to compete internationally in the area of economics. In 2008, the National Center for Education Statistics (NCES), identified citizens between the ages of 18 and 67 never having completed high school with a median income around \$23,000. However, of that same age group with some type of high school credential, the income almost doubled at

\$42,000. According to NCES, when factored out mathematically, per person the loss of income for dropping out equated to roughly \$630,000. “Comparing those who drop out of high school with those who complete high school, the average high school dropout was associated with costing the economy approximately \$240,000 over his or her lifetime” (Chapman et al. p. 1). Aud, et al. (2010a) reported in the *Condition of Education 2010* the variances between the median annual incomes of young adults according to their educational attainment (see Figure 1).

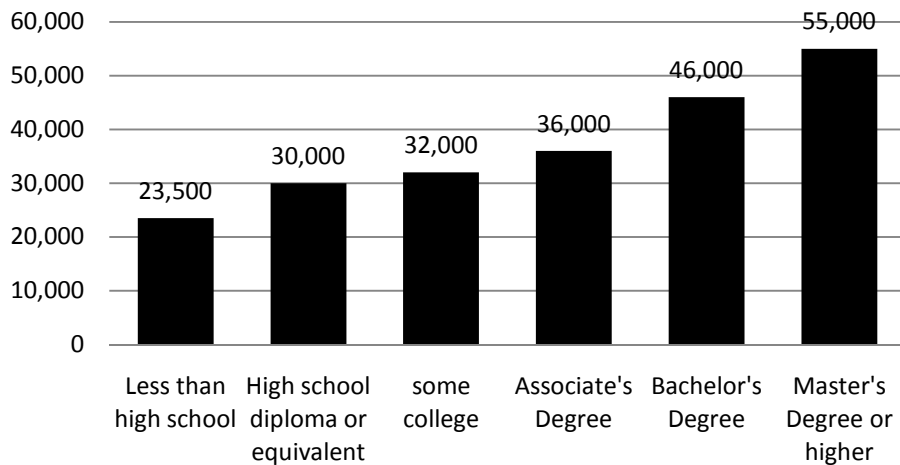


Figure 1. Median annual earnings of fulltime, full-year wage and salary workers ages 25-34, by educational attainment: 2008. Adapted from The Condition of Education 2010.

Jerald (2006) noted that in today’s economy, students who have chosen to drop out of school, for the rest of their lives would most likely find themselves on a path of financial instability. According to the Education Trust, but cited by Kingsbury (2008), “the US is the only industrialized nation in the world where children are now less likely to receive a high school diploma than their parents were” (p. 1). Therefore, according to Jerald (2006), it would behoove society to work toward preventing students from dropping out of school.

Summary

Chapter 2 began with an overview of the history and purpose of public education. This research revealed that for decades America's educational focus was to teach all children in the ways of democracy and how to become participating citizens in a democracy. A review of the role of the federal and local governments in more recent times in shaping educational institutions through reform efforts made clear, however, that today's educational focus centers on student achievement measured by very specific accountability outcomes such as graduation rate.

As increasingly more of America's youth were being educated to higher levels, and as educational institutions evolved to accommodate them, the need for and emergence of unconventional schooling types to serve populations of students identified as less likely to succeed in the traditional school setting, or who were unwelcome in the traditional school, became more and more apparent. It was in this context of development that this researcher conducted an examination of the concept of alternative education and its impact.

Due to the large numbers of alternative schools and programs that surfaced, researchers began seeking ways to identify, count, categorize, and define them. Initially, there was no agreed-upon definition which meaningfully identified types of alternative schools; however, as researchers continued to gather data on these institutions, they were able to identify common attributes such as the types of programs, the characteristics of effective programs, and the types of students in attendance, which in turn enabled them to begin to categorize the schools and programs.

The author discovered that students attending an alternative program who were considered less likely to succeed in the traditional high school had characteristics commonly associated with students considered at-risk and viewed by researchers as the most likely group of students to drop out of school. With the accountability stakes raised to include higher standards of student achievement, an increased awareness of the large number of students not graduating became a common focus and area of concern to the public. Notwithstanding the fact that dropping out of school has been a common occurrence with young adolescents since the founding of public education, it has indeed shown a steady decline over the years. This study included an examination of the factors within the school and outside of the school setting known to influence a student's decision to drop out of school, as well as the economic impact and liability of high school dropouts as America is faced with intense competition in a more global society. The chapter concluded by posing the question of whether the alternative educational institution could be an effective intervention to influence the at-risk adolescents' persistence to graduation since alternative education has become so prevalent and the phenomenon of dropping out of school is now a crucial accountability factor for public school leaders.

Chapter 3: Methodology

Framework

McDill, Natriello, and Pallas, in their 1986 assessment of raising standards for students at risk of dropping out in American schools, reported the lack of scientific evidence on the effectiveness of alternative schools. Additionally, in 1998, Katsiyannis and Williams stated that,

although alternative education has been an established component of schooling in the U.S. and there are reports of successful programs, little is currently known about the governance, statistics on students served, program effectiveness, or consistency of such programs across states or even districts” (p. 2).

Therefore, in 2001 the U.S. Department of Education and the National Center for Education Statistics (NCES), provided data regarding the availability of and involvement in alternative programs for at-risk students. Another study on alternative programs, conducted in 2006 by Foley and Pang, addressed many of the areas in need of more research, as cited by investigators Katsiyannis and Williams in 1998 regarding alternative education. Using questionnaires, Foley and Pang gathered data from program directors and principals on (a) the governance, (b) identification of program characteristics, (c) student populations, (d) programs offered, (e) administration backgrounds, and (f) other areas related to alternative programs. Several studies also provided information on alternative programs across states or districts, as Katsiyannis and Williams projected in 1998 would be needed. In 2006, Ruzzi and Kraemer provided a comprehensive list of the diverse types of alternative programs that exist nationally. They not only surveyed

districts for information related to the academic goal of the programs offered but also gathered information on the types of programs, the teaching methods used, average class sizes, and teaching staff. Last, a report published on alternative schools in Pennsylvania surveyed administrators and teachers in 463 alternative programs to “(1) determine a baseline of information for Pennsylvania alternative education programs, (2) assess differences between rural and urban programs, (3) assess differences between teachers and administrators, and (4) determine the common elements across alternative programs” (Hosley, et al., 2003, p. 3). Yet, despite these more recent studies on alternative education, Aron and Zweig (2003) noted that “while much is known about youth developmental stages and risk factors that hinder positive development, less is known about how many alternative education programs and schools currently exist, ... or how effective they are in terms of improving youth outcomes” (p. 22).

Thus, the main purpose of this study is to evaluate the effectiveness or impact of alternative schooling on students and their rate of graduation from high school, compared to students attending nonalternative or traditional schooling and their persistence to graduation. The goal of the alternative program was to help students acquire credits and graduate in lieu of leaving school high school early with no diploma. The research question was: Does the student’s participation in such a school or program increase his/her-likelihood to reach matriculation? This is a relevant question for educators today due to increased accountability measures at the state and federal levels through mandates such as NCLB and Individual Education Disabilities Act. For accountability purposes, school districts are required to report student achievement data. At the federal level, evidence of student performance comes through the Annual Yearly Progress Report

(AYP). At the state level, each district provides required data through varying venues. In Missouri, to meet accreditation requirements, school districts report data in an annual report called The Annual Performance Report (APR). Student graduation rates are a part of the state's APR report and the federal government's AYP report. Thus, today more than ever, school districts must be diligent in pursuing interventions to support their at-risk populations to decrease the likelihood of them dropping out of school before graduating. The researcher needed to assess empirically whether this goal of students graduating from high school, once placed in an alternative setting, occurred at a rate similar to the rate of graduation of students in the traditional high school.

Research Design

This causal-comparative inquiry into whether alternative educational programs are a successful intervention for helping students graduate from high school was measured quantitatively with archived data, harvested from the district's student information system to numerically determine student graduation rates. Gay and Airasian (2000) shared that quantitative research involves the collection and analysis of statistical data. Quantitative research studies also allow educators to increase their understanding of educational issues and to generalize about education without prejudice (Johnson & Christiansen, 2004). In addition, in a causal-comparative study, the cause or treatment, known as the independent variable, has already occurred (Gay & Airasian, 2000; Johnson & Christiansen, 2004). Gay and Airasian (2000) also noted that "in causal-comparative research, at least two different groups are compared on some dependent variable or measurement of performance (the effect)" (p. 14). For this study, the independent

variables are students' attendance in an alternative program, with the dependent variable being whether the student graduated.

Using quantitative and statistical analysis, a deductive examination of the results allowed the researcher to expound upon pre-existing theories related to students attending alternative programs and earning a high school diploma, compared to students attempting the same feat who have never attended an alternative school. Gay and Airasian (2000) and Johnson and Christiansen (2004) stated that deductive studies (a) start with a hypothesis based on preexisting theory, (b) collect data to test the hypothesis, and (c) provide information to allow the researcher to make decisions to accept or reject the hypothesis based on the results of the data analysis. This causal-comparative methodological design was the best way to approach the study question to discern whether attending an alternative educational program influences the rate of graduation of groups of individuals with similar at-risk features. Gay and Airasian (2000) elucidated that causal-comparative studies compare two different groups on some type of dependent or outcome-oriented variable which, for this study, is the rate of graduation. Finally, the researcher is unable to assign participants to groups in a causal-comparative study because the sample groups already exist (Gay & Airasian, 2000; Johnson & Christiansen, 2004).

Thus, to address the question of whether a student's participation in an alternative school or program increases his or her likelihood to reach matriculation, this study used archived, numerical data to determine the rates of graduation of two independent samples based on at-risk criteria. To further define the at-risk criteria considered for this study, the researcher not only followed the NCLB sub-groups, but also examined a study

conducted on alternative programs in Texas since the populations of students most commonly enrolled in alternative programs in their state was explored. The researchers identified 25.8% of the students were African-American, 48% were Hispanic, and White students comprised 25.8% of all students assigned to an alternative program of study (DAEPP, 2007). This same study claimed the male population accounted for 73.9% of all students assigned to the alternative program and that students of low socio-economic status accounted for 62.1% with 23.9% of the students receiving services through Special School District. Thus, following the results of this study and the NCLB subgroups, the researcher collected nonrandom samples of archived, numerical data on students based on (a) ethnicity, (b) socioeconomic status (c) gender, (d) discipline, and (e) students with disabilities who had graduated or should have graduated during the 2006 through 2010 school years. After averaging the four years of data by subgroup and determining the mean graduation rates for each population for statistical comparison, the researcher measured the effectiveness of alternative schools compared to traditional schools on their rates of exiting students with a high school diploma. In chapter 4, the researcher followed the deductive approach to data analysis and highlighted the results of the data collected in relation to the hypothesis stated in chapter 1. Using the summative approach in chapter 5, the researcher presented suggestions and recommendations regarding the alternative program in response to the accountability outcome of graduation rate, as well as implications for the traditional high school.

Research Context

To answer the question of whether alternative schools are effective in helping students less likely to graduate from high school reach matriculation, the researcher

looked at graduation data from one school district in a metropolitan area in the state of Missouri. This district's demographic make-up represents the most common challenges faced by educators today regarding at-risk students and dropping out of school, such as families living at or below the poverty level, high rates of diverse ethnic groups, and poor student achievement. The district of study reported a rate of graduation similar to the state. Furthermore, over the past 10 years, the district has slowly become more diverse, with its present level of minority attendees a little less than 55%, which is not representative of the state's minority population, which is slightly over 24%. The minorities in attendance are predominately African-American and Hispanic. The district reported an average rate of 71.4% free and reduced lunch, much higher than the state average at 46.9%. The achievement level of the student population is slightly below the state average. Additionally, the district maintains several alternative programs for its students. There are three alternative programs off the campus of the school district and one program on the district's campus. The on-site campus has two distinct alternative programs; thus, five unique alternative programs for students identified as potentially at-risk are available for students living within this district.

Off-campus alternative programs.

Program A. This program is one of the two oldest forms of alternative education the district has utilized for students demonstrating a lack of success in the traditional school setting. The program allows students to access curricula on-line and work to complete lessons and test at their own pace. This form of alternative education is similar to the SIATech Charter School and Griggs On-Line Diploma programs identified through the research of Ruzzi and Kraemer (2006), where the teaching methods used are

computer based and the class sizes varying depending on the location of the program. Students can choose to attend Program A with approval from high school administration, which gives Program A one of the characteristics of Raywid's (1994) type I programs. However, Program A is more akin to a type II program because students who are suspended or have a history of behavior concerns are assigned by district level administration, and Raywid categorizes programs for students designed to remediate or provide a last chance for success due to behavior concerns as type II. In this district of study, students remain at Program A until they (a) receive their diploma, (b) move out of the district, or (c) drop out of school.

Program B. Another form of alternative education offered by the district is vocational or technical school. "Historically most vocational education programs were designed to prepare students for work and help them enter the workforce shortly after high school" (Plank et al., 2005, p. 1). Students in the district of study choose to attend Program B after meeting certain criteria such as passing Algebra and earning a certain number of credits from the high school. Raywid (1994) would classify Program B as type I because the program goal is to assist students with special needs, and the students access the program by choice. Students who attend Program B can do so full or part time, depending on their grade level, ability, interest, and need. Students remain at Program B until they (a) graduate, (b) return to the high school (which is less frequent) and graduate, (c) move out of the district, or (d) drop out of school.

Program C. This program is one of the newest alternative options for students attending this school district. Through a grant by the Gates Foundation, at a minimal cost to the district and the local community college, students earn dual credit while

completing their high school requirements for graduation. Plank et al. (2005), in their overview of alternative programs, cited the Gateway to College program teaching methods as a mixture of lecture, small group, and project based. Students attending this program must meet the criteria of (a) being at least 16, (b) being behind in high school credits, (c) passing academic competency tests in language arts and math at the 8th-grade level, and (d) either being a high school dropout or about to dropout. The Gateway to College program goals are in line with aspects of Raywid's (1994) types I and II typologies. It is type I because students attend by choice since the program goal is to attract the high school dropout by offering high school and college credit, called "dual credits." However, it also has program goals designed to remediate behavior and respond to disciplinary infractions as do type II programs. Although acknowledged as one of the alternative programs offered by this district, since the program is only in its second year, no data retrieved from the archived files of the district on graduates represent students in this program. Students remain at Program C until they (a) graduate, (b) move out of the district, or (c) drop out of school.

On-site alternative programs.

Program D. Housed in one of the middle schools but outsourced by the district, Program D has been an alternative for behaviorally disruptive students for several decades. Although the program location did not change, three years ago with new administration at the district level, the staff changed from outsourced to district personnel. The vision and purpose of this change hinged on the heightened awareness of the district's need to improve the quality and rigor of this alternative program for one of its most at-risk populations. Furthermore, the district recognized the changes in

accountability measures enacted at the state and federal levels, and how this change in leadership would better serve the students. Program D is a Type II program based on Raywid's (1994) typologies. The purpose of the program is to give the disruptive student a second chance at school. Generally, students assigned to this program do not have a choice to attend and do not return to the high school. Moreover, the structure of this program changed during the 2009-2010 school year with a focus on the older at-risk student, requiring 3 hours of daily attendance at the school for computer-based learning followed by 3 hours of computer-based instruction outside of school. Students who attend this program will generally not return to the traditional high school but instead will graduate from high school via this program, transfer to Program A, move outside of the district or possibly dropout of school.

Program E. Program E is the newest alternative program and is still in its first year of existence. Program E was an extract from Program B in an effort to serve more at-risk students at a level more specific to their academic, social and emotional needs. Program E is both academic and therapeutic. In the mornings, students focus on academic instruction with the afternoon instruction coming from a model called Aggressive Replacement Training known as A.R.T. District level administration places students with disciplinary consequences into this program due to behavioral, social, or emotional needs, with the intent that the student will return to the traditional high school after participating in the program. This type of program focus categorizes Program E as a type I, II, and III alternative school based on Raywid's (1994) typologies--type I because the program offers a true educational alternative, type II because students assigned are generally there due to disciplinary concerns, and type III because of the therapeutic

component offered daily to students. Students exit this program by returning to the high school, switching over to Programs A or D, moving out of the district, or dropping out of school.

For all five programs, the type of student subject to attend demonstrates “school-based” at-risk attributes such as (a) academic failure, (b) discipline/disruptive behavior, and (c) lack of motivation as addressed in chapter 2. Couple these attributes with “external school variables” from chapter 2 correlated to being at-risk such as gender, ethnicity, low socioeconomic status, and residence in a metropolitan area and the result is a district serving a population of students with multiple risk factors. Suh and Suh (2006) asserted that the more risk factors students possess, the more likely they are to drop out of school. Thus, this district is ideal when asking whether alternative programs are an intervention for at-risk students, not only due to the diverse types of alternative programs it offers, but also because of the risk factors this population of students naturally brings to the setting.

Population and Sampling Design

Population. The hypothesis in this study was that students who attend alternative programs graduate at a rate similar to or greater than students who do not attend an alternative program. Alternative schools are known for serving at-risk populations of students (Farris-Berg et al., 2003; Gable et al., 2006; Lange & Sletten, 2002; Raywid, 1994; Stanley & Plucker, 2008); thus, it was easy to assume that students attending an alternative program were more at-risk of dropping out of school than students not attending an alternative program. Attempting to answer the question regarding the effectiveness of alternative education against the effectiveness of traditional schools in

helping students reach matriculation was along the lines of comparing apples to oranges when looking at student populations. Therefore, this study had to show similarities between the groups being compared, as is expected in quantitative studies (Johnson & Christiansen, 2000).

Ethnicity. The researcher gathered archived data from the 2006 through 2010 school years on the Caucasian, African-American, and Hispanic students regarding graduating from or dropping out of school. These populations were selected because researchers identified race as a variable of a student at-risk (Christle et al., 2007; Ekstrom et al., 1987; Golden & Kist, 2005; Jerald, 2006), as well as a variable in the type of student who attends alternative schools (Aron, 2006; Orfield, 2004; Stanley & Plucker, 2008). The variable of ethnicity is one of the reasons this district was selected for this study. Overall, the district of study student population is comprised of about 47% Caucasian, 40% African-American and 13% Hispanic. Studies related to at-risk students and alternative programs recognize the African-American and Hispanic populations as the primary at-risk groups of students likely to leave school before receiving a high school diploma (Connor & McKee, 2008; DAEPP, 2007). The researcher ascertained if ethnicity bore any significance regarding the rate of graduation for racially disadvantaged students attending alternative programs compared to their minority peers attending the traditional school in this district.

Socioeconomic Status. A student's socioeconomic status is one of the leading indicators in research as a primary factor for students identified as at-risk of dropping out of school (Black, 2003; Christle et al., 2007; Connor & McKee, 2008; Darling & Price, 2004; Ekstrom et al., 1987; Golden & Kist, 2005; Jerald, 2006; Plank et al., 2005; Suh &

Suh, 2007). However, the socioeconomic status of a family is not archived data maintained by a school district. Nonetheless, the U.S. Department of Education's Report on the Status and Trends in Education of Racial and Ethnic Groups stated that a proxy for measuring a family's poverty status is to look at a the student's free and reduced lunch program status (p. 23). Fortunately, these data were accessible via the district's student information system. Students are in one of three categories for receiving school lunch based on their family's annual income: (a) free lunch status (b) reduced lunch status, or (c) paid lunch status. Therefore, to classify students as at-risk in relation to their family's socioeconomic status, the researcher utilized the free and reduced lunch status of each student maintained in the district's database.

Gender. When identifying variables deemed through research as indicators of dropping out of school, according to Aud, et al. (2010a) and Plank et al. (2005), a student's gender is recognized as an at-risk characteristic. Specifically, African-American and Hispanic males have the highest rates of dropping out of school compared to their Caucasian counterpart (Aud et al., 2010b). The easiest at-risk characteristic to filter utilizing the district database to determine students' graduation status was gender.

Discipline. Christle et al. (2007), Ekstrom et al. (1987), and Suh and Suh (2007) identified inappropriate school behavior or disciplinary responses by schools as the primary cause of students choosing to drop from school. Due to the variety of the types of discipline incidents in which students could engage, the researcher filtered this characteristic based on a numeric system. Any student with at least five or more discipline incidents logged in the student information system received a code of "D" and was included in the count of students deemed at-risk due to discipline concerns. The

disadvantage to this process is one student could have received five discipline referrals for minor incidents like forgetting to wear his or her school identification badge, being caught using his or her cell phone during the school day, or misuse of a computer where the student was on facebook instead of researching foreign policy for social studies class. Contrarily, another student might have five referrals with major discipline incidents such as fighting, harassing, and bullying students and staff. Clearly, the level of being at-risk for each student is significantly different, yet the filtering approach used by the researcher did not control for this type of anomaly.

Students with special education services. Like gender, this at-risk characteristic is easily filtered using the district's student information system. For programming purposes and a host of other reasons, students with special education services are coded in the district database and are easy to classify. Lehr (2004) identified the emotionally and behaviorally disordered child as one of the most common types of students with a disability attending an alternative program. Later research by Foley and Pang (2006) and Tissington (2006) also confirmed these results. Although students with special education services are easy to identify in the database, one limitation is sorting the student with an emotional or behavioral disability from a student coded with a speech disability. Therefore, when data were accessed, all students with special education services were included in the results, but not all of these students were emotionally or behaviorally disadvantaged.

By sorting the two groups of students according to these similar characteristics, the researcher was able to move forward with the collection of data to question whether a student with special education services, placed in an alternative school setting, could

reach matriculation at a rate similar to their peers who never attended an alternative school.

Sampling. Not only are the sample populations already determined in this causal-comparative study, but also because the researcher is looking for a very specific population, the method used to determine the participants of the sample population in this study fall under the umbrella of nonrandom or nonprobability sampling. Popham (1993) referred to sampling where the researcher takes whatever sample is available as accidental. Gay and Airasain (2000) refer to accidental or convenience sampling as “the use of existing groups just because they are there” (p. 137). This form of nonprobability sampling was necessary for this study because the researcher could not manipulate which students attended the alternative program and which students did not. However, the researcher could control whether population samples gathered were from one district or multiple districts. The researcher considered Jerald’s (2006) discussion about findings from The Consortium on Chicago School Research when contemplating this decision. The Consortium found that despite attempts at adjusting for common at-risk factors, because there were so many reasons that played into why a student dropped out of school, dropout rates still varied across the many high schools in Chicago (Jerald, 2006). Weighing the advantage of having large population samples, but little control over extraneous variables such as differences in the educational programs, structures of the programs, instructional strategies, etc., the researcher opted to focus on one school district with the understanding that randomization of the sample population would not occur. Hence, when organizing the data for analysis by at-risk characteristics, some of the sample groups became small, but other extraneous variables related to differences

between school districts were controlled. Because, there are nonschool related factors such as gender, as mentioned in chapter 2, there are school-related factors such as instruction, and there are some factors derived from both, such as student attitude, that can singularly or collectively impact a student's decision to remain or drop out of school. Therefore, although Popham (1993) noted this form of sampling as weak, he also stated it is generally "the most frequent type of sampling in the field of education" (p. 248) because the educator as evaluator cannot get better samples.

Data-Collection Procedures

The researcher used quantitative data analysis for the study of this Missouri school district. Although the researcher is an employee of the district with full access to the student database, permission from the superintendent to conduct this study on alternative schools and persistence to graduation was requested and granted. However, because of the complexity of the district's student information system and the refined nature of the data required for analysis, the researcher was trained by the district's data analyst on how to perform advanced searches using the student information system. After being trained on how to search the district's database, the researcher focused attention on the storage and organization of the harvested data and decided to use Microsoft Excel.

First, the researcher conducted a search of the database going back to the 2006 through 2010 school years for all graduating students. Next, a refined search on this data was conducted to determine which of those graduates, at any point during their tenure in the district, attended one of the alternative programs offered by the school system. Two lists were generated containing alternative graduates and non-alternative graduates.

These lists were imported into Microsoft Excel spreadsheets. The Excel data were recorded on the researcher's personal laptop as well as on the district laptop assigned to the researcher. The next step was to determine those students who should have graduated during the 2006 through 2010 school years, but did not. However, because there are several ways to calculate graduation or dropout rate, the researcher had to determine which calculation was best suited for this study.

Presently, educators and researchers determine the rate students graduate from or drop out of high school differently, making it difficult through research to accurately surmise the true rate students are reaching matriculation or leaving school early (Aron, 2003; Stillwell, 2010). For example, Aron and Zweig (2003) discussed how the state of Maryland's reported graduation rate was 75%, but Baltimore City Public's rate was 54%, Anne Arundel County Public's was 71%, Prince George County's was 79%, and Montgomery County Public's rate was 85%. Researchers Christle et al. (2007), McKee and Connor (2007), and Stillwell (2010) discussed the varying methods of calculation and the need for mandated or required reporting protocol. As mentioned earlier in this report, No Child Left Behind uses the graduation rate for accountability purposes, yet each state and school's rate is calculated differently. Hammack (1987) noted researchers should be careful in interpreting data across districts and states because of the varied way dropout rate is calculated, the varied definitions of a dropout, and the varied types of programs to control the unique aspects of each school and therefore its specific impact on why the student dropped. Fortunately, the National Governors Association expressed a commitment to each state utilizing a common method of calculation (McKee & Connor, 2007), and Kingsbury (2008) published in her article on "No Dropouts Left Behind: New

Rules on Grad Rates” that Education Secretary Margaret Spellings summoned school systems to adopt a procedure to better monitor dropouts. These types of actions have spurred educators to align methods of calculating these rates, and it is speculated by McKee and Connor (2007) that by 2010 there would be a universal method for dropout and graduation rates across the nation.

Each type of calculation for determining graduation or dropout rate was reviewed by the researcher with the average freshman graduation rate being the most likely to produce reliable data for this study due to the search capacity of the district’s database.

Table 11

Methods Used to Calculate Dropout Rate

Calculation Title	Method of calculating graduation or dropout rate	Researchers
Event dropout rate	The event dropout rate calculates the percentage of students who dropped out of high school between the start of a school year through the next year but have not earned any type of high school credential	Chapman, Laird, & KewalRamani, 2010; Stillwell, 2010
Status dropout rate	The status dropout rate is determined by the number of high school students, between a certain age, not enrolled in school and without any type of high school credential. For a student to be counted in the status dropout rate, when they dropped out of school is irrelevant	Aud, et al., 2010.
The status completion rate	This rate is a percentage of students between certain ages, who at some point have earned a high school credential, regardless of when it was earned.	Chapman, Laird, & KewalRamani, 2010
The averaged freshman graduation rate	The averaged freshman graduation rate is calculated based on the number of freshman who graduate after 4 years of high school and receive a diploma.	Chapman, Laird, & KewalRamani, 2010

Now knowing the method of calculation, the researcher went back to the archived database to extract the next set of data. The researcher began with the 2002 school year to determine all freshmen who began school in the district of study but showed a drop code at some point between the 2002 and 2006 school years. The district's database offered a distinct code for the various reasons a student dropped from school, so students who dropped in the district database for reasons related to moving to another county school district, for example, were not included on the list. This same process was followed for the 2007 through 2010 school years with the end result yielding four lists of students who should have graduated between the 2006 and 2010 school years, but according to the district database had not.

Next, the researcher filtered each year's list of nongraduates, sorting the students into two groups; those who at some point during their high school tenure were in at least one of the alternative programs and those who had never attended the district's alternative schools. Ultimately, the researcher had four lists of students: (a) alternative school graduates, (b) traditional school graduates, (c) alternative school nongraduates, and (d) traditional school nongraduates. Again, these lists were saved to Excel spreadsheets and stored in the researcher's personal and work laptops. The final phase regarding data acquisition required the researcher to identify the at-risk attributes of each student used for comparison purposes when calculating the rates of graduation. These at-risk characteristics were gender, ethnicity, socioeconomic status, discipline, and disability. To measure socioeconomic status, the researcher used the free and reduced lunch status. For discipline, a criterion of five or more referrals was set. Disability was determined by whether the student was coded in the system as a student with an

individualized educational plan (IEP). Thus, the final Excel spreadsheet included, by graduation year, data on each group of students and their at-risk characteristics. Because the data collection process involved secondary, archived data, the researcher was not in need of an instrumentation tool.

Data-Analysis Procedures

Statistical analysis allows a researcher to determine if an outcome occurred as a result of chance or could be due to the influence of the variable being measured (Popham, 1993). For this study, the researcher tested whether attendance in an alternative program could cause a student to persist to graduation at a rate the same or better than a student who did not attend an alternative program. Therefore, the raw data on the number of students graduating, divided by the total population of that group, yielded the researcher two mean scores. Because the type of analysis used would assist the researcher in stating the likelihood that attending an alternative program could cause a student to persist to graduation, the z test for proportion and the t test for the differences between two independent means were considered. Initially, the t test for the differences between two independent means was the selected mode of analysis. However, as the researcher gathered the data, since the number of graduates to the number of possible graduates was going to be a proportion, the researcher thought the z test for proportion might be a better measure. However, due to the population sizes of some of the groups, once the researcher filtered for at-risk characteristics, the z test for proportion analysis was no longer a viable option because the population sizes did not meet the requirements. Bluman (2008) cited a z test of proportion required the multiplication of the sample size against the calculated proportion to be greater than five. This requirement was not met

for some of the filtered data sets. Therefore, the researcher used the t test for the differences between two independent means as initially planned. For a researcher to make the inference that the evaluated intervention is superior or yields a positive result is to establish the statistical significance of the data. There are two types of statistical significance tests: (a) those that test for relationships—correlation tests, and (b) those that test for differences. Popham (1993) stated that “the most common technique for comparing two groups is the t test” (p. 269). Since this study is causal-comparative, the researcher’s focus was to test for whether the type of programming could likely be a cause for students graduating and the best test to measure the differences between the two group’s graduation means was the t test for the differences between two independent means. Once determined by the researcher that the t test for differences between two means was the appropriate statistical analysis, the statistical package in Excel was used to calculate the t scores for two means.

Summary

The purpose of this quantitative, causal comparative study was to find out whether attending an alternative educational program could be an intervention that influenced the at-risk students’ persistence to graduation. Researchers Aron and Zweig (2003) cited the alternative school for typically serving a large proportion of the at-risk population. Despite the volumes of research on effective alternative programming, these studies measure the outcome of effective in terms of improved grades, attendance, and behavior while the student attends the alternative program. There is little quantitative analysis of the effectiveness of an alternative program in relation to graduation data.

To establish whether alternative schools could affect graduation rates of at-risk students, archived student data was gathered and examined. The researcher looked at graduation data from 2006 through 2010. Furthermore, the student data was disaggregated according to ethnicity, gender, socioeconomic status, discipline issues, and disability. These indicators have been consistently cited through research as variables that affect a student's likelihood to be considered at-risk (Aron & Zweig, 2003). The population for the study focused on a school district in Missouri that provides an array of alternative programming for its constituents. The district also serves a high proportion of at-risk students according to its district profile data.

Once the data were extracted from the district database, confidentiality of the participants was maintained via a password protected excel spreadsheet. Furthermore, individual student names were immediately eliminated once the data were counted and organized according to the variables under study. The analysis of the data provided comparative results of the impact of traditional schooling versus alternative schooling on graduation rates. Chapter 4 will present the results of the data analysis employed to compare the mean graduation rates of students who attended an alternative versus traditional high school.

Chapter 4: Presentation and Analysis of Data

The purpose of this quantitative, causal-comparative study was to determine through statistical analysis whether attending an alternative school influenced students' rates of graduation compared to not attending an alternative school. Data sources included school records on 4 years of students attending the district of study in relation to their graduation date, ethnicity, gender, socioeconomic status, discipline, and receiving special education services. Students attending an alternative program at some point during their high school tenure and students who never attended an alternative program were the independent variables, and graduation rate was the dependent variable.

The organization of the chapter is based on the variables listed above and discussed throughout the research study in response to the No Child Left Behind criteria, the types of students identified through research that are most likely to attend alternative programs, and the at-risk descriptors associated with students who drop out of school. The conceptual framework of the study indicated at-risk students are dropping out of school at an alarming rate and are the primary group of students served in an alternative school (Farris-Berg et al., 2003; Gable et al., 2006; Lange & Sletten, 2002; Raywid, 1994; Stanley & Plucker, 2008). McDill et al. (1987) argued that alternative schools are "the most visible manifestation for varied learning options" (p. 127), and Raywid (1994) noted, "It remains to be seen whether the state of the art reflected in today's alternative schools will be applied to meeting educational challenges" (p. 31). Chapter 4 presents the data and analysis of the research study as well as the results of the statistical analyses. The statistical analyses provide demographic information and data analysis about the

samples including means, variances, t statistics, and p values. Chapter 4 contains three sections: (a) data collection, (b) data analysis, and (c) chapter summary. Chapter 5 will present the findings of this quantitative study concerning the research questions and hypotheses tested. Chapter 5 will also present an interpretation and discussion of these findings as well as conclusions, implications, and recommendations for future research.

Data-Collection Procedures

The superintendent of the target district granted permission to the researcher to conduct the study (see Appendix A). As an employee of the district, the researcher already had access to the district database and had basic knowledge of how to query the database for information on students. However, the data needed for this study required the ability to perform advanced searches; thus, the district's data application specialist trained the researcher on how to conduct advanced queries. The researcher acquired data from the 2006 through 2010 school years on students who did or did not graduate from the traditional high school or one of the alternative schools. The data were specific to race, gender, socioeconomic status (measured according to the student's free/reduced lunch status), ethnicity, receiving special education services, and level of discipline. Once retrieved, the data were exported to a Microsoft Excel™ spreadsheet for analysis.

Data Presentation

The data were evaluated using the statistical analysis toolkit within Microsoft Excel™. The results of the data analysis are presented in the following tables. Table 12 presents the percentage of representation for each population by at-risk characteristic. The mean graduation rates for the alternative and traditional students are presented in Table 13 and in Table 14. Determining the appropriate t test required the researcher to

conduct an *F* test. The data from the *F* test and *t* test are presented in Table 16 and in Table 17.

Population percentages by characteristic. The number of students graduating or not graduating for each population was averaged for the 2006 through 2010 school years. Table 12 presents these averages according to the different population characteristics. The data suggest the number of male students who attended the alternative school was more than the number of female students. Fifty-seven percent of the alternative graduates were male, compared to 42% female. The same is true for the nongraduates; 63% percent were male, whereas only 36% were female. Conversely, the female population appears to comprise the larger population of graduates from the traditional high school at 55% and the smallest number of nongraduates at the traditional high school at 42%. The data imply Caucasian graduates and nongraduates from alternative schools, with population percentages at 57% and 54%, respectively, frequent alternative programs at rates higher than African-American and other ethnicities at 43% and 46% consistent with Foley and Pang's (2006) research results. At the traditional high school, the Caucasian is also the predominant race with 58% graduating and 50% not graduating. These data are representative of the district demographic data presented in chapter 1, with minority populations at 54.7% and Caucasian at 45.3%. There are lower percentages of free and reduced lunch students attending alternative schools at 35% for graduates and 38% for nongraduates compared to 42% for graduates and 50% for nongraduates at the high school. There does appear to be a larger percentage of students with disabilities attending the alternative schools than the traditional high school with 34% graduating and 27% not graduating, compared to 15% graduating and 20% not

graduating, respectively. Again, this is consistent with research that states the largest populations of students at alternative programs are those with special education services (Lange & Sletten, 2002). The discipline category indicates that as a group, students in the alternative program accrued more referrals than those in the traditional setting, with 82% of graduate and 92% of nongraduate alternative students earning at least one referral, compared to 69% of graduate and 89% of nongraduate students at the high school. In all four populations, there is a high percentage of students with at least one referral. It is interesting to note the nongraduating students at the high school have more discipline at 89% than the graduated alternative students at 82%.

Table 12

Average Population by Characteristic

Population Characteristics	Graduate		Nongraduate	
	Alternative	Traditional	Alternative	Traditional
Female	42%	55%	36%	42%
Male	57%	45%	63%	57%
African-American	38%	34%	43%	40%
Caucasian	57%	58%	52%	50%
Hispanic	.03%	.05%	.03%	.07%
*Other	.005%	.03%	.01%	.01%
**Free/Reduced	35%	42%	38%	50%
Discipline	82%	69%	92%	89%
IEP	34%	15%	27%	20%

*The other population is not represented in the coefficient of variances data analysis and the *t* test analysis of means because of the population sizes.

** The free/reduced lunch status represents the socioeconomic status of the student.

Mean graduation rates. The hypothesis states the mean graduation rate of at-risk high school students who attended an alternative education program will be greater than or equal to the mean graduation rate of at-risk high school students who did not attend an alternative program. Table 13 presents the mean graduation rates for the total

populations of alternative and traditional students with the mean rate of graduation being higher for traditional students. However, researchers have identified a plethora of characteristics associated with students considered at-risk and students who ultimately drop out of school. Therefore, for the populations of graduating and nongraduating alternative and traditional high school students, several commonly identified at-risk characteristics were evaluated to determine the likelihood of attending an alternative program as an intervention in persistence to graduation. The descriptive statistics for the mean rates of graduation for each at-risk characteristic and each population in relation to ethnicity are presented in Table 14. The mean graduation rate of African-American students who attended an alternative educational program is greater than the mean graduation rate of African-American students who attended the traditional high school. The mean rate of graduation of Caucasian students who attended an alternative school is less than the mean graduation rate of their like peers in the traditional high school. The mean rate of graduation of the Hispanic population of alternative students is higher than that of the Hispanic population of students at the traditional high school.

Table 13

Mean and Standard Deviation Graduation Rates for the Total Populations of Alternative and Traditional Students

Population	μ	<i>SD</i>
Total		
Alternative	0.73	0.03
Traditional	0.87	0.02

Table 14

Mean and Standard Deviations for Alternative and Traditional Populations by Ethnicity

Ethnicity	μ	<i>SD</i>
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African-American		
Alternative School	0.71	0.03
Traditional School	0.59	0.04
Caucasian		
Alternative School	0.68	0.07
Traditional School	0.81	0.03
Hispanic		
Alternative School	0.63	0.19
Traditional School	0.74	0.08

Table 15 presents the descriptive statistics for the mean rates of graduation for the at-risk characteristics of gender, socioeconomic status, discipline, and disability. The observable mean rate of graduation for males from the traditional high school is .03 points higher than the mean rate of graduation of alternative high school males. The observable mean graduation rate for females from the traditional high school is .19 points higher than the alternative high school female. The average graduation rate for students whose socioeconomic status is identified as free or reduced lunch at the alternative school is lower than the observable mean rate of graduation for like students at the traditional high school. There is a .01 difference in the observable mean graduation rates between the students graduating from the traditional high school and the mean rate for graduated students from the alternative program. Students with special education services who attend an alternative high school have an observable mean graduation rate higher than students with special education services who attend the traditional high school.

Table 15

Mean and Standard Deviations for Alternative and Traditional Populations by Gender, Socioeconomic Status, Discipline, and Special Education Services

Population	μ	<i>SD</i>
Male		
Alternative School	0.62	0.03
Traditional School	0.65	0.05
Female		

Alternative School	0.69	0.03
Traditional School	0.88	0.02
Socioeconomic Status		
Alternative School	0.60	0.05
Traditional School	0.64	0.04
Discipline		
Alternative School	0.62	0.03
Traditional School	0.63	0.04
Special Education Services		
Alternative School	0.70	0.03
Traditional School	0.63	0.06

Testing the difference between two variances. To determine the appropriate t test, data from each population were subjected to the F test for testing the difference between two variances. Variance testing tells the researcher how far each value of the data set is from the mean. The farther away from the mean each variable is, the less consistent the data. Knowing whether the variances are equal establishes the type of t test used. The null hypothesis stated the variances for each population were equal.

Table 16 presents the F value for each characteristic compared against the critical value.

Table 16

Variances and Critical Values for the Populations

Population	f Value	C.V.
Total	3.03	6.39
Female	2.43	6.39
Male	0.18	9.12
African-American	0.39	6.39
Caucasian	4.10	6.39

Note. α is set at 0.05

Population means. The t test for the difference between two means with small independent samples compared the mean graduation rates of the alternative students and the traditional students. The null hypothesis stated the mean rate of graduation for

alternative students would be less than or equal to the mean rate of graduation of traditional students. Table 17 presents the t and p values of each population, the critical values, and the degrees of freedom used to determine if the difference in the means was statistically significant.

Table 17

Population t and p Values, Critical Values, and Degrees of Freedom

Population	t Stat	p ($T \leq t$)	t critical	df
Total	-3.78967	0.00454	1.943	6
Female	-5.0209	0.00076	1.895	7
Male	-0.6013	0.28483	1.943	6
African-American	2.06295	0.03901	1.895	7
Caucasian	-1.6206	0.07811	1.943	6
Hispanic	-0.5455	0.30443	2.015	5
Free/Reduced	-0.5848	0.28852	1.895	7
Discipline	-0.2688	0.39791	1.895	7
IEP	1.07347	0.16216	1.943	6

Note. α is set at 0.05

Data Analysis

Analysis of the F test. For every population the variances were determined unequal. The appropriate statistical test to compare the mean graduation rates of the alternative versus traditional students by population characteristic was the t test for comparing the difference between two means with unequal variances.

Analysis of the t test. The null hypothesis states the mean graduation rate of at-risk students in an alternative school is less than or equal to the mean graduation rate of at-risk students in the traditional high school. With the confidence interval set at 90%, to evaluate the likelihood that alternative schooling could be an intervention for at-risk students' reaching matriculation, the statistical significance of the t value for each population mean was calculated. Overall, students attending the traditional high school

had a significantly higher mean graduation rate, $t(7) = -3.789, p < .05$, when compared to those students attending the alternative high school. Also, female students attending the traditional high school had a significant higher mean graduation rate, $t(7) = -5.02, p < .05$, when compared to those students attending the alternative high school. Results indicated for African-Americans attending an alternative school had a significant influence on their mean graduation rate having a higher mean rate, $t(7) = 2.063, p < .05$ than those attending the traditional high school. The overall mean graduation rates were higher for the Caucasian, $t(6) = -1.62, p > .05$; Hispanic, $t(5) = -0.54, p > .05$; male, $t(6) = -0.60, p > .05$; and free and reduced, $t(7) = -0.58, p > .05$ populations of students attending traditional schools compared to their alternative student counterparts. The data also demonstrated that IEP students attending an alternative school had a higher mean graduation rate, $t(6) = 1.07, p > .05$, but it was not statistically significant compared to the mean graduation rate of the IEP students attending the traditional high school. For the student with discipline issues, the mean graduation rates of those attending alternative and traditional schools varied slightly but were not statistically significant, $t(7) = -0.27, p > .05$. The results of the statistical analysis indicate support of the alternate hypothesis only for the African-American populations which stated that the mean graduation rate of at-risk students who attended an alternative education program is greater than the mean graduation rate of at-risk students who attended the traditional high school.

Other statistical comparisons. As indicated from chapter 2, researchers noted the more risk factors students have the greater the likelihood they will chose to drop out of school (Suh & Suh, 2007). To see if alternative schools could be an intervention in helping students with multiple risk factors persist to graduation at a rate higher than their

peers in the traditional school could, the researcher combined some of the characteristics. Since the results of the statistical analysis indicated the African-American population attending the alternative school had a mean rate of graduation higher than their like peers did in the traditional school, and this higher rate was statistically significant, the combined traits centered particularly on the African-American population.

The mean rate of graduation for the African-American student who attended an alternative school and was coded as free and reduced, and who met the discipline criteria, is 0.71 compared to their like peers in the traditional school whose mean graduation rate is 0.61. Even though the alternative students' mean rate of graduation is higher, $t(7) = 1.64$, and the $p > .05$, the statistical analysis of these means was not significant.

The mean rate of graduation for the male African-American student who attended an alternative school and was coded as free and reduced, and who met the discipline criteria, is 0.60 compared to 0.49 for their like peers from the traditional school. The mean rate of graduation for the alternative student was higher, $t(7) = 1.282$, and the $p > .05$, but not statistically significant.

Looking at the same characteristics of free and reduced with discipline, but for the female African-American, the alternative mean rate of graduation is 0.53, compared to the traditional high school mean rate of graduation at 0.68. In this instance, the mean rate of graduation for the traditional student is higher, $t(5) = -1.084$, $p > 0.16$, and not significant.

The mean graduation rate of the African-American student with discipline who attended the alternative school is 0.70 compared to the mean graduation rate of the African-American student with discipline who attended the traditional school, which is

0.63. The mean rate of graduation for the alternative student is higher, $t(7) = 2.31$, $p < 0.05$, which is statistically significant. Again, the results of the statistical analysis indicate support of the alternate hypothesis only for the African-American populations which stated that the mean graduation rate of at-risk students who attended an alternative education program is greater than the mean graduation rate of at-risk students who attended the traditional high school.

Summary

The purpose of this investigation was to find out the degree to which alternative educational programs influence at-risk students' persistence to graduation. Data were analyzed using descriptive and inferential statistics. Independent t test analysis revealed significant and insignificant results. African-American students who persisted to graduation via the alternative school showed a statistically significant higher mean graduation rate than African-American students who graduated from the traditional school. Additionally, when factoring in discipline issues for the African-American population, the mean rate of graduation for the alternative students was also statistically significant compared to their like peers from the traditional school. Overall, the mean graduation rate of at-risk students who attended an alternative school was generally higher than the mean rate of graduation of their like peers who attended the traditional school; however, the difference in the means was not statistically significant. The results of the data suggest alternative programming for African-American students with discipline concerns could possibly be an intervention educators should consider when looking at the persistence to graduation for this minority population and when addressing accountability expectations mandated by the state and federal government. Chapter 5 will

discuss the results of the study as well as explicate conclusions, implications, and recommendations for future studies.

Chapter 5: Summary, Implications, and Recommendations

Aron and Zweig (2003) discussed the educational implications for adolescents they termed as vulnerable and at-risk, and cited these youth as the primary target group for alternative educational institutions and programs. The educational impact of legislation such as the NCLB Act of 2001 and the Individuals with Disabilities Education Act of 2004 mandating all students be held to high academic standards, including graduation requirements, was identified by Tissington (2006) as an accountability measure educational policymakers and leaders must address. Those studies, therefore, became the bases for the purpose of this quantitative, causal-comparative study which was to measure whether at-risk students, who at some point during their high school experience attended an alternative educational program, graduated at the same rate as their at-risk peers from the traditional school setting, who never experienced an alternative school.

Data sources included the school records of at-risk students who attended a traditional school and at-risk students who attended an alternative school in a Missouri school district. The type of schooling, traditional or alternative, was the independent variable and graduation rate was the dependent variable. The goal was to discover through statistical analysis whether the type of schooling influenced graduation rates. The research question presented in Chapter 1 served as focus for the study. The question was: Does the mean graduation rate of at-risk high school students who attended an alternative education program differ from the mean graduation rate of at-risk high school students who attended the traditional high school? Chapter 5 will discuss the findings relative to

the research question, identify implications for educational leaders, and offer suggestions for future research.

The literature on at-risk students and alternative schooling is abundant, and many researchers discuss how at-risk students frequently end up attending school in an alternative setting. Several studies discuss the effectiveness of alternative schools, particularly for at-risk students; however, effectiveness is typically measured by student outcomes related to attendance rate, improved grades, or improved behavior. Little research has been conducted to investigate the influence of alternative schooling on the graduation rate of at-risk students.

Statement of the Problem

Although dropping out of school is not a new phenomenon in America, the realization of the economic impact on society as our world becomes more global has heightened the urgency lawmakers and political entities have placed on this issue. Thus, legislation such as the NCLB of 2001 was designed to spur high levels of accountability and force school districts to address the issues of student outcomes such as achievement and graduation. Looking specifically at graduation, this study examines whether alternative schools could be an effective intervention for deterring students from dropping out of school prior to graduating.

Review of the Methodology

This quantitative, causal-comparative study was intended to determine whether attending an alternative school at some point during the high school tenure helped at-risk students persist to graduation at a rate equal to or greater than their like peers in the traditional high school. Graduation data from the 2006 through 2010 school years were

retrieved from the school district's database, and students identified as having attended one of the target district's alternative education programs were selected. Factual data on each student's ethnicity, gender, free and reduced lunch status, discipline status, and disability were also collected. This same information was obtained on all students graduated from the district who had not attended any of the district's alternative programs. Following the average freshman graduation rate calculation process, which is based on the number of freshmen who graduate after 4 years of high school and receive a diploma, the same data were collected on students who should have graduated between the 2006 through 2010 school years, but did not. These data were then sorted according to those students who attended an alternative program and those who did not, giving two sets of data for each sample group.

The first set of data included graduates who attended an alternative program at some point during high school. The second set of data included students who at some point during high school attended an alternative program but did not graduate from the alternative or traditional school. The third set of data identified graduates who only attended the traditional high school. The last set of data included all the nongraduates from the traditional high school who never attended an alternative program. These same four sets of data were extracted from the study district's student information system for the years 2006 through 2010. Due to relatively small populations for the alternative students, compared to large populations for the traditional students because the district's high school has over 2,000 students enrolled, and since mean rates were being utilized to compare the populations, convenience sampling was the method used for determining the two sample groups. Having the two sets of data on each population, traditional versus

alternative, the average mean rate of graduation for each group was calculated. This calculation required dividing the number of students who graduated by the total number of possible graduates. The result was a proportion or mean rate of graduation. This calculation was completed for each sample group for the 2006 through 2010 school years to produce the mean graduation rates for alternative students and traditional school students. The focus of the study, however, was to compare these sample groups based on specific criteria. Thus, the sample groups of students were filtered based on the No Child Left Behind criteria of ethnicity, socioeconomic status, gender, discipline, and disability since the research indicates that these criteria produce the highest correlation with the types of students that are most likely to attend alternative programs and the at-risk descriptors associated with students who drop out of school.

Summary of Results

The study sought to understand whether at-risk adolescents who attended an alternative school persisted to graduation at a rate the same or greater than their like peers who attended school in the traditional setting. The study explored various at-risk characteristics identified through research as likely to influence a student's decision to stay in school. Considering the influence of alternative schooling on at-risk students' persistence to graduation will expand the knowledge of the educational leaders regarding a possible intervention to positively affect the district's graduation rate. The hypothesis presented in chapter 1 was examined through the lens of student characteristics most associated with being at-risk. The following section presents the findings of each characteristic in relation to the hypothesis, along with a discussion within the context of the research literature.

At-risk variables.

Ethnicity. The hypothesis stated that at-risk students who attended an alternative school will graduate at a rate the same or higher than at-risk students who did not attend an alternative school. Ethnicity was one of the at-risk characteristics examined as a potential causal variable in this hypothesis. The statistical analysis indicated that the Caucasian and Hispanic students' rates of graduation from the alternative school were not statistically significant over the Caucasian and Hispanic traditional school students' rate of graduation. However, the graduation rate for the African-American population who graduated from the alternative school was determined to be statistically and significantly higher than the rate for their African-American peers who graduated from the traditional school. This result appears related to the finding of researchers Christle et al. (2007), Ekstrom et al. (1987), Golden and Kist (2005), and Jerald (2006) that the race of a student can influence, or at least correlates with, his or her decision to remain in school through graduation.

Researchers did not agree, however, in their findings as to whether one ethnicity is in most dominant attendance at alternative schools. Foley and Pang (2006) conducted a study to identify aspects of alternative education programs in Illinois. Their research outcomes identified Caucasian students as the ethnicity most frequently attending the alternative programs. Conversely, Aron (2006), Orfield (2004), and Stanley and Plucker (2008) reported minorities as the most predominant race attending alternative programs. Ultimately, Foley and Pang (2006), recognizing that results of the research were inconsistent, surmised that ethnicity of the population of students served in alternative programs was not a determinant in enrollment but, rather, the demographics of the

community in which the adolescent lived. Regardless, research related to ethnicity, being at-risk, and alternative education, although vast, does not speak to whether one population persists to graduation more than another does; nor do these studies assess graduation rates from an alternative school in regard to ethnicity.

Consequently, the conclusion of this study that ethnicity is significant for African-American adolescents in their persisting to graduation could be an important outcome for today's educational leaders and policy makers. This possibility becomes additionally significant since educators are now held more accountable for keeping all students in school and shepherding them to graduation in response to the accountability measures in NCLB.

Socioeconomic status. The hypothesis that at-risk students who attended an alternative school graduate at a rate the same or higher than at-risk students who did not attend an alternative school was also examined through the lens of the socioeconomic status of the student. As mentioned earlier, Aud et al. (2010a) reported, according to the Department of Education, that there is a correlation between graduation rate and a family's poverty status and the child's qualifying for free and reduced lunch. Since students' socioeconomic status is one of the most documented causes related to their decision to remain in school (Black, 2003; Christle et al., 2007; Connor & McKee, 2008; Darling & Price, 2004; Ekstrom et al., 1987; Golden & Kist, 2005; Jerald, 2006; Plank, Deluca, & Estacion, 2005; Suh & Suh, 2007), determining whether attending an alternative program could be an effective intervention in their persistence to graduation was certainly relevant. However, when statistically comparing the mean rates of graduation of the alternative students against the traditional students, the results indicated

there was not a statistically significant difference between the mean graduation rates. The researcher therefore concludes that a student's socioeconomic status is not a reliable criterion for determining whether a student should attend an alternative program as an intervention.

Gender. The hypothesis that at-risk students who attended an alternative program graduated from high school at the same rate or at a higher rate than their at-risk peers who attended the traditional school was also tested against the variable of a student's gender. Aud, et al. (2010) and Plank et al. (2005) asserted the gender of a student is a factor in his/her decision to stay in school, with the male being more inclined to drop out of school. The results of this study, however, do not support this finding. The statistical comparison of the male populations did not reveal a significant difference in the mean graduation rates between the two groups. There was also no evidence to suggest that attending an alternative school could be a significant intervention for improving the rate of graduation of the female student population. Although researchers refer to the pregnant student as a population often found in attendance in an alternative program (Aron & Zweig, 2003; Bridgeland et al., 2006; Tissington, 2006), the research did not differentiate this variable for the female population under study. Overall, comparing the mean graduation rates of the two populations of students according to gender did not yield conclusive results that attendance in an alternative school for male or female student populations is a factor in graduation rates.

Discipline issues. Chapter 3 presented the process used by the researcher to determine the relevance of the at-risk characteristic of discipline to the hypothesis that graduation rates for at-risk students would be the same or higher for those who attended

the alternative school compared to those who attended the traditional school. Research identifies discipline as a root cause for being at-risk of dropping out of school as well as the primary reason a student would attend an alternative school. Two significant challenges faced the researcher in regard to this variable. The first was dealt with by using an arbitrary count of five or more discipline referrals to determine whether the student was included in this group. The second challenge--the realization that the degree of discipline would be skewed due to the various reasons why a student could have a discipline referral in the system—was guided by the following research results. For example, Suh and Suh (2007) discussed behavior in terms of the number of fights and peer conflicts at school, whereas Goodlad (1994) identified behavior stemming from home and carrying over into school as a factor negatively influencing a student's behavior at school. This study, however, found no statistical and significant difference in the rates of graduation between the two groups according to the criteria used.

Students with disabilities. Researchers Lehr (2004) and Tissington (2006) concluded that emotionally disturbed and behaviorally challenged adolescents generally comprise the majority of the population of students attending alternative educational programs today. Therefore, the criterion of receiving special education services was considered in determining whether at-risk students who attended an alternative program graduated at a rate the same or greater than their like peers in the traditional school setting. The researcher did not encounter studies that found students with disabilities more at-risk of dropping out of school, but did, like Lehr and Tissington, find this population of students to be one of the most frequently enrolled in an alternative program. Students coded in the district's database with having an IEP became the study

population; however, as with discipline, a limitation to using this criterion was the various and quite different reasons why students have an IEP. Having an IEP for reasons such as a speech impairment or low cognitive functioning is a very different matter from being emotionally or behaviorally disordered. When comparing the mean rate of graduation for the total IEP population of students who attended an alternative school to those who did not, no statistical difference was determined.

Multiple characteristics. Researchers Suh and Suh (2007) determined the more at-risk traits a student experiences, the more likely the student is to drop out of school. Thus, the researcher compared the mean rates of graduation of several student populations possessing several of the same traits against each other, to measure the likelihood that attending an alternative program could be an intervention for that population. Since this study determined there was a statistically significant higher rate of graduation for the African-American population, the graduation data on African-American students were selected as the base criteria, and all the other traits were combined with this one to measure the possible benefit attending an alternative school might have on a student with multiple at-risk traits.

The first set of characteristics assessed was being an African-American with discipline issues and a lunch status of free or reduced. The difference in the mean graduation rates for these groups did not support the hypothesis that students with these common characteristics who attended an alternative program would have a graduation rate the same or higher than their like peers in the traditional school. Next, students sharing the traits of being African-American with discipline issues, and a lunch status of free and reduced, were filtered out by gender, and the male populations' mean rates of

graduation were compared. Although the mean graduation rate of the alternative population was higher than that of the traditional student population, the difference was not statistically significant. Therefore, the researcher did not determine that attending an alternative school could be beneficial in helping this population of students persist to graduation. The results for the female population with the same traits--being African-American, having discipline issues and being identified as having a free or reduced lunch status, but filtering in the female variable, were also not statistically significant. Finally, the researcher combined two at-risk variables, African-American students with discipline issues. In this case the mean rate of graduation was statistically significant for the population that attended the alternative school compared to the population that attended the traditional school.

Indeed, the most significant finding of this study was that minority students from the African-American population who exhibited discipline issues, and who attended an alternative school, persisted to graduation at a rate the same or higher than their like peers in the traditional school. The other at-risk variables considered in the study, however, do not support the hypothesis that attending an alternative school is an intervention that assists at-risk students in persisting to graduation.

Limitations

The study included the 2006 through 2010 graduates and nongraduates from the traditional and alternative schools within the district under study. This parameter allowed for a 5-year span of data which provided a sufficiently large pool of students who, at some point in their high school career, attended one of the district's alternative programs and had time to graduate. The first limitation, however, may be the fact that the study

relied upon and examined archived school data from the district's student information system. It was not feasible for the researcher to totally validate the accuracy of student records in several respects, nor to confirm that the same criteria were used in archiving the data that were used by other researchers on related topics. First, there is gross disagreement and inconsistency across the nation in the variables used to substantiate whether a student is considered a graduate or a dropout. Second, even if there were consistency in the definitions, the possibility of human error when entering data cannot be totally ruled out. Finally, the user's familiarity with the district's student information system can significantly affect where data are stored and therefore what data are accessed and extracted when needed. Only recently has this limitation been somewhat alleviated by the fact that NCLB and other accountability mandates are holding states and, thereby districts, more accountable for collecting and reporting data consistently and accurately.

Other limitations stemming from the data-collection process included accurately identifying and grouping students with behavior issues, as opposed to students with special education services. Regarding discipline, the way the student data are reported in the district's student information system would require multiple levels of data filtering and analysis. The researcher could have more comfortably inferred more generalized results if these data were more specifically categorized and more accurately determined. The same limitation applies to students with disabilities. Research typically identifies more specifically the type of disability students have who are frequently in attendance in alternative programs. The data used in this study were not filtered to this level. Instead, the general population of students with disabilities was assessed which limits the researcher's ability to generalize the results.

A historical look at the study district's traditional high school reveals several major administrative changes during those 5 years the data were entered and compiled. While the researcher has no reason to think so, this lack of continuity in leadership at the high school could conceivably have resulted in inconsistent compilation of the data and thereby be a limitation in the study results. A demographic development during these same five years was a significant increase in the African-American population. In 2006, the district's African-American population was 34.7%; by 2010, it had increased to 39.4%. Conversely, the overall African-American population in Missouri's public schools during this period declined by .3% (School Accountability Report Card, 2010). Whether or not this factor could have influenced the outcome of this study is unclear to the researcher.

The study was also limited by the examination of historical student record information and accessible group populations. The independent variable (i.e., type of schooling) was predetermined and could not be controlled. Thus, determining cause between the variables cannot be implied. Instead, the design allowed presumptions to be drawn from sample data to find out the extent to which schooling type might have influenced graduation rate.

Implications for Educational Leaders

The clearest result of this study indicates that attending an alternative school serves as a positive intervention for persistence to graduation for the African-American population with discipline issues. Thus, school leaders could benefit from identifying those alternative school features that are most beneficial to this population of students, since alternative programs and schools are by no means alike. Doing so would enable

educational decision makers to provide more alternative settings that encompass those features and/or to ensure that the alternative programs already in existence incorporate these characteristics into their programs. These results could also raise another significant implication for school leaders. Is the traditional high school adequately equipped to educate and graduate the African-American student with discipline issues? Assuming that integrating the maximum number of students into traditional settings is a goal, a promising additional effort and direction might be to incorporate into the traditional high school setting those features identified as supportive of this population of students and then to measure the effectiveness by determining whether the rate of graduation for this group improves. School districts like the one in this study would likely benefit from pursuing more data to address this question

Finn and Owings (2006) maintained that students at-risk of school failure have trouble in school as measured by course grades and graduation rates. Since this study did not find that attending an alternative school significantly impacts the graduation rate of at-risk student populations, except for African-Americans with discipline issues, educators may need to consider and answer the sweeping question as to whether too many students are being assigned to alternative programs and whether or not they are demonstrably beneficial and cost-effective. Possibly funds and efforts should be redirected toward other research-based interventions proven to be effective in assisting all categories of at-risk students by improving their achievement and persistence to graduation.

It should nevertheless be acknowledged that persistence to graduation is not the only goal of alternative education. There is much research that promotes alternative

settings as an effective mode of deterring at-risk students' poor attendance, low achievement, and inappropriate school behaviors. Furthermore, there is a plethora of alternative schools across the nation with many having waiting lists for students identified in need of such programming. There is, however, less evidence to support their effectiveness in increasing graduation rates.

Nevertheless, with national graduation rates hovering around 74% (U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, 2010) and more accountability due to NCLB, educational institutions are facing increasing pressure to respond to graduation rates and student dropout rates. Although this study supports the likelihood that alternative programming improves graduation rates for African-Americans with discipline, it does not support significantly positive results for the other at-risk groups. Without sufficient data to document the effectiveness of alternative programs, particularly when measured quantitatively for outcomes such as persistence to graduation, educational decision makers must continue with due diligence to find ways to more effectively enhance at-risk student achievement and, ultimately, the rate of graduation for at-risk students.

Recommendations for Further Research

Raywid (1994) asked whether the successes of alternative schools measured in the early 1990s would be able to meet the future educational challenges facing Americans. During that period, researchers and educational leaders measured success through the lenses of more immediate results such as students improving their behavior, attendance, and academic status while enrolled in an alternative program. Today, accountability measures center on more longitudinal and more academic performance outcomes such as

graduation rate and individual student academic improvement. No longer are districts' success rates measured by the amount of resources available to students. Therefore, attention must be given to the alternative program and its merit in helping adolescents, particularly those considered at-risk, in reaching the above-mentioned outcomes.

This study substantiated the likelihood that an alternative program could be an effective intervention for African-American students with behavior issues and their persistence to graduation, based on data from one school district in Missouri. Future studies need to be considered using this same method but comparing the results across several school districts instead of just one to determine if the results could be generalized to other school populations. Future studies could also cover a variety of geographic regions. Additionally, since these results suggested the African-American student benefitted from alternative programming, future studies to explore this outcome but focusing solely on race and persistence to graduation would be helpful for educational leaders seeking to improve graduation rates for African-American students. Educational leaders could look at how current high schools are structured that are not demonstrating the same results for African-American students as the alternative school and move toward creating high school environments that are not considered an alternative environment but still support African-American students' persistence to graduation.

Other research has identified the effective characteristics of alternative schools, but effectiveness is often measured through qualitative analysis of individual student case studies. Research evaluating these helpful characteristics against the outcome of whether those same students ultimately graduated from high school would be more beneficial to educational leaders. Alternatively, taking those program structures already identified as

beneficial to students while they attend an alternative school, such as providing more counselors and measuring for improvements in the rate of graduation, could be an approach to pursue for future studies as well.

Another measure of the effectiveness of alternative programming in assisting at-risk adolescents in graduating would be to look at the population of students suspended out of school. Instead of being suspended and placed in an alternative program, there are many students suspended out of school and not provided any type of placement. It would be instructive to the educational leader to know whether students who were suspended out of school for a semester or more, but then returned to school and persisted to graduation at a rate the same or higher than the alternative placed suspended student. If so, what would that imply about alternative programming? In this case, another related and crucial bit of information would be to determine the percent of students who return to school after a semester or more of suspension. Further, are there effective means of enticing them to return?

Finally, it would be helpful to examine the different types of alternative programs to determine whether some types of programs are more effective than others in increasing the rate of graduation, and appraising the efficacy of alternative programming. A study comparing the graduation rates of students in Type I, Type II, and Type III programs could also prove beneficial to educators. Ultimately, further analysis into the effectiveness of alternative schools in facilitating improved graduation rates would enable educators and policy makers to consider programmatic structures and elements which should be removed from or included in the traditional or alternative high school.

Conclusion

This quantitative, causal comparative study examined the extent to which attending an alternative program influenced the graduation rates of at-risk students compared to their like peers at the traditional high school who never attended an alternative program. The conceptual framework revealed that federal and state policy makers and educational leaders have always influenced America's public educational institution. Although the evolution of society has not affected the number of students who choose to graduate from high school, changes in our world have bridged gaps never thought possible and created a more global society. This change has affected the nongraduating population of adolescents, who must now embark upon a future rife with economic disadvantages proving to be financially significant and impactful to them, as well as to America's economy.

Simultaneously, increased measures of accountability in the educational arena have focused on performance outcomes at the state and federal levels, driving educators to focus on performance outcomes for each student individually, specifically improved academic achievement and graduation from high school. Characteristics of at-risk students have been researched and categorized into student types or categories, and at-risk students have been cited as the most common population of student served in the alternative setting.

Research studies have identified alternative programs as effective based on evidence of improved academic achievement, decreased behavioral issues and improved attendance, but there has been very little research looking at the impact of alternative education on graduation rates. Thus, this study measured the effectiveness of alternative

programming on the at-risk adolescent comparing the rates of graduation between populations of students who attended alternative school at some point during their high school tenure against students who never attended an alternative program.

Student records between the years 2006 through 2010 were obtained for data analysis. Statistical analysis of the data revealed that the at-risk African-American population with behavior issues who attended an alternative school at some point in high school experienced significantly higher rates of graduation than their like peers who only attended the traditional high school. Other at-risk student populations identified, such as socioeconomically disadvantaged, male, Hispanic, and Caucasian students with discipline issues, did not have statistically significant higher rates of graduation over their like peers in the traditional setting. Although not identified by research as an at-risk population, the student with disabilities was considered in this study because this population is also frequently cited through research to be a high-frequency population in alternative programs.

Overall, the data did not support the hypothesis that attending an alternative program improved the rate of graduation for the various at-risk groups under study, with the exception of the African-American student with behavioral issues. As discussed earlier, this finding clearly raises the question as to whether educational leaders need to look for other, more effective interventions to meet accountability requirements to increase the graduation rate from high school.

Appendices

Appendix A

Letter of consent from Ritenour School District

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