

The Relationship Between Ninth-Grade Retention and On-Time Graduation in a Southeast Texas High School

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Abstract: Currently, there are approximately 1.3 million annual high school dropouts who potentially might lose \$355 billion of income over their lifetimes. Effectively addressing retention and dropout issues has far-reaching societal implications. Therefore, this study examined the relationship between ninth-grade retention and on-time graduation. For the purposes of this study, on-time graduation was defined as completion of high school within four years after entering as freshmen. A convenience method of sampling was utilized to measure ninth-grade retention and dropout rates among students ($n = 1,202$) in a Southeast Texas high school. A chi-square analysis determined the relationship between the variables. The findings indicated a statistically significant relationship between ninth-grade retention and on-time graduation, yielding a very large effect size (Cramer's $V = 0.61$). Specifically, ninth-grade students who had been retained were more than six times less likely not to graduate on time than were the ninth-grade students who had not been retained. Implications of these findings are discussed.

Introduction

In the United States, the 1.3 million students who drop out of high school in 2009 will result in a potential loss of \$355 billion over their lifetimes as working adults (Alliance for Excellent Education, 2009). According to the Alliance for Excellent Education, these 1.3 million annual dropouts will subsequently experience more unemployment, utilize government assistance, or spend more time in and out of the prison system than will their counterparts who graduated from high school (Zvoch, 2006). Some researchers (e.g., Jimerson, Anderson, & Whipple, 2002) have concluded that, due to stressed socioeconomic conditions, low parental educational levels, and learning disabilities of students, it is difficult for administrators to effectively combat dropout rates. Family attitudes regarding education, which are not under the control of administrators, have been found to outweigh other mitigating factors affecting graduation (Owings & Magliaro, 1998). Not only do the attitudes of the family affect at-risk students, but the students' engagement in the school process, such as extracurricular activities and parental involvement, also affect these students (Owings & Magliaro, 1998; Zvoch, 2006). However, there are some factors under the control of school administrators that can affect a positive outcome regarding graduation rates (Zvoch, 2006). In particular, retention might be a factor that plays a role in determining whether a student drops out of school (Jimerson et al., 2002).

Incidence of Retention

Many school districts utilize grade retention with the belief that giving students increased time to master skills and concepts needed in later grades allows them to mature socially, and increases their levels of academic performance (Light & Morrison, 1990; Natale, 1991). Roderick (1993) reported that grade retention became increasingly popular in the 1980s in response to the social promotion ideas that were held in the 1970s. A main tenet of social promotion was that students should be promoted based on their age and not based on their levels of performance. For example, a 17-year-old freshman would be promoted despite failing grades simply because he was older than his other classmates. Despite these beliefs about retention, current literature revealed an increased dropout rate at the high school level when students are retained during their freshman years (Bowman, 2005; Jimerson et al., 2002). Although other risk factors play a role in student dropouts, grade retention was one of the strongest predictors (Jimerson et al., 2002).

In 2002 former President George W. Bush signed into legislation the No Child Left Behind (NCLB) Act that was aimed at increasing student academic performance and improving academic standards across the nation (Neild, 2009). Although elements of the NCLB have been beneficial, the mandate heavily influenced test accountability standards (Neild, 2009). The downside to the required standards was increased rates of retention across the United States and, therefore, many

children are being left behind (Leckrone & Griffith, 2006). Since the inception of NCLB, approximately 2.4 million students, or 15% of the school-aged population, repeat a grade each school year (Silberglitt, Jimerson, Burns, & Appleton, 2006). Furthermore, Neild (2009) reported that ninth graders, more than any other age group, are at an increased risk for high school dropout. Although research findings have been inconclusive regarding the benefits of retention, this number has steadily risen over the past 30 years (Leckrone & Griffith, 2006). As educators become more concerned with the push for excellence—which possibly means calling for increased requirements, longer school days, and higher standards—the school administration might be driving even more students out of the door.

Implications of Retention

The consequences of dropping out of high school are not only severe for students and school administrators, but also for society in general (Ascher, 1987). Our society requires an educated and trained workforce capable of competing in the world marketplace. Indeed, a high school education should be considered the minimum survival kit for coping with today's world (Neild, 2009). Statistics from juvenile courts indicate that dropouts are more likely to engage in criminal activity (Ascher, 1987). In some states, 50% to 90% of the prison population dropped out of school (Cassel, 2003; Grossnickle, 1986). Moreover, without adequate training, unemployment rates for dropouts far exceed those of high school graduates, with these rates doubling for Latino and African American youth (Grossnickle, 1986; Marotta & Garcia, 2003).

According to the Texas Education Agency (1996), students who were retained were much more likely to repeat an additional grade. Each time a student repeats a grade the likelihood that the student will drop out of school increases significantly (Bowers, 2010; Grossnickle, 1986; Sparks, Johnson, & Akos, 2010). Additionally, Leckrone and Griffith (2006) suggested that costs come not only at the expense of the student but also to society. When a student is required to complete an extra year of study, estimated tax costs can increase significantly (Leckrone & Griffith, 2006).

Continued research demonstrates that there is no long-term benefit for students who are retained. More specifically, Neild (2009) indicated that although students might perform better immediately after grade retention, the gains are lost within a two- to three-year period. Also, as more *teachers teach to the test*, there is a question whether students are acquiring the skills needed for academic achievement in the subsequent grade levels (Leckrone & Griffith, 2006). For these reasons, it is important that factors relating to the decrease of high school dropout be examined.

Risk Factors for Dropping Out of High School

Evidence is growing indicating that students who fall behind academically during the freshman year have very low odds of earning a high school diploma (Leckrone & Griffith, 2006). Analysis of the progression of students through high school suggests that approximately 30% of the nation's recent high school dropouts were never promoted beyond the ninth grade (Neild, 2009). The United States school system is characterized by a series of transitions, which hold the potential for students' personal growth. However, students who do

not navigate a school transition well, face the possibility of personal and academic turmoil and even falling off track for promotion and graduation (Lee, Cornell, Gregory, & Fan, 2011; Roderick, 1993). Zvoch (2006) indicated two contributing sources that might lead to student dropout: individual student risk factors and school characteristics.

Individual Student Risk Factors

Risk factors include limited parent educational level, family socioeconomic stresses, previous academic difficulties or failures as measured by performance testing, learning disabilities, absenteeism related to health problems, and negative peer influences (Owings & Migliaro, 1998; Zvoch, 2006). Jimerson et al. (2002) reported that students who were retained more than once during their academic careers were 90% more likely to drop out than were their promoted peers. Consequently, these findings indicate a need for various interventions within school districts to assist students in graduating from high school with their originating freshman class.

Using data reported by the Current Population Survey (CPS), which is a household survey of educational and economic indicators conducted by the United States Bureau of the Census, Neild (2009) documented that from 1996 to 2003, African American and Latino ninth graders were more than twice as likely as were European American students to repeat ninth grade. Furthermore, this cohort of Latino and African American boys showed a higher ninth-grade retention rate than did Latino and African American girls.

In addition to demographics, Ascher (1987) stated that the difficulties of the transition most heavily affect those students who already suffer from attendance, discipline, and academic problems. Many of these students perceive that high school is too challenging or alien and believe they cannot succeed. These feelings are often exacerbated in students with behavior problems and poor social skills. Bowers (2010) noted similar findings as did Ascher. Bower suggested that grade retention was the most significant factor that led to dropout but that many other variables also played a role in student dropout, including academic achievement, student absences, and family conflict. Poor self-esteem, behavioral problems, and disengagement from the educational school system are also factors associated with retention (Leckrone & Griffith, 2006; Silberglitt et al., 2006; Zvoch, 2006).

For students who struggled through middle school or who were not sufficiently challenged, ninth grade was where their lack of knowledge and skills finally caught up with them (Neild, 2009). Neild observed that students with poor math and reading skills were more overwhelmed by the academic demands of high school. Once these students began to flounder academically, they became discouraged about ever completing high school. Many of them become truant and eventually drop out completely (Ascher, 1987; Sparks et al., 2010). For students in this situation, probably the primary reason they left school early was that they were attempting to escape failure (Ascher, 1987). Those who dropped out reported that they had simply "given up" because they were too overwhelmed (Ascher, 1987, p. 112). They often felt like it was too late to get help and that their repeated efforts to be successful in school had ended in failure (Grossnickle, 1986). Sparks et al. (2010) noted in their study that there were three main factors that influenced student dropout. Similar to the authors noted above, these authors cited a student being retained in any grade level,

a student who fails an end-of-year course exam, and a student who has a long-term suspension from school is more likely than are other students to drop out.

School Characteristics

The second class of antecedents of student dropout is represented by school characteristics. These characteristics include perceptions and attitudes of the school social climate and overall socioeconomic status of the student body that impact student dropout (Neild, 2009). Traditionally, students are hurried from one 45-minute class to the next. Oftentimes there are no homeroom teachers and students encounter a different set of students and teacher in each class (Zvoch, 2006). These factors can leave students feeling alienated and anonymous (Zvoch, 2006). Because each school subject brings about a different set of teachers, there is little incentive to learn more about how students are performing in other classes (Grossnickle, 1986). Further, high school teachers often do not have the expertise or inclination to work with students who enter high school with weak academic skills (Grossnickle, 1986). As a result, the responsibility for helping the student may fall to the school counselor who may not have the opportunity to observe the student in everyday classes. Research also suggests that administrative issues such as logistics or scheduling that remain unresolved at the beginning of the school year have a negative effect on ninth graders' course performance (Neild, 2009). In a survey, Weiss (2001) noted that 40% of ninth graders in a large urban district reported that at least one of their classes did not have enough seats for every student. Furthermore, almost 50% of the ninth graders surveyed reported a teacher change in at least one class. In a survey conducted by Neild (2009), 40% reported a change in course schedule since beginning the school year. It was reported that ninth graders who experienced more of this turbulence in scheduling and classroom organization at the beginning of the school year earned lower grade point averages (GPAs) and were more likely to drop out before graduation (Deily, 2011; Neild, 2009). Similarly, as noted by Jordan (2001), ninth graders need to "...learn about various important details such as the credit game, attendance policies, exit exams, college boards, and making allies..." (p. 7).

Preventative Strategies

In an article authored by members of the District Administration (2005), the authors reported that the best way to decrease high school dropout is through a combination of prevention, interventions, and continued support. The authors found that a student who is retained and does not receive any support or interventions has a higher likelihood of being a school dropout, and those who are retained twice are four times more likely to drop out than are students who had not been retained (U.S. Department of Education, 2009). Methods in which students can graduate on time after being retained include taking courses during the summer, tutoring, or attending night school. In a meta-analysis of interventions to reduce dropout rates, Jimerson (2001) reported the most effective interventions to be mnemonic strategies to increase students' memory of information, activities to enhance reading comprehension, and behavior modification. Also, direct instruction, evaluations of the learning environment, and early interventions have been shown to be statistically significant in increasing student achievement.

Parental Strategies

Several researchers have studied the link between support systems and school achievement. Overall, the research has indicated that support systems at school and home lead students to stay in school and achieve higher grades (Flaxman & Inger, 1992; Ouellette & Wilkerson, 2008; Zvoch, 2006). Strom and Boster (2007) demonstrated how supportive social networks and supportive family members can decrease the number of dropouts. Consistent with this finding, research has indicated that supportive interactions and communication with significant others can lessen the effects of stressors and daily challenges of a person's experiences (Eckenrode, 1984). Crucial to student achievement is engaging and supportive communication among family members (Flaxman & Inger, 1992). Indeed, Fan and Chen (2001) identified a direct relationship between parental expectations for their child's academic achievement and later school achievement. Parent attitudes, therefore, can influence school behavior, attendance, classroom compliance, and academic achievement (Ouellette & Wilkerson, 2008). Furthermore, parent and family involvement in schools supports academic achievement and school completion (Fan & Chen, 2001; Ouellette & Wilkerson, 2008).

Because parent involvement can influence academic achievement, methods have been introduced to encourage parents and the community to play an active role in educational achievement and school completion (Gewertz, 2007; Stanley & Plucker, 2008). Researchers have identified parent training programs, family resource centers, and direct parent involvement as strategies to engage parents in meaningful and supportive roles in their child's education (Flaxman & Inger, 1992; Ouellette & Wilkerson, 2008). Furthermore, as today's technology increases, so do methods of communicating with parents. According to Ouellette and Wilkerson (2008), web-based grade books, e-mail, video conferencing, and school Web sites are tools that can bridge the gap between school and home.

School Strategies

Recent studies have provided insights about strategies, tools, and the effectiveness of school initiatives as they relate to academic achievement. School districts have implemented interventions to decrease the number of dropouts in their student populations (Gehring, 2004; Stanley & Plucker, 2008; Zvoch, 2006). Larger school districts in the United States are beginning to implement creative solutions to deter students from dropping out (Bowman, 2005; Zvoch, 2006). These solutions, which provide alternatives for students who are at risk for dropping out, include providing a communal environment (i.e., learning communities that provide students with smaller learning environments in an attempt to meet the diverse needs of the learner), student mentoring, individualized instruction, interdisciplinary planning, and team teaching (Zvoch, 2006). Bowman outlined possible alternatives to grade retention. The main alternatives noted were changing district policies so that a student cannot be retained, offering summer school to reinforce skills, utilizing various teaching methods to assist students in their particular learning styles, and offering programs for mentoring and tutoring.

In a study by Somers and Piliawsky (2004), the authors measured the effectiveness of a program designed to reduce dropout rates among urban African American adolescents. The authors reported

that there are many directors of programs who claim to reduce dropout rates although not all are successful in achieving their goals. Somers and Piliawsky noted that many dropout prevention programs focus on the individual student's characteristics rather than focusing on making the school meaningful and a priority to the student. The authors suggested peer mentoring and tutoring as a way to engage students in their academic achievement. Other research has shown tutoring to be effective in reducing dropout rates among teenagers and in creating healthy positive interactions among students, peers, and teachers (Fashola & Slavin, 1998). In their study, Somers and Piliawsky engaged 96 ninth-grade students in an after-school tutoring program. In an analysis of the data, the researchers found no statistically significant difference in GPA among two groups of students being compared, specifically, those who were tutored and those who did not participate in the tutoring program. The researchers stated this might be due to outside factors experienced by the students such as peers, work, and dating. The researchers concluded from their study that tutoring that is initiated before the ninth grade transition has a higher likelihood of being successful in reducing dropout rates and raising GPA scores.

Another preventative measure to help reduce dropout rates includes supportive interactions and communication within the school system (Gewertz, 2007; Stanley & Plucker, 2008; Zvoch, 2006). Teachers are resources for students, in that they have the ability to encourage student achievement. Strom and Boster (2007) obtained similar results in that parental expectations were linked to student achievement along with parental participation in school activities, parent-teacher conferences, and helping the student with homework. Moreover, supportive parent-teacher interactions were shown to influence a student's decision to drop out. The researchers stated that more research is needed in the area of supportive interactions among parents, teachers, and students to determine the difference between student success and dropout.

In addition, researchers have observed that if students are going to drop out of school, it is more likely to occur between the eighth- and ninth-grade years (Gewertz, 2007; Leckrone & Griffith, 2006). In *Building a Nation of Ninth-Graders*, the author discussed preventative efforts to increase academic success (Gewertz, 2007). In the hope of strengthening the student-teacher interaction, a Pittsburgh, Pennsylvania, school district initiated a weeklong orientation with one third of their incoming freshmen prior to the start of the academic school year. With this in mind, the school focused on building bonds between the students and teachers to create a feeling of caring, concern, support, and confidence. In addition, the author stressed that the orientation not only focused on emotional components but also included academic activities that stressed literacy, mathematics, and study habits in the hope of preventing the incidence of retention and dropping out (Gewertz, 2007). Reflections made by students after the orientation included, "I like how the teachers care" and "I thought I'd be a number in this school, but then I came here, and teachers are ready to try to learn about you. So I feel good about school" (Gewertz, 2007, p. 48). Such reflections demonstrate the difference that positive relationships can make. Similarly, Gehring (2004) reported that several urban school districts are rethinking traditional methods of restructuring program delivery and retention policies. Specifically,

these methods included reexamining retention standards, introducing career-themed academies where students can learn about various professions, having twilight high schools that support flexible hours for students who work, and providing different graduation plans and credit requirements that meet the unique needs of the student.

Additional research (e.g., Leckrone & Griffith, 2006; Zvoch, 2006) also has identified block scheduling, flexible grouping, smaller class sizes, and multiage grouping as representing useful practices to encourage school completion. According to Zvoch, the academic and social context of the school can either encourage or discourage academic promotion. Therefore, expanded learning options, positive learning environments, and supportive student-teacher interactions are just a few measures that can be implemented by schools.

Implications for Counselors

Counselors and social workers have an important influence on students, administrators, teachers, and family members in promoting student success and developing strategies to prevent retention (Butler, 2003; Leckrone & Griffith, 2006; Suh & Suh, 2007). At the state level, counselors act as advocates for students and raise awareness regarding the educational standards that are being used for retention (Leckrone & Griffith, 2006). Furthermore, by participating in local and state professional organizations, counselors serve as instruments of change as they inform educators and noneducators alike about the increasing statistics related to dropouts (Leckrone & Griffith, 2006). At the school campus level, counselors help teachers and administrators understand the implications of retention (Leckrone & Griffith, 2006). Keeping the end in mind, on-time graduation, the counselor is able to propose alternative services or interventions. Such interventions include flex hours, after-school programs, assigning a mentor to the student, and summer school services (Bowman, 2005; Leckrone & Griffith, 2006). In addition, counselors are not only a resource for students but for faculty and staff as well. Counselors can provide professional development opportunities for administrators and teaching staff helping to foster an understanding of different learning styles, cultural differences among students, and encouraging interventions that promote family involvement. Leckrone and Griffith also noted that it is important for school staff to recognize the detrimental effects that can be associated with disciplinary practices in response to disruptive behavior in the class. These authors suggested that often students who are not performing well academically mask their deficits with disruptive behaviors. Many times the consequence for these behaviors is removal from the classroom or the campus, which can lead to missed instructional time, missed assignments, and thereby repeating the negative cycle for the student. Mental health concerns, such as counseling strategies that specifically improve self-concept feelings of popularity, negative academic self-concept, and anxiety have been shown to particularly benefit Hispanic students who have been retained in ninth grade (Robles-Piña, 2011). Finally, counselors can assist families by initiating workshops and programs that emphasize the importance of education, address family concerns and questions, and provide opportunities for parents to become more active and responsible in their child's education (Flaxman & Inger, 1992; Leckrone & Griffith, 2006).

In conclusion, although the review of the literature suggests that retention leads to a likelihood of high school failure and dropout, there is also support that creative and alternative strategies can help improve academic achievement and maximize graduations rates. School systems can evaluate their environments, delivery of instruction, organizational practices, and teacher-student relationships to determine if their practices are promoting student achievement. Understanding that parent and family involvement is fundamental to academic success, additional initiatives can be explored to expand and to increase parental involvement and to improve parent-child relationships. Finally, school counselors and social workers can be utilized to foster high school students' academic success as well as mental health concerns and serve as liaisons to school faculty and staff, families, and community members.

Purpose of the Study

Although many researchers have investigated the relationship between retention and dropout rates, only a handful of researchers have examined this association as it pertains to ninth-grade students (Gewertz, 2007; Leckrone & Griffith, 2006; Silbergliitt et al., 2006; Zvoch, 2006). The aforementioned researchers explored the variables that led to ninth-grade retention and dropout rates. Minimal research has been conducted on the relationship between retention and graduation within four years. Thus, the purpose of this study was to examine the relationship between ninth-grade retention and on-time graduation in a rural Southeast Texas High School. In our study we defined on-time graduation as completion of high school within four years after entering as a freshman.

Research Question and Hypothesis

The following research question was addressed: What is the relationship between ninth-grade retention and on-time graduation? Similar to the findings from previous researchers (Gewertz, 2007, Leckrone & Griffith, 2006, Zvoch, 2006), we hypothesized that ninth-grade retention would be negatively related to on-time graduation (Jimerson et al., 2002).

Educational Significance

Determining the best methods of addressing the issue of underperforming at-risk high school students was an integral component essential to improving graduation rates (Zvoch, 2006). It was expected that identifying the extent to which ninth-grade retention predicts whether a student graduates from high school would provide information as to how high risk this grade level is for academic achievement.

Method

For the purposes of this study, permission was obtained from the campus principal to access archived graduation data from 2007, 2008, and 2009 academic years. Before the study began, the researchers gained written approval for the study from the Institutional Review Board (IRB) of the institution with which the researchers were affiliated, as well as written approval from the school principal whose student data were used in the study. In this Texas 4A high school, students are promoted to the next grade level only if they have earned

the minimum number of credits necessary for the next grade classification. In this school district, promotion from the ninth grade to the 10th grade was based on the class schedule construct of seven class periods per day, and .05 credits awarded per class, per semester. Credits are earned by obtaining passing semester grades in scheduled classes (i.e., ½ credit per semester class x seven scheduled classes = 3.5 credits per semester, 7 credits per year). In other words, successful freshmen can obtain a total of seven credits to advance to 10th-grade status. However, to facilitate higher ninth-grade promotion rates, this school district has set a minimum of 5.5 credits to advance to the 10th-grade level. The state mandates the number of credits and classes required for graduation; thus, any freshman failing a class, yet still promoted to the 10th-grade, is obligated to recover the credit(s) not passed during their freshman year, as well as any classes not passed subsequent to the freshman year.

Data Collection

This study focused on the population of students who did not obtain the minimum of 5.5 credits to move forward with their class from ninth grade to 10th grade and whether these students were able to overcome this setback, regain the credits, and graduate with their class four years after entering high school as a first-time freshman. Student transcripts were used to review and to determine graduation and retention status. These data provided the number of graduates, number of nongraduates, and the ninth-grade retention rate of graduates and nongraduates. Confidentiality of transcripts was taken into consideration when transcribing the data. Only one researcher collected the data and input the data in PASW 18 (SPSS, Inc., 2009).

Participants

In this study there were a total of 1,202 transcripts analyzed. These transcripts contained demographic, credit, retention, and graduation information. Transcripts were selected on the basis of students being classified as seniors. Within this sample, there were 563 male students and 639 female students. The sample was made up of 25% White students, 21.3% African American students, 52.4% Hispanic students, and 1.2% Asian students, with 0.1% reporting another ethnicity. Convenience sampling was utilized due to the location of the school and accessibility of archival transcripts.

Instrumentation

The data were extracted from official transcripts that represented archived data from the school's database, Texas Reports (SCA). Graduation was determined by the number of credits obtained during each school year. Passing grades were determined by individual teachers and automatically transferred to the transcripts. A passing grade was defined as 70 and above. Because grades are automatically downloaded to the transcript program, it was expected that score validity was high. Transcripts for seniors from the academic years 2006-2007, 2007-2008, and 2008-2009 were extracted from the database and analyzed for graduation and retention status by a certified counselor.

Data Analysis

In this study, a quantitative analysis was used in order to determine if a relationship existed between ninth-grade retention and on-time graduation. The independent variable was ninth-grade retention status and the dependent variable was on-time graduation. Transcripts of students classified as seniors during the years of 2006-2007, 2007-2008, and 2008-2009 were analyzed to determine the relationship between on-time graduation and ninth-grade retention. In determining on-time graduation, transcripts were analyzed by noting the year students began high school (freshman year). This relationship was assessed using a chi-square analysis. All data were entered using the PASW 18.0 statistical software package (SPSS, Inc., 2009). Statistical significance was obtained at the $\alpha = .05$ level. Effect sizes also were obtained via a chi-square analysis. Using Cohen's (1988) criteria, effect sizes were measured via Cramer's V, using the following criteria: 0.1 for a small effect size, 0.3 for a moderate effect size, and 0.5 for a large effect size (Cohen, 1988).

Results

The 2 (ninth-grade retention) x 2 (on-time graduation) chi-square analysis revealed a statistically significant relationship between ninth-grade retention and on-time graduation, $\chi^2(2, N = 1202) = 447.64$, $p < .0001$. The analysis indicated that those who were retained in the ninth grade tended not to graduate on time (85.8%), whereas those who were not retained in the ninth grade were more likely to graduate on time (85.5%). The effect size, as measured by Cramer's V, was 0.61. Using Cohen's (1988) criteria, the effect size was very large. In other words, for the total ninth graders who were retained ($n = 211$), 14.2% ($n = 30$) of the time they were likely to experience on-time graduation and 85.7% ($n = 181$) of the time they were not likely to experience on-time graduation. Conversely, for those ninth-grade students who were not retained ($n = 991$), 85.9% ($n = 851$) of the time they were likely to graduate on time and 14.1% ($n = 140$) of the time they were not likely to experience on-time graduation.

These results suggested that there is a greater likelihood that those students who are retained in the ninth grade do not graduate on time with their class, and those students who are not retained in the ninth grade have a higher likelihood of graduating on time from high school. In fact, the odds ratio revealed that students who are retained in the ninth grade were 6.01 times less likely to graduate on time (95% confidence interval = 4.31, 8.38).

Discussion

The focus on school retention and how it impacts high school dropouts became increasingly popular in the 1980s. Roderick (1993) reported that this increase in awareness was in response to the social promotion ideas that were held in the 1970s. Since that time, many community members as well as lawmakers have called for greater accountability for schools in relation to ensuring the successful matriculation of high school students (Zvoch, 2006). In response, state and federal legislatures invested large amounts of financial resources into schools (Neild, 2009). These government agencies examined how state and federal funds were being utilized to develop and to maintain programs that could reduce retention and thus reduce the amount of high school dropout (Neild, 2009).

The findings of this study demonstrated that ninth-grade students, who are retained, have a higher likelihood of not graduating on time with their peers. These findings have several implications for educational researchers and administrative school staff who are concerned with improving high school graduation rates. The implications include: (a) changes with regard to delivery of educational instruction, (b) suggestions for better organizational practices, and (c) examinations of teacher-student relationships to determine if their practices are promoting student achievement. Further implications include understanding how parent and family involvement can be fundamental to academic success, and the utilization of school counselors and social workers to foster academic success among high school students. This study identified a statistically significant link between ninth-grade retention and high school dropout propensity. This finding supports previous results of research conducted in the area of ninth-grade retention and successful matriculation (Gewertz, 2007; Leckrone & Griffith, 2006; Silbergliet et al., 2006; Zvoch, 2006). Those who are interested in school retention issues and how they relate to eventual dropout should find evidence of the relationship between the two variables very useful. Specifically, our results confirmed past researchers' findings that a relationship exists between ninth-grade retention and on-time graduation. Further, our research added to the body of literature in that it focused on students from a large rural high school whereas past researchers examined students from large urban schools.

As in virtually all quantitative studies, there were threats to the external validity of the findings. These threats included population validity, ecological validity, and temporal validity (Onwuegbuzie, 2003). Thus, caution should be used when generalizing these results to other populations. Notwithstanding, the present findings provide administrators with more evidence that ninth-grade retention places a student at risk for dropping out of school. Indeed, based on the confidence interval in the present study, the ninth-grade students who were retained were six to eight times less likely to graduate on time than were students who were not retained.

The present findings should have logical appeal for school administrators, as well as for teachers and counselors who work directly with students. Researchers have shown that with student mentoring, individualized instruction, interdisciplinary planning, and team teaching, students who are at risk for dropout might find that they greatly benefit from these solutions (Zvoch, 2006). Future researchers might explore variables that moderate or mediate the relationship between ninth-grade retention and on-time graduation. In reviewing the findings of this study as well as similar studies conducted in the area of retention and high school graduation, it is evident that school administration and classroom teachers need the assistance of applied research to identify the most effective strategies for addressing the disturbing trend of high school dropout.

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