The Effect of Student/Counselor Ratios on Student Dropout Rates in a Sample of Wisconsin Public High Schools

by

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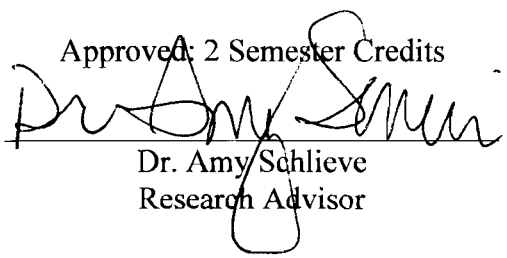

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Abstract

The average U.S. public high school has 488 students for every school counselor. Research shows that this large student/counselor ratio could be correlated with high dropout rates in these schools. The current research examined the dropout rates and student and counselor populations of a sample of 86 public traditional high schools in Wisconsin. Using archived data on the Wisconsin Department of Public Instruction website, the researcher attempted to determine if there was a correlation between student/counselor ratios and dropout rates in the sample of Wisconsin high schools. The correlation of student/counselor ratio and dropout rates was statistically significant at the .01 level, (*Pearson* $r = .31, p < .01$). This significant correlation means that as the student/counselor ratio increases ($M = 292.69$, $SD = 120.53$) in the sample of Wisconsin high schools, the dropout rate ($M = 1.29$, $SD = 2.86$) of the schools tends to increase.

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Chapter 1: Introduction

In the last few decades there has been a growing interest in improving the quality of education in the United States. As part of this effort, educators have attempted to decrease the number of students dropping out of school prior to graduation. This goal has been met with limited success (Hayes, Nelson, Tabin, Pearson, & Worthy, 2002). According to the U.S. Department of Commerce in 2002 (cited in Hayes, et al., 2002), 5 in 100 students over the age of 16 who attended high school in the last 10 years dropped out prior to graduation.

Dropping out of school prior to receiving a diploma is a major concern because without a diploma, students have limited opportunities for higher education and many careers. The result is that school dropouts face higher unemployment rates and lower earnings than their coworkers (USDOE, cited in Hayes, et al., 2002). The employment rate among the groups differs from 87% of those who graduated or received a GED as compared to 78.5% of those who did not graduate or receive a GED. This difference is even more extreme when comparing gender. Females who graduated or received a GED have an employment rate of 69.5% as compared to a 47.3% employment rate among females who did not graduate from high school (USDOE, cited in Hayes et al., 2002).

Besides the decreased employment rate, dropouts are also more likely to experience increased crime and antisocial behavior (USDOE, cited in Hayes, et al., 2002). This is evidenced by the disproportionate number of school dropouts who are in prison or are on death row (Kaufman, Alt, & Chapman, 2001). Pettit and Western (2004) found that when looking at census data among men who were born between 1965 and 1969 almost 60% of high school dropouts in this group had gone to prison by 1999.

Dropouts are also more likely to experience increased demands for social services (USDOE, cited in Hayes, et al., 2002). Part of the reason that these individuals tend to be more reliant on social services is that females who drop out of school are more likely to have children at an earlier age and are more likely to be single parents than females who complete high school (Kaufman, Alt, & Chapman, 2001). In 1996, dropouts who were in the 25-to-34 year old range were three times more likely to receive income from Aid to Families with Dependent Children than individuals who had completed high school or a higher level of education (USDOE, 1998).

School dropouts are also reported to have reduced political participation and involvement in civic activities (USDOE, cited in Hayes, et al., 2002). The U.S. Department of Education suggests that this may be explained by the idea that the higher the education one receives, the more responsibility the person feels towards state and federal affairs, participation in community service activities, and involvement in organizations (USDOE, 1998). The U.S. Department of Education found a positive relationship between educational attainment and exercising civic responsibility.

Dropouts are also more likely to experience reduced intergenerational mobility and poorer levels of health according to the U.S. Department of Education (USDOE, cited in Hayes, et al., 2002). All of these experiences associated with school dropouts mean that the communities that these individuals live in could suffer because of the financial support these individuals tend to require, the increased crime that can occur as a result of them, and the lack of involvement that these individuals tend to have in their community. Besides the community being affected, the individuals themselves are also affected negatively by these experiences as a result of not graduating from high school.

Current research indicates that sources of assistance for students who are at-risk of dropping out already exist within the schools, specifically guidance counselors. Barton (2005) found that students who have access to school counselors are less likely to drop out of school prior to graduation. Lee and Ekstrom (cited in Georges, 1997) also found that students with access to school counseling tended to be on a positive academic track. According to the American School Counselor Association (ASCA) National Model, school counselors should be spending the majority of their time on individual student planning and responsive services (ASCA, 2005). Individual student planning includes meeting with students yearly in high school to develop academic plans and working with students regularly on analyzing the student's abilities, interests, and achievements. According to Gysbers (1999), a high school counselor should be spending a minimum 35% of their time on individual student planning. School counselors are also required by the ASCA National Model to spend a large proportion of time with responsive services. Responsive services include consultation with guardians, teachers, and community agencies in order to help students and their families, individual and small group counseling for students who are expressing difficulties in an area, referrals to outside agencies for students who are dealing with crises such as family difficulties or emotional difficulties, and peer facilitation which creates tutoring and mentoring experiences for students. High school counselors should spend a minimum of 20% of their time on responsive services (Gysbers, 1999).

Most students who are at-risk of dropping out exhibit signs that would imply that they are at-risk (Barton, 2005). These signs include low grades, tardiness, skipping class, extensive absences, behavior problems, and uncooperative behavior. Many of these signs

can be noticed on a daily basis within the school or through student records, but school counselors are needed to notice these signs. The ninth school counselor standard states that "the professional school counselor monitors the students on a regular basis as they progress in school" (ASCA, 2005, p. 64). The ASCA National Model also requires school counselors to use data in order to manage the counseling system within the schools. By looking at already existing data, a school counselor can easily identify signs of students who are at-risk, such as grade point averages, whether the student is meeting achievement levels in their core classes as demonstrated on state standardized tests, discipline referrals, suspensions, attendance, or whether the student has ever been retained. Using this data, a counselor can then monitor the progress of students easily, as the ASCA national standards call for.

When students are identified by counselors as at-risk of possibly dropping out, the counselors can provide many services that would help the students to stay in school (Barton, 2005). Counselors can talk to students about home situations or personal problems that could be affecting the students' behavior or attendance. Individual counseling, such as this, is described through the fourth school counselor standard "The professional school counselor provides responsive services through the effective use of individual and small-group counseling, consultation and referral skills" (ASCA, 2006). Being aware of the students' problems and situations can often lead to simple solutions that result in regular attendance, such as getting a student an alarm clock or finding a student a public bus schedule. Counselors can also help students to see the value of earning their high school diploma through individual guidance and classroom guidance curriculum. Georges (1997) found that when students have access to academic

counseling that assists them in forming educational goals and selecting courses, the students tended to have better school performance. Better school performance could result in the students staying in school.

The research supports the idea that school counselors are needed to identify students who are at-risk and, then, to help those students stay in school. However, currently counselors are having more difficulty identifying at-risk students, because there is one counselor for every 488 students on average in the schools of the United States (ASCA, 2006). Many counselors also have a large amount and variety of non-guidance related activities for which they are responsible. In a study done by Burnham and Jackson (2000), a sample of 80 counselors reported that they spent an average of 25% of their time on non-guidance related activities. These non-guidance related activities included requesting and receiving records, scheduling, and enrolling students. Being responsible for non-guidance activities results in a decrease in the amount of time that counselors have available for assisting at-risk students.

The current research indicates that a lower student-to-counselor ratio is related to a lower dropout rate. This hypothesis is supported by the research that suggests that a lower student-to-counselor ratio enables students to have more access to their counselor and the services they can provide (Barton, 2005). A lower student-to-counselor ratio allows students the appropriate assistance for dealing with personal and social issues that may hinder their academic performance and/or attendance, academic counseling that assists students in learning efficiently and effectively, and career counseling that gives students knowledge in post-secondary options and requirements. Lower ratios would

also allow counselors more time to formulate programming that addresses the concerns and weaknesses of the students in their schools.

Statement of the Problem

The purpose of this study was to identify a relationship between the student-to-counselor ratio and the dropout rate of a sample of traditional public high schools in Wisconsin for the 2003-2004 school year. Data was collected on a sample of 86 schools during January 2006 through web-based searches of the Department of Public Instruction archived data. The data that was collected included student populations, counselor populations, and dropout rates of each school. The goal of this research was to find a positive correlation between student-to-counselor ratios and dropout rates in Wisconsin traditional public high schools.

Research Question

The purpose of this study was to answer the question "Is there a positive relationship between the student-to-counselor ratio in traditional public high schools in Wisconsin and the dropout rates of these schools?"

Definition of Terms

The definition of several terms which were common elements of this study are defined here:

Dropout is a student who discontinues attendance of school prior to receiving a diploma, which indicates graduation from the school.

Habitual truant is a student who is absent from school without an acceptable excuse for part or all of five or more days in which school is held during a semester (Wisconsin Department of Public Instruction, 2005).

Student/counselor ratio is a ratio created by the number of students in a school divided by the number of school counselors in the school.

Wisconsin public high school refers to traditional public high schools. Alternative schools and charter schools were not included in the population.

Assumptions and Limitations

This study hoped to find that the larger the student/counselor ratio, the higher the dropout rates of the students in that school. One possible limitation was the potential affect state compulsory attendance laws have on student dropout rates. The age that students are mandated to attend school varies by state. Some states allow students to drop out at age 16 whereas others require students to attend school until age 18. In Wisconsin, students are not allowed to drop out until age 18, which could affect the dropout rates of the schools in Wisconsin, since by age 18 many students have either graduated or are near graduating. Another possible limitation was that the archived data on the state department of education website was incorrect or missing data from some schools.

Chapter Two: Literature Review

This literature review will contain information on the reasons students drop out of school, the laws and information associated with compulsory attendance in Wisconsin, practices that would help at-risk students to refrain from dropping out, and what the professional responsibilities of school counselors are that assists at-risk students.

It is obvious that graduating is very important in order to avoid all of the unfortunate experiences that are associated with the lack of a diploma. Dropping out is associated with fewer educational and career options. Because there are fewer opportunities for dropouts, these individuals face higher unemployment rates and lower earnings than individuals who did obtain their diploma (USDOE, cited in Hayes, et al., 2002). The employment rate for dropouts is 78.5%, compared to 87% for those who have received a diploma or GED. The employment rate difference is even greater when gender is considered. Females who graduated or received a GED have an employment rate of 69.5% as compared to a 47.3% employment rate among females who did not graduate from high school (USDOE, cited in Hayes et al., 2002). In addition to the decreased employment rate, dropouts also face other negative life experiences, such as increased crime and antisocial behavior (USDOE, cited in Hayes, et al., 2002), increased need for social services, decreased political participation and involvement in civic activities (USDOE, 1998), reduced intergenerational mobility (USDOE, cited in Hayes, et al., 2002), and poorer health.

Reasons Why Students Dropout

But, what leads students to drop out of school? In every guidance counselor office there are numerous posters displaying the discrepancy of wages between high

school dropouts, high school graduates, individuals with a college education, and beyond and yet every year students decide that their best option is to leave school before graduating.

Most students drop out of school between the 10th and 12th grades. This is largely due to the compulsory school attendance age of the state in which the student resides, which varies from 16 to 18, depending on the state (Information Please Database, 2005). Lee and Burkam (2001) found that one common reason for students to drop out of school is based on personal characteristics of those students. Research has consistently found similar personal characteristic risk factors of dropouts. These risk factors are divided into three categories: social background (such as gender, socioeconomic background, race, and family structure), academic background (such as state test scores, grade retention history, and school grades), and academically related behaviors (such as truancy and school disciplinary encounters) (Lee & Burkam, 2001).

Students who are academically at-risk of dropping out often have a history of school-related problems, such as absenteeism, academic trouble, and general disengagement from school life (Lee & Burkam, 2001). Many of these students who are academically at-risk finally drop out as a way to solve these problems. Through the research of Lee and Burkam (2001), it was also discovered that young students are also at-risk of eventually dropping out if they show certain academic behaviors including low grades, low education expectations, special education placement, grade retention, and discipline problems.

Compared to academic risk, schools have very little, if any influence over social risks (Lee & Burkam, 2001). The school can't control the gender, socioeconomic status,

family background, or race of students, as compared to school related factors, such as truancy issues and poor grades (Lee & Burkam, 2001). Since schools cannot influence social risks very easily, this means that schools need to be focusing their interventions and preventions on the academic risk factors.

In a study by Marlow (1987) students indicated that another reason for dropping out was due to the appeal of the employment world over school. These students could benefit from programming in vocational education in order to maintain their interests in school and for them to feel like they are accomplishing something valuable while they are attending. These students may also need assistance in realizing the value of education, in understanding the alternatives to dropping out, and recognizing the worth of long-term goals.

Marlow also found that certain social groups of students are also at-risk of dropping out and their reasons may be resolvable through the school. One of these groups that is at-risk of dropping out is pregnant teenagers. These girls need assistance to help them obtain their diplomas. This assistance could include counseling to deal with their current situations, job skills to give them options when they do graduate from high school, and childcare so that they are able to attend school regularly (Marlow, 1987).

Children who come from minority cultural families are also at-risk because there may be cultural differences between the values that they are taught at home and what is taught in school (Marlow, 1987). One example of this would be the American Indian orientation toward time. In American culture, time is very important, as with a school following a time schedule. American Indians are traditionally present-oriented and often an event only begins when everyone has arrived, not at a certain scheduled time (Garrett,

Bellon-Harn, Torres-Rivera, Garrett, & Roberts, 2003). This can cause difficulties for American Indian students in American-culture schools. Other family situations or structures are also factors that can lead to students dropping out, such as divorce, separation, or a parent becoming unemployed. In all of these situations, the counselor needs to look at the absenteeism or tardiness of the student and determine the reason(s) in order to fully help the student. With understanding of a student's life circumstances, counselors have a lot more opportunity to try and help the student to be able to attend school regularly.

Partially because of the problem of differences in family values among ethnic minorities as compared to school values, minorities, especially African Americans and Hispanics, have a higher dropout rate (Georges, 1997). This statement is supported by a nation-wide study that showed that Hispanic and African American students are at greater risk of dropping out (Kaufman, Alt, & Chapman, 2001). This study found that in 2000, 7.4% of Hispanic students, 6.1% of African American students, 4.1% of Caucasian students, and 3.5% of Asian/Pacific Islander students dropped out of school (Kaufman, Alt, & Chapman, 2001).

Dropout rates are also higher among students from lower socioeconomic statuses and students with lower academic ability. This is supported by the 2004 report from the National Center of Education Statistics (Livingston & Wirt, 2004) which found that low income students were six times more likely to drop out than their high income peers. The actual percentages of students who dropped out in 2004 from each socioeconomic group were 2% of high income students, 5% of middle income students, and 11% of low

income students. Newcomb, Abbott, Catalano, Hawkins, Battin-Pearson, and Hill (2002) also found that socioeconomic status was correlated with high school failure.

Newcomb et al. (2002) also found that academic ability was the most strongly correlated factor with dropping out. Poor academic ability, which is determined by state standardized tests and grade point averages, is regularly related to dropping out (Fagan & Pabon, 1990; Krohn et al., 1995; Rumberger, 1983, cited in Newcomb et al). Poor academic ability is correlated with dropping out because this weakness can obstruct the student from completing school. This factor is a predictor for dropping out at both early ages and older ages. Academic ability may also be related to student dissatisfaction with school and lower expectations for school achievement (Ekstrom et al., 1986; Fagan & Pabon, 1990, cited in Newcomb et al).

Another explanation for student dropouts is certain practices or conditions that schools employ (Lee & Burkam, 2001). Some of these practices influence some students, such as those who are socially or academically at-risk of dropping out, to leave school prior to graduation. Students who have experienced certain school environments, such as students lacking social support and positive relationships with staff members at school, involvement in remedial courses, and being part of a large non-communal school, reported that these types of practices influence them dropping out of school. In a study by Rumberger and Thompson (cited in Lee & Burkam, 2001), larger schools and urban schools tended to have higher dropout rates. A study by Lee and Smith (cited in Lee & Burkam, 2001) also supported this idea with the data that showed that in high schools with 600 to 900 students, students learned more and there was less of a discrepancy in the amount of learning of students from varying socioeconomic backgrounds.

High-stakes testing is also a large risk factor for potential dropouts (Black, 2003). According to Capodilupo and Wheelock (2000), failing high-stakes test scores can result in good students doubting their academic ability and ability to graduate. This research suggests that high-stakes testing can actually negatively affect students' motivation and confidence. Researchers found that the students who attended schools that use high-stakes testing are 39% more likely to drop out than schools that do not use high-stakes testing (Reardon & Galindo, 2002). Reardon and Galindo found that of the schools that retain students for failing a required course, 25% of these schools also use state testing as a tool for promotion or retention. However, high-stakes testing is disproportionately utilized across the country. Students in southern and western states and students in urban areas were subject to high-stakes testing as a means of promotion at twice the rate of students in other areas. This factor creates a connection because of the proportion of students from lower socioeconomic statuses and minority students who tend to live in these areas as compared to other areas. Reardon and Galindo also found that 25% of eighth graders from low socioeconomic backgrounds lived in an area where they were subjected to high-stakes testing as a means of promotion, compared to 14% of the same age students from high socioeconomic backgrounds. The discrepancy in students from races who are required to take high-stakes tests as a means of promotion was 35% of African American eight graders and 27% of Hispanic eight graders compared to 16% of white eighth graders (Reardon & Galindo, 2002).

Students who drop out also commonly specify lack of social support within the school as one of their reasons for dropping out (Lee & Burkam, 2001). Half of the dropouts in a study by Lee and Burkam (cited in Black, 2003) stated that they decided to

dropout because they didn't get along with teachers or other students. They also stated that many of their teachers didn't care about them or whether they succeeded or failed in school. It was also reported by the students that these teachers wouldn't provide extra help when asked. Earlier studies have shown that positive social support can result in highly influential incentives for attending school, even by those students who report the school work is difficult and expectations are hard to meet (Fine; LeCompte & Dworkin; Lee et al.; Wehlage et al. cited in Lee & Burkam, 2001).

This reporting of a lack of social support could also be connected to some students who reported that they got a clear message that they do not belong in schools from the schools themselves (Black, 2003). These students reported that they received signals and comments from teachers that encouraged their feelings of social isolation at school. One of the signals that these students received were teachers only responding to their problem behaviors. The students who were most commonly given this message were low-scoring African American and Latino males from low socioeconomic backgrounds. Negative teacher attitudes toward students can also be a factor in student drop outs. Some students also perceived expulsion and suspensions as another signal that the school wanted them out. This means that many students who experienced these types of punishments were more likely to drop out.

Compulsory Attendance

Every state in the United States has a state compulsory attendance law (Information Please Database, 2005). These laws state the ages at which it is mandatory that children attend school, public or private, in that state. The ages of compulsory attendance vary from state to state, beginning at either age 5 or 6 and ending somewhere

between the ages of 16 and 18, depending on the state. After students have reached the age when they are no longer legally mandated to attend school, they are free to drop out without any legal penalty. These laws also describe the penalties that students and the guardians of the students will incur if the students are not attending school regularly. For this study, the research focused on high schools in Wisconsin, so the Wisconsin statutes on compulsory attendance age, exceptions to the statutes, explanation of truancy, penalties for not following the statutes, and school procedures are examined more closely.

In Wisconsin, children are required to attend school beginning at age 6 until the student graduates or until the term, quarter, or semester in which the student turns 18 years old (Burmaster, 2004). Students are allowed to attend any public, private, or home-based educational program, as long as the program meets the §118.165(1) statute criteria. However, being as school attendance is juvenile court jurisdiction, if a student dropouts out of school on his or her 18th birthday before the end of the term, quarter, or semester, it is unlikely that the student will be referred to court since the court involved with school attendance is juvenile court and when the student turns 18, he or she is no longer a juvenile. This difference in courts assigned results in no legal action usually being taken in these situations.

There are exceptions to the compulsory attendance law in Wisconsin. If a student is 16 years old or older and is at-risk, as defined by §118.152 statute, the student may be allowed to attend a technical college in place of a high school as long as the student is working toward a high school diploma and has written guardian permission (Burmaster, 2004). A student can also be excused from regular school attendance at age 16 if the

student and the guardians agree, in writing, that the student will participate in a program which will lead to the student's high school graduation. The statute does not describe what this sort of program may be. Another exception to the law is when a student who is 17 years old or older began a program which was leading to a high school diploma in a juvenile detention center, secured correctional facility, or county jail, then the student may be allowed by the school board to continue at a technical college if the student requests.

There are only a few situations in which schools can refuse to enroll a student. A student can be denied services if the student is not a resident of the district or if the student moves to a district without his or her guardians, primarily for educational purposes (Burmaster, 2004). Also, no district is required to enroll a student while he or she is expelled from another school district. Students who are expelled are not exempt from compulsory attendance laws; however, it is unlikely that a prosecutor would bring charges against a student and guardians under these circumstances (Burmaster, 2004). This is due to the school having to refer truancy issues to the court, in order for legal action to take place. It is unlikely that a school would refer a student to court for truancy when the school has expelled the student. Expelled students do have options for school during expulsion terms, such as home school, technical college, private school, and correspondence school (Burmaster, 2004).

As stated, according to the Wisconsin state statutes, children are mandated to attend school from age 6 until age 18. A student is considered truant if he or she is absent without an acceptable excuse for part or all of one or more days that school was held (Burmaster, 2004). A habitual truant has been absent from school without an acceptable

excuse for all or part of five or more days that school has been held in one school year (Burmaster, 2004).

In order to determine what an acceptable excuse is, the Wisconsin Department of Public instruction suggests that the school board should have a written policy which specifies acceptable excuses for students to be absent from school (Burmaster, 2004). Guardians can also excuse their child from school; however, a child cannot be excused for more than 10 days in one school year by guardian permission alone. The school board may excuse students from school if the student is temporarily not mentally or physically fit to do so. In this case, there needs to be a written statement that describes when the student will return. This type of excuse cannot exceed 30 days (Burmaster, 2004).

According to the Wisconsin Department of Public Instruction, if a student is truant, the school must notify the guardians of the student and inform the guardians to return the student to school immediately or provide an acceptable excuse (Burmaster, 2004). If the student has missed all or part of five or more days in one school semester, and is, therefore, a habitual truant, the school must notify the guardians through certified mail that the student is habitually truant. This notice informs the guardians of their responsibility to ensure their child's school attendance. The guardians would also be made aware that their child may be eligible for enrollment in a program designed for at-risk students, such as an alternative school. The notice would also request that the guardians meet with the appropriate school personnel at a specified time and date and would also include the penalties that could be brought upon the guardians if they fail to cause their child to attend school regularly under §118.16(2)(cg) statute. In the state of

Wisconsin, these penalties to the guardian can include a fine up to $500 or 30 days in jail for the first offense and a fine up to $1000 and/or 90 days imprisonment for the second and subsequent offenses. An adult who knowingly contributes to truancy can be found guilty of a Class C misdemeanor (Burmaster, 2004).

Student penalties for truancy in Wisconsin can include suspension of the student's driver's license for 30 days to one year, participation in counseling, participation in community service, home detention during specified hours, revocation of the student's work permit, attendance in an education program, participation in alcohol or drug treatment outpatient, or paying for court costs of up to $500 (Burmaster, 2004). A truancy referral may also be made by the school to the juvenile intake worker or municipal court against the student under §118.16(5) statute.

Before referring a student to court, The Wisconsin Department of Public Instruction requires the school to take certain steps. First, the school must either meet or attempt to meet with the guardians of the student to discuss the student's truancy issues (Burmaster, 2004). Next, the school must provide educational counseling for the student in order to determine whether a change to the student's curriculum could resolve truancy issues and what these modifications would be. The school would also need to evaluate the student to decide whether or not learning problems could be the cause of the student's truancy issues. Lastly, the school must conduct an evaluation to determine whether social problems may be the reason for the student's truancy issues, and if this is the case, take appropriate action. The school must have documented that all of these steps were taken during the school year where the truancy issues took place, before referring the student to court (Burmaster, 2004).

Assisting At-Risk Students Within the School

Many of the reasons that students are dropping out of school have been researched and are known. After knowing these reasons, the next step is to determine what would help students to refrain from becoming dropouts, based on the reasons that have been associated with dropping out.

It has been found that there are several ways that the learning environment can be made more conducive to helping students stay in school. As shown earlier through the study by Lee and Smith (cited in Lee & Burkam, 2001), school size has a clear effect on dropout rates. In smaller high schools (600 to 900 students), learning is more equivalent between students of varying socioeconomic backgrounds and students learn more. It has also been found that a push for higher level learning by students through more challenging courses and fewer remedial courses can help students stay in school (Black, 2003). Giving at-risk students easier work does not help to keep them in school. In fact, both high-achieving students and at-risk students benefit from rigorous coursework. However, when at-risk students fall behind, they will need extra help to abstain them from dropping out.

This leads to the next aspect of the school environment that can help to keep students in school. As discussed earlier, positive support is very important for all students, including at-risk students. Half of the dropouts in the study already discussed by Lee and Burkam (cited in Black, 2003) stated that the dropouts who were interviewed reported that they decided to dropout because they didn't get along with teachers or other students. Students need to feel like they belong. A lack of having a sense of belongingness can lead to social isolation. Social isolation can often come from student

disparagement, which can then lead to teacher disparagement (Black, 2003). Instead of adding to the isolation, teachers need to provide the at-risk student with social support. Teachers need to care about the success of their students and offer academic assistance when the student needs it. Better positive teacher/student relationships are also more likely in smaller classrooms, which is another reason to keep schools small or break large schools up into smaller parts (Black, 2003).

The Role of the School Counselor in Assisting At-Risk Students

School counselors are a resource that already exists for identifying at-risk students and then assisting the students in staying in school. The American School Counselor Association (ASCA, 2006) states that "...school counselors are vital members of the education team. They help *all* students in the areas of academic achievement, personal/social development and career development, ensuring today's students become the productive, well-adjusted adults of tomorrow." At the high school level students are deciding who they are, what their skills are, and what they would like to do after high school. At this age level, students are facing increased challenges related to risk behaviors, meaningful relationships, and acceptable behavior. They also need guidance in making present and future life decisions and support for academic pressures such as high-stakes testing, college admissions, financial aid procedures, and entrance into the world of work. According to Lee and Ekstrom (cited in Georges, 1997), students with access to school counseling tended to be on a positive academic track. Barton (2005) also found that students who have access to school counselors are less likely to drop out of school prior to graduation.

The American School Counselor Association (ASCA) National Model outlines the standards for school counselors (ASCA, 2005). These standards provide guidelines for the activities that counselors are to be accomplishing within their programs. According to the ASCA standards, school counselors spend their time on four main areas, individual student planning, systems support, responsive services, and classroom guidance. The amount of time that should be spent in each of these areas varies by the level of school (Gysbers, 1999). For instance, the counselor spends a much larger amount of time on classroom guidance at the elementary level compared to the high school level.

At the high school level, counselors spend the majority of their time in the areas of individual student planning and responsive services (Gysbers, 1999). Individual student planning is helpful to at-risk students because it provides services for students such as developing academic plans and identifying and analyzing student skills, interests, abilities, and achievements. These services also provide the student with social support, which is vital to help the student stay in school, according to Lee and Burkam (2001). This personal attention is also useful for identifying students who are having difficulties in an area and then monitoring the student's progress. Responsive services are also beneficial to at-risk students. These services include consultation with guardians, teachers, and outside agencies in order to help students and their families, peer facilitation to create peer tutoring and mentoring opportunities, referrals to outside agencies for students who are dealing with family concerns or emotional difficulties that the counselor is not able to address, and individual and group counseling for students who are having difficulties in an area (Gysbers, 1999).

According to Barton (2005) most students who are at-risk of dropping out exhibit signs that can be used to identify that they are at-risk, such as behavior problems, low grades, uncooperative behavior, skipping class, extensive absences, and tardiness. The eighth school counselor standard states that "The professional school counselor collects and analyzes data to guide program direction and emphasis" (ASCA, 2005). By looking at already existing data and student records, a counselor can easily identify the signs of students who are at-risk of dropping out. Through the use of records and other data that the school keeps the counselor can investigate a student's grade point averages, whether the student is meeting appropriate achievement levels in their core classes as demonstrated on state standardized tests, discipline referrals, suspensions, attendance, and whether the student has ever been retained. Through this data, the counselor can determine if the student is possibly at-risk and monitor the progress of the student.

When students are identified by counselors as at-risk of possibly dropping out, the counselors can provide many services that would help the students to stay in school (Barton, 2005). Standard two of the ASCA school counselor standards describes that school counselors should develop materials and instructional plans to meet the needs of the students (ASCA, 2005). Once a student has been identified as at-risk of dropping out, the counselor counsels the student individually or as a small group in the identified areas of need, in accordance with fourth school counselor standard. During this process, the school counselor uses school data to make decisions regarding, special programs, program revisions, and to establish goals and activities for the student in order to meet the second school counselor standard (ASCA, 2005). Through the use of individual and group counseling sessions, the school counselor can talk to the student about home

situations or personal problems that could be affecting the students' behavior, attendance, or school performance and help the student to see the value of earning their high school diploma. Georges (1997) found that when students have access to academic counseling that assists them in forming educational goals and selecting courses, the students tended to have better school performance

Despite the fact that the research supports the concept that school counselors are needed in order to identify at-risk students and then assist these students to help them stay in school, school districts are eliminating or downsizing school counselor positions. The ASCA standards suggest a student-to-counselor ratio of 250:1, however, the national average for the 2003-2004 school year was 488:1 (ASCA, 2006). This ratio has increased since the 2002-2003 school year. The District of Columbia eliminated 183 counselor positions in one year, dropping from a ratio of 313:1 in 2002-2003 to 1301:1 in 2003-2004. In Wisconsin, the Department of Public Instruction states that 50% of the school districts in Wisconsin reported layoffs or hiring freezes for the 2003-2004 school year due to budget cuts (Department of Public Instruction, 2005).

Many counselors also have a large amount and variety of non-guidance related activities for which they are responsible, which takes away from the time counselors have to meet the ASCA standards and work with students as assigned. In a study done by Burnham and Jackson (2000), a sample of 80 counselors reported that they spent an average of 25% of their time on non-guidance related activities. These non-guidance related activities included such tasks as requesting and receiving records, scheduling, and enrolling students. These non-guidance responsibilities decrease the amount of time that counselors have available for assisting at-risk students.

Despite the need for school counselors in order to identify and assist at-risk students, positions are being cut because of the ever shrinking education budget. The research demonstrates how school counselors are a valuable resource for these students who are at-risk of dropping out, and yet counselors are allowed less and less time to help these students because of growing student caseloads and the growing amount of non-guidance related tasks that they are asked to assume.

Chapter 3: Methodology

Introduction

This chapter will contain information describing Institutional Review Board approval, how the sample was selected for this study, a description of the sample, how the data was collected, how the data was analyzed, and limitations of the method used.

Selection and Description of Sample

Institutional Review Board for the Protection of Human Subjects concluded that the study was exempt from review under category 4 of the Federal Exempt Guidelines. Category 4 of the Federal Exempt Guidelines exempts research from review by the Institutional Review Board for the Protection of Human Subjects if the research involves collecting or studying existing data or records. The researcher used data which was archived on the Wisconsin Department of Public Instruction website on public high schools in Wisconsin for the 2003-2004 school year. The sample was created from this population by using a systematic sampling technique from a list of the Wisconsin public high school population displayed in random order in a Microsoft Excel spreadsheet. To create the sample, the researcher used a systematic sampling technique by beginning in a random entry on the list from the Wisconsin Department of Public Instruction website and then including every fifth high school on the list in the sample for the study. Using this technique, a sample of 86 schools was selected from the population of 424 schools in Wisconsin. The data of these schools was displayed in a Microsoft Excel spreadsheet.

All alternative, charter, and private high schools were excluded from the population from which the sample of 86 schools was created. All of the sample schools were high schools, however, not all of the sample were high schools with only grades 9 through 12 in the building. The sample contains school buildings with grades 9 through

12, 7 through 12, and 6 through 12. The sample inlcuded high schools from all types of areas, including small rural areas, intermediate size cities, and metropolitan areas; therefore, schools in both rural and urban areas were included in the sample.

Instrumentation

Microsoft Excel was used to organize the data for the study. This data included the student population, school counselor population, dropout rate, student/counselor ratio, and school name for each school selected to be in the sample. The SPSS© program was used to analyze the data. SPSS© is predictive analytics software that is used to statistically analyze data. The researcher used this program to analyze the student/counselor ratio data and the dropout rate data to determine the relationship between the two variables.

Data Collection

Data was collected for this study through the use of archived data of all of the schools in Wisconsin, which can be found on the Wisconsin Department of Public Instruction website. This website contains data on student population, staff populations, attendance and dropout rates, etc. for each school in Wisconsin for past school years. Using this archived data, the researcher collected data for the schools that were selected to be part of the sample. The data that was collected included student population, school counselor population, and dropout rates for each school in the sample. From the population data that was retrieved, a student/counselor ratio was created for each school by dividing the student population by the school counselor population. This number allowed the researcher to decipher the student/counselor ratio for each school of the sample. This ratio was recorded with the rest of the data on the spreadsheet.

Data Analysis

From the data of the sample, a mode and mean student/counselor ratio was calculated. This showed the researcher what the average student/counselor ratio of the sample of Wisconsin public high schools was (mean), along with the most common student/counselor ratio (mode). The researcher also recorded the range of student/counselor ratios from the sample of Wisconsin public high schools.

Using the SPSS© predictive analytics software the data was analyzed to determine if there was a significant relationship between the two variables of student/counselor ratio and dropout rate of the sample schools. The data was statistically analyzed using Pearson r which shows the correlation between variables. The two variables that were used in this calculation were the student/counselor ratio and the dropout rate of each of the schools in the sample. From this statistical manipulation, it was determined whether or not there was a relationship between the two variables under investigation, and if there was a relationship, whether the direction of the relationship was positive or negative.

Limitations

Limitations do exist with the method of this study. One limitation could be if data were missing for a school on the Wisconsin Department of Public Instruction website. If this were the case, missing schools would have no opportunity to be part of the sample, creating a flawed sample. Another possible limitation would be if the data the researcher used from the Wisconsin Department of Public Instruction website were incorrect. This would lead to incorrect results and also incorrect conclusions drawn by the researcher.

Chapter 4: Results

The purpose of this research was to determine whether or not there was a correlation between student/counselor ratios in a sample of Wisconsin public high schools and the dropout rates of the students in these schools, and if there was a correlation, to determine the directionality of the relationship. This research was performed by using preexisting data from the Wisconsin Department of Public Instruction website for the 2003-2004 school year. Data was collected from this website during January 2006.

Using the archived data on this website, data was collected for a sample of 86 Wisconsin public high schools in the areas of student population, counselor population, and dropout rate. From the student and counselor population data that was collected from the Wisconsin Department of Public Instruction website, the researcher calculated a student/counselor ratio for each of the sample schools by dividing the number of students in each of the sample schools by the number of counselors. This student/counselor ratio was then recorded for each school along with the other data collected from the Wisconsin Department of Public Instruction website in a Microsoft Excel spreadsheet.

The first of the 86 high schools sampled was Southwest High School of Greenbay. This school had a dropout rate of 1.613, 1,488 students and 5 counselors. The student population was divided by the counselor population to give the researcher a student/counselor ratio of 297.6.

The second school that was sampled was East High School of Wausau. This school had a dropout rate of 1.76, a student population of 1,307 and a counselor

population of 5. From the student and counselor populations, a student/counselor ratio was calculated of 261.4.

Auburndale High School of Auburndale was next to be investigated. This school had a dropout rate of .216, a student population of 463 and 1 counselor. The calculated student/counselor ratio was 463.

The fourth school that was sampled was Gilman High School of Gilman. This school had a dropout rate of 0, a student population of 248 and 1 counselor. The calculated student/counselor ratio was 248.

The fifth school that was sampled was Marshfield High School of Marshfield. This school had a dropout rate of .538, a student population of 1,487 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 371.75.

The sixth school that was sampled was Nekoosa High School of Nekoosa. This school had a dropout rate of .373, a student population of 536 and a counselor population of 2. From the student and counselor populations, a student/counselor ratio was calculated of 268.

The seventh school that was sampled was Rosholt High School of Rosholt. This school had a dropout rate of 1.498, a student population of 267 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 267.

The eighth school that was sampled was Tigerton High School of Tigerton. This school had a dropout rate of 0, a student population of 198 and a counselor population of

1. From the student and counselor populations, a student/counselor ratio was calculated of 198.

The ninth school that was sampled was Rhineland High School of Rhineland. This school had a dropout rate of 3.529, a student population of 1,190 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 297.5.

The tenth school that was sampled was Hurley High School of Hurley. This school had a dropout rate of .275, a student population of 364 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 364.

The eleventh school that was sampled was Park Falls High School of Wausau. This school had a dropout rate of 0, a student population of 343 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 343.

The twelfth school that was sampled was Flambeau High School of Tony. This school had a dropout rate of 2.715, a student population of 221 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 221.

The thirteenth school that was sampled was Lincoln High School of Alma Center. This school had a dropout rate of .543, a student population of 184 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 184.

The fourteenth school that was sampled was Cashton High School of Cashton. This school had a dropout rate of .368, a student population of 272 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 272.

The fifteenth school that was sampled was Holmen High School of Holmen. This school had a dropout rate of .43, a student population of 931 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 310.3.

The sixteenth school that was sampled was Brookwood High School of Ontario. This school had a dropout rate of 0, a student population of 338 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 338.

The seventeenth school that was sampled was Kickapoo High School of Viola. This school had a dropout rate of 0, a student population of 231 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 231.

The eighteenth school that was sampled was North High School of Eau Claire. This school had a dropout rate of .394, a student population of 1,522 and a counselor population of 5. From the student and counselor populations, a student/counselor ratio was calculated of 304.4.

The nineteenth school that was sampled was Cadott High School of Cadott. This school had a dropout rate of .643, a student population of 311 and a counselor population

of 1. From the student and counselor populations, a student/counselor ratio was calculated of 311.

The twentieth school that was sampled was Durand High School of Durand. This school had a dropout rate of .885, a student population of 452 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 452.

The twenty-first school that was sampled was Holcombe High School of Holcombe. This school had a dropout rate of .645, a student population of 155 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 155.

The twenty-second school that was sampled was Osseo-Fairchild High School of Osseo. This school had a dropout rate of 1.948, a student population of 308 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 308.

The twenty-third school that was sampled was Stanley-Boyd High School of Stanley. This school had a dropout rate of .769, a student population of 390 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 390.

The twenty-fourth school that was sampled was Ashland High School of Ashland. This school had a dropout rate of 1.132, a student population of 795 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 265.

The twenty-fifth school that was sampled was Bruce High School of Bruce. This school had a dropout rate of 1.31, a student population of 229 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 229.

The twenty-sixth school that was sampled was Grantsburg High School of Grantsburg. This school had a dropout rate of 1.613, a student population of 310 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 310.

The twenty-seventh school that was sampled was Northwood School of Minong. This school had a dropout rate of .532, a student population of 188 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 188.

The twenty-eighth school that was sampled was Solon Springs School of Solon Springs. This school had a dropout rate of 0, a student population of 168 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 168.

The twenty-ninth school that was sampled was Weyerhaeuser High School of Weyerhaeuser. This school had a dropout rate of 0, a student population of 84 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 84.

The thirtieth school that was sampled was North High School of Appleton. This school had a dropout rate of .235, a student population of 1,702 and a counselor

population of 5. From the student and counselor populations, a student/counselor ratio was calculated of 340.4.

The thirty-first school that was sampled was Fond du Lac High School of Fond du Lac. This school had a dropout rate of 1.984, a student population of 2,319 and a counselor population of 5. From the student and counselor populations, a student/counselor ratio was calculated of 463.8.

The thirty-second school that was sampled was Little Wolf High School of Manawa. This school had a dropout rate of .635, a student population of 315 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 315.

The thirty-third school that was sampled was Omro High School of Omro. This school had a dropout rate of 2.145, a student population of 373 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 373.

The thirty-fourth school that was sampled was Waupaca High School of Waupaca. This school had a dropout rate of .226, a student population of 886 and a counselor population of 2. From the student and counselor populations, a student/counselor ratio was calculated of 443.

The thirty-fifth school that was sampled was Central High School of Brookfield. This school had a dropout rate of .075, a student population of 1,342 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 335.5.

The thirty-sixth school that was sampled was Chilton High School of Chilton. This school had a dropout rate of 1.486, a student population of 471 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 471.

The thirty-seventh school that was sampled was Hartford High School of Hartford. This school had a dropout rate of 2.234, a student population of 1,701 and a counselor population of 5. From the student and counselor populations, a student/counselor ratio was calculated of 340.2.

The thirty-eighth school that was sampled was Dodgeville Middle/High School of Juneau. This school had a dropout rate of .27, a student population of 371 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 371.

The thirty-ninth school that was sampled was Mayville High School of Mayville. This school had a dropout rate of 1.143, a student population of 525 and a counselor population of 2. From the student and counselor populations, a student/counselor ratio was calculated of 262.5.

The fortieth school that was sampled was Oostburg High School of Oostburg. This school had a dropout rate of 0, a student population of 313 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 313.

The forty-first school that was sampled was South High School of Sheboygan. This school had a dropout rate of 2.355, a student population of 1,571 and a counselor

population of 6. From the student and counselor populations, a student/counselor ratio was calculated of 261.8.

The forty-second school that was sampled was Stockbridge High School of Stockbridge. This school had a dropout rate of 0, a student population of 89 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 89.

The forty-third school that was sampled was Watertown High School of Watertown. This school had a dropout rate of 3.448, a student population of 1,479 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 369.75.

The forty-fourth school that was sampled was Elkhorn Area High School of Elkhorn. This school had a dropout rate of .253, a student population of 791 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 263.6.

The forty-fifth school that was sampled was Hillcrest High School of Kenosha. This school had a dropout rate of 17.647, a student population of 51 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 51.

The forty-sixth school that was sampled was Norris High School of Mukwonago. This school had a dropout rate of 0, a student population of 94 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 94.

The forty-seventh school that was sampled was Central High School of Salem. This school had a dropout rate of .969, a student population of 1,135 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 263.75.

The forty-eighth school that was sampled was Waterford High School of Waterford. This school had a dropout rate of .095, a student population of 1,058 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 264.4.

The forty-ninth school that was sampled was Williams Bay High School of Williams Bay. This school had a dropout rate of .581, a student population of 172 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 172.

The fiftieth school that was sampled was North Division High School of Milwaukee. This school had a dropout rate of 19.239, a student population of 894 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 894.

The fifty-first school that was sampled was Shorewood High School of Shorewood. This school had a dropout rate of .284, a student population of 703 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 243.3.

The fifty-second school that was sampled was Marshall High School of Milwaukee. This school had a dropout rate of 4.667, a student population of 1,350 and a

counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 337.5.

The fifty-third school that was sampled was Greenfield High School of Greenfield. This school had a dropout rate of .842, a student population of 1,187 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 395.6.

The fifty-fourth school that was sampled was Hale High School of West Ellis. This school had a dropout rate of .972, a student population of 1,337 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 334.25.

The fifty-fifth public school that was sampled was Saint Francis High School of Saint Francis. This school had a dropout rate of 0, a student population of 532 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 532.

The fifty-sixth school that was sampled was Argyle High School of Argyle. This school had a dropout rate of 1.471, a student population of 136 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 136.

The fifty-seventh school that was sampled was Memorial High School of Beloit. This school had a dropout rate of 3.172, a student population of 1,797 and a counselor population of 5. From the student and counselor populations, a student/counselor ratio was calculated of 359.4.

The fifty-eighth school that was sampled was Darlington High School of Darlington. This school had a dropout rate of 0, a student population of 310 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 310.

The fifty-ninth school that was sampled was Evansville High School of Evansville. This school had a dropout rate of .421, a student population of 475 and a counselor population of 2. From the student and counselor populations, a student/counselor ratio was calculated of 237.5.

The sixtieth school that was sampled was Jefferson High School of Jefferson. This school had a dropout rate of 1.51, a student population of 596 and a counselor population of 2. From the student and counselor populations, a student/counselor ratio was calculated of 298.

The sixty-first school that was sampled was McFarland High School of McFarland. This school had a dropout rate of .785, a student population of 637 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 212.3.

The sixty-second school that was sampled was Mineral Point High School of Mineral Point. This school had a dropout rate of 0, a student population of 264 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 264.

The sixty-third school that was sampled was New Glarus Middle/High School of New Glarus. This school had a dropout rate of .301, a student population of 332 and a

counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 332.

The sixty-fourth school that was sampled was Richland Center High School of Richland Center. This school had a dropout rate of .737, a student population of 543 and a counselor population of 2. From the student and counselor populations, a student/counselor ratio was calculated of 271.5.

The sixty-fifth school that was sampled was Sun Prairie High School of Sun Prairie. This school had a dropout rate of 1.16, a student population of 1,552 and a counselor population of 4. From the student and counselor populations, a student/counselor ratio was calculated of 388.

The sixty-sixth school that was sampled was Monona Grove High School of Monona. This school had a dropout rate of .233, a student population of 858 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 286.

The sixty-seventh school that was sampled was Boscobel High School of Boscobel. This school had a dropout rate of 0, a student population of 328 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 328.

The sixty-eighth school that was sampled was Lancaster High School of Lancaster. This school had a dropout rate of .234, a student population of 427 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 427.

The sixty-ninth school that was sampled was Wauzeka High School of Wauzeka. This school had a dropout rate of 0, a student population of 148 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 148.

The seventieth school that was sampled was Weston High School of Cazenovia. This school had a dropout rate of 0, a student population of 142 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 142.

The seventy-first school that was sampled was Markesan High School of Markesan. This school had a dropout rate of .313, a student population of 320 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 320.

The seventy-second school that was sampled was Poynette High School of Poynette. This school had a dropout rate of .867, a student population of 346 and a counselor population of 2. From the student and counselor populations, a student/counselor ratio was calculated of 173.

The seventy-third school that was sampled was Pioneer Westfield High School of Westfield. This school had a dropout rate of 2.412, a student population of 456 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 456.

The seventy-fourth school that was sampled was Clayton High School of Clayton. This school had a dropout rate of 1.739, a student population of 115 and a counselor

population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 115.

The seventy-fifth school that was sampled was Hudson High School of Hudson. This school had a dropout rate of .143, a student population of 1,397 and a counselor population of 5. From the student and counselor populations, a student/counselor ratio was calculated of 279.4.

The seventy-sixth school that was sampled was Saint Croix Falls High School of Saint Croix Falls. This school had a dropout rate of 0, a student population of 367 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 367.

The seventy-seventh school that was sampled was Crivitz High School of Crivitz. This school had a dropout rate of .631, a student population of 317 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 317.

The seventy-eighth school that was sampled was Goodman High School of Goodman. This school had a dropout rate of 0, a student population of 103 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 103.

The seventy-ninth school that was sampled was Menominee Indian High School of Keshena. This school had a dropout rate of 5.225, a student population of 391 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 391.

The eightieth school that was sampled was Niagara High School of Niagara. This school had a dropout rate of 0, a student population of 262 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 262.

The eighty-first school that was sampled was Pulaski High School of Pulaski. This school had a dropout rate of 1.164, a student population of 1,117 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 372.5.

The eighty-second school that was sampled was Wausaukee High School of Wausaukee. This school had a dropout rate of .787, a student population of 254 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 254.

The eighty-third school that was sampled was Gibraltar High School of Fish Creek. This school had a dropout rate of .889, a student population of 225 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 225.

The eighty-fourth school that was sampled was Reedsville High School of Reedsville. This school had a dropout rate of .73, a student population of 274 and a counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 274.

The eighty-fifth school that was sampled was Washington Island High School of Washington Island. This school had a dropout rate of 0, a student population of 39 and a

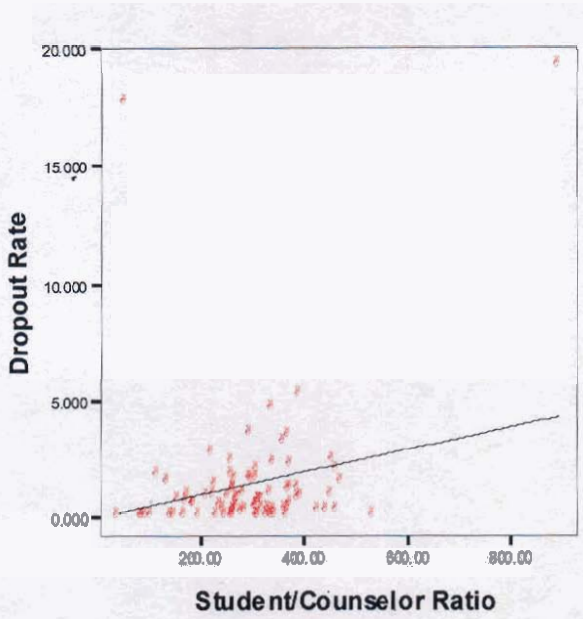
counselor population of 1. From the student and counselor populations, a student/counselor ratio was calculated of 39.

The eighty-sixth school that was sampled was Ashwaubenon High School of Green Bay. This school had a dropout rate of 1.082, a student population of 1,109 and a counselor population of 3. From the student and counselor populations, a student/counselor ratio was calculated of 369.6.

Once data was collected and calculated for the 86 sample schools, the student/counselor ratios and the dropout rates of the sample schools were statistically analyzed using SPSS©. SPSS© is predictive analytics software that is used to analyze data for statistical significance. The data was analyzed using the Pearson r correlation to determine whether or not there was a relationship between the two variables, and if there was a relationship, whether the relationship was positive or negative.

Figure 1 depicts a scatter plot of the relationship between student/counselor ratios and dropout rates for the 86 sample high schools, including a regression line that best fits the data points. The x-axis is the variable of student/counselor ratio and the y-axis is the dropout rate variable. A data point is marked for each of the sample schools. As seen from the graph, there is an positive correlation between these two variables, shown by the general upward trend of the data points and the upward movement of the regression line. There are two outlier data points in the graph. One of these outliers is Hillcrest High School of Kenosha which has a dropout rate of 17.647 and a student/counselor ratio of 51. The other outlier point is North Division High School of Milwaukee, which has a dropout rate of 19.239 and a student/counselor ratio of 894.

Figure 1. Scatterplot and regression of student/counselor ratio and dropout rate data of sample.



The statistical analysis that was used to manipulate the data was a Pearson r correlation with an alpha level of .01. A one-tailed test of significance was used because the researcher had an expectation of the direction of the correlation. The correlation of student/counselor ratio and dropout rate was statistically significant at the .01 level, (*Pearson r* = .31, $p < .01$). This significant correlation means that as the student/counselor ratio increases ($M = 292.69$, $SD = 120.53$) in the sample of Wisconsin public high school, the dropout rate ($M = 1.29$, $SD = 2.86$) of that school tends to increase.

Based on the data of the sample population of 86 Wisconsin public high schools, dropout rates of the sample schools ranged from .0 to 19.24, with an average dropout rate of 2.86. The student/counselor ratio ranged from 39.00 to 894.00, with an average ratio

of 292.69. The average student population of the sample high schools was 620. This average ranged from a student population of 39 to 2,319. The average counselor population of the sample was 2 counselors per school, ranging from 1 counselor to 6 counselors per school.

Chapter V: Discussion

This study looked at the demographics of a sample of 86 public high schools in Wisconsin. The 86 schools were chosen from the population of 424 schools using a systematic sampling technique. From the data provided on the Wisconsin Department of Public Instruction website, demographic data for each of the sample schools was collected. This data included student population, counselor population, and dropout rates for the sample schools. From the student population and counselor population data, a third variable was created by dividing the student population from the counselor population for each of the sample schools, resulting in a student/counselor ratio for each sample school.

The student/counselor ratio and dropout rate data were statistically analyzed using SPSS© to test the two variables for a significant correlation. Pearson r was the statistical test used to analyze the data for a correlation. From the statistical analysis of this data, it was shown that there was a significant positive correlation between student/counselor ratios and the dropout rates of the sample of Wisconsin high schools at the .01 level. This result means that as the student/counselor ratio of the sample schools increases, the dropout rate of the sample schools also tends to increases.

Limitations

The first possible limitation of this study concerns state compulsory attendance laws. Children in the state of Wisconsin are mandated to attend school until they turn 18 years old or until they graduate. This law could affect the dropout rates in Wisconsin since by the age of 18 many students are very near to graduating or have already graduated, unless the student is credit deficient. Prior to conducting this study, it may

have been assumed that the dropout rates of Wisconsin schools would have been very low or practically nonexistent since the state compulsory attendance law requires children to attend school until an age that is associated with graduation. If the dropout rates were low, this would have eliminated a need for this research.

However, this was not what was found by the researcher. Despite the state compulsory attendance age being 18 years old, the vast majority of the sample schools still had students dropping out prior to graduation. This was determined by the data showing that 76.7% sample schools had a dropout rate greater than zero, where zero implies that no students dropped out of that school that year.

Another significant limitation of this study was due to the data that was available on the Wisconsin Department of Public Instruction website. The website contained all of the information required for the research of the sample schools, including dropout rates, student populations, and counselor populations. However, there was a discrepancy between the years that the most recent data was attained for dropout rates and student populations compared to the most recent data for counselor populations. The most recent data that the website contained on school dropout rates and student populations was from the 2003-2004 school year. However, the school counselor population data is updated monthly, so this data was current for the 2005-2006 school year. There was no archived older data on school counselor populations, so the data used for the study came from two different school years.

This is an obvious limitation to the study because since the data comes from two different school years, the significant correlation of the two variables could be inaccurate. There is a two year discrepancy between the variables. During that amount of time, the

counselor population could have been affected by more counselors being hired or positions being eliminated or counselors leaving the school. The population of the students could have increased or decreased, or the dropout rate could have fluctuated during this time period. In other words, this major limitation affects the credibility of the significant findings of this study.

The last limitation of this study was due to a lack of information describing whether a counselor position was full-time. The Wisconsin Department of Public Instruction lists how many counselors are employed in a school, however, information is not listed on the website about whether the employees are full-time or part-time employees. This information would have an effect on the current study. If a counselor is actually employed half-time at a school of 50 students, the student/counselor ratio would not actually by 50 to 1 or 50, but 50 to ½ or 100.

Recommendations

The researcher recommends that this research be duplicated with all variables coming from the same school year. The current study resulted in statistical support for decreasing student/counselor ratios in order to decrease dropout rates. However, because of the discrepancy in the years from which the data came from, the credibility of the findings is challenged. By duplicating the study with data from only one school year, more credible findings could be discovered.

Another recommendation would be to research the employment status of the counselor populations for the sample schools. It is vital to the research to determine whether the counselors are employed full-time in the school or part-time, and if part-time,

how many hours they are contracted to work in a week. Only with this information can the researcher accurately calculated student/counselor ratios for the sample schools.

Another recommendation would be to duplicate this study using data from other states. The current study only researched high schools in Wisconsin. The results could be different for other states. However, if the results were similar to this study, this would further support the hypothesis that student/counselor ratios are positively correlated with dropout rates.

Conclusions

The current study did find a significant correlation between student/counselor ratios and dropout rates in Wisconsin public high schools. This finding is consistent with the available qualitative research. Barton (2005) suggested that counselors can affect students who are at-risk of dropping out by providing needed social support and services. This research showed that schools that have lower student/counselor ratios enable students to have more access to their counselor and the counselor's services, as described by the American School Counselor Association. This current finding was also supported by research that showed that availability of academic counseling assists students in forming educational goals and selecting courses, resulting in the students having better school performance (Georges, 1997). Higher school performance is associated with students staying in school (Lee & Burkam, 2001).

The findings of this research are important to the structure of high school staffing in Wisconsin. According to this research, by eliminating school counselors from high schools, the school could be directly affecting the dropout rates of the schools. School counselors are influencing students through their personal contacts and through the

services they provide. This is important for administrators to know as budgets keep getting cut and eliminating counselor positions looks like an easy way to save badly needed funds. Knowing that having appropriate student/counselor ratios can affect the dropout of schools is important in the battle against students dropping out prior to graduation.

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