

An Exploratory Study of Leadership Perspectives:
Underrepresented Populations and College Enrollment

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Scott Richard Wiens

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Nicola Alexander, Ph.D., Adviser

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Nicola Alexander

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**AN EXPLORATORY STUDY OF LEADERSHIP PERSPECTIVES:
UNDERREPRESENTED POPULATIONS AND COLLEGE ENROLLEMENT**

SCOTT RICHARD WIENS

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Major Professor: Dr. Nicola Alexander, Associate Professor

ABSTRACT

College readiness refers to factors that both prepare students for college and that enable them to succeed in college. According to the research, the elements that lead to college readiness include institutional academic preparation (Conley, 2008; Pike & Saupe, 2002; Schomaker, 2011; Gewerts, 2009; Adelman, 2006; Rogers, 2010; Edmund & Berntein, 2010; Kim & Bragg, 2008; Ongaga, 2010), familial influences (Holcomb-McCoy, 2010; Martinez, Cortez, & Saetnz, 2013; Herndon & Hirt, 2004), and individual student characteristics (Komarraju, Ramsey, Rinella, 2012; Matthews-Armstead, 2002; Allen, 1999). When students are prepared for college, they are more successful and consequently persist; therefore, college readiness should ultimately lead to degree attainment.

The purpose of this study was two-fold: to examine perspectives of leaders in five Minnesota public schools where students attended college at rates higher than the state average and to address underrepresented student college enrollment rates in Minnesota. Leaders interviewed in this study included principals, assistant principals, deans, and

counselors. Schools were selected where the college-enrolling population and the underrepresented populations were both above state averages. Underrepresented populations for this study were defined as any non-White student groups and included all students qualifying for free or reduced lunch regardless of race or ethnicity. Data used in this study included interview data from school leaders at all study sites. This information was used to gain the perspectives of leaders from schools considered successful using the criteria guiding this study. Additionally, this analysis employed data from the Minnesota Department of Education to ascertain college enrollment and persistence rates of students from all study sites. This study examined factors that lead to college readiness and identified schools with leadership that sought to implement strategies that addressed the elements of college-readiness. The focus of the study was on perspectives of leaders within schools regarding college readiness factors and how each school addressed those characteristics.

This study concluded that leaders in the study sites sought to engage all students in rigorous courses through flexible, open access to advanced programming. School leaders also enlisted the use of programs that taught students skills needed to navigate both advanced course work and post-secondary systems in an attempt to make transitions seamless. The education leaders in the study sites also sought to address key elements of college readiness. That is, school leaders fostered schools that were inclusive and sought to engage families and mold key student attributes, factors that other practitioners often consider outside of the school's control.

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CHAPTER 1

Introduction

In the current educational system in the United States, not all students are prepared for the rigors of college. In a global society, however, post-secondary educational attainment is essential (O'Brien, 2011). Likewise, there is a correlation between individuals' income levels and college and graduate degrees. Individuals without some post-secondary education have limited employment opportunities. According to 2010 United States Census Bureau data, individuals from the ages of 21 and 64 years of age earned an average salary of \$32,711. Those with only a high school degree averaged \$27,351; however, those with a bachelor's degree earned an average annual salary of \$42,877. While income disparity exists based on educational attainment, educational attainment disparity also exists among racial and ethnic groups. According to the 2010 U.S. Census Bureau, for persons 25 or older, the college graduation rate for Whites was 30.3%, while for Blacks and Latinos it was only 19.8% and 13.9%, respectively. These societal conditions lead to socioeconomic inequities and can be seen as problems that can be addressed through education. This study seeks to examine how public schools can address, and remedy these disparities.

According to O'Brien (2011), the role of public K-12 education is to prepare citizens for the workforce and for further training and education in a post-secondary setting. O'Brien concluded that students must graduate from public schools prepared for college and the workforce. This study asserted the importance of both college-readiness and school attendance, stating that public schools must provide a rigorous educational setting giving all students the possibility of a college education.

A report released by ACT in 2008, however, stated that fewer than two in ten eighth grade students nationally are on target to be ready for college-level work by high school graduation (ACT, 2008). Further, according to McCabe (2000), 41% of students entering community college and 29% of all students entering college were underprepared in at least one of the basic subjects of reading, writing, or mathematics. This lack of academic preparation also resulted in a lack of readiness for college entrance examinations, a tool that colleges use to measure college readiness. When admitting students, colleges examine curricular preparation and selection as well as test score achievement.

Purpose Statement and Research Questions

The purpose of this study is two-fold, first, to examine leadership in schools that have been successful in preparing and sending students to college and, second, to focus on successful schools with significant underrepresented populations. Schools used in this study were public schools in Minnesota, a state that has demonstrated significant achievement disparity between White and non-White student populations. According to the data released by the Minnesota Statewide Longitudinal Education System, the average 2013 ACT composite score in Minnesota was 22.84. The average score for White students was 23.42, while it was 18.23 for Black students, 19.9 for Hispanic students, 20.99 for Asian students, and 20.53 for American Indian students. This achievement gap illustrates the need for this study and provides grounding for the assertion that not all populations are being adequately prepared for college. In addition to the achievement gap between White and non-White students, this study also focuses on schools that serve higher than average proportions (i.e., 38.5%) of Minnesota students

from socioeconomically disadvantaged backgrounds that qualified for free or reduced lunch in 2013.

This study examined how leaders of successful schools addressed elements of college readiness, specifically how leaders developed college readiness programming and worked with families and students to prepare students for college. Additionally, an emphasis on leaders from schools with significant underrepresented populations addressed the needs and programming for those populations specifically. The following questions guided this study:

1. How do leaders of successful high schools address cognitive factors and academic programming for underrepresented populations?
2. How do school leaders perceive the function of non-cognitive factors in college readiness programming for underrepresented populations?
3. How do leaders of successful high schools establish and maintain relationships with families of students from underrepresented populations?

Background of the Study

This study is grounded in an examination of factors that educational leaders perceived resulted in student preparedness for postsecondary studies. The elements of school programming, familial engagement, and student characteristics were elements used to define college readiness. An analysis of how schools addressed these elements guided this work. Leaders of public schools sending large numbers of students to college were interviewed for their perceptions on the implementation of college readiness factors in their schools. An initial examination of how high schools prepared students for college was conducted with a focus on underrepresented populations. In this qualitative study,

school leaders in Minnesota were interviewed. The schools selected had higher underrepresented populations than the state averages and sent students to college at a higher rate than state averages. School data was obtained largely through the Minnesota Department of Education.

Significance of the Study

The research on college readiness points to three main factors for student preparation – familial engagement, personal characteristics, and high school preparation. Effective school leadership should understand the connections among these factors. An analysis of leadership practices, as well as how schools work within the parameters of college readiness, was examined focusing on the interactions and connections of college readiness factors. Further, by examining the perceptions of leaders of successful schools, the study can provide insight on how educators can contribute effectively to students' post-secondary readiness and success, especially for underrepresented populations.

Overview of Study

Chapter one of this study provides an overview of the problem being examined. A brief explanation of the exploratory study is provided, along with a description of the background, significance of the research, and a definition of key terms. The chapter closes with a glossary of terms.

Chapter two provides a detailed review of the literature, examining the key components of college readiness, i.e., school programming, familial engagement, and student characteristics, as well as an examination of gaps in the literature.

Chapter three discusses the research methodology that will be used to collect the data supporting the study. Research design, methods, participants, reliability, validity,

data analysis, and information on the study pilot will be detailed to provide a rich overview of the researcher's process and methodology.

Chapter four discusses findings for the schools studied based upon the researcher's observations and participant interviews. An overview of the perceptions of school leaders from five institutions is presented with an analysis of the data.

Chapter five provides a summary and conclusion to the study. Possible limitations of the study as well as recommendations for further research are discussed.

Glossary of Terms

Cognitive Academic Skills: The academic skills necessary for post-secondary success. The academic preparation a student receives defines the cognitive skills necessary for college success (Allen, 1999). According to Conley (2010), one of the best preparatory areas leading to college readiness is a comprehensive, rigorous curriculum.

College: Any post-secondary training, education, or degree beyond high school

College Access: This refers to a student's opportunity to enroll in or access post-secondary opportunities and institutions (Yun & Moreno, 2006).

College Persistence: This refers to a student's ability to continue in, have success at, and ultimately gain a diploma from a post-secondary setting (Penrose, 2002).

College Readiness: College readiness refers to a student's preparation for and ability to be successful at college level work (Conley, 2010).

Dual Enrollment/concurrent enrollment: High school programs where students receive high school and college credit during enrollment in such courses (Ongaga, 2010).

Non-cognitive Skills: Non-cognitive skills are non-academic skills that affect thinking and reasoning; they include an individual's personality and temperament

(Sommerfeld,2011). They also include factors of discipline, determination, and self-confidence (Komarraju, 2012).

Underrepresented Populations: Underrepresented populations are those not represented at rates that are similar to their population's rates in the broader society. For the purposes of this paper, this population refers to non-White populations vis à vis their college attendance and to populations who meet federal socioeconomic guidelines for free or reduced school lunch programs.

CHAPTER 2

Literature Review

Conley (2010) wrote extensively on college readiness defining how and what schools must do to prepare students for college. The literature on the primary components of college readiness is robust. Nevertheless, while various authors have researched and written about specific elements of college readiness, there is little written that synthesizes the elements of college readiness creating a model of the factors of readiness tying them together into a cohesive whole.

College readiness components include academic programming provided by educational institutions (Allen, 1999, Conley, 2010, Pike & Saupe, 2002), the role of familial inputs (Holcolm-McCoy, 2010, Herdon & Hirt, 2004, Martinez, et al, 2013), and student innate characteristics (Herdon & Hirt, 2004). Most studies have focused on one of these primary elements. In the review of the literature, these three components are better understood when tied together, however. This chapter outlines the three underlying factors of college readiness and provides a framework that schools can use when examining the elements used to prepare students for post-secondary endeavors.

Conceptual Map of College Readiness and Systemic Relationships

College readiness refers to a student's ability to be successful in college level work. There are three key factors that influence the preparedness of students: (1) influences of schools and districts, (2) familial background, and (3) personal characteristics, both learned and innate. These factors emerge as the most common and influential preparatory indicators for students' collegiate success; their relationships are illustrated in Figure 1.

It can be seen that these factors not only directly affect college readiness, but they also indirectly influence students' post-secondary access and success as they navigate collegiate settings. The primary focus of this review is on college readiness and its intersection with both college access and college persistence. Detailed definitions of the key factors influencing student preparedness, as well as how those factors influence student access and persistence will also be discussed.

Macro View of College Readiness

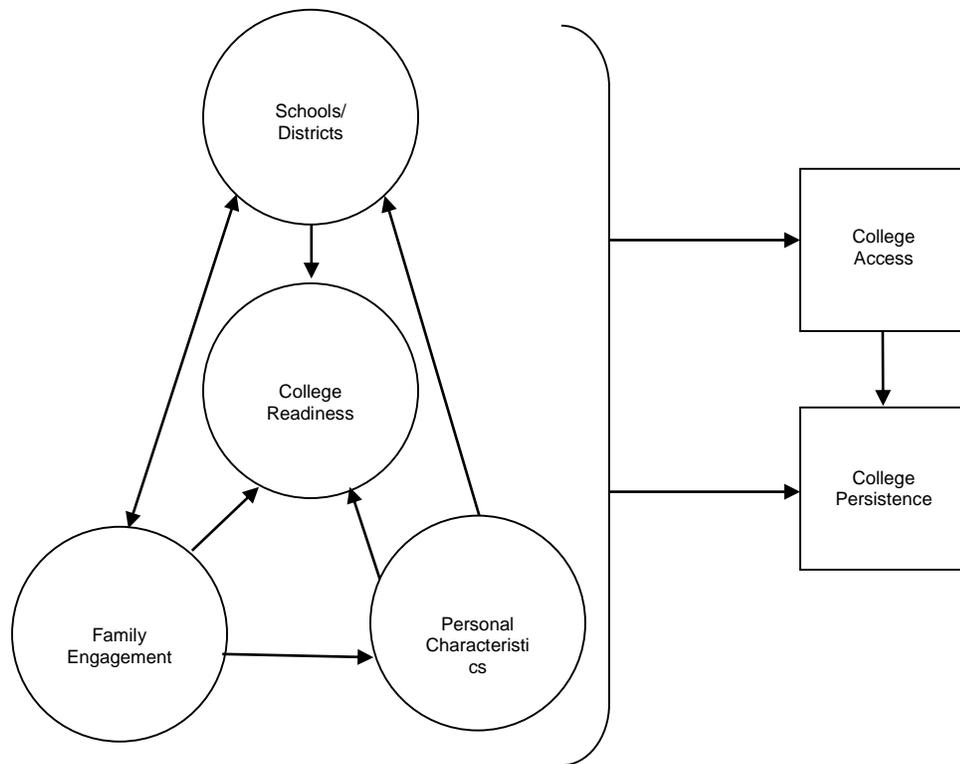


Figure 1: College readiness and systemic relationships

Relationships between Readiness Factors and Access and Persistence

As stated, college readiness is affected by a number of factors. According to the research, some of the most influential and interrelated considerations are the school system that an individual attends, family influences, and personal characteristics. In their study of first-generation college students, Byrd and MacDonald (2005) provided one of

the few models in the literature tying together the factors of college readiness stating that all three were important and that all are related. Researchers typically treat them as exogenous factors that independently and jointly influence college preparedness. Research by Coleman, et al. (1996) and other scholars suggest that college preparedness are largely influenced by family attributes both directly and through the effects of family background on schooling and the individual characteristics of students. Students with more preparation for college will have greater opportunity for college access, which is important for persistence in college.

Family Engagement

Family has a strong influence on student college readiness. Holcolm-McCoy (2010) indicated that families influence the development of students' educational goals and success through parental involvement, beliefs, and attitudes. His study tied the role of schools and parents together in student post-secondary planning and success and described the importance of working with parents on student post-secondary goals. Moreover, research has indicated that parental involvement and college enrollment vary across racial/ethnic groups (Perna & Titus, 2005).

Schools and Districts

School systems refer to the institutions that serve students in grades K-12. Research supports the importance of schools in student preparation for post-secondary work but further indicates that schools are not always successful. For example, Conley (2010) noted that not all high schools prepare all students for post-secondary environments and often have insufficient programs that focus on college preparation. Similarly, an American College Testing (ACT) study concluded that schools lack focus

on college preparation and cause most students not to be prepared for college. When examining these assertions and studies, however, it was not clear if the reason for students' lack of preparation was due to individual school programming, student effort, student choice or other factors.

Schools play a large role in providing access for students to collegiate settings (Yun & Moreno, 2006). While academic preparation provided by schools is an important factor in college readiness (Allen, 1999, Conley, 2010, Pike & Saupe, 2002), it does not play as large a role on college readiness as family background. Family support contributes to college readiness (Holcolm-McCoy, 2010, Herdon & Hirt, 2004, Martinez, et al, 2013) and plays a major role in shaping student individual characteristics (Herdon & Hirt, 2004). Notwithstanding, education leaders can influence more directly what happens in schools than in families. Thus, establishing strong relationships between families and schools can be helpful in improving student preparation (Holcomb-McCoy, 2010), and school-family connections are seen as important partnerships in supporting the success of students (Martinez, Cortez, & Saetnz, 2013).

Individual Characteristics

While school and familial influences play important roles in college readiness, personal characteristics, whether intrinsic or learned, influence student readiness as well. Some of the individual characteristics influencing college readiness include non-academic factors (Sommerfeld, 2011), cognitive and non-cognitive predictors (Komarraju, Ramsey, Rinella, 2012), motivation and persistence (Allen, 1999), as well as resiliency and self-perception (Matthews-Armstead, 2002).

The relationship between family background and individual characteristics is also tied intrinsically to family and support (Allen, 1999). Individual characteristics such as motivation and resilience (Allen, 1999) also contribute to school success. College readiness factors ultimately influence college access (Yun & Marino, 2006), which, in turn, influences college success and persistence (Reason, Terenzini, & Domingo, 2006).

College Access

College preparation influences college access. Students' access to post-secondary settings is at least partially determined by what they learn and how they perform in high school (Yun & Moreno, 2006). In their study of non-White students in California, for example, Yun and Moreno (2006) discussed how non-White students were at a disadvantage beginning in kindergarten through high school because a lack of preparation in the early grades ultimately resulted in a lack of access to higher education. Yun and Moreno failed to consider in their study is that students who do not graduate from high school can also gain access to college through the GED. In such cases, preparation would involve not only school experiences but life experiences as well. Moreover, preparation is not the only factor limiting access; financial constraints also play a role.

College Persistence

While access to post-secondary options is important, student success and persistence is imperative. Persistence refers to a student's ability to continue and succeed in a post-secondary educational setting and to work towards degree attainment. The first year of college is important for students both for academic gains and for retention. According to a 2002 ACT study, the typical American college or university loses a quarter of its new students before they start their second year. Loss rates are even higher

among low-income and historically underrepresented student populations (Reason, Terenzini, & Domingo, 2006).

Researchers have pointed to several reasons students do not persist in college. Some scholars asserted that high schools are not preparing students for the rigors of college (Roth, Crans, Carter, Ariet, & Resnick, 2000). Other researchers pointed to post-secondary institutions not adequately working with high schools to bridge educational gaps (Smith, 2006). Regardless of who is responsible, a consistent concern raised is the lack of equity in college preparation and how some populations are not being served well (Callahan, 2005; Katsinas & Bush, 2006).

Measuring College Readiness

An understanding of factors leading to college readiness is important, and knowledge of how to assess and measure readiness is essential for educational leaders. College readiness refers to both a student's preparation for and ability to be successful at college level work. Conley (2008) described four indicators of college readiness: (1) cognitive strategies, (2) content knowledge, (3) academic behaviors, and (4) contextual skills and knowledge. Roderick, Nagaoka, and Coca (2009) agreed with Conley but asserted that college readiness goes beyond Conley's indicators to include skills in four areas: (1) content knowledge and basic skills, (2) core academic skills, (3) non-cognitive or behavioral skills, and (4) college knowledge. In addition to college readiness indicators, performance indicators are often used to measure college readiness and include grade point average, high school course work, college entrance test scores, and performance on achievement examinations. Further, Roderick, Nagaoka, and Coca (2009) moved beyond the skills outlined by Conley and implied that both an

understanding of systems and skills are necessary for college success. These skills include a range of behaviors that reflect greater student self-awareness, self-monitoring, and self-control. Some examples include study skills, work habits, time management, help-seeking behavior, and social problem-solving skills. Additionally, college-readiness includes knowledge of college systems and procedures, which enable students to navigate the admissions and financial aid processes and the ability to navigate successfully academic and social demands of college.

In an examination of college readiness pertaining to underrepresented populations, Byrd and MacDonald (2005) concurred with elements of previous studies; however, they went beyond the readiness factors of academic skills to encompass factors more difficult to quantify such as student background and self-concept. In a qualitative study using phenomenological interview methodology, Byrd and MacDonald (2005) interviewed eight first-generation students over the age of 25 who earned an associates degree from a community college and transferred to a small urban university in the Pacific Northwest. Participants' responses were divided into three categories: (1) skills and abilities perceived as important for college readiness; (2) background factors and life experiences that contribute to college readiness; and (3) non-traditional student self-concepts.

Each of the respondents' three categories was further divided into two to four sub-categories. The sub-categories of college readiness skills and abilities included (1) academic skills, specifically reading, writing, math, technology, communication, and study skills, (2) time management skills, (3) goal setting skills, and (4) self-advocacy skills. The sub-categories of background factors included: (1) family factors, (2) career

influences, (3) financial concerns, and (4) college preparation. The sub-categories of non-traditional student self concepts identified participants' sense of identity as college students navigating the culture of college. These included (1) self-concept, and (2) an understanding of the college system and culture (Byrd & MacDonald, 2005).

The findings of this study indicated that the participants, who were first-generation students, perceived that their life experiences contributed to skills they perceived as critical for college success. These included skills learned from work and family such as time management, goal focus, and self-advocacy. These skills and abilities were more important to the participants' success than academic skills (Byrd & MacDonald, 2005). This study raises questions regarding the role of non-academic factors in college readiness and confounds previous studies. Specifically, the findings from Byrd and MacDonald raise questions on the role of life experiences in college-readiness. Moreover, it raised the possibility that non-academic factors could be more important than academic factors to success for first-generation students. Studies comparing college readiness indicators and non-traditional student concepts should be further developed.

Pike and Saupe (2002) stated that another important consideration of college readiness is the characteristics of the high schools from which these students graduated (hereafter referred to as sending schools). According to their study, high school characteristics, as well as the portion of students from a high school attending a college, can affect students' first-year grades and preparation levels. Students in this study were expected to have taken a college-preparatory curriculum and they earned an average ACT composite score of 25.6. Their average class percentile rank was 75.5. The result of his

study indicated that test scores, high school performance, and courses taken during high school were related to students' first year grades. Specifically, rigorous courses and higher test scores correlated with college success. Measures of sending school characteristics and quality measurably improved the accuracy of first-year grade prediction, demonstrating high school performance and test scores as strong indicators of college readiness. Pike and Saupe's study concurs with Conley (2010) and Roderick, Nagaoka, and Coca (2009) stating that content knowledge is a key component in college readiness and that it was a primary responsibility of high schools to provide students with appropriate knowledge. When examining the importance of strong academic and curricular preparation, schools should examine how academic programming prepares students for post-secondary studies.

Familial Engagement and College Readiness

Consistent in the literature is the link between family engagement and student college readiness (Holcolm-McCoy, 2010; Herdon & Hirt, 2004; Martinez Cortez, & Saenz, 2013). Parental involvement is essential but not always present when dealing with college readiness and planning (Holcolm-McCoy, 2010). For example, Holcolm-McCoy (2010) examined parental involvement, beliefs, attitudes, and activities of high school counselors in urban, high-poverty schools. She found that parental/school partnerships were important in post-secondary planning. In practice, however, there was demonstrably low parental involvement and a lack of opportunity for their involvement in most settings.

Families do not always feel schools provide them with the necessary information, even though schools are an important conduit for information about academic and career

opportunities (Martinez, et al, 2013). In a study of Latino parents in an impoverished southern Texas community, for example, Martinez, et al. (2013) concurred with Holcolm-McCoy (2010) stating that families rely on schools for both partnerships and information. This study was comprised of 22 parent participants who were divided into four focus groups. All participants were mothers with the exception of one father. All interviews were conducted in Spanish, the primary language of the respondents. Participants demonstrated a desire for information and access to post-secondary opportunities. This study indicated, however, that the parents often perceived that they received inadequate information. Participants also felt that schools failed to provide current college information and were not equitably or consistently disseminating college information, opportunities and support (Martinez, et al, 2013).

This study further supported the argument that underrepresented populations are disadvantaged when examining post-secondary opportunities due to their perception of a lack of information from schools. This study demonstrates the need for school/parent partnerships and family inclusion in students' education. The families involved in the study asserted that information about post-secondary options was not being adequately provided to them. The use of the Spanish language in this study lent credibility to the findings as the participants were better able to communicate in their native language. However, the focus group's gender composition demonstrated a lack of paternal involvement. More research into male parental involvement should be conducted in order to ascertain the role of male figures in the academic decisions made by Latino families.

Herndon and Hirt (2004) conducted research to examine the role that family played in the success of Black students. Students were enrolled in public universities in a

mid-Atlantic state, and both participants and their families were interviewed. Each student interview lasted approximately 60 to 75 minutes and was held in a conference room on the students' campus, and family members' interviews were conducted by telephone. All interviews were audio taped with participants' permission, and the unit of analysis was the comment.

The study examined family influences during three stages: precollege, early college, and late college. The precollege stage consisted of family influence and had three themes: (1) encouragement, which included financial, moral, and social support, (2) macro perspectives on race, which dealt with how families socialized students about race, their experiences with discrimination, and their perceptions of the larger American culture, and (3) motivation, which focused on what influenced students to pursue and persist in higher education. In the early college stage, students learned how to negotiate their environments examining their non-White status in a predominately White setting. In this stage, students also developed a sense of community with other Black students. Spiritual support was important, contributing to their ability to stay in school. Finally, in the late college stage, family influence extended beyond college. Family expectations of students were related to economic, social, and emotional investments. Because of the influence and importance of family, there was also a familial expectation that students would later serve as role models and mentors for other individuals. Additionally, this study demonstrated the importance of family influences in student decision making. Family influences consisted of encouragement as well as financial, moral, and ethical support. Other supports described included institutional supports, specifically academic, emotional, social, and financial help(Herndon & Hirt, 2004). As educational institutions,

it is important that schools provide ways in which students and families can access supports that will enable students to be successful in post-secondary settings. This study demonstrated the role of family engagement in college readiness and further highlighted the need for partnerships between schools and families as students are prepared for college.

School and Districts Influence on College Readiness

Student learning and preparation for college are inherently linked, and the role of school leadership in student readiness demonstrates a framework of interdependence with multiple players contributing to student learning (Wahlstrom, Seashore, Leithwood, and Anderson, 2010). This study shows leadership as central to learning and readiness. School leaders both influence and are influenced by a variety of factors including state and district leadership, students and families, teachers and school influences (i.e., school and classroom conditions).

The issue of college preparedness and the role of the high school in student preparation are seen throughout the literature. Conley (2010) stated that many students are eligible for college but are not ready for it. According to the college-preparatory standards established by ACT, in 2009 only 23% of students who took the ACT scored at a level that indicated college readiness (Gerwertz, 2009). Venezia and Jaeger (2013) supported Gerwertz's assertion noting differences between what high schools teach and what colleges expect. Gerwertz's assertion that too many high school students lack college readiness skills was supported by Jon L. Erickson, Vice President of ACT. Erickson indicated that there needed to be more focus on key standards that will prepare students for post-secondary studies. He found that students who took courses in the "core

curriculum”, which includes four years of English and three years of social studies, science, and math, typically score higher on the ACT (Gerwertz, 2009). In response to reports stating the need for a more rigorous curriculum, Venezia and Jaeger (2013) indicated a slight improvement in college readiness; however, despite slight improvements since 2009, only 25% of students met ACT college readiness benchmarks. When examining studies conducted by testing agencies, it is important to consider the authors of the studies. The interests of those reports that are completed by representatives of the agencies themselves could contain bias. Nonetheless, most colleges and universities rely on standardized test scores for admission, and the importance of the ACT and SAT cannot be denied.

While college readiness is multifaceted, common characteristics of college-readiness exist in the literature. Academic preparation, as measured by high school rank, affects academic performance in college nearly twice as much as familial background (Allen, 1999). Likewise, Allen (1999) concluded that academic performance in college contributed twice as much to college persistence as motivation. Allen’s findings are consistent with those of Pike and Saupe (2002) who concluded that courses taken in high school, in combination with test scores, were the best indicators of college readiness.

College preparation levels vary among schools, and it is worthwhile to examine processes in schools that are preparing students well. Conley (2010) studied schools that consistently prepared students for college and discussed the strategies employed by their institutions. In a study of 38 schools, Conley identified six major principles. First, schools must create and maintain a college-going culture within the school and create a core academic program that is aligned with and leads to college readiness by graduation. This

is a systemic concern that should be used to create both curricular and cultural changes within schools. Second, the senior year must have meaning and rigor. Without rigor during the final year of high school, students will not be prepared academically for college. Third, schools should assist students in gaining self management skills and expect students to use them. Fourth, in transitioning to the postsecondary level, schools must prepare students for the complexity of applying to college. This is especially needed for first-generation students. Fifth, high schools must address the means by which high school classes approximates more closely college expectations by creating assignments and grading policies in high school that are more aligned to college expectations. Sixth, schools should build partnerships with and connections to postsecondary programs and institutions (Conley, 2010).

As stated, one of Conley's primary readiness indicators is that of the alignment of high school curriculum with what is being taught at the college level. Successful schools should develop programming that corresponds with college expectations and gives clear indicators and performance standards of college readiness that measure students' initial level of performance as well as future growth (Roderick, Nagaoka, & Coca, 2009).

States throughout the country are employing various means to address gaps in college readiness. Texas, for example, is basing student assessments on college standards (Gwertz, 2009). Because of low college enrollment rates and high remediation rates, the Texas College and Career Readiness Standards and the Texas Essential Knowledge and Skills Standards were developed through collaboration between leaders in K-12 and higher education. Standards and assessments were developed to show both what students must master to graduate from high school and what students must know to thrive in

college. Each subject area defined college and career readiness standards identifying key content areas, organizing components, and performance expectations and indicators (Gerwertz, 2009).

Brockton High School, the largest public high school in Massachusetts, enrolls a population comprised primarily of non-White students at high poverty levels. In 2000, Brockton was one of the poorest performing schools in Massachusetts with a drop out rate of 33% and a state exit exam pass-rate of 25% in language arts and mathematics. Due to these statistics, Brockton implemented a program based on literacy (read, write, speak, reason) across curricular areas. The intent of this program was to increase graduation rates and test scores and to address college readiness. This program employed reading, writing, speaking, and reasoning skills across all subject areas and resulted in an improvement in test scores (Schmoker, 2011). This type of curricular program supports Conley's assertion that successful schools address core academic areas in the curriculum for college preparation (Conley, 2010).

A more common and widespread curricular offering seen in many schools is the implementation of advanced course offerings. In many schools, Advanced Placement and International Baccalaureate programs offer students college-level work within the high school setting. These curricular offerings are common practices that have been used and expanded for years. Additionally, dual enrollment/early college programs offer college credit in a high school setting. According to studies, dual enrolled students earn higher grades in college and are retained in college settings at higher rates than those who have not experienced a dual enrollment program. Such programs are becoming more widespread. Recent studies in New York and Florida indicated that participation in dual

enrollment programs led to greater enrollment and higher graduation rates in four-year post-secondary institutions. According to a study conducted at City University of New York (CUNY), dual enrollment programs lead to a higher likelihood of college graduation and a reduction in time of degree completion (Adelman, 2006). The results of this study support early college programs and student persistence.

Kim and Bragg (2008) supported the findings of the CUNY study and found that students who participated in dual and articulated credit programs had higher retention rates than those who did not. Like the CUNY study, the purpose of this study was to investigate how dual credit and articulated credit hours influenced college outcomes. The study tracked high school graduates over a four-year period, collecting data, using surveys and high school and community college transcripts. In the study, dual and articulated credit served as independent environmental variables. Dependent variables were placement tests in reading, writing and mathematics, as well as total credits earned excluding remedial courses. Additionally, control variables were used, including gender, high school percentile rank, Tech Prep participation, and high school course-taking. Finally, a statistical analysis was conducted to examine the effectiveness of dual and articulated credit programs. In this study, it was seen that students with dual and articulated credit showed greater readiness in reading and writing but lower readiness in mathematics (Kim & Bragg, 2008). A further examination and study on mathematics and college readiness should explore reasons behind a lack of achievement in mathematics.

As high schools adopt a variety of approaches addressing college readiness, it is unclear which programmatic strategy should be credited with improving college readiness among students. One example is that of Statesville High School in North

Carolina. College readiness growth at Statesville was measured using disaggregated performance data, which demonstrated growth and improvement in all student subgroups over four years as demonstrated on state end-of-year tests. Improvement and growth were seen in pass-rates from 57.7% in 2007 to 78.9% in 2010. While racial achievement gaps persisted among student groups, growth was seen in all student populations (Rogers, 2010).

Students began their high school experience at Statesville in a program designed to aid in transition from middle school to high school. Once in high school, Statesville students continued programming designed to lead to successful transition to college using a variety of programs including Freshman Academy, smaller homerooms, and Freshmen Achieving Successful Transition (FAST) Camp. As a Gaining Early Access and Readiness through Undergraduate Preparation (GEAR UP) school, Statesville also used Response to Intervention (RTI), senior mentors, community outreach programming, and a parent alliance group. Additionally, the school implemented college commitment days and college readiness workshops for (Rogers, 2010). While success was achieved at Statesville, it is unclear which strategies were responsible for academic growth.

One practice becoming more prevalent in high schools is that of early college programming. More schools are offering college-level courses on their campuses allowing students to earn college credit in their high school setting. Ongaga (2010) conducted a study to determine the reasons students choose to participate in early college high schools as well as reasons behind student success. In a qualitative case study at Maple Early College High School (MECHS), Ongaga used questions regarding student influence, personal attribute, and challenge to guide his work. First, he asked about

factors influencing students to attend an early college high school. Second, Ongaga questioned students about factors they attributed to their academic success at MECHS. Finally, students were asked about the challenges they experienced at MECHS. These questions are a good first step in addressing issues of early college initiatives, specifically those of rigor, relationships, and relevance. As school leaders appraise the efficacy of early college programs, these questions should guide their work. Parallels can be seen in curricular development within school systems tying together the work of Ongaga (2010) and Conley (2008). When addressing college readiness, issues of rigor could address how students transition from early college programs into college and university settings, noting student success. While Ongaga's questions examined curricular concerns, they did not address explicitly questions of culture or equity. With family background as a main factor in college readiness, cultural questions and equity concerns are also important avenues of investigation. Ongaga concluded, however, that MECHS, while suffering from some programmatic problems, was successful. He stated that based on the premises of high expectations for all students, caring relationships, and community and family involvement, MECHS students were successful in college level courses.

Ongaga's (2010) study of MECHS raises many questions and challenges for educational leaders. First, curricular programming should be easy and understandable for families as they navigate school systems and address academic needs of students. Second, relationships are paramount when dealing with students and families. Leaders must work to build and maintain relationships with families treating parents as partners in their children's educations. Finally, educational leaders and schools should address and assist

students with challenges they face not only in the classroom but outside the classroom as children develop identities as both students and as members of society.

In further studies of early college high schools, Thompson and Ongaga (2011) noted that the traditional high school model is outdated and is in need of reform. In an empirical case study, Thompson and Ongaga examined small learning environments and their efficacy and sustainability in early college high schools. The relationships between teachers and students were examined in light of the schools' rigor, relevance, and relationships. Ultimately, Thompson and Ongaga supported the need for relationships between colleges and high schools indicating that these relationships were effective and enabled students to succeed in early college settings. Specifically, when colleges and early college high schools worked together, programming for students aligned providing students with better educational opportunities. As schools develop more rigorous dual enrollment courses offering college credit in high schools, one question for further examination, was whether students were prepared for upper level college studies as they transitioned from an early college setting to a university setting. Specifically, after taking introductory courses in high school, were students prepared for upper level courses within their major? Little empirical research has been conducted, however, to assess student readiness or success after leaving early college settings when enrolling in college settings. How students transition from an early college setting to upper level college courses along with an analysis of student persistence should be used as a key indicator of efficacy of early college programs. Neither Thompson and Ongaga study nor this paper addresses this issue, but the topic can be seen as an area for further research and analysis.

Edmund and Bernstein (2010) further supported Thompson and Ongaga's claims of the success of early college models and found that students who participate in early and middle college high schools are more likely to persist in their post-secondary education. In their experimental research, they found that early college students in North Carolina were more likely to make progress toward college persistence than other similarly situated students were. This study also concluded that there was little or no achievement gap between White and non-White students in early college programs. These findings raise policy questions focused on issues of equity and access. Specifically, how can schools introduce early college initiatives to more students? Further, is the lack of an achievement gap in early college programs due to academic programming? When achievement gaps are existent, there is usually a performance gap between racial and ethnic groups. According to Edmund and Bernstein (2010), there was little or no achievement gap among students enrolled in an early college program, regardless of ethnic or racial background. This suggests that when given a challenging curriculum (with appropriate support) all student groups succeed.

When addressing the relationships between schools and families, there is a constant intersection between school and community issues. Family decisions are primarily community concerns; however, it is the role of the school to work with families. Relationships between schools, students, and families fall into both school and community categories as students and their learning are impacted by the relationships that they have with their peers as well as with their teachers. Finally, the challenges that students face in high school tend to be school related, i.e., rigor, social identity, extra-curricular activities, but these factors also relate to community.

The intersection between school leadership and the community is one outlined in the literature with the role of leadership as the central component of student learning (Wahlstrom, et al., 2010). An assessment of leadership related to college readiness should further investigate interrelationships of stakeholders examining both student learning and preparation. This information should emphasize collective and shared leadership components, specifically the impact of leadership plays in relation to learning with the various stakeholders (i.e., school leaders, teachers, other stakeholders, etc.)

Schools have significant influence on college readiness, and the area where school leaders have the greatest impact is on the experiences students have in school buildings. When examining programmatic intersections between educational levels, both early college and transitional programs have an impact on student success. School leaders should further examine the means by which they can affect success for incoming high school students and for out-going high school students as they prepare for and transition into collegiate settings.

Individual Characteristics and College Readiness

Personal characteristics influence college readiness. When examining studies highlighting individual characteristics, several themes emerged in the literature. These include the importance of non-academic factors (Sommerfeld, 2011), cognitive and non-cognitive predictors of readiness (Komarraju, Ramsey, Rinella, 2012), motivation and persistence (Allen, 1999), and resiliency and self-perception (Matthews-Armstead, 2002).

Sommerfeld (2011) summarized the literature on non-academic factors possessed by successful college students that assist students in the navigation of college settings and success in studies. These non-academic factors refer to thinking and reasoning processes

and include a person's personality and temperament, the ability to manage challenging situations, the skills that allow one to perform daily tasks and to respond and modify one's reactions, external resources, and knowledge of the college process and structure.

Similarly, Komarraju, et al. (2012) reported that a higher high school grade point average (GPA) is a better indicator of college success than SAT scores because GPA also reflects the non-cognitive skills of discipline, determination, and self-confidence. They indicated that students who did well in high school performed better than student who simply tested well. Additionally, study skills learned in high school often transferred to study skills necessary for college success. This study used empirical evidence derived from 540 freshmen undergraduates using the Student Readiness Inventory. The idea of high school performance superseding college entrance exams is one that needs further exploration and examination.

Allen (1999) conducted a quantitative study examining relationships among motivation, background, performance, and persistence. Students complete a 194-item survey designed to assess both risk and needs. This study specifically examined the role of motivation in college completion and was two-fold in purpose: (1) to assess the effects of motivation on persistence, behavior, and academic performance in college and (2) to determine the extent to which motivation differs with persistence and academic performance for White and non-White students. Allen's study included 139 college freshmen under the age of 20 at a medium-sized public university in the southwest. Students in this study were either students persisting after their first year or those who dropped out. Records from students' freshman year were used for this study. Students who transferred to another institution were eliminated from the sample group. The

composition of the sample was 76.1% White, 18.1% Latino, 4.1% Black, and 1.7% Asian. Participants in this study were given a 194-item survey designed to assess both risk level and student needs. Background variables examined included sex, ethnicity, financial aid status, high school rank, parental education, family emotional support for college, and initial impression of the institution. Additionally, students' university data were used regarding grade point average and persistence behavior.

The purpose of that study was to examine the role of pre-college variables, motivational factors, and persistence behaviors among non-White and White students (Allen, 1999). The results of this study supported two major conclusions. First, it is consistent with the assertion that background variables play a role in college readiness, particularly, in the areas of precollege academic ability, parents' education, and financial aid. Second, this study supported the notion that non-White students come into college with significantly lower indicators of academic readiness, but insufficient readiness, as defined above, had little effect on student success or persistence. While college readiness can be seen as multi-faceted, these findings differ from Conley's (2010) research, which emphasized strong high school academic preparation as a key indicator for college readiness. Third, financial aid had no effect on grades or student persistence. Fourth, there were differences in reasons for persistence between non-White and White students. Specifically, persistence for non-White students was driven by the desire to complete college, and for White students, persistence was correlated with parents' education attainment (Allen, 1999). This study, when compared with Conley's studies of academic preparation, raises questions of the role that student resilience plays in college persistence and completion for non-White students. Further, this supports the influence of non-

cognitive college- readiness factors and of the role of parental input into student readiness. Further, it supports the need for strengthened school/family relationships.

In a similar study, Matthews-Armstead (2002) found that resilience and self-perception were major indicators central to enrollment in collegiate settings. Matthews-Armstead interviewed seven Black women between the ages of 17 and 22 who were from low-income communities. Respondents were first-generation students with no children who had completed high school or would complete high school within six months. This study used qualitative interview techniques as the method of data collection, and interviews were taped and transcribed. After data collection, respondents were placed into two categories: college bound and not college bound. College bound respondents described themselves as being self-directed, self-reliant, and competent and viewed themselves as self-reliant, competent, and able achievers. By contrast, the non-college bound respondents perceived themselves as being passive, dependent, and full of doubt. They did not view themselves as self-reliant or empowered but saw themselves as being comfortable relying on others. When examining both groups, this study supported the characteristic of resilience as a key indicator for college success. In this context, resilience was seen as the characteristic to recover from adversity. Educational leaders should further explore the characteristic of resilience and attempt to build it in students. Because the sample size of this study was small, additional studies using a larger sample population should be used to assess the generalizability of the findings.

The major questions that studies on non-academic factors raise are those pertaining to academic preparation. As schools work with students, the ability to teach and guide students as they learn non-academic skills is important. School leaders need to

have the ability to use non-academic factors as schools prepare students for college. Specifically, if student persistence can be determined by factors such as motivation, resilience, and self-perception, rather than by opportunity and academic preparation, how important are student characteristics when examining college readiness, success, and persistence? Specifically, how do academic and non-academic factors intersect and relate to college readiness? Is there a correlation between student characteristics and academic preparation? Are these roles intrinsically bound and what roles do both play in student collegiate success?

Association between College Readiness and College Access

While college readiness defines a student's preparation level, access refers to a student's opportunity to enroll in post-secondary institutions. According to Yun and Moreno (2006), access does not begin with college admissions; rather, preparation dictates access. The literature documents a consistent association between lack of adequate preparation for post-secondary pursuits and communities with lower socioeconomic means. According to Yun and Moreno (2006), non-White students in California experienced a lack of preparation beginning in K-12 which partly accounted for their lack of access to higher education.

In their study, Yun and Moreno (2006) examined factors that disadvantaged those students who were not well served by the present educational system. The authors concluded that there was a significant relationship between school context, college eligibility indicators, and the racial/ethnic composition of schools, which points to the original interdependent relationships contributing to college readiness, i.e., family, school, and individual characteristics. Schools with predominantly White and Asian

populations with low levels of poverty had higher levels of academic preparation and performance as measured by SAT scores than schools with predominantly Latino and Black populations with higher levels of poverty (Yun & Moreno, 2006). This study raises questions regarding socioeconomic compositions of student populations and the role they play in college readiness. Additionally, it supports studies indicating that non-academic and personal characteristics significantly impact student success in college (Sommerfeld, 2011, Allen, 1999, Komarraju, et al, 2012).

Griffin and Allen (2006) investigated access to higher education for Black high-achieving students in both a suburban and an urban public school setting in California. They addressed student preparation and readiness as a primary factor affecting access. Using an ecological framework to conduct their case study, Griffin and Allen assessed the impact of family dynamics, school environment, and community. This study addressed the questions (1) What are the perceptions of Black high achievers regarding the influence of resources on college preparation? (2) How do Black high achievers describe their campus racial climate and its influence on college preparation?; (3) How do high-achieving Black students demonstrate and foster their resilience in their respective environments? The purpose of these questions was to ascertain how students used resources to gain access to college. While these questions were used to address student groups analyzed in this study, the findings could be applied more broadly by educational leaders working within the larger context of schools and school populations. For example, socioeconomic status in student populations should be studied when examining resilience and college readiness. What resources are available to

underrepresented populations? What school environmental factors influence their achievement? Similarly, what school college preparatory programs are utilized?

In Griffin and Allen's (2006) study, the suburban school had more resources to assist students with college preparation than the urban school. In both settings, students faced barriers, however. At the suburban school, students perceived a hostile racial climate in the high school resulting in limited college access. In the urban setting, college aspirations were supported by faculty, but less access to college was available due to limited resources. In both suburban and urban systems, however, students demonstrated resilience, which can be seen as a personal characteristic that facilitates college readiness. This qualitative study demonstrated the impact environment can play in encouraging or inhibiting college preparation for non-White students. It also illustrated that because of inadequate school resources, students without the resilience of high achieving students can falter (Griffin & Allen, 2006). This study also demonstrated how students in different settings were able to access resources to move from high school to college. Further, it demonstrated how both school resources and non-academic means (i.e. resilience) aid in college access. When examining college readiness indicators and access to college for underrepresented populations, school leaders should provide greater access to information and opportunities available to students. Additionally, school leadership should examine personal characteristics such as resilience to ascertain how to better serve students, eliminating barriers such as insufficient resources or hostile racial climates.

As colleges develop policies that take into account non-academic factors in the admission process, student backgrounds and experiences have been taken into consideration. In a qualitative case study at Fordham University in New York City, Hicks

and Sphere (2003) examined admissions processes and focused on underrepresented population composition in the student body. In this study, part of college readiness was defined as life experience. When examining Fordham University's efforts to address diversity and access, the challenge was that all students were looked at the same and were expected to perform similarly to gain admissions and be successful (Hicks & Sphere, 2006). The purpose of that study was to examine the difference between power and access in college admissions. The method to examine these issues was that of monthly seminars with the admissions staff at Fordham University.

Because of the results of the study on non-academic factors, the admissions personnel changed the admissions process at Fordham to include thinking about diversity and its impact on admission work as well as development of new ways of defining quality and preparedness. Discussing student feelings of marginality and mattering (Scholssberg, 1989) and White privilege (McIntosh, 1988) changed the staff's theoretical discussions of daily practice in the admissions office to topics of inclusion and diversity. Subsequently, changes were made to the interview profile form, expanding information about student GPA, SAT scores, class rank, and a list of extra-curricular activities to move towards a more holistic review which included the question, "Briefly describe your most meaningful activity or experience." Additionally, new recruitment strategies included researching college fairs that addressed students of color and students with culturally diverse backgrounds. The admissions office at Fordham also appointed an admissions coordinator for multicultural initiatives. Overall, changes were made to address students' experiences and the richness that underrepresented students brought to the Fordham campus (Hicks & Sphere, 2003).

College Readiness and Its Influence on College Persistence

The first year of college is important for students both for academic gains as students move towards degree completion and attainment and student retention. Not all students who enter college are prepared for the rigors of post-secondary settings. Penrose (2002) conducted a study at North Carolina State University comparing first generation and continuing generation students and classified respondents into groups dependent on parent educational level. First-generation students often had lower test scores and lower high school grade point averages. Additionally, first-generation students typically had weaker academic preparation, consistent with correlations between lower socioeconomic class and school quality. Penrose determined, however, that while first-generation students had early disadvantages, there was no observable effect on overall college performance or on first year grades.

Penrose's (2002) initial survey questions were divided into three topics: preparation, performance, and perceptions. Ultimately, data were collected upon student graduation using the same three factors as the initial data. Students' self-perceptions were viewed as more important in college experiences than academic preparation. According to Penrose (2002), a primary reason first-generation students left college was due to dissatisfaction with collegiate experiences rather than academic failure. Results of this study indicated that institutions and educational leaders need to assist students in the development of their academic identities, confidence, and sense of self. Additionally, intentional development of students as part of academic communities may increase college success for first-generation students (Penrose, 2002, Collier & Morgan, 2008).

Jenkins, Harburg, Weissberg, and Donnelly (2004) conducted a case study of Black students in a public urban commuter college in the northeastern United States. They measured “persistence” by examining the number of semesters students were enrolled in college. Ogbu’s model of voluntary and involuntary immigration (1991) was used to define the sample population which was comprised of Black students from two groups. Groups were determined based upon the immigration status of the fathers of participants. Those whose fathers were born in the United States were considered “involuntary immigrants”, and those whose fathers were born outside the United States were considered “voluntary immigrants”. The significance of these two groups can be seen in their immigrant and assimilation status. The voluntary group chose to move to the United States for a variety of reasons including political unrest or opportunity, while the involuntary group was born in the United States having family histories rooted in slavery and/or a lack of civil rights or opportunities. Ogbu suggested that voluntary immigrants were more successful than involuntary immigrants were due to societal opportunities available to the former. A longitudinal study measured persistence after students’ enrollment using two sets of data; the first was a questionnaire administered prior to students’ first semester, and the second was a follow-up telephone questionnaire three years later. The results of this study were measured by both continued enrollment (persistence) and academic success as measured by grade point average. This data demonstrated that while voluntary immigrants were more likely to persist in college, little difference was seen in academic achievement between the two groups (Jenkins, et al, 2004). The fact that achievement, as defined by successful course completion, for these groups was similar while persistence was dissimilar indicates that additional factors

besides academic performance contribute to student persistence. Further study focusing on reasons for persistence among similar racial groups needs to focus on multiple factors including individual characteristics and socioeconomics (Niu & Tienda, 2013). Contrary to Ogbu's studies, Khalifa, et. al (2016) attribute success of minority students to culturally responsive pedagogy brought about by leadership within schools. This study addressed student achievement from the vantage of dissimilar frameworks based on minoritized students' cultural backgrounds. The concept of creating a culturally responsive environment and curriculum in order to meet students' needs is developed within this context and encouraged more emphasis be placed on school level leadership than student grit. This form of pedagogy takes into consideration backgrounds of all minoritized students and creates a school context and environment that more fully supports and validates student experiences.

While background factors can demonstrate a student's propensity to attend college, persistence can also be linked to successful college transition (Bengis, et al, 1991). Colleges are developing programs to assist students as they transition from high school to college settings in order to ensure student success and persistence. One example of transitional programming is that of summer bridge programs. Colleges specifically target incoming freshmen to assist with transition by enrolling students in summer bridge programs allowing students to begin college prior to the start of the academic year and assisting them with skills in reading, writing, or math. The intention is to introduce students to college norms and expectations. Often these programs are meant for first-generation students or students who face socioeconomic barriers. Summer bridge programs often have positive outcomes resulting in higher college retention rates, and

evidence suggests that these interventions are associated with higher college retention rates. Additionally, research has shown that underprepared students who participate in these programs improve their academic performance (Bengis, et al, 1991).

Differing views regarding student success as measured by persistence exist in the literature. While student background and characteristics appear to play a large role in collegiate achievement, high school preparation is often seen as an indicator of potential college success. Studies indicate that students who enroll in advanced high school courses or dual enrollment courses often earn higher grades and are retained at higher rates than those who do not take similar courses (Hoffman, 2003). This study supports Conley's assertion (2010) of academic preparation as an indicator of college readiness. More studies are needed to examine these conclusions, however. As dual enrollment programs are developed, equity and access need to be addressed. Not all schools and districts have access to equal programs, often leaving students attending school in urban districts at a disadvantage. Policy research needs to address the question of who should underwrite these programs designed to improve college readiness (Hoffman, 2003). As educational leaders strive for educational equity, a closer examination of these programs needs to be addressed in urban, public settings. Studies have also suggested that there may be a need to design programs that bridge the needs of students in grades 9 through 14 (An, 2013).

College readiness indicators defined by studies conducted by Roderick, Nagaoka, and Coca (2009) and Conley (2010) focused on academic behaviors and skills learned in high school. While these theories tend to be more accepted in the literature, indicators associated with student non-academic background and behaviors are becoming more

acknowledged, especially when examining students from underrepresented backgrounds (Hicks & Sphere, 2006). Further research needs to be conducted focusing on these groups and on college retention and completion.

Gaps in the Literature

College readiness and post-secondary degree attainment are intrinsically bound. Throughout the literature, factors contributing to college readiness include the influences of schools and districts, familial background, and individual and innate characteristics. These factors, in turn, influence college access and contribute to college success and persistence. While the aforementioned factors are seen throughout the literature, disagreement about the importance and degree to which each contribute to student success persists.

In sum, there are three primary factors contributing to college readiness, college access, and college persistence. The first factor speaks to the importance of academic preparedness for college readiness. That is to say, appropriate student preparation often leads to academic success and persistence. Second, researchers point to the role of familial relationships. Third, non-academic attributes also play a role as individual student characteristics contribute to student preparation. As educational leaders examine college readiness, access, and persistence, it is important to examine the role of the high school. This refers, specifically, to both post-secondary success in college settings and to working with stakeholders in high school setting to ensure that students graduate equipped with not only academic skills but with the personal characteristics and resilience that will enable college success. Further, research into the intersection among schools, familial structures, and individual characteristics of students can inform

discussions on college readiness. These studies should also focus on educational equity as it pertains to underrepresented populations.

The importance of schools and strong academic programming are essential when preparing students for college (Allen, 1999; Conley, 2010; Pike & Saupe, 2002). The three key factors influencing student preparedness, including cognitive factors, non-cognitive factors, and familial engagement, are crucial but not always present. Consequently, many students are graduating from public schools unprepared for college (O'Brien, 2011; McCabe, 2000). This study focuses on how high schools can successfully prepare students for college and focuses on means by which successful schools are preparing students for post-secondary studies.

The purpose of this study is to ascertain how schools serving underrepresented populations demonstrated success. This study defined, identified, and examined successful schools in order to determine how these schools worked within the parameters of the components of college readiness. It also sought to explore how they addressed the salient factors associated with college readiness. Leaders within successful schools were identified and specific questions were asked to ascertain reasons for their successes. Questions were grounded in the three key dimensions of college readiness: school programming, school connections to familial structures, and school consideration of student characteristics.

In short, while various studies have defined college readiness factors broadly, few provided a comprehensive study of successful schools that allows one to understand more fully why some high schools are more successful at preparing students than other high schools. This study explores the perceptions of education leaders regarding how they

employed the salient factors of college readiness. To accomplish that objective, this study examined programming that addresses the school, familial, and student characteristics that contribute to post-secondary success using the lens of educational leaders. Thus, this research explored the perception of leadership within schools that are successful in preparing students for college to gain their perspective on the factors accounting for their school's success.

CHAPTER 3

Methods and Design

This paper seeks to understand why some high schools are more successful preparing students for college than other high schools are. As an educational leader in public education in Minnesota, I am particularly interested in understanding the perspectives of leaders of Minnesota public schools that are successful with underrepresented populations. The overarching question guiding this work is what do successful schools do to prepare students from underrepresented populations for college? Specific questions emerge from the literature and are aligned with the factors affecting college readiness:

1. How do leaders of successful schools address cognitive factors and academic programming for underrepresented populations?
2. How do school leaders perceive the function of non-cognitive factors in college readiness programming for underrepresented populations?
3. How do leaders of successful schools establish and maintain relationships with families of students from underrepresented populations?

This chapter describes the research design and methods used to gain a greater understanding of how education leaders perceive how high schools are effective in their preparation of populations that are underrepresented in postsecondary institutions. This chapter is divided into six main sections: 1) Purpose of Analysis; 2) Study Methods 3) Study Design; 4) Data Analysis; 5) Study Limitations, and 6) the results of the pilot study.

Purpose of Analysis

The purpose of this study is to examine how school leaders perceive how they are successful at preparing students from underrepresented groups for college do so. This paper approaches the issue of college preparation from an interpretivist paradigm. It seeks to understand the reasons underlying the success of selected school leaders in preparing students for postsecondary studies. Interpretivism is a useful perspective from which to approach the proposed research questions because as a research paradigm, it focuses on how humans interpret their environment and themselves (Hammersley n.d.; Mackenzie & Knipe, 2006). Research using this paradigm is based on the individual researcher's experiences and interpretations. In educational settings, and in this study, this includes an assessment of schools that have experienced success preparing underrepresented students for college. It is important to recognize that using this paradigm acknowledges that facts and values cannot be separated from each other and that particular understanding is biased as it is based in the individual and the event (Cousin, 2005; Elliott & Lukes, 2008). In other words, both the researcher and the leaders being studied present information that is biased by individual life and professional experiences. This can be beneficial as it allows insight into the experiences of those being studied. It can also be a limitation; however, as the information being detailed may not be generalizable. It is difficult to generalize the findings of such studies as the examined group is typically small in order to have a rich and deep understanding of the particular phenomenon under study. That said, the knowledge gained from this study could be used in similar settings, enabling school leaders to replicate methods used by leaders in successful schools as they work with underrepresented populations. By examining

methods used by successful schools, leaders could develop programming for student populations that allows success for all student populations. Through an examination of methods used by successful schools and by administrators in such settings, transference of methods could enable replication. Success will depend upon both the practitioner's interpretations and implementation of methods used in schools that experienced success with underrepresented populations.

In understanding the phenomenon of how school leadership contributes to the postsecondary success of underrepresented student populations, a look at additional research paradigms demonstrates the importance of multiple perspectives. An examination of the paradigm of positivism shows that this paradigm has some legitimacy when examining leadership in schools that prepare underrepresented students for postsecondary settings. The role of positivism in this study is acknowledged with the cause/effect rationale allowing the transference of practices from one setting to another (Hammersley, n.d.; Mackenzie & Knipe, 2006). Practically speaking, this means that the means by which successful schools send students to postsecondary settings can be replicated in similar settings. Specifically, school leaders can examine methods used by successful schools and implement those methods into their individual settings. That said, due to the size of the populations being studied and how education leaders were selected, it is difficult to generalize the findings of this study, however, transference of concepts may be possible to similar settings.

Research Methods

Qualitative research often seeks to inquire in order to promote understanding, while quantitative research typically attempts to inquire to make explanations (Merriam,

1998; Yin, 2009). An increase in the use of qualitative data in many disciplines has led to a greater understanding and widespread use of qualitative research in the social sciences and applied fields including education (Marshall & Rossman, 1999). Heck (2004) described qualitative research as a variety of methods used to explain processes occurring within natural and everyday settings. This study will be qualitative in nature focusing on experiences and values of successful leaders. As an educator in a Twin Cities suburban school district, I am able to bring my experiences to this study. My experiences as both a counselor and a dean have allowed me to work both with schools and families and with other professionals in schools across the Twin Cities.

This will be a multi-site purposive study examining multiple public schools in the Twin Cities metropolitan area that have been successful preparing students for college. Minnesota was selected for this study because of the quality of its public education and because the state consistently leads the nation with the highest ACT test scores annually. According to data released by ACT, Minnesota's 2015 average ACT composite score ranked first in the United States for the tenth consecutive year among states that test at least half of all graduating seniors. The Twin Cities were selected from within Minnesota because of both the size and composition of the population of the metropolitan area. According to Welcome Twin Cities, a Twin Cities tourism website, the population of the Twin Cities Metropolitan Area is over 3.5 million. For the purposes of this study, the Twin Cities Metropolitan Area will be defined as the seven counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington Counties. Both the size and diversity of the population of this metropolitan area yield a sample population that is appropriate for addressing the questions being explored in this study.

Multi-site designs have the advantage of being more compelling and robust than relying on only a single site (Herriott & Firestone, 1983). Using multi-site studies, the idea of replication of the study suggests that similar schools may display similar findings. Therefore, replication of this study would also be considered an advantage of a multi-site study. A major limitation of a multi-site design, however, has to do with resources and time when conducting the study. School leaders' schedules during the school day are busy due to the nature of their work. Typically, they spend time with students and staff leaving little time for activities outside the nature of their roles. Likewise, access to educational leaders needs to take place when they are available, which tends to be during the school day. Due to these factors, time and access are a limitation.

Research Design

The means by which schools are generally evaluated when examining preparation for college-level work tends to be through cognitive factors, specifically through content area preparation. When examining the phenomenon of college readiness, it can be seen that some Minnesota public schools are not successful in preparing underrepresented student populations for college. Minnesota schools that are not preparing students adequately for college-level work tend to prepare underrepresented students at levels lower than their White counterparts. This assertion is based on the achievement gap that persists between White students and all other student ethnic groups in Minnesota including students from Black, Latino, Asian, and American Indian populations. One of the primary measures of college readiness has to do with college testing. In Minnesota, the ACT is the primary assessment used and evaluated by college for college admissions. Based on data from the Minnesota Statewide Longitudinal Education Data

System(SLEDS), disparity among ethnic groups on the ACT assessments given in 2013 demonstrated these achievement gaps, suggesting that Minnesota is not serving their underrepresented population well and are inadequately preparing them for college.

This study focused on those schools that were generally successful at preparing students for postsecondary studies and looked specifically at how the factors of college readiness were addressed within those schools. Successful schools were identified based on two primary criteria: First, schools had larger than state averages of underrepresented populations, and second, schools sent students to college at rates higher than the state average. While academic preparation is a major factor of college-readiness, this study also examined how schools addressed cognitive and non-cognitive factors, as well as familial supports. Recall that cognitive readiness refers to academic skills and preparation pertaining to courses and content taught in high school. Non-cognitive readiness entails more innate and self-possessed qualities of students; students and familial structures refer to engagement and support students experience from home environments as well as relationships that schools have with families.

Case Study

The case study is an “empirical inquiry that investigated a contemporary phenomenon” (Stake, 1995). In this particular situation the case study dealt with college readiness and underrepresented populations, specifically, leadership perspectives on college preparation and how schools dealt with underrepresented populations and their preparation for postsecondary studies. This particular study is a descriptive, exploratory study in which the research focused on case study aspects including the complexity of situations when dealing with underrepresented populations. Multiple measures, which

included not only academic preparation but also aspects of student characteristics and familial influences, were addressed. The use of interviews from a variety of school contexts also added to the descriptive nature of this study as did the influence of the perceptions from multiple individuals (Hoaglin, 1982).

School Selection

This purposive study used high schools selected with specific demographic populations located in the Twin Cities Seven County area. Minnesota has 438 traditional public schools statewide that served students in either grades 9-12, 10-12, or 7-12. Using 2014 Minnesota Department of Education (MDE) enrollment data as a baseline, the population of Minnesota's school age students consisted of 850,763 students. Of that number, the racial breakdown was 71.5% White, 11% Black, 8.1% Hispanic, 7.1% Asian, and 2.3% American Indian. Of the total population of Minnesota school aged children, 327,449 or 38.5% participated in the free or reduced lunch program as defined by federal guidelines.

Schools used in this study were from suburban communities in the Twin Cities Seven County area and had underrepresented populations at or above state averages. Underrepresented populations consisted of students who were Black, Hispanic, Asian, or American Indian. Students who received free or reduced lunch, as defined by federal guidelines, were also defined as underrepresented. Most qualifying schools met the eligibility criteria in one or more ethnic categories as well as in the category of socioeconomic status. Specifically, schools selected had student populations above the state average in one or more underrepresented groups. Additionally, schools included in this study enrolled students in postsecondary settings at or above the state average of 69%

as reported by the Minnesota Office of Higher Education in the 2014 Minnesota Statewide Longitudinal Education Data System (SLEDS) website. Data was also obtained from academic profiles outlined in SLEDS reports and consisted of information about school college-going data, student college preparation, and student college persistence. By selecting schools with a defined demographic, this purposive study enabled an examination of school leadership vis à vis the population of interest. The reason for this type of sample rather than a random sample was based on the desire to identify schools that were successful at preparing underrepresented students for college. The method used to determine success included examining 2014-2016 demographic and performance data from the Minnesota State Longitudinal Education Data System (SLEDS) obtained through the MDE website.

Schools meeting the defined requirements of this study were selected from the population of eligible Twin Cities' high schools, and leaders from each selected institution were invited to participate. All the schools participating in this study (including the pilot) were given pseudonyms. A pilot study was conducted using Pleasant Valley High School. Pleasant Valley was selected as the pilot school because I worked in the school, resulting in ease of information gathering. The purpose of a pilot study was to test interview questions as well as to gain perspective on the quality of the questions from professionals with whom I worked. Results of the pilot study assisted in the refining of the interview questions. Ultimately, of the qualifying schools identified, education leaders from five of these schools participated.

School Leaders

For the purposes of this study, school leaders were defined as building-level principals or assistant principals and school counselors or deans. Principals were selected as they were the building administration and were responsible for decision making and for leading the students and staff on a daily basis. Additionally, building administrators were ultimately responsible for the success of the building. Building principals helped establish the tone and direction of a building and had a vast knowledge of curriculum and programming throughout the building (Wahlstrom, Leithwood, Seashore, 2010). Additionally, principals established both the academic tone and direction of the building. They also addressed the needs of underrepresented populations and ensured that college readiness programming was available.

School counselors and deans were selected because of their responsibilities to advise students about academic programming. Further, they had a broad understanding of building-level curriculum and how courses selected impacted college enrollment. Additionally, counselors and deans worked closely with admissions offices at colleges and universities. Counselors and deans also met with students and families on a regular basis advising and encouraging them as they progressed through high school.

To obtain information about building leaders, I went to individual school webpages and identified principals, counselors, and deans of all eligible high schools. I purposively selected 11 schools from the list of identified eligible schools and sent an email to building principals describing my study and asking if he/she would be willing to participate. Of the schools selected who received my email, six responded, the pilot school along with five additional sites. Appendix A details the email that was sent to

principals. After principals agreed to participate, one-hour interviews took place with educational leaders from participating schools. Thus, two leaders were selected from each participating school: one leader was a principal, and the other was either a counselor or a dean. Interviews took place with the intent of finding themes of what successful schools did to prepare students for postsecondary studies. Interviews also focused on how students from underrepresented populations were served and what college preparatory strategies were used. All study participants were given a compliance form. See Appendix B for compliance form.

Data Collection

The interview is arguably the most common and important technique used in qualitative research (Yin, 2009; Marshall & Rossman, 1999); Marriam, 1998). Kahn and Cannell (1957) refer to the interview as “a conversation with a purpose.” According to Patten (1990), we interview in order to gain the perspective of the interviewee. This study used the interview as the primary tool for gathering data. Face-to face interviews in this study were conducted individually with the interviewer speaking directly to the interviewee.

Yin (2009) outlined clearly the strengths and weaknesses of the interview process stating that the primary strength of the interview is that of the direct focus on the topic. The interview process has many benefits including its usefulness in discovering participants’ perspectives, as well as nuances of the cultures of the schools selected. The interview also allows for immediate clarification, helpful in interpreting data (Marshall & Crossman, 2011). This paper employed both focused and elite interview techniques. Focus interviews allowed information to be obtained in an hour session and allowed

open-ended questions asked in a conversational manner (Yin, 2009). “Elite” interviewing focuses on an interviewee that is considered an expert in his/her field and typically yields information from a well-informed individual that is influential in his/her field (Marshall & Rossman, 1999). Interview questions were designed by the researcher to address the three major components of college readiness: cognitive and non-cognitive student factors and familial engagement. Specifically, the questions asked during the interviews of school leaders addressed the components of college readiness; they are outlined in the interview protocol located at the end of this study. See Appendix C.

Study Validity

Construct validity

Assumptions that components of college readiness lead to college enrollment were examined to measure construct validity. Construct validity refers to the measures used to test concepts being studied (Yin, 2009). Specifically, in this study, the components of college readiness, i.e., cognitive and non-cognitive variables and familial engagement, and their impact on college preparation were examined in light of leadership perspectives regarding relevance to the college readiness of underrepresented students. This was assessed by respondents’ response during interviews.

Internal validity

Internal validity seeks to establish causal relationships (Yin, 2009). In this study, that referred to how school leaders addressed the components of schooling affecting college readiness. This specifically referred to how leaders addressed student cognitive and non-cognitive factors in academic programming as well as how they addressed

familial factors. This information was derived from interviews through pattern matching and strengthened the internal validity of this study.

External validity

External validity reflects the generalizability of the claims made in a study. By examining multiple sites and interviewing more than one educational leader in each setting, the generalizability of study was strengthened. Despite using multiple sites, however, there was not high external validity in this study. Nevertheless, the information derived from interviews provided a rich source of data that highlighted useful strategies for college preparation for underrepresented populations.

Study Limitations

While the case study is a method used to obtain evidence in an interpretivist study, there are limitations that could impact validity. First, bias could have impacted the manner in which the questions were asked by the interviewer and answered by the respondent thus testing the studies internal validity, especially when causal relationships were examined. It was important that the interview questions were asked in such a way as to avoid or at least limit bias. This was accomplished by designing questions that only addressed the questions being studied. Yin (2009) categorizes these questions as Level 2 questions stating that they are relevant to the case being studied yet do not reveal the interviewer's intent or preconceived notions.

Second, reflexivity could have resulted in respondents answering questions in the manner they felt the interviewer wanted to hear based on the respondents' perception of the biases, values, and interests of the interviewer (Cresswell, 2003). This could have resulted in limitations in construct validity which caused the need for careful wording of

questions. Finally, the interviewer must be careful to record answers accurately. To that end, interviews for this study were recorded so responses could be referenced at a later date after the interviews (Yin, 2009). Additionally, interviews can be open to multiple interpretations due to cultural differences (Marshall & Rossman, 1999). This was especially important in this study as underrepresented populations encompass a variety of individuals that can come from varying backgrounds, ethnicities, and socioeconomic groups.

One additional limitation of this study had to do with the school settings and the transferability of the findings to alternative settings. While all the sites of this study met criteria based on underrepresented populations and on either socioeconomic or ethnic populations, all sites were located in suburban communities. The limitation regarding communities may differ in urban or in rural settings as these communities differ greatly from suburban settings.

Data Analysis

Qualitative data analysis involves interpreting the data of a study in order to provide greater understanding. Simply stated, for this thesis, interview data provided insight on the reasons perceived by education leaders for the success of their schools in sending high portions of students on to college. One of the areas for examination came from interview questions focused on underrepresented populations. The concept of success for not only the general population but for underrepresented populations in successful schools was examined, specifically; information on these populations and programming that is used to them for postsecondary settings. For this study, analysis involved examining the data taken from the interviews of leaders of successful schools

and synthesizing their ideas. Leaders used in this study were those who worked with underrepresented populations and prepared them for college. The analysis of this data provided perceptions of appropriate practices that could be used in other school settings.

Data analysis for this study involved an examination of the response to questions that addressed the questions guiding the study. Responses were categorized into areas similar to the original research questions. That is, I examined how school leaders perceived cognitive and non-cognitive factors and how they worked with familial structures. An in-depth analysis of interviewee responses was documented and categorized. When examining data in this case study, the primary strategy used included reliance on the theoretical propositions regarding college readiness. Specifically, school leaders were interviewed focusing on how they addressed the components of college-readiness, i.e., cognitive, non-cognitive, and familial engagement.

Techniques used for analyzing data included pattern matching, explanation building, coding, and cross-case synthesis. When analyzing interview data obtained during this study, pattern matching compared empirically based patterns (Yin, 2009). Similar patterns in respondents' answers were sought in order to make comparisons among schools. Specifically, for the purpose of this study, similar patterns of successful schools were examined. Similarities were examined in light of programming for cognitive and non-cognitive factors. Additionally, how schools developed and built upon familial engagement and relationships were examined. Pattern comparisons were made when examining school leaders' views on the factors of college readiness and how each component was seen as part of preparing students for college studies. Specifically, a comparison was made of how school leaders incorporated, used, and viewed the college

readiness components of academic, familial, and non-cognitive factors. The purpose of the comparison was for replication in schools with similar demographics. Finally, cross-site synthesis was also used and applied to multiple sites and school leaders as they were interviewed. The rationale for this was because cross-site studies are more robust with multiple data sources being used (Yin, 2009).

Pilot Study

Pleasant Valley High School (a pseudonym) was used as the pilot school for this study. The purpose was to assess the validity of the method chosen to examine a school defined as successful when preparing students for college and to see how school leadership defined the existence and predominance of the elements of college readiness in the school. An examination of the elements of college readiness was addressed and described to the leadership at the onset on the interview.

Pleasant Valley was predominantly white (79.5%) with a Free/Reduced lunch population of 11.9% in 2014. The ethnic group qualifying the school for the study was the Asian population (13.6%). The college going population in 2014 was 84%. The leadership interviewed for this study included the building principal and one of the seven deans. The principal had been in administration for 14 years, 3 as the principal of this high school and 11 years as an assistant principal in a different school district in the Twin Cities Metropolitan Area. The dean had been at the school four years and in the profession fifteen years. The interview for both was structured around the components of college readiness: school curricular input, familial engagement and their relationship to the school, and student intrinsic characteristics that aided in school success.

Pleasant Valley High School was a highly successful school in the Twin Cities. The school’s ethnic population qualified it for this study, and its college going population supported the school’s success. Below are statistics about college enrolling and persisting, and college preparation for Pleasant Valley for the overall population and for the school’s ethnic population. Findings of the pilot study supported the notion that further studies of successful schools and school leaders were necessary and could yield data that could add to understanding. See Table 3.1, Table 3.2, and Table 3.3.

Table 3.1 Pleasant Valley College Attendance and Persistence Rates

Academic Year	College Enrollment Percentage	Began 2 nd Academic Year	Began 3 rd Academic Year	Enrolled in Developmental Ed Course(s)	ACT Mean Composite Average
2013-2014	86	84	68	7	25.84
2014-2015	86	NA	NA	8	25.73

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Table 3.2 Pleasant Valley Data by Ethnicity 2013-2014

	White	Black	Asian	Hispanic	Free/Reduced	Minnesota
Number	308	CTSTR	43	CTSTR	29	7801
College Enrollment %	86		86		52	47
Began 2 nd Year	93		93		82	72
Began 3 rd Year	86		88		77	50
Developmental Courses	8		<5		19	39
ACT Mean Avg.	25.97		28.25		23.29	19.74

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Table 3.3 Pleasant Valley Data by Ethnicity 2014-2015

	White	Black	Asian	Hispanic	Free/Reduced	Minnesota
Number	300	CTSTR	47	CTSTR	37	8201
College Enrollment %	87		93		51	47
Developmental Courses	7		<5		16	35
ACT Mean Avg.	25.79		29.27		21.65	19.47

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Elements of College Readiness

When interviewed, school leaders at Pleasant Valley were asked about the topics of school programming, school/familial engagement, and characteristics of successful students. Questions specifically addressed how and why the school was successful

sending students to college. Leaders were also asked about how each of the above components contributed to the success of the school. The questions specifically dealt with the elements of college readiness outlined in the model used for this study and sought to understand how the leadership in the school addressed those three elements when dealing with students and families.

School Programming. School academic programming described student options, including numerous rigorous course offerings such as nineteen Advanced Placement (AP) courses, University of Minnesota College in the Schools (CIS) courses, Early College courses which granted community college credit, honors level courses, and articulated agreements with several two-year colleges in technical areas such as computer, business, and family and consumer science areas.

In addition to advanced course offerings, the school has developed programming for students who did not normally qualify for or enroll in advanced course work with the intention of preparing all students for more advanced classes. A seminar course that taught students study habits and study skills was developed. The school also required students with weaker math and reading skills to take a double period in their areas needing improvement to bolster skills. The school did see an increase in students of color in AP course enrolment; however, the level of success of these students, especially among African American students, did not increase. In addition to curricular offerings, the school began giving the ACT to all students removing the testing barrier that many underrepresented students face.

The school also began programs designed to assist in student connection and success. First, the My Kids program was a program brought by one of the assistant

principals from her previous school where a faculty member was responsible for a student and worked with that student and his/her teachers ensuring that the student was progressing academically. A second program developed was the New to School program, which was designed to help new students as they transitioned into the high school. Many of the students in both of these programs were from the school's underrepresented populations.

When examining the academic programming of the school, one of the primary reasons for the school's success had to do with course selection. As the pilot school, the examination of school programming indicated that it was noteworthy to examine not only what was being offered but who was taking the advanced courses.

Family Engagement. The second area of college readiness addressed was that of family involvement and influence. When asked what the school did to address these areas, the idea of beginning the high school experience with communication between the school and family was addressed. During the first portion of the freshman year, the counselors, known as deans in this school, met with each student and each student's parents to develop a four-year academic plan. While a changeable plan, this served as a working document throughout a student's years at the school.

Prior the beginning of a student's freshman year, the school worked with the middle schools to identify a group of students needing assistance as they transitioned into high school. One of the programs offered to these students was the "Three-by-Three Summer Program" where identified students were invited nine times throughout the summer to participate in transitional programming. Programming included a variety of things inside the school and in the community. Some events designed for relationship

building included taking students to a Minnesota Twin's game and participating in a ropes course where students went to a park and used ropes in trees to learn the concept of cooperation and trust. The "My Kids Program" mentioned above was also utilized to develop relationships with families and to inform them of means by which school personnel worked together with students and families to ensure student success. When asked about the success of relationships the school has with families, the principal said that the school works hard to communicate with families and that families are involved in their students' education, but that there is always room for improvement.

Student Characteristics. When asked what characteristics successful students possessed, both the principal and the dean identified similar traits. First, the expectation of families was that students would obtain an education. Beyond that, however, individual characteristics included determination, perseverance, hard work, a strong work ethic, a willingness to take risks, the desire to be creative, an expectation to contribute to family, and financial well-being down the road, as well as the expectation to create a greater community.

When asked whether the characteristics of all student groups were similar within the school, particularly those of minority and underrepresented populations, the principal's reply was that he believed that students of color were starting to see some hope for themselves and their futures. He attributed this, in part, to the fact that all students take the ACT and that students are being exposed to early college classes within the high school.

Summation of Pilot and Observations

Leaders at Pleasant Valley were asked about the elements of college readiness and were asked about reasons for the success of the school. Throughout the interview, school leaders thoroughly addressed how the school dealt with each element. First, there was a culture that expected students to obtain a college degree. This culture was supported by the school district, the school, the students, and the community. Second, academic programs were in place to prepare students for success in college and to enable them to begin their post-secondary studies while in high school. Third, family involvement in the school was strong, and there were expectations from the families that the school maintained strong academic programming and success, and finally, students were expected to be successful and to work hard to maintain academic excellence. During the interviews of the leaders from Pleasant Valley, the most prominent point stressed was that school programming was accessible for all students. The main theme taken from the pilot site that was used in future interviews had to do with access to higher level courses for students. School leaders explicitly stated that advanced courses were offered to all students and that barriers to enrolment were eliminated.

When examining the pilot site and changes that needed to be made to the study for future study sites, the primary factor that future sites needed to consider was the element of student ethnic and socioeconomic populations. The only group that qualified Pleasant Valley for this study was the Asian population, the group with some of the highest achieving students in the school. Other ethnically underrepresented student groups in this school had small populations, and the free/reduced lunch population was below the state average. While the school addressed all the areas of college readiness that

were defined in this study, the population of the school illustrated the need to exclude similar schools for future studies.

The reason for the pilot study was to examine whether the elements of college readiness defined in this study were pertinent to the questions being asked of school leadership. This school was selected as a pilot for this study due to its high number of students attending college. Upon further examination, the lack of additional qualifying populations caused this school not to provide meaningful information on the success of minority populations. This was because of two factors: their minority numbers were insignificant and only one group of minority students exceeded the state average; further, poverty levels were well below that of the state. For this reason, ethnicity should be coupled with socioeconomic status to look at schools that meet both criteria when further studying schools for this study. The protocol used in the pilot yielded answers and addressed what the study sought to know. For that reason, no changes were made to the interview protocol. The only changes that were made were the use of more diverse populations for further study sites.

CHAPTER 4

Study of Successful Schools

This study examined leaders at select traditional public comprehensive high schools in the Twin Cities Metropolitan Area with underrepresented populations at or above state averages. This study characterized underrepresented populations to include all students whose ethnicity was not White or who were socioeconomically qualified for the Federal Free or Reduced lunch program. Identified schools were successful sending students to college and met or surpassed state averages for college enrollment. Likewise, to be considered a school that sent significant populations to college, a school needed to have a college-going rate at or above that of the state average college-going population. All schools' initial information was taken from data for the 2013-2014 academic year. All schools were in suburban areas. In the study all schools were given pseudonyms and no actual school names were used.

When examining characteristics of successful schools as defined by high college-enrolling populations, school leaders shared common characteristics. Four of the five schools had ethnic populations above state averages in all ethnic categories with the exception of American Indians. Four of the five schools also had above the state average for students receiving free/reduced school lunch. While the fifth school had a socioeconomic population that was high, that group was slightly below the state average of 38.5% with its FRL population at 33.3%, the school's racial populations met study criteria. Despite being slightly below state averages socioeconomically, this school was still used for those reasons. Overall, schools studied had higher than the state average college going populations, and all schools served underrepresented populations that were

larger than state averages. The original list of schools included schools within the Twin Cities metropolitan area, including the cities of Minneapolis and St. Paul. As noted above, the schools selected included only those in suburban communities where the districts were smaller and had one to four comprehensive high schools.

School Leaders

Two leaders from each of the five high schools were interviewed. Interviewees included four school principals and one associate principal as well as four counselors and one dean. Data from administrators and student support personnel were compiled and compared in this chapter and used to analyze programming and services within schools. Follow up conversations were conducted for clarity.

Table 4.1: Respondents of Interview Questionnaire

	Total Respondents	Principal/Associate Principal	Counselors/Deans
	All = 10	5	5
School Name			
Winterville High School	2	1	1
Lake Shore High School	2	1	1
Maple Hills High School	2	1	1
Westside High School	2	1	1
Blue Lake High School	2	1	1

Source: Compiled by author based on data collected

The remainder of this chapter is presented in five sections. First, the demographics of each participating school were examined. Second, a summary of responses of school leaders’ professional experiences both in current and previous positions was described. Third, the model of college readiness, including school academic programming, familial engagement, and individual student characteristics at each school was examined and discussed from the perspective of school leadership. This portion also included illustrations of how schools addressed the components of college readiness. Fourth, an examination of data from the Minnesota Department of Education

(MDE) was examined looking at college-enrollment, preparation, and persistence data for each participant school. Finally, this chapter concluded with a summary and comparison of the responses of leaders noting similarities and differences of successful schools. Throughout this paper, the components of college readiness were addressed and were central to interviews with school leaders.

Demographic Information of Participating Schools

Data used in this study included interviews from school personnel. Schools selection was purposeful, and synonyms were used for all institutions. The schools selected for this study met ethnic demographic requirements in multiple student subgroups. Specifically, all schools had student populations at or above the state average for both Black and Hispanic students, and all schools, with the exception of Maple Hills, had Asian populations at or above the state average as well. Additionally, all schools had White populations below the state average. All schools also had larger than the state school average for students receiving free/reduced school lunch with the exception of Maple Hills. Finally, all five schools surpassed the state average for students enrolling in college after graduation according to 2014 and 2015 Statewide Longitudinal Education Data System(SLEDS) data from the Minnesota Department of Education (MDE). The names and identities of all schools and school leaders are confidential, and pseudonyms for schools and their leaders were used instead of actual names.

Table 4.2 School Demographic Data

High School	School Enrollment	White	Black	Hispanic	Asian	American Indian	Free/Reduced	College Attendance
Lake Shore High	1850	58.3	14.6	9.3	16	1.9	45.8	72
Winterville High	1600	58.5	16.6	9.3	14	1.7	41.8	79
Maple Hills High	1650	62.4	18.5	11.7	6.7	0.7	33.3	78
Westside High	1680	65.6	14.3	8.7	10.3	1.2	40.3	75
Blue Lake High	2230	61.1	13.1	8.7	16.4	0.9	38.7	81
State Average		71.5	11	8.1	7.1	2.3	38.5	69

Source: Minnesota Statewide Longitudinal Educational Data, 2015

Study Participants

Of the ten respondents interviewed, the following tables summarize the experiences of each. The first table specifically addressed the years of experience in leadership at each educator’s current institution. This table addressed the length on time in the leader’s current location in his/her leadership role. The second question referred to any additional educational experiences held by each educator. This included not only leadership roles but also any educational experience in schools. Questions and topics covered in this study are listed in this section followed by interviewees’ responses and are organized to follow the order of the interview protocol employed by this study.

Duration of leadership role. The question of experience in the leaders’ present role was specifically designed to record the length of time each leader had been in their current leadership role at the building in which each respondent served. This information was used to explore if patterns of longevity and experience of leaders were tied to schools’ success. The number of years that principals/associate principals had served in their current building role averaged 9.6 years with 22 years being the longest and 2 years the shortest. The total years served in education (time in and out of building) averaged 22

years with 36 years being the longest and 8 years being the shortest number of years. Counselors/deans were similarly experienced but had slightly more years of service with the average tenure in their current building being 12.4 years. The longest number of years of experience in each counselor/dean’s current building was 20 years with 2 years being the shortest. When examining total years of service, however, this groups’ average was 18 years with 26 years being the longest number of years and 8 years being the shortest. In all the sites in this study, either the principal or the counselor/dean had served 13 years or more while the other individual interviewed had served 2 to 8 years. See Table 4.3.

Table 4.3 Leadership Years at Current School

	Principal/Ast. Principal	Counselor/Dean
School Name		
Winterville High School	13 years	8 years
Lake Shore High School	4 years	16 years
Maple Hills High School	22 years	2 years
Westside High School	2 years	16 years
Blue Lake High School	7 years	20 years

Source: Compiled by author based on data collected

Leadership roles and additional educational roles. The school leaders interviewed in this study came to their roles with a variety of experiences both in education and outside of education. It was common to move from a teaching position into a leadership position. Four of the five principals/associate principals also had teaching experience. The one who had no teaching experience was the principal of Lake Shore. He had moved from leadership in a private school to leadership in public education in another district. He had also worked as a financial analyst prior to working in education. Of the counselors/deans, only two, the counselors from Winterville and Lake Shore, had been in the classroom prior to their current role. The counselors from Maple Hills and Blue Lake had been counselors in different school districts, and one, the dean from Westside, had only served in her present district. See Table 4.4.

Table 4.4 Additional Educational Roles

School Name	Principal/Associate Principal	Counselor/Dean
Winterville High School	23 years as a teacher and a coach	8 years as a teacher in current district
Lake Shore High School	10 years admin, public and private schools	10 years teaching in district
Maple Hills High School	12 years teaching in current district	7 years counseling in another school
Westside High School	6 years working in current district	16 years only in current position
Blue Lake High School	9 years, admin/teacher in another district	3 years, counselor in another district

Source: Compiled by author based on data collected

After ascertaining background information on study participants, the focus of the study turned towards gaining information from each institution about each school leader’s perception of their school success and about how each school addressed elements of college readiness. The questions turned to the three elements of college readiness and towards finding common themes between schools. Again, the remaining questions focused on school programming, school/familial engagement, and characteristics of successful students.

School academic programming

School leaders were asked questions about how their school prepared students for college and about reasons underlying the numbers of students attending college. School leaders were also asked about how underrepresented students’ enrollment in college-preparatory courses both helped prepare those populations for college and how their enrolment mirrored the school’s student population. The interviews with leaders included questions regarding how schools prepared students, and subsequent questions queried how the school addressed its work with underrepresented populations.

Several themes emerged from a cross-cutting analysis of the responses. First, leaders stated that the school had made a conscious effort to increase advanced course

work. Examples of courses included the addition of more AP courses and dual enrollment courses and creating partnerships with local colleges. When describing access to advanced programming, all school leaders spoke of student self-selection and the belief that more access resulted in higher college-going populations. It was noted by school leadership that schools did not create obstacles for students selecting advanced course work but encouraged enrollment in advanced classes. A second dominant theme that existed among schools included a conscious effort to expand preparatory programming for underrepresented populations. In four of the five schools studied, this included the AVID program. In the fifth school, a similar program designed by the school in conjunction with a local community college provided academic supports for students. All schools specifically targeted underrepresented populations for these programs.

Leaders in each school were asked to give anecdotal information about their perceptions regarding the reasons for the success of their schools, and during interviews, they illustrated examples from their practices. Leaders were also asked about work with students from underrepresented populations in their buildings.

After examining the role of academic programming, the readiness component of familial structures was examined. Specifically, the relationship between the school and families was examined, and school leaders were asked explicitly how they worked with families and the extent to which they felt these relationships were necessary. School leaders described programming for post-secondary planning and how they advised and worked with students and families in this regard. The interview protocol specifically addressed this issue asking questions such as how the school communicated information to families, what services were available to families, and how were families connected to

the school. Each school recognized the importance of school-family relationship and the impact that they played in student learning. The following information was derived from interviews and addressed specifically the role of these relationships and of engaging families in educational endeavors.

The final interview topic and third element of college readiness outlined in this study described characteristics of successful students. This college readiness characteristic differs from academic and familial characteristics in that it talks about traits existent in individuals. These characteristics are often more difficult to quantify but are attributes that leaders felt were both important and transferable. When asked about specific characteristics they saw in students who were college ready, the following were common among leaders. Table 4.20 summarizes and delineates college readiness characteristics of successful students as perceived by school leaders of schools participating in this study. Characteristics included a desire to succeed, intellectual curiosity, student perspective, leadership, and parental involvement. When examining the characteristics identified by school leaders, some parallels to the characteristics in the literature were existent. For example, Allen's (1999) motivation factor was seen when looking at a student's desire to succeed and Komarraju (2012) premise that grades and classroom achievement was seen through students' intellectual curiosity. Each characteristic also had a set of attributes that supported that characteristic. While there were specific characteristics that were common among successful students, school leadership saw it important that the school not only recognize these characteristics, but they also made it clear that they thought that the school was obligated to help to foster and grow these characteristics. One of the principals stated, "In our AVID program we

focus on developing intellectual curiosity and determination. Many of our students in this program have obstacles that could prevent them from learning, and we work with them to overcome those barriers.”

The following section details the information from the interviews with building leaders encompassing the elements of college readiness and each school’s individual response to how they address academic components, familial engagement contexts, and student characteristics as they relate to college readiness and underrepresented populations.

Winterville High School. The principal of Winterville was asked about the reason for the success of the school when examined in terms of the college-going culture that existed. When responding to this question, the he approached the question from a curricular stance. This is consistent with Pike and Saupe (2002) who assert that courses taken in high school are a strong indicator of future college success. The principal of Winterville spoke of a culture that had changed and evolved over his time as principal. Speaking about the curriculum, the he noted:

When I began at Winterville, there were few advanced offerings in the curriculum. My previous school was an International Baccalaureate (IB) school, and I knew the benefits of advanced course work preparing students for college. Over my tenure as principal, the school has added 13 Advanced Placement (AP) and 8 University of Minnesota College in the Schools courses in core subject areas including English, mathematics, social studies, and world languages.

When asked about the qualification for student registration for advanced course work at the school, he stated that registration was based on self-selection. This idea of self-selection seemed consistent with the sites in this study and is a movement away from the traditional concept of prerequisites and requirements for advanced course work. While the principal did not speak explicitly about student agency, his response was consistent with research that indicated the school's commitment to providing rigor and access for students. For example, the principal stated, "It is my belief that students should attempt courses they desired to take with appropriate support from the counselors and teachers when necessary." While AP course selection was self-selected, the University of Minnesota College in the Schools (CIS) courses had institutional requirements set by the university and were only available to students with specific grade and rank criteria. At the school, 7 of the 13 AP courses available were offered in the social studies department. Teachers were involved in the development of programming and were able to enhance advanced offerings. As departments added to their course offerings, the social studies department actively chose to add additional advanced course work and enhanced their offerings. This practice seemingly exposed more students to advanced work and enhanced the course offerings available at the school.

When asked to expand on reasons underlying the social studies department's growth and addition of advanced courses, the principal described a conversation with one of the AP social studies teachers. The teacher asked the principal the direction that he wanted to see the AP program take. The teacher

specifically asked if the principal wanted to see higher enrollment or have higher test scores. The teacher stated that it was his desire to enroll more students and provide access but that he felt scores would decrease with increased enrollment. It was the teacher's desire to expose more students to the rigor of an advanced class but that would likely come with the cost of lower test results. He stated that this was not because the students did not have the intelligence to do well in the class but because they had not been exposed to the skills necessary to succeed. The teacher thought that students could eventually acquire those skills and did not need to have them upfront. He further explained how the skills the students learned in advanced classes would be transferable to other classes. Nevertheless, the teacher felt that the students who took the course and earned lower test scores would grow academically in the class learning skills and gaining knowledge that they could be used in other courses and disciplines. Both the teacher and the principal felt that exposure to content was more important than the initial maintenance of higher test scores. Consequently, the principal stated that roughly half of all students in the school attempted at least one advanced course while in that high school. According to writings by Conley (2010) and Kim and Bragg (2008), an indicator of college success is completion of higher level work in high school, regardless of grades in those courses. The principal's action seemed to concur with that notion. That respondent stated that he wanted to provide both higher level academic experiences for students and to have enrollment continue to increase in advanced classes.

When asked about underrepresented students in more advanced courses, the principal stated that enrollment of minority students appeared similar to White students in 9th and 10th grade classes but dropped off in 11th and 12th grade classes. When asked why he thought this was, he tied the component of familial influences to the component of academic rigor and stated, “This was, in part, due to lower parental school involvement. The school’s goal, however was to have all classes mirror the composition of the school and to have more non-White students complete advanced course work.”

According to the literature, often families of underrepresented students feel that they lack information (Martinez, et al, 2013) or student support (Hendon & Hirt, 2004). When asked how the school and administration were attempting to reach this goal of increasing minority enrollment in advanced classes, the principal stated that several programmatic endeavors were being used. The first was that of the national program Advancing Via Individual Determination (AVID). When talking about AVID and the goal of preparing the school’s underrepresented students for college, the principal spoke of the supports provided by AVID and how those supports assisted in preparing students for academic work after high school. One of the highlights of AVID was the benefit it brought to the underrepresented populations in the school. The principal further stated:

The school began the AVID program four years ago and had its first graduating AVID class in the spring of 2016. We followed the national AVID support model requiring participants to enroll in one AVID class daily for four years. AVID is a program designed to close the achievement gap by preparing students for college and other postsecondary opportunities. The program specifically targets underrepresented populations. During the AVID class, students learned AVID

study techniques and utilized tutors. This is a program that we use that helps our minority students focus on college.

The school's counselor spoke of additional programs that had been utilized including College Knowledge Month and College Application Week. These are programs that the Minnesota Department of Education designed to assist students with the college application process. The school also had financial aid assistance with Free Application for Federal Student Aid (FAFSA) evenings where the counseling staff and district community liaisons, along with college financial aid representatives, assisted families in completion of the FAFSA. During these events, the school made a concerted effort to reach out to underrepresented students and their families. Finally, the school encouraged and assisted students with a program through the Minnesota State Colleges and Universities (MnSCU) called the Power of YOU. This program provided a tuition-free education for students from lower socioeconomic status (SES) in a community college setting. This program also provided academic support from the college once the student arrived on the campus, tying together school programming and the academic component of college readiness with support for the student characteristic component of college readiness in that it incorporated a support structure designed to teach students the skills necessary for college success and ultimately lead to independence and resilience (Allen, 1999).

When talking with the counselor, she described the various programs provided to underrepresented students in the school, but the conversation turned to her motivation for working in her profession and to her personal background. She relayed her life experiences and how she was an underrepresented student who wanted to use her

background to help her students. Of the professionals interviewed in this study, this respondent was the only individual from an underrepresented population. She spoke of her personal motivation and persistence and how these gave her motivation to succeed. She stated, “I struggled in school. Few of my teachers accepted or understood me, and I want to help students who struggle like I did. I want to make a difference in their lives.” The statements by the Winterville counselor demonstrated the importance of student characteristics when examining college readiness (Matthews-Armstead, 2002). Her personal situation, along with her perseverance assisted her when completing her education and was a motivating factor in her completion of her education and in her desire to be of assistance to her students. She indicated that while her experiences were motivating factors, she desired to assist her students in learning qualities such as perseverance as well.

The leaders in this school demonstrated the connections between the components of college readiness when working with students and families. While the school designed and used existent academic components, they also recognized the importance of family/school ties (Holcomb-McCoy, 2010) and whether knowingly or not, the salience of personal characteristics was recognized by the acknowledgement of the counselor when speaking of her motivation and how she used it in her practice as a catalyst to help all students.

The Winterville population was comprised primarily of working class people who work in the service industry, social services, or government work. The principal stated that family involvement in student education was mixed. He said that “families who understand how schools and school systems operated were involved.” Understanding

school systems primarily meant knowing how to access services, teachers, and administrators. These were mostly the parents of the middle-class White students who knew how to navigate schools and systems. He also stated that “compared to White families, the non-White parents’ involvement fell off significantly, but the school was attempting to address communication with these families.”

When examining the programs available to students at the high school, the principal stated, “The school was attempting to have higher family engagement, especially from families of underrepresented students.” One method to accomplish this had been to look at conferences differently and to change conferences to meet with students’ families who needed the conferences. Teachers were spending more time calling home and occasionally visiting the homes. The school was also attempting to equip students with tools necessary for success. Students could check iPads and hot spots out of the library and take them home. The hot spots specifically allowed students without internet access to access the internet from anywhere. The principal said, “The availability of technology for all students helped the school not to have a technology access gap among its students. The school also pays fees for AP exams for those who cannot afford them.”

When asked about relationships with families, the principal’s response was, “The school had ‘a neutral trust from the families’. Specifically, families were not opposed to school suggestions regarding students taking higher level courses. They just do not push students to do so.” When asked to explain what this meant, the principal stated that parents respected the school but did not always listen to suggestions. Further, he defined the relationship between families and the school as one where the parents listened to

school suggestions but did not necessarily encourage or require their children to follow the recommendations of school leaders when selecting rigorous courses. This speaks to the trust and connection levels of the families when working with the school and suggests that they may not feel the school understands their student's needs. He also stated that the school did not have staff members that represent or looked similar to the student body. The district was attempting to rectify this by recruiting minority employees and school leaders were speaking with current students about coming back to the school to work/teach after college. Again, the theme of connection is seen here and can be interpreted as the school and district attempting to bridge the gaps in both trust and association by hiring liaisons to who underrepresented families can relate and whom they might trust.

When examining connections between the school and families of underrepresented students, the counselor stated that the school was attempting to build relationships and establish connections with families. Evening informal events were conducted to educate students and families about post-secondary opportunities, and the counseling staff invited and utilized experts from post-secondary settings to present information. The district also provided cultural liaisons through the district equity department. The counselor stated that the school had evenings when they used AVID programming and provided dinner and child care for families. The counselor also stated, "Out most successful events are when we personally invite families and when we used our cultural liaisons."

The educational leaders at Winterville described successful students as determined. The counselor said that they didn't give up and they persevered. When asked

about underrepresented and first-generation students, she spoke of how some had begun taking higher-level courses and experiencing success. She said that because of this, some had a self-discovery that they could succeed and perform in more advanced course work. The counselor stated, “Through exposure to advanced course work, students continued to challenge themselves.” Both the principal and the counselor attributed this to the school offering programs such as AVID and advanced course work. The principal stated, “Our minority students are buried treasure. We don’t know what we have until we discover them, and it is an exciting process to uncover all that they have.” The theme of the value of students was common within the sites studied although not always explicitly stated. The principal also stated that successful students had developed the ability to question, not just accept information. The principal believed that through the addition of the AVID program and more advanced course work, more students have developed a desire to attend college.

Lake Shore High School. When asked about the components of college readiness, Lake Shore’s principal spoke extensively about the schools’ strategic goals. When dealing with academic programming, he stated, “The school has been growing our advanced offerings and has added a number of courses.” When examining the academic programming at Lake Shore, there were a plethora of dual enrollment and advanced options including Advanced Placement (AP), University of Minnesota College in the Schools (CIS) courses, and articulated credit options. The articulated credit courses were classes taught by teachers from the school that also granted credit at various community colleges in career and technical education areas. School administration was exploring additional partnership and concurrent offerings with community colleges as well. The

school targeted underrepresented populations with college course offerings in high school and was looking for less restrictive advanced course offerings in order to serve a broader student population. The principal of Lake Shore was excited about adding more courses and opening them to a wider student population and spoke extensively of their building wide strategic goals.

The school's strategic goals targeted outcomes that included the reduction of freshmen failure rates, the improvement of test scores and graduation rates, reduction in disciplinary referrals, and enrollment in advanced course work that resembled course enrollment populations similar to the school population. When asked specifically how the school worked towards this goal, the principal stated, "The school actively identified students from underrepresented populations and had conversations with them about how they could be successful in these courses. Students were told to take the course they wanted to take, and we guided them as they considered future course work." Consistent with studies on underrepresented student success, the school provided academic support (Herndon and Hirt, 2004). Once in advanced classes, teachers worked hard helping students succeed in order to retain them by checking in with students and working with them outside of class time when necessary. Additionally, the school placed no prerequisites on students for advanced course work. This pattern of encouraging students to enroll in rigorous courses at Lake Shore combined the rigor of curriculum with the idea that students could develop resilience and perseverance. The school worked with students to develop those characteristics as opposed to expecting them to be innate. This was one example of how this institution helped develop college readiness by combining factors of college-readiness.

One successful program at Lake Shore was AVID. The counselor spoke of this program and stated, “About 45 students enroll in AVID per grade level per year. This equates to just over 10 percent of each class.” The school designed its AVID program to teach towards the AVID instructional model which are those of preparation for and opportunities in post-secondary settings. The school graduated its first AVID class in 2016, and the principal stated, “We have experienced student success, and all AVID students were accepted into four-year colleges.” The principal also stated, “Students who did not traditionally enroll in college participated in this program and have experienced an identity shift moving from uncertainty and less confidence to that self assurance and confidence.” He further explained how students coming into this program had little self-confidence academically and did not feel that college was a viable option available to them, but that by time they had completed the program, participants were ready for and excited about college. Important to note in the principal’s statement is both the linkage of and ties to the college readiness components of personal characteristics and school programming. The fact that the student characteristics were developed simultaneously with academic instruction is worth noting.

The counselor spoke of an academic enrichment program designed to assist struggling learners. Consistent with the research of Herndon and Hirt (2004), the school was providing supports to students to ensure success in their studies. She stated that “because not all students succeed in high school, a support program called For Us Education is Limitless (FUEL) was designed to assist them in academic and personal matters. FUEL was specifically developed with the goal of helping students reach their potential. When describing FUEL, the counselor stated:

Students recommended for this program were those who displayed low academic achievement, a disinterest in school, limited social connections, or low organizational skills. This support program placed students in smaller classes allowing more personalized attention and skill building. This program included development of study skills, involvement in school, and preparation for post-secondary opportunities. FUEL is a school within a school program that consists largely of students of color.

In addition to the many academic programs being offered, the school's counseling department developed strategies and programs to aid in college readiness for students. The counselor spoke of the amount of time and effort the counseling department put into ensuring that students accessed the programs intended to expose them to college options and programs. She stated:

At the beginning of the school year, the counselors meet with seniors to make connections and to ascertain their post-secondary goals. In the fall, the school also participates in College Knowledge Month, a program designed to assist students with college applications. We work with students during the last month of October to complete college applications during MnSCU's free college application week as well.

In February 2016, the school hosted a financial aid and financial aid application completion night for families to assist with the Free Application for Federal Student Aid (FAFSA) and answer financial aid questions. During these events, cultural liaisons were utilized. Counselors also introduced students to a program through the local community college called The Power of YOU. This program provided a free two-year education to

students along with academic supports that enable them to be more successful. As this program is through the state community college system, the school used personnel from the community college to speak directly with students explaining qualifications and characteristics of the program.

Community and parental involvement were limited at Lake Shore. For example, the principal stated, “Less than 40% of families attended conferences.” Conferences had traditionally been arena style where teachers were available in a large room with parents waiting to speak with them on an availability basis. In an attempt to meet families’ needs, the school changed conference formats from its arena style format to a mix of traditional, individual conferences, and telephone conferences where parents had a scheduled appointment to talk with teachers. The principal commented on this stating, “Anecdotally, after the switch to telephone conferences students’ grades improved.” The school was further studying the efficacy of telephone conferences to make a decision about future use and to measure student improvement. One manner by which the school attempted to rectify parental involvement was through its AVID program. AVID dinners, meetings, and conferences with families had resulted in both partnerships being built with families and in AVID students feeling a sense of belonging. The principal acknowledged, however, that family connections were an area that continued to need further improvement.

The counselor noted, “The counseling department had made efforts to involve parents at the school and to create student and family connectedness.” Some specific examples included the use of email to families, meetings for incoming freshmen and their families to familiarize them with the school and to tell them what to expect, and inclusion

of cultural liaisons to connect with families. The school also used a program through Infinite Campus called Parent Portal which provided parents with access to their students' grades. For families who did not have access to technology, the school loaned families Chrome books and a hot spot, a device giving users access to the internet. The theme of schools making more of an effort to build and maintain relationships and to engage families was one prevalent with both the principal and the counselor at Lake Shore. This was seen both through programming and through various means of communication. For example, the Counselor emphasized, "As a school, we need to do more to connect to and build relationships with the families of our underrepresented students." The attitudes and statements of both the counselor and principal of Lake Shore demonstrated a desire to build and maintain important relationships between schools and families, an emerging theme with successful schools.

When asked about characteristics of successful students, the principal of Lakes Shore stated, "Students who 'knew how to do school' experienced success." He described those students as those who understood the expectations and followed the rules. While the principal spoke about students who understood what needed to be done in order to be successful, he also noted that it was the school's role to teach those skills to students who did not possess them. Additionally, characteristics and phrases used to describe them by the counselor included resiliency, the ability to look towards the future, comfort when talking with adults, and parental involvement. While the principal's descriptions were similar to those of the counselor, he also added that while some of these characteristics were innate, most could be learned.

Maple Hills High School. The academic program at Maple Hills was strong, offering an abundance of honors, Advanced Placement (AP) and University of Minnesota College in the Schools (CIS) courses. Honors courses were offered in all core subject areas, specifically English, social studies, mathematics, and science. The first AP course available to students was US History, offered during the sophomore year. Registration for honors and AP classes was self-selected, and there were no barriers for enrollment. The principal was a strong advocate for advanced course work and spoke of both this philosophy of growth of the school's AP program and of student access to advanced work. He stated that advanced course work would better prepare students for college (Conley, 2010) and that his desire had been to expose more students to advanced classes. He also spoke of initial faculty resistance to the policy of access:

As I continued to add more AP classes over the past five years, I felt that more students should enroll, and I removed all barriers for student participation. This was initially met with faculty resistance; however, with larger numbers of students enrolled in the courses, no changes were seen in AP scores, silencing arguments.

The school also offered a variety of CIS courses ranging from world languages to English, math, and social studies. Additionally, the school offered a number of career development courses that allowed students opportunities in specific educational and vocational areas. When asked about student populations in advanced courses, the principal stated, "The ethnic and socioeconomic composition of freshmen and sophomore classes demonstrated equity and mirrored the school population; however, as students moved to upper grades, less diversity existed in the AP and CIS classes." The principal

expressed that he believed this was due to less family involvement in course selection due to less knowledge of school culture. He said, “This is due to a lack of knowledge of the higher education options available to students.” He also stated, “Especially among immigrant families, there is less knowledge and comfort navigating education systems.” This answer further indicated that schools need to work with underrepresented families who, due to a lack of experience, approach knowledge of post-secondary options at a deficit.

When examining programs that addressed underrepresented populations, the principal stated, “One of the best things Maple Hills had done was to begin an AVID program nine years earlier. The school targeted its students on color, first-generation students, and free/reduced lunch students for the program.”

To include students, the counselors had conversations with students and families explaining the idea that the college preparation program was built upon and signed them up to participate. When asked about familial involvement in students’ educations, the counselor stated, “There is not a lot of parental involvement. Therefore, we have developed programs through AVID and have added cultural family advocates who target and work with specific ethnic groups.” The counselor spoke specifically about the AVID program stating that, “Since its inception, the AVID program has been so successful that they have doubled their sections to two per grade level, and over 10% of the school participated in AVID.” The principal also added, “The district paid for one section, and the school used state compensatory monies to pay for the second section. There was a waiting-list for students to participate in AVID, and it is my goal for the program to

increase the AVID enrollment to 3 sections per grade level allowing over 300 students to participate.”

The idea that all students can do advanced work if given the proper supports was embraced by the school as they increased the supports offered through AVID and implemented a complete AVID program. This was reflected in the implementing and including of national AVID components such as the WICOR (Writing, Inquiry, Collaboration, Organization, and Reading) model as well as Cornell note taking and frequent college visits. The school also required that all AVID students take one honors or AP course. This resulted in an increase in school-wide enrollment in honors and AP courses. When explaining the reasons for the increase in AP classes at Maple Hills, the principal stated:

The number of students taking AP and honors courses have risen by roughly 30%. Due to the success of AVID and the increase in students taking more rigorous courses, the school has implemented AVID elements school wide. One example of this system-wide change was that of college visits, which were made available to all students.

According to the principal and the counselor, family involvement in activities at Maple Hills was strong, and most families supported post-secondary education. This was evident based on the fact that in 2016, 78 percent of its graduates were enrolled in college the year after they graduated. The principal stated that the community’s expectation was that students attend college and that the school prepared them for the rigors of college and assisted students in both obtaining college information and in applying for college admissions. Both the principal and the counselor pointed to the school’s use of Naviance,

a national software program and data base that is rich in information on colleges, universities, careers, and scholarships. All students had individual Naviance accounts, and counselors led student groups investigating information in Naviance. When asked about communication to families, Naviance was said to be the main tool. Communication was sent through Naviance to families from the counseling staff as well.

As an AVID school, both the principal and the counselor noted that if a school event involved AVID, parents typically attended. If an event is a non-Avid event, however, attendance tended to be White and Asian parents. The principal stated, “Consequently, we are discussing moving all school evening events to coincide with AVID evenings. Additionally, in recent years, the school has moved all important information either to its website or has taped and mailed DVDs home in-lieu of evening meetings.”

The school hosted many events for families; however, the principal stated that money was an issue for parental attendance at events. One evening event that was at the school was a dance performance. The principal pointed out that the school had a strong fine arts program, and that over 150 students participated in this event with both male and female students performing. The principal discussed how the school was proactive making this event accessible to all students and using the event as an opportunity to disseminate information to many families. He explained,

In previous years, there had been an admissions cost associated with this event, however, this had made attending the event prohibitive to some of the school’s population. The school removed all economic barriers for this event by

discontinuing admissions fees. This resulted in higher attendance, especially for students from underrepresented populations.

When interviewing leaders at Maple Hills, several student characteristics emerged in the perceptions offered by education leaders when describing successful students. Respondents indicated that motivation and drive were primary factors for successful students pointing out that a student's desire to do well in school and to attend a four-year institution were often factors behind motivation. The principal and counselor indicated that successful students were responsible and hard working. Another commonly perceived characteristic of successful students was that of leadership. The principal stated, "These students tended to think of how they were impacting others and about their education more as a part of the school community. They thought of how education could benefit the community rather than thinking of their own personal educational gain." The principal used the concept of "big picture learners with the desire to impact and give back to others."

Westside High School. Similar to the other schools in this study, the goal of the academic programs at Westside was, first and foremost, personalization with a strong focus on college-readiness. The curriculum was robust and continually expanding. The center of the curriculum was the school's early college program, which was a partnership with a local community college and was a dual enrollment program designed to allow students to earn college credit in the high school with the possibility of obtaining an associates degree by graduation from the high school. The school also had other advanced classes including 19 AP classes and several University of Minnesota CIS

classes. The question of access for advanced programming was addressed, and the dean stated:

There is some self-selection, but the early college program was designed for students in the 30th to 70th percentile. A holistic review is used, however, to identify students, and standardized assessments, as well as previous school performance and teacher recommendations, are used extensively in placement into the early college program.

In addition to the early college program, the school had a foundations course referred to as the “seminar course” that was given to students in need of more skill development during the freshman and sophomore years. Similar to Schmoker’s (2011) study, these courses were given for skill building for future college level work, not for remediation. When describing the seminar courses and purpose of them, the dean stressed the following:

The seminar courses were designed for acceleration, not remediation. Students identified for seminar courses are required to take them if they wish to enroll in future early college courses which offer dual credit with our community college partner. The courses teach student skills they will need to be successful in college level work.

Both the associate principal and the dean stated that the early college curriculum was reflective of the school population serving the school’s underrepresented students. When asked about the success of the school, the associate principal pointed to the dean model. Both the associate principal and the dean spoke extensively about the dean model and how the model offered more personalization. In 2008, this district moved away from

a counselor model towards the dean model. The differences in the models were centered on student caseload and employee licensing and job duties. Dean case loads were 250 students per dean as opposed to 500 per counselor. Dean licensure expanded from school counseling licensure to include licensure in the areas of administration, counseling, social work, and special education, and dean responsibilities included counseling roles as well as attendance and disciplinary roles. The belief of this district was that the dean would meet almost all needs of the students in his/her caseload and that there is greater personalization with this model. The dean stated, “The student/dean ratio is approximately 250 to 1 allowing the deans to get to know their students.” She also stated:

Having this model provides personalization for students and families. Each student begins his/her freshman year with a four-year planning meeting where the dean, the student, and the parent designed a comprehensive academic plan used to guide the student throughout high school. During this time, questions about student academic and career goals guided the conversation. Prior to the four-year planning meeting, students had exposure to this type of conversation as the district middle school deans have developed a 3+1 plan for students in sixth grade where they developed a middle school academic plan that also centered on the first year of high school.

Over the past five years, Westside and this school district have made an effort to address equity and achievement for underrepresented students by developing the district’s “Equity Promise”. This promise made three assertions: first, programs and services were in place at all schools to ensure that race, class and disability would not predict students’ success. Second, student academic performance would not fall into patterns identifiable

by factors such as race, ethnicity, English language proficiency, socio-economic status and disability, and third, the school that a student attends would not be the predictor of his/her school success. The associate principal stated that, “The equity promise defines many of the programs in the district, and this policy statement underlies much of the work done in the district and the building.” The district had made a commitment to an equity promise, which was an intentional program designed to counter the achievement gap and provide rigor for all student groups.

The associate principal spoke of equity in the building and stated, “The overarching theme of equity is one used on many levels in this building. Classroom populations reflect the population of the school.” She further stated, “The school has made a concerted effort to ensure that all students have access to advanced classes and that students of all groups access our early college program.” The seminar courses were examples of programs designed to accelerate students. There were also two specific programs designed to support underrepresented students and assist them as they progressed through the school’s academic program. Those were Scholars Together Respecting the Importance and Purpose of Education in School (S.T.R.I.P.E.S.) and Essence. S.T.R.I.P.E.S. was a program designed for male students from underrepresented backgrounds, while Essence was the equivalent program for female students from underrepresented backgrounds. Both programs were after-school support programs designed to assist students in study skills and college preparation. The dean stated that she had been at the school and watched the development of the S.T.R.I.P.E.S. and Essence programs. She stated, “These programs have helped many of our students from underrepresented populations make connections to the school.”

A number of supports for students and families of underrepresented populations were in place in the school as well. There was a full-time equity specialist who worked with students, families, and faculty. There were also cultural liaisons that represent Somali, Latino, and Hmong populations. These liaisons were district employees but were present in the schools as needed and were utilized for working with families. The school also used professional development for the teachers to address culturally responsive teaching and trained teachers. The dean spoke specifically about the liaisons and stated:

Liaisons are utilized by the deans in the student services office, especially when working with students and families on course selection. They are a definite asset to us as they bring a level of trust for families as they are working with the school.

When asked about family connections, the associate principal stated that the dean model connected families to the school. Families worked with their dean for all four years of high school. According to the associate principal, “The dean was the primary point of contact for families at the school and was the person to whom families received most primary communication.” The student to dean ratio at the school is roughly 250 to 1, which is the recommended case load according to the American School Counselor’s Association and is half the counselor to student ratio seen throughout Minnesota public high schools.

During the interview, the dean also stated, “Relationships were developed with students and families through the dean model.” She specifically mentioned that this relationship included the initial four-year planning meeting and numerous conference and communication evenings that took place during the school year. Both the associate principal and the dean talked about the involvement of families in the school and the

importance of those relationships. The associate principal said, “The work with families of underrepresented populations was continual, needing constant focus and attention.”

The dean reiterated this theme stating, “There is a district-wide emphasis placed on work with underrepresented populations, specifically work encouraging these populations to enroll in AP and dual enrollment courses earning college credit in our school setting.”

Through the interview, the concept of the district’s “equity promise” guided the work of the leadership and of the school in general. The school district developed a program whereby the district stated that learning and achievement would not be definable based on a student’s ethnicity, socioeconomic status, or learning disability by 2016. This interview took place during the year in which the district’s equity promise was to have been fulfilled. Because of this, much of the emphasis of all district programming was on student achievement across all student groups.

When examining successful students, several common ideas emerged in the responses of both the associate principal and the dean of Westside. First, students who succeeded were persistent and pushed themselves. These school leaders described successful students as curious, inquisitive, and adaptable. The associate principal stated that successful students were not always internally motivated and did not always have knowledge about how the process of school worked, but they had the motivation to seek out resources and ask for help. For example, she noted, “Students feel comfortable approaching teachers and deans and asking for the help that they need to get information about classes or being successful at school. They feel this level of comfort with the relationships that have been built.”

When identifying successful underrepresented students, school leaders viewed them to be resilient and able to overcome obstacles. While able to adjust, it was stated that these students were still in need of assistance, and it was also stated that the school attempted to identify where students were so as to work with them and help them develop the characteristics necessary to be successful. The dean of the school gave a specific example of how this worked in the school describing the equity work being done in the building and describing how students are identified for advanced programming and encouraged to enroll in concurrent course work. The associate principal spoke of how the school identified students for this program and said that students are identified for early college classes based on their potential to succeed, not simply on how they had done in previous course work. She talked about how students are known by their dean who knows them and their ability and can help work with them as they move towards advanced course work. The associate principal also talked about how working with these students sometimes required pep talks and encouragement in order to develop strong self-perceptions (Matthews-Armstead, 2002). Some of our after-school programs like STRIPES and Essence assist when trying to help students make connections and get involved.

Blue Lake High School. Blue Lake had a strong commitment to diversity and serving underrepresented students. The principal stated, “Everything we do is about equity and opportunity for our students.” The AVID program was used extensively and included 2 sections per grade level in grades 9-11. The senior class had one section, but during the 2016-2017 academic year, all grade levels had two sections; this represented roughly 10 percent of the school population. The AVID population was comprised of

roughly 90% students of color, and the program aligned with the equity perspective of the school. This program was in high demand at the school with a waiting list at every grade level. The school implemented a model following the national AVID model and incorporating rigorous courses, study skill instruction, note-taking skills, and college visits. The school was also in the process of being classified as an AVID School of Distinction. One counselor had been assigned as the AVID counselor. He stated that his role was to serve as the counselor for all AVID students. Additionally, he went into every AVID classroom at least once each trimester presenting college information.

In addition to AVID, the school used College Possible, a high school curriculum for low-income students designed to assist students as they prepared and enroll in college. This program provided students with AmeriCorps member coaches who assisted students through a 320-hour curriculum-based college preparation process during after-school sessions twice weekly. One of the primary goals of this program was to prepare them for college expectations (Roderick, Nagaok, and Coca, 2009). Program components included information on the college application process, test preparation for the ACT/SAT exams, campus tours, college financial aid and scholarships, and college transition programming. This program provided students with support as they both transitioned to and progressed through college.

Consistent with Conley (2010), the school developed a positive college culture, with teachers using Naviance, a college counseling software program, in the classroom and discussing college options with students. The counselor gave one example of teacher participation. He stated, “We have developed standardized display sheets posted outside every classroom showing which college(s) the teacher attended. This created

conversations with students and their teachers about college and helps foster a college-going culture in our school.”

An additional means by which the school used Naviance was by checking students’ college application status. The career center staff monitored student application submission seeking out students who had not applied to colleges assisting them in the process. The counselor at Blue Lake described the use of Naviance at the school stating:

We use Naviance, as one of the primary tools for school wide college counseling.

The school has developed a comprehensive Naviance curriculum with counselors and community liaisons going into classrooms and working with students.

The principal spoke not only of the school’s dedication to diversity but of their commitment to ensuring equity and inclusion in advanced course work. Blue Lake participated in the Equal Opportunity Schools (EOS) program with the goals of increasing the number of underrepresented students taking advanced courses and connecting them to college enrollment. Courses that prepared students for college level work included AP, CIS, and articulated courses awarding credit through local community colleges. When examining registration numbers, underrepresented students were not proportionately represented in these advanced courses. They were, however, better represented in advanced courses in English and social studies than in math and science courses. When examining reasons behind a lower proportion of students of color enrolled in AP classes, the principal said, “There are two possible reasons for our underrepresented students not taking advanced course work. These have to do with a lack of academic confidence displayed by the students, as well as student discomfort because students ‘don’t look like me.’” In an attempt to support and integrate students of color

into higher level courses, the school implemented programs such as a summer AP prep program designed to teach study skills and encourage students of color to enroll in higher level courses.

Both the principal and the counselor echoed an equity theme existent in the school. They both stated that students of color were the first group considered and looked at when developing college-preparatory programs and were the main focus of programming. The principal stated, “The work that we have done at Blue Lake has become a model for the Metro. I have presented to my principal colleagues across the Twin Cities about programming for underrepresented populations.”

The dedication to Blue Lake’s work with equity was seen not only in the school’s work with AVID but through programs such as Equal Opportunity School (EOS) and College Possible. EOS is a non-profit organization that works with schools to help close achievement gaps by working with students to encourage them and provide support for them as they enroll in rigorous college preparatory course work. College Possible is a curricular-based program designed to assist low-income students in the college application process during their junior and senior years. This program works with students during the application process, during the financial aid application period, and as students transition into the collegiate setting.

Not only was there a focus on academic programming for students of color, but there was an emphasis on building-wide professional development for the staff focusing on equity and how staff respond to the diversity within the school rather than on how students needed to fit a mold or prescribed persona. While not unique to this school, the theme of professional development with a focus on diversity was evident. The principal

stated, “Every staff member in this building is required to have a commitment to equity, and all of the professional development is centered on equity services and programming.” This attitude and commitment started with the principal and filtered to all building staff members including counselors, teachers, and paraprofessionals. For example, the principal delivered an equity presentation to her colleagues at the Minnesota Association of Secondary School Principals (MASSP) in which she outlined how her district, and specifically her school, developed a culturally responsive model to introduce students in her building to programs with high academic rigor.

The school also participated in the Pacific Educational Group (PEG), a group committed to racial equity in education. PEG uses at its core the book *Courageous Conversations* written by its founder Glenn Singleton. PEG seeks to partner with education organizations to transform beliefs, behaviors, and results to bring about racial equity transformation. The goals and themes of PEG and *Courageous Conversations* mirrored the goals of the school and through professional development programming; the school showed a strong commitment to equity work. The principal spoke of the building-wide professional development designed to have faculty assess their own level of comfort with equity and stated:

The use of *Courageous Conversations* gave the faculty the opportunity to talk about equity and to face issues with which they were not comfortable. We used this and further professional development to get outside of our comfort zones and face our own levels of inclusion.

An additional means by which the school has shown commitment to equity work and inclusion has been by the implementation of programs such as the Intercultural

Development Inventory (IDI) designed to measure intercultural competence. This tool is an assessment designed to measure cultural perspective and to allow participants to see where they rest on the cultural competence continuum. The school administered this assessment to the faculty and divided teachers into groups depending on score designing equity training based on groups. After initial training, the school provided professional development based on equity and had staff members develop a personal Individual Growth Development Plan (IGDP). The IGDP plans were based on Charlotte Danielson's themes of equity and cultural competence and equity. The principal stated, "All building employees IGDP is focused on equity and building relationships and cultural competence within the classroom. This is key and the heartbeat of our school."

While the school has dedicated time and resource to professional development based on equity, it had also implemented systemic changes meant to address equity. This is an important finding in that the school felt it important to address equity with professional development but felt it equally as important to address systemic structures changing those in need of restructuring. One example of systemic change was through school scheduling. Education leaders employed a new flex schedule during the 2016-2017 academic year with the objective of increasing student achievement. The principal stated that "many underrepresented students have a difficult time getting to school early or staying after school for teacher assistance, so the daily schedule was adjusted." The schedule consisted of a five period trimester with a weekly advisory period. The new schedule eliminated the time spent in the former advisory period, a time when teachers met with small groups of students, and added 25 minutes to each class once weekly. To accomplish this, the principal shortened all classes by 5 minutes and eliminated the

advisory period. The principal noted, “The added time will be used for pausing to check and connect with students and to re-teach materials.” This program was developed by the school to ensure that student learning was happening and to adjust instruction if it were not. This time was not to be used for additional instruction. Instead the teacher checked for understanding of concepts previously taught and used the time for to ensure student learning had occurred. The purpose of this change was to allow for student learning to take place during the school day while students were present and to eliminate the need for students to come early to school or stay late after school.

When asked about what family involvement and family connections look liked at Blue Lake, the principal stated, “Parental involvement mirrors student achievement. The students who were doing well were the same students whose parents were involved. Typically, this had meant that there was lower involvement from the parents of the students of color.” The principal indicated, “White families felt welcomed at the school, but there were missing connections with the families of students of color, especially with Black families.” Because of this lack of connection to the school, the school identified and examined the need to improve relationships with the families of all students of color. One example of an area of focus was with parent/teacher conferences. As with many schools, respondents indicated that these conferences were arena style and were typically well attended by White and Asian families. The school added a new conference format with teachers going into homes in an attempt to make better connections. The district also began to use interpreters and community liaisons for English Language Learner families. Finally, professional development for building faculty focused on teacher goals for student improvement aimed at students of color.

When asked about school/family relationships and how families of students of color relate to the building, AVID students' families were stated to have strong relationships. Because only roughly 10 percent of students are involved in AVID, the school emphasized post-secondary options to all students by various means. All teachers received AVID training, and because of this, AVID strategies were used building wide. The counselor, who was the building AVID representative, stated. "Teachers use, and students were being taught, AVID strategies throughout the building, specifically, AVID study skills and note-taking skills. The school has taken AVID strategies and implemented them in a larger context."

As a school with a large college-going population, respondents from BlueLake indicated that the characteristics of successful students included such things as grit, perseverance, and motivation. The principal and counselor perceived that successful students typically aspired to college and had a desire to learn. They perceived that those students aspiring to attend college often had a knowledge level that was higher than their peers, and they asked complicated questions. Successful students were able to communicate and advocate for themselves.

The concept of universal access and opportunity was a shared systemic ideal with Blue Lake, and the principal further stated, "While not a characteristic, privilege enables students to succeed. Much of what the school is attempting to do is to assist students without privilege." When asked to describe characteristics of successful students in their school, the counselor stated, "Often they come from disadvantaged backgrounds and successfully demonstrate the ability to overcome obstacles whether at home or school." This coincided with resilience and grit outlined earlier by building leadership. The ideals

and values consistently embraced at Blue Lake was diversity and access. Similar to studies conducted by Hicks and Sphere (2003, 2006), the school took into consideration background and life experiences and believed in universal access based on student choice.

School Programming Summation. Education leaders consistently addressed the importance of the components of college readiness and described how they addressed each. The following synopsis concisely outlines how each component was addressed by each school. The first diagram outlines academic preparation at each site. (Table 4.5)

Table 4.5: School Programming for College Readiness Preparation

School	AP/CIS/Artic	AVID	Concurrent	MCIS	Naviance	Liaisons	App Help
Winterville	X	X		X		X	X
Lakeshore	X	X		X		X	X
Maple Hills	X	X			X	X	
Westside	X		X		X	X	X
BlueLake	X	X			X	X	X

Source: Compiled by author based on data collected

Leaders from each school stated that they made conscious decisions to address academic programming and to ensure that the needs of underrepresented students were strategically addressed when enrolling students in advanced courses. Availability and type of advanced course work varied by school but included such things as Advanced Placement courses, University of Minnesota College in the Schools courses, honors courses, concurrent college courses, and articulated credit courses. While what existed in each school varied, all schools had already increased, or planned to increase, the availability of advanced courses.

A major program used by four of the five sites to provide extra support and college preparation for primarily underrepresented populations was AVID. Schools using AVID typically supported around 10 percent of their student population meaning between 40 to 50 students per grade level. The common components used by AVID schools included one AVID class daily for the entirety of high school using a specific curriculum known as WICOR (Writing, Inquiry, Collaboration, Organization, and Reading), the use of AVID trained tutors and tutorials, and activities designed to provide access to college and university settings. The one school that did not use AVID, Westside High School, had a course they called their seminar course that was given to freshmen and sophomore students to prepare them for college level courses and enabled participating students ultimately to enroll in concurrent courses in the high school that gave students community college credit through the school's community college partnership.

All schools had computer software programs that addressed college and career readiness. Three of the five schools used Naviance; the other two schools used the Minnesota Career Information System. For all five of these schools, classroom or computer lab presentations were made by counselors or deans. The types of activities used included career and interest assessments, college search activities, and scholarship searches. Most schools also had organized application assistance days during Minnesota College Knowledge Month, which annually takes place in October.

Finally, the realization that many underrepresented students came from cultures or backgrounds that were different from that of the educators in the school resulted in the use of cultural liaisons in all five of these schools. The number and type of liaisons varied

depending on the populations and numbers of students in the various schools, but the knowledge of the need and the utilization of liaisons existed.

All professionals interviewed in this study acknowledged that family engagement was pivotal in student achievement. Students whose parents were involved in their children's education were perceived to be more successful. Involvement was stated to be higher for White families and for those who were more affluent. The parents of students of color and/or those with lower socioeconomic status were not as involved, and their students did not do as well academically or enroll in advanced courses at as high a rate. While consistent with other research, these facts informed the schools' attempts to focus on student achievement and familial relationships. Because of lower school involvement of families of underrepresented students, school leaders sought alternative means of addressing needs. All sites represented in this study felt it the school's responsibility to initiate and to develop relationships with families. Some attributes that they sought to instill in their relationships with families were trust, engagement, and communication. Schools felt it necessary to be proactive and used a variety of means by which to build relationships. Tools used by schools regarding communication and familial influences were similar among schools. Table 4.6 summarizes the means by which schools developed relationships and engagement with families and is followed by narratives describing specific information about the connections made in each institution.

Winterville and Lake Shore High Schools were located in the same district and had similar programming. Both schools ensured that their students had technology and had provided it for those lacking a means by which to obtain it. They also used varied strategies by which to send information home to families who do not come to school

events. These efforts included making DVDs of events and mailing them home, emailing information to parents, and looking at creative ways to conference. Teachers and counselors had phone and home conferences with families in attempts to make school/family connections. Blue Lake High School has also begun to implement home conferences as a means by which to meet with families. Westside High School has also changed conferences building wide. In lieu of individual conferences, the school is now having targeted conferences inviting parents to conferences. Often the families being invited are those of the students from underrepresented backgrounds. The school is also utilizing their community liaisons and equity specialists in these conferences.

Table 4.6: Family/School Communication

School	Alternative Conferences	Technology Assistance	Fee Payment Assistance	Staff Recruitment	AVID Programming	Liaisons
Winterville	X	X	X	X	X	X
Lakeshore	X	X			X	
Maple Hills		X	X		X	
Westside	X					X
BlueLake	X				X	X

Source: Compiled by author based on data collected

Schools reached out to families of underrepresented students and implemented evening events for families that include meals and child care, and schools are seeing more involvement and connection among this group. Winterville and Lake Shore High Schools have seen success and have made connections with families, especially those of their AVID students, with this type of programming, and Maple Valley has been successful making connections with families by waiving all fees for any school events.

A common method of reaching underrepresented families for all schools in this study has been the use of cultural liaisons, equity specialists, and interpreters. By

bringing specialists into conversations, schools were attempting to acknowledge the need to find alternative means of communication. All individuals interviewed stated the importance of familial involvement in students' educations, and all acknowledged that while their schools addressed this need, there was room for improvement and a constant need for adjustment. None of the schools in this study utilized parent surveys to assess familial needs during the time-frame of this study.

When examining the work being done by the schools in this study, one school stands out for the work being done around equity. Blue Lake High school made a concerted effort to address equity and all professional development has been designed specifically around that work. Programs developed to move this initiative forward have included AVID, Equal Opportunity School (EOS) and College Possible. The principal has presented to other educational leaders across the Twin Cities at the Minnesota Association of Secondary School Principals (MASSP). The principal stated that Blue Lake has experienced demographic changes and has created school-wide programming to address the changes resulting in other schools looking to Blue Lake for leadership in this area. The school has also participated in the Pacific Educational Group (PEG), addressing racial equity and has used the book *Courageous Conversations* in the school's professional development programs.

School leaders were asked about what they perceived as characteristic of successful students. Most respondents perceived that successful students had a desire to succeed. Specific terms and attributes used by study participants to describe the desire to succeed included: determined, driven, perseverance, motivated, grit, resilient, and the ability to overcome obstacles. When describing an example of a student who desired to

succeed, the counselor from Westside spoke of one of her students. This student worked through the difficulties he encountered and succeeded. The dean stated:

At Westside, Advanced Placement US History is class for sophomores. Our students who are taking the seminar course can struggle at times in this class. This was the case for one of my students. He was falling behind and struggling with the tests and with the essays. He was determined to master the class, however, and went to the teacher's extra study sessions. In the end, he earned a passing grade on the AP test which granted him college credit at the school he wanted to attend.

Second, respondents often stated that successful students had intellectual curiosity. They often expressed this ability when they used the following terms in describing students: the ability to question, curious, inquisitive, and the desire to learn. For example, one principal described a student who was innately intelligent and went above and beyond the curriculum of the school:

We had a student who had a love for math and science. He mastered all the classes that we had in our school and decided to conduct his own research. In the end, the student completed an independent study that he submitted to the Minnesota Department of Education earning him the "Scholars of Distinction" title. He was the first in the school to earn this distinction, and he was later admitted to several prestigious universities.

Third, respondents often concluded that students were successful if they were able to put things into perspective. One of the counselors stated, "Successful students have the ability to look at the future," Another said, "They can see the big picture".

Fourth, successful students were described as leaders with communication skills and an ability to relate to others. One principal stated, “Successful students are comfortable with adults and can relate to them on an adult level.” He spoke of the ability these students have to communicate and express themselves to and with adults.

Finally, while not a student characteristic, a theme that successful students shared was that of parental involvement. The idea that parents were directly involved in every dimension of a student’s life was perceived as an important and universal factor. All individuals interviewed in this study spoke of parental involvement often and stressed the importance of partnerships between the school and home.

College-Going Statistics

After examining the leadership perceptions of college preparatory programming at each site, this study looked at each school’s college attendance pattern data (see Table 4.7). Data included student college enrollment, preparation, and persistence data at each participant school. Data came from the Minnesota Department of Education (MDE) in the Minnesota Statewide Longitudinal Educational Data System (SLEDS) report. School data identified college attendance rates after high school graduation and included college enrollment, college persistence, developmental courses taking, and standardized test results as measured by ACT mean composite scores. Data for a two-year period was used examining the graduating Classes of 2014 and 2015. All data were reported as percentages of students in each group. Data included the percentage of students who enrolled in college in the fall following high school graduation as is seen for a two-year period in the column indicating college enrollment percentage. Persistence data seen in the second and third column on Table 4.7 showed the percentage of enrolled students

who began second and third years of studies for the Class of 2014. Finally, readiness data was reported in the last two columns of Table 4.7 and included the percentage of students enrolled in developmental courses and the state ACT mean composite score for both years. MDE reported enrollment and ACT composite scores for 2014-2015, but did not report persistence data for that year.

This study disaggregated demographic school level data by ethnic group and poverty status for each school to show college enrollment rates, persistence rates, and readiness rates as measured by taking developmental courses and ACT scores.

Persistence data was available for the 2013-2014 school year but not for the 2014-2015 school year as the MDE did not have this data available. See Table 4.7.

Table 4.7 Minnesota College Attendance and Persistence Rates

Academic Year	College Enrollment Percentage	Began 2 nd Academic Year (%) ^a	Began 3 rd Academic Year (%) ^b	Enrolled in Developmental Ed Course(s) (%) ^c	ACT Mean Composite Average
2013-2014	69.7	84	68	21	22.86
2014-2015	69.1	NA	NA	23	22.82

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Note: a: Percent of those students who began college in 2013-2014 who started second year in 2014-2015

b: Percent of those students who began college in 2013-2014 who started third year in 2015-2016

c: Percent of those students who began college in 2013-2014

Initial qualifying factors defining the schools used in this study as successful were the rate at which they sent graduating seniors to college combined with the demographic make-up of the schools. All schools had at least one ethnic group that was greater than or equal to the state average for that group and/or higher rates of students receiving free/reduced lunch as defined by federal guidelines than the state average.

Schools were also examined when measuring both college persistence and college readiness as measured by college level course enrollment. Persistence for this study was measured by percentages of students enrolling in years subsequent to the freshman year.

Both second and third year enrollments were examined. College readiness was measured by student enrollment in college level courses and through college entrance ACT composite scores.

Upon examination of the data that pertained to persistence, the general populations of the schools studied demonstrated persistence above the state average in all schools with the exception of Winterville High School. Winterville was at the state average for students returning a second year but below the state average for students returning a third year. Persistence was seen as an indicator of college readiness as students move towards degree attainment.

When examining data around college readiness, developmental course taking indicated that students were not ready for college-level course work. Higher rates of development course taking indicated lower rates of college readiness. Westside and Maple Hills were the only two schools whose overall percentage of the student population enrollment in developmental courses was below the state average in the fall of 2014. In 2015 Westside, Maple Hills, and Blue Lake had fewer students taking developmental courses than the state average while Lake Shore and Winterville surpassed the state average having more students enrolled in developmental courses. When using the ACT composite score averages as a measure of college readiness, Maple Hills and Blue Lake surpassed the state average composite score both years. Westside was below the state average in 2014 but above the state average in 2015. Lake Shore and Winterville were below the state average both years. See Table 4.8. Statistics indicate that while these schools were successful sending students to college, not all students enrolling may be prepared as indicated by the percentage of students enrolled in developmental courses.

Table 4.8 Participant Schools' Building Wide College Attendance and Persistence Data

Academic Year	College Enrollment Percentage	Began 2 nd Academic Year	Began 3 rd Academic Year	Enrolled in Developmental Ed Course(s)	ACT Mean Composite Average
Minnesota Averages					
2013-2014	69.7	84	68	21	22.86
2014-2015	69.1	NA	NA	23	22.82
Lake Shore High School					
2013-2014	81	87	77	23	22.38
2014-2015	79	NA	NA	32	22.05
Winterville High School					
2013-2014	75	84	64	35	21.27
2014-2015	75	NA	NA	30	21.9
Maple Hills High School					
2013-2014	82	88	74	19	23.26
2014-2015	79	NA	NA	20	23.53
Westside High School					
2013-2014	76	87	71	19	22.38
2014-2015	77	NA	NA	16	22.85
Blue Lake High School					
2013-2014	80	88	78	27	23.45
2014-2015	80	NA	NA	23	23.27

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

College Site Statistics by Ethnicity

The schools in this study sent students to college at or above the state average when examining the general population of each site. The study sought to discover if successful schools were equally as successful when examining underrepresented groups. While interviews with school leaders in all sites demonstrated a commitment to diversity, data derived from the MDE and the SLEDS report showed actual enrollment, persistence, and preparation data for the entire state of Minnesota and for each school in this study. The following section shows data for White, Black, Asian, Hispanic, and Free/Reduced populations in Minnesota and at study sites.

White Population College Statistics. When examining ethnic data on college enrollment, persistence, and readiness for White students in Minnesota and in the schools used in this study, most data were higher for White students than for other ethnic groups in almost every category. First, college enrollment data was higher statewide and for the

sites participating in this study. All schools in this study surpassed the state college attendance rates for White students for both years analyzed for this study. The persistence rates of White students from the schools in this study also surpassed the state's persistence rate. One exception was for the fall of 2015 when White students from Winterville met, not exceeded, the average state White student enrollment rates.

Some schools surpassed the state averages for White students taking developmental courses while others were below state averages. At Maple Plains and Westside, White students were enrolled in developmental courses at a lower rate than the state average for both years. At Blue Lake, White students were enrolled in developmental courses at the same rate as the state average in 2014 but at lower rates in 2015. Winterville and Lake Shore had higher rates of White students enroll in developmental courses than the state average.

The second measure of college readiness used in this study, ACT mean averages, demonstrated that White students at Maple Plains and Blue Lake surpassed the average ACT composite score for White students in the state for both years analyzed, but White students at Lake Shore, Winterville, and Westside fell below the state average for White students over the same period. See Table 4.9 and Table 4.10.

Table 4.9 Participant Schools' White Student College Attendance and Persistence 2013-2014

	Lake Shore	Winterville	Maple Plains	Westside	Blue Lake	MN – White
Number	209	243	253	259	319	44,824
College Enrollment %	78	87	83	75	82	72
Began 2 nd Year	87	90	90	89	89	86
Began 3 rd Year	70	80	87	75	81	70
Developmental Courses	32	19	12	14	18	18
ACT Mean Average	22.10	23.61	23.98	23.38	24.72	23.59

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Table 4.10 Participant Schools' White Student College Attendance and Persistence 2014-2015

	Lake Shore	Winterville	Maple Plains	Westside	Blue Lake	MN – White
Number	230	320	233	242	320	44,783
College Enrollment %	76	80	82	88	82	70
Developmental Courses	18	26	16	10	16	16
ACT Mean Average	23.47	22.99	24.35	23.43	24.64	23.63

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Underrepresented Student Data. Attendance, persistence, and readiness indicators demonstrated lower rates in all categories for underrepresented populations at the schools included in this study. The following discussion summarized the study's analyzed data from Black, Asian, Hispanic, and students receiving free/reduced lunch as categorized by federal standards. College attendance was defined by college enrollment percentages of students by ethnic groups. College persistence was categorized by enrollment data for students returning for their second and third years of undergraduate studies. Readiness was measured by ACT mean composite averages and by percentage of students enrolled in developmental courses.

Black Population College Statistics. Black students in Minnesota enrolled in college at a lower rate than state averages over both years. The rate of Black student enrollment was 60% in the fall of 2014 and 61% in the fall of 2015. Enrollment rates at participant schools also showed lower rates of enrollment for Black students than the overall state averages of 69.7 in 2014 and 69.1 in 2015 as well as at all schools with the exception of Winterville during the second year of the study. Additionally, enrollment rates decreased during the second year of the study in all participant schools with the exception of Winterville in 2015. Enrollment rates of Black students in participant schools demonstrated higher college enrollment rates than Black students in Minnesota as

well during the first year of the study for all schools except for Lake Shore and Winterville. In the second year of the study, however, all study sites had lower enrollment rates for Black students except for Lake Shore. Persistence rates for Black students in participant schools were also lower than the 86% second year state average for all schools except Westside and Winterville. Three schools had students return for a third college year at rates at or above the 60% state average. Those were Winterville, Westside, and Blue Lake. When examining Minnesota Black student persistence rates, however, all study sites had rates above the state averages both years of the study.

When examining readiness indicators, Black students at all sites were below state averages for the general population when measured by developmental course taking and ACT composite average. However, all sites were above the state average for Black students on both measures. Specifically, all participating schools had significantly more Black students taking developmental courses than the state overall averages of 18% for 2014 and 16% for 2015, and all schools' ACT averages for Black students were below state overall averages during both years. When comparing to state Black student averages, however, participant schools had fewer Black students enrolled in developmental courses at all schools in 2014 with the exception of Maple Plains and at Westside in 2015. All schools' ACT composite average was above the state average for Black students.

While participant schools showed lower rates for college enrollment and persistence than the overall state averages for all populations, some schools demonstrated higher enrollment and persistence rates for Black students than the state Black population rates. Lake Shore and Winterville had lower Black enrollment rates than the state overall

average, but all participant schools surpassed the Black student state average for persistence rates during 2nd and 3rd years, and all participant schools had lower developmental course taking rates and higher ACT Mean averages than Black students in the state. All these indicators, however, were lower than state overall averages and state White averages. Policy implications for this indicated that while Black students at participant schools did better than Black students across the state, this population demonstrated an achievement and participation gap when compared to the state average and the average of White students. See Table 4.11 and Table 4.12.

Table 4.11 Participant Schools' Black Student College Attendance and Persistence 2013-2014

	Lake Shore	Winterville	Maple Plains	Westside	Blue Lake	MN – Black
Number	50	40	50	40	60	4,783
College Enrollment %	49	45	63	76	65	60
Began 2 nd Year	77	88	77	86	85	71
Began 3 rd Year	58	73	59	60	69	52
Developmental Courses	36	32	50	35	38	48
ACT Mean Avg.	19.33	19.69	20.24	18.75	19.38	18.54

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Table 4.12 Participant Schools' Black Student College Attendance and Persistence 2014-2015

	Winterville	Lake Shore	Maple Plains	Westside	Blue Lake	MN – Black
Number	40	40	60	40	40	4,925
College Enrollment %	53	86	49	55	55	61
Developmental Courses	37	42	29	50	29	43
ACT Mean Avg.	18.52	19.67	19.24	20.41	19.24	18.26

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Asian Population College Statistics. Asian students in Minnesota enrolled in college at a higher rate than state averages during both years of this study. The rate of enrollment for this group was 70% in the fall of 2014 and 71% in the fall of 2015. Enrollment rates at participant schools showed equal or higher rates for Asian students at all schools in 2014 except Winterville. In 2015, college enrollment for Asian students in

all participant schools except Westside was below the state enrollment average for Asian students. Persistence rates for Asian students in participant schools were also higher than the 86% second year return average for all schools except Winterville. When measuring third year retention, all schools except for Lake Shore were at or above the state average of 60%. When examining readiness indicators, all study sites had higher percentages of Asian students taking developmental courses, however, than the state averages of 18% for 2014 and 16% for 2015. Asian students across Minnesota had lower rates than the state averages and took developmental courses at the rate of 36% in 2014 and 43% in 2015. When examining Asian students from study sites, however, only Maple Plains and Westside had lower rates than the average Asian Minnesotan both years of the study, and Winterville was below the Asian developmental course average in 2015.

The ACT averages for Asian students at participating schools were below state averages of 21.14 in 2014 and 21.43 in 2015 except in 2015 when the Asian ACT average at Maple Plains was 24.16. When comparing the study sites' Asian students to statewide Asian students, readiness indicators were below statewide Asian students as well. The data from the SLEDS report indicated that Asian student preparation and enrollment in participant schools demonstrated lower enrollment and readiness but higher persistence for those who did attend college. This indicated the importance of education to those who did persist but suggests a lower level of preparation overall. See Table 4.13 and Table 4.14.

Table 4.13 Participant Schools' Asian Student College Attendance and Persistence 2013-2014

	Lake Shore	Winterville	Maple Plains	Westside	Blue Lake	MN – Asian
Number of students	60	50	20	40	80	3,917
College Enrollment %	75	57	74	79	74	70
Began 2 nd Year	87	78	89	88	89	85
Began 3 rd Year	60	65	72	82	73	69
Developmental Courses	40	39	20	31	43	36
ACT Mean Avg.	19.98	19.17	21.47	20.66	21.09	21.14

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Table 4.14 Participant Schools' Asian Student College Attendance and Persistence 2014-2015

	Lake Shore	Winterville	Maple Plains	Westside	Blue Lake	MN – Asian
Number	69	49	33	37	73	4,000
College Enrollment %	70	67	58	76	70	71
Developmental Courses	56	25	26	18	50	43
ACT Mean Avg.	19.48	20.8	24.16	22.27	20.18	21.43

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Hispanic Population College Statistics. Hispanic students in Minnesota enrolled in college at much lower rates than state overall population average for both years of this study. In 2014 and 2015, 52% of Hispanic students enrolled in college immediately following graduation compared to state general population averages of 69.7% in 2014 and 69.1 in 2015. Hispanic enrollment rates at participant schools were either at or above the state Hispanic enrollment rates in both 2014 and 2015 at all study sites with the exception of Maple Plains.

Persistence rates for Hispanic students in participant schools were higher than the state Hispanic rates for both 2nd and 3rd year continuous enrollment data. When compared with the general population, however, students at participant schools were all below the state average of 84% for 2nd year enrollment. Lake Shore did not have a population large enough to report for 2nd year enrollment data. When examining 3rd year enrollment data, Lake Shore and Westside did not have a population large enough to report, but Maple

Plains and Blue Lake surpassed both the state general population average of 68% and the state Hispanic average of 50%. Winterville surpassed the state Hispanic average but was below the general population average for 3rd year enrollment. When examining readiness indicators, all schools had more Hispanic students taking developmental courses than the state general population average of 18% for 2014 except Westside, who had 18% of Hispanic students who were enrolled in college taking developmental courses. In 2015, all schools had rates higher than that of the state's over all rate of 16% enrolled in developmental courses. The exceptions were Blue Lake, which had 50% and Lake Shore which had 56%. The second measure of college readiness, ACT averages, demonstrated that the Hispanic populations of all study participant schools were below the state general population average both years. In 2014 all study participant schools were above the state Hispanic average with the exception of Winterville. Lake Shore did not have a population large enough to measure in 2014. When examining ACT scores in 2015, all participant schools were below the state Hispanic ACT average with the exception of Westside who was above the state Hispanic average and Maple Plains who did not have a population large enough to measure.

While data from the SLEDS report suggested that participant schools enrolled students at lower rates than the state college enrollment averages, they enrolled Hispanic students at higher rates than the state average with the exception of Maple Plains. Data also indicated that Hispanic students from participant schools took developmental courses at higher rates than the state average and had ACT scores that were lower than state averages indicating a gap in achievement and enrollment between Hispanic students and their White classmates. See Table 4.15 and Table 4.16.

Table 4.15 Participant Schools' Hispanic Student College Attendance and Persistence 2013-2014

	Lake Shore	Winterville	Maple Plains	Westside	Blue Lake	MN – Hisp.
Number	20	20	20	20	30	3,017
College Enrollment %	59	73	45	59	56	52
Began 2 nd Year	CTSTR	75	82	79	81	71
Began 3 rd Year	CTSTR	60	71	CTSTR	76	50
Developmental Courses	30	28	33	18	41	40
ACT Mean Avg.	CTSTR	19.21	21.55	20.52	22.37	19.69

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Table 4.16 Participant Schools' Hispanic Student College Attendance and Persistence 2014-2015

	Lake Shore	Winterville	Maple Plains	Westside	Blue Lake	MN – Hisp.
Number	23	35	24	36	26	3,348
College Enrollment %	52	69	46	58	73	52
Developmental Courses	42	58	36	24	16	36
ACT Mean Avg.	19	18.82	CTSTR	22.69	19.05	19.70

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Free/Reduced Population College Statistics. Students receiving free or reduced lunch in public schools comprised 27.6% of graduating Minnesota students in 2014 and 27.7% of graduating students in 2015. Students in this demographic enrolled in college at a rate of 47% in the fall of 2014 compared to the general population rate of 69.7%. In 2015, this group again enrolled in college at a 47% rate compared to the general population rate of 69.1%. In both study years, students in all study schools enrolled in college at rates above the state free/reduced average. With the exception of Winterville in 2014, however, all participant schools had lower rates of college enrollment than the state general population in both 2014 and 2015. Persistence rates for free/reduced lunch students in participant schools were higher than the state rates for this group for both 2nd and 3rd year data with the exception of Maple Plains for 3rd year enrollment. When compared with the general population, however, students at participant schools were below general population averages with the exception of Winterville in for both 2nd and

3rd year enrollment data. When examining readiness indicators, all schools had higher rates of free/reduced lunch students taking developmental courses than the state overall average for both years. When compared with students receiving free/reduced lunch, students in all study sites with the exception of Winterville and Westside had higher rates of students taking developmental courses in 2014, and all sites except Maple Hills and Westside had higher rates of students taking developmental courses in 2015. The second measure of college readiness used in this study was the ACT averages for each school, and the free/reduced lunch population of all study participant schools demonstrated an average below the state overall average for both years. ACT averages compared with statewide free/reduced students demonstrated lower averages at Lake Shore and Blue Lake in 2014 but only at Lake Shore in 2015. See Table 4.17 and Table 4.18.

Table 4.17 Participant Schools' Free/Reduced Lunch Student College Attendance and Persistence 2013-2014

	Lake Shore	Winterville	Maple Hills	Westside	Blue Lake	MN – F/R
Number	126 (37.6%)	102 (28.8%)	85 (24.2%)	115 (31.9%)	164 (35.7%)	15,823 (27.6%)
College Enrollment %	61	72	52	59	65	47
Began 2 nd Year	76	85	73	82	82	72
Began 3 rd Year	49	72	47	60	64	50
Developmental Courses	45	34	46	31	41	39
ACT Mean Avg.	19.12	20.03	20.14	19.61	19.95	19.74

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Table 4.18 Participant Schools' Free/Reduced Lunch Student College Attendance and Persistence 2014-2015

Students on Free/Reduced Lunch College Attendance and Persistence 2014-2015						
	Lake Shore	Winterville	Maple Hills	Westside	Blue Lake	MN – F/R
Number	128 (35.3%)	101 (28.1%)	90 (25.7%)	130 (34.2%)	137 (29.8%)	16,038 (27.7%)
College Enrollment %	65	66	51	60	66	47
Developmental Courses	47	42	28	31	43	35
ACT Mean Avg.	18.85	19.65	20.08	20.36	19.87	19.47

Source: Minnesota Statewide Longitudinal Educational Data, 2014, 2015

Advanced Placement Course Testing Data

In addition to the information on college attendance, persistence, and preparation, MDE published information on Advanced Placement course taking in each school statewide. This data demonstrates readiness and indicates the response of various ethnic populations to school programming. All school leaders interviewed indicated that advanced course work was important and that access to advanced work was necessary. The data below outlines specifics regarding course taking patterns at study sites.

Conley (2010) described the role of successful schools as addressing core academic areas and providing rigor for students in order to prepare them for college. Pike and Saupe (2002) also concluded that high school courses taken by students, along with test scores, were the best predictors of college success. When examining curricular offerings at participating sites, one of the primary offerings in all study institutions was the availability of multiple Advanced Placement (AP) courses. According to MDE data, study schools had between 12 and 19 AP courses. Table 4.18 outlines 2015 AP data including the number of AP courses offered at each study school, the number of senior tests taken, and the number of student tests taken by ethnic group. Finally, this information shows the percentage of tests taken broken down by ethnicity, and compared with each school's ethnic population. This information is important when examining access and utilization of college-preparatory tools for underrepresented students.

The information in Table 4.18 shows senior AP tests taken in 2015 at the five sites examined in this study. The number of Advanced Placement (AP) courses offered at each school is indicated along with the number of seniors in the class. For each ethnic group, data indicates the number of students tested, the percentage of tests taken by each

ethnic group, and the percentage of the school population represented in the school by the ethnic group.

Data from all five study sites demonstrated white students taking AP tests at rates higher than their relative population proportion. Asian students also took AP tests at rates higher than population averages in all schools with the exception of Blue Lake. Hispanic student AP test taking was lower than population averages in all schools with the exception of Westside, where it was above the population average. Black student AP testing was below the population averages in every school, and students on free/reduced lunch were significantly underrepresented in AP test taking.

These findings are similar to the findings in the SLEDS report indicating that levels of advance course taking for underrepresented students were below that of their peers. When examining participant schools, Westside's ethnic representation for AP testing was the closest match to their total population, but they had the worst socioeconomic representation with the greatest disparity between their general population and those on free/reduced lunch. Winterville had the best representation of students on free/reduced lunch and fairly close ethnic representation for AP testing as well. See Table 4.19

Table 4.19 Advanced Placement Course Ethnic Participation May 2015

Lake Shore – 12 AP Courses, 313 Senior Tests Taken in May 2015			
Ethnicity	Senior Tests Taken	% of Tests	% of School Population
White	253	80.83	58.3
Black	15	4.79	14.6
Asian	36	11.5	9.3
Hispanic	9	2.88	2.38
Free/Reduced Lunch	74	23.64	45.8

Winterville – 12 AP Courses, 223 Senior Tests Taken in 2015			
Ethnicity	Senior Tests Taken	% of Tests	% of School Population
White	145	65.02	58.5
Black	31	13.9	16.6
Asian	37	16.59	14
Hispanic	10	4.48	9.3
Free/Reduced Lunch	59	26.46	41.8

Maple Hills – 13 AP Courses, 298 Senior Tests Taken in May 2015			
Ethnicity	Senior Tests Taken	% of Tests	% of School Population
White	253	78.86	62.4
Black	23	7.72	18.5
Asian	34	11.41	6.7
Hispanic	6	2.01	11.7
Free/Reduced Lunch	37	12.41	33.3

Westside – 19 AP Courses, 445 Senior Tests Taken in May 2015			
Ethnicity	Senior Tests Taken	% of Tests	% of School Population
White	317	71.24	65.6
Black	25	5.62	14.3
Asian	55	12.36	10.3
Hispanic	43	9.66	8.7
American Indian	5	1.12	1.2
Free/Reduced Lunch	76	17.08	40.3

Blue Lake – 14 AP courses, 358 Senior Tests Taken in May 2015			
Ethnicity	Senior Tests Taken	% of Tests	% of School Population
White	273	72.76	61.1
Black	13	3.63	13.1
Asian	53	14.8	16.4
Hispanic	19	5.31	8.7
Free/Reduced Lunch	71	19.83	38.7

Source: Minnesota Statewide Longitudinal Educational Data Systems Report, 2015

Assessing Student Characteristics Through Secondary Data

One method to measure student characteristics used in this study was the use of data from the Minnesota Student Survey (MSS) taken in 2016. The MSS is administered every three years to Minnesota public school students in grades 5, 8, 9 and 11. In this

survey students are asked questions about activities, experiences, and activities. The assessment is given jointly by The Minnesota Departments of Education, Health, Human Services, and Public Safety. A consistent theme of successful students discussed by school leaders in this study was that of motivation and the desire to succeed. One question from the MSS addressing motivation was “How often do you care about doing well in school?” Table 4.20 outlines how the 9th and 11th grade students at all the site schools answered that question demonstrating the number of students who answered the question as “most” or “all of the time”. Respondents to this survey at all schools indicated that students cared about how they did academically indicating that the characteristics of motivation and the desire to succeed were important to the majority of students at all study sites.

Table 4.20. Students who care about how well they do in school

Lake Shore		Winterville		Maple Hills		Westside		Blue Lake	
9 th Grade	11 th Grade								
92%	90%	93%	89%	93%	92%	94%	90%	88%	88%

Source: Minnesota Student Survey, 2016

A second question that addressed motivation and drive on the MSS dealt with preparation and asked, “How often do you go to class unprepared?” Most students answered either some or none of the time. See Table 4.21 Based on the answers of students from all study schools, students were aware of the importance of preparation for class and strived for work completion.

Table 4.21. Student Preparation

Lake Shore		Winterville		Maple Hills		Westside		Blue Lake	
9 th Grade	11 th Grade								
90	91	91	90	93	92	92	94	93	92

Source: Minnesota Student Survey, 2016

A second characteristic of successful students defined by leaders and addressed by the MSS was that of student perspective and the ability to think towards the future. Two questions asked on the survey dealt with what students planned to do after high school and how they felt about their futures. Higher percentages of students from study sites planned to attend some form of college than the percentages who felt good about their futures. Specifically, students were asked, “What is the main thing you plan to do right after high school?” See Table 4.23. The second question analyzed dealt with how students felt about their futures. See Table 4.24. While plans for college attendance increased with student grade, positive feelings about students’ futures decreased.

Table 4.22. “What is the main thing you plan to do right after high school?” Students who replied either “go to a two-year community or technical college” or “go to a four-year college or university”:

Lake Shore		Winterville		Maple Hills		Westside		Blue Lake	
9 th Grade	11 th Grade								
76	82	78	88	79	87	85	86	84	85

Source: Minnesota Student Survey, 2016

Table 4.23. “I feel good about my future.” Students who answered, “very or often” or “extremely or almost always”:

Lake Shore		Winterville		Maple Hills		Westside		Blue Lake	
9 th Grade	11 th Grade								
74	58	71	64	72	67	69	62	64	68

Source: Minnesota Student Survey, 2016

CHAPTER V

Discussion of Findings/Conclusions

The schools in this study send students to college at or above rates higher than the Minnesota state average. The purpose of this study was to explore how leaders of successful schools with underrepresented populations that are at or above state population averages perceived and addressed the factors of college readiness. Specifically, I asked how school leaders perceived and addressed three primary factors: academic programming, familial engagement, and individual student characteristics. Additionally, data from the Minnesota Department of Education was used to ascertain the effectiveness of study sites' efforts to prepare and send underrepresented student populations to college. My interest in college readiness is rooted in my career as a counselor and dean in public education in Minnesota. As a professional who has worked with high school students transitioning to college, I am particularly interested in student preparation for the rigors of college. The areas of diversity, inclusion, and access are important to me as well. The schools selected demonstrated diversity through ethnic composition and socioeconomic means and had high college-going populations. This chapter has three parts. First, it is the summation of the findings of this study. Second, I discuss conclusions and limitations of this study. Finally, the chapter concludes with a discussion and recommendations for policy and further research.

When examining Conley's (2010) strategies for schools that prepare students for college, the schools in this study addressed the college readiness factors of academic programming, the role of familial engagement, and student characteristics. They created college-going cultures and encouraged rigor throughout high school. They not only

expected students to have the skills necessary for managing their studies and academics, but they assisted students in developing these skills. Successful schools also aligned course content with post-secondary expectations and developed relationships with institutions in order to prepare students for college. While Conley's models and theories offer practical application, it is worth noting studies by Adelman (2006) and Kim and Bragg (2008) that stated that schools with dual enrollment programs led to student success as measured by higher student enrollment, retention, and degree completion. The sites in this study supported these assertions through commitments to rigor and higher-level courses.

Schools in this study addressed the themes that emerged in response to the study research questions. Each research question addressed a specific college readiness indicator, and themes are delineated and discussed in relation to each component of college readiness. Conclusions were based on interview data as well as student data obtained from Minnesota Department of Education. Throughout this discussion, attention is given to underrepresented populations' represented in study schools.

Summative Themes Prevalent in Responses of Education Leaders

This summary of the themes that emerged in this study outlines those that were common in all sites. All themes fall under the category of inclusion and address the components of college readiness defined in this study: academic programming, familial engagement, and student characteristics. What varied among the leaders and sites, however, was the level by which there were intersections among the three college readiness components. The characteristics of college readiness are not silos; successful

schools recognized this and addressed all the components of college readiness as they sought to engage students and families.

Promotion of academic rigor and availability for all. When addressing cognitive college-readiness factors, the themes that were common among all leaders included exposure of students to academic rigor, partnerships with colleges and universities, and access for underrepresented populations to rigorous curriculum. Leaders emphasized access and the removal of institutional barriers to students allowing them to select advanced course work. In doing this, leaders not only increased enrollment in advanced classes, but also created more course offerings. Educators also promoted the development of courses designed for acceleration for students rather than for remediation. Access ranged from student choice to student preparation depending upon the institution. Woven throughout the idea of academic rigor was the concept of equity and the importance of working with students from underrepresented populations.

In this study, school leaders demonstrated commitment to two important factors: the development of advanced academic programming and the intentionality of student identification. First, they were committed to increasing rigor in the school curriculum, whether through the addition of AP and honors class or the development of concurrent or dual enrollment programming (Kim and Bragg, 2008). Some schools also developed relationships with community colleges and with the University of Minnesota bringing rigor from those institutions to their high schools. Beyond the addition of rigorous courses, however, leaders chose to identify populations in need of assistance and worked with those populations to enhance their knowledge and access to post-secondary education. Statistics from MDE through the SLEDS report, however, indicated that a gap

between underrepresented students and White students still existed in most settings. While these gaps existed, study sites improved opportunities for nonwhite and poor populations, often demonstrating higher achievement than state averages for similar populations.

Conley (2010) recommended that schools address college readiness factors by developing academic programming. All schools in this study addressed college readiness through programmatic planning and implementation. Specific examples included curricular means, high expectations for students, and development of strong ties and relationships with post-secondary institutions. Present in all study schools were means by which to expose and provide rigor to student populations including underrepresented populations. Typically, this meant identifying students for access to programs or courses and assisting them in registration for these classes and in success in these courses. Often underrepresented populations were the target audience for schools as they sought to increase and diversify enrollment in advanced course work. The response from all leaders demonstrated the importance of broadening access to rigorous curriculum. Leaders found it important to ensure that students had access and that advanced classrooms mirrored the population of the school (Yun & Moreno, 2006).

At all study schools, curricular offerings were aligned with rigorous courses. This aligns with literature indicating that students who are successful in rigorous course work and earn college credit prior to college enrollment are more likely to persist in college (Edmund and Berkstein, 2010; Thompson and Ongaga, 2011). All schools offered multiple Advanced Placement (AP) courses. While the number of rigorous courses varied among the schools, all education leaders were interested in and were actively increasing

the number of students enrolled in AP courses. Additionally, leaders focused on increasing the number of students from underrepresented populations in AP courses. Schools also offered concurrent enrollment courses, whether through the University of Minnesota's College in the Schools program or through individual agreements made with local community colleges. For example, the partnership Westside High School had developed with a local community college had created a means by which their students could earn significant numbers of college credit while remaining in their high school setting. This addressed several of Conley's components of college readiness including the creation of a college-going culture, a rigorous course of study for students, alignment with college expectations and rigor, and college partnerships. Similarly, Lake Shore High School was beginning to develop a partnership with a different community college. This was significant because it assisted the students from each of these schools in not only college readiness, but in college success, as often students were leaving their high schools with college credit, whether through AP credits or through concurrent enrollment credits.

While school leaders were interested in offering and enrolling underrepresented students in AP courses, what was evident based on MDE data was that underrepresented students did not participate in AP tests at rates commensurate with their population. The exception to this rule was AP enrollment rates for Asian students. It is worth noting that every underrepresented population had lower AP participation rates than their White or more privileged counterparts. Despite the lower AP enrollment rates of underrepresented students, most study sites enrolled underrepresented students at rates higher than state underrepresented rates. Additionally, persistence rates of underrepresented students surpassed state underrepresented persistence rates. These statistics suggest some progress

in rectifying enrollment and persistence gaps between White and underrepresented populations at study sites. Statewide gaps saw persistence rates for White students at 86% for second year retention and 70% for third year retention, while Black, Hispanic, and students receiving Free/Reduced lunches were retained at 71%, 71%, and 72% respectively in the second year, and 52%, 50%, and 50% respectively in the third year. Participant schools saw higher rates for all three of these groups as compared to similar ethnic groups in almost every study site. Study data suggested that most study sites were closing the achievement gap, and that, while still showing gaps, persistence improvements were being made within most ethnic groups at study sites.

Similar to AP participation being lower for underrepresented populations, MDE data showed preparation rates lower for underrepresented populations as well. The two readiness indicators used in the Statewide Longitudinal Education Data System (SLEDS) reports were the ACT mean average and the developmental course taking rates at participating schools. In every school, underrepresented students ACT scores were below White students' scores. Specifically, ACT mean averages for underrepresented students were below the school averages for both years. Developmental course taking for all participant schools indicated that most underrepresented students took developmental courses at rates higher than those for the school and the state overall for both years analyzed.

Recognition of the importance of student support. Leaders sought to help students establish characteristics that fostered student success and identified characteristics important for college readiness. These aligned with studies that indicated factors such as motivation and persistence (Allen, 1999), resiliency and self-perception (Matthews-

Armstead, 2002), and discipline, determination, and self-confidence (Komarraju, et al., 2012) influence student success in college. Leaders also included academic skills and the ability to study using personal characteristics such as determination and drive, forward thinking, and leadership. Leaders identified, supported, and desired to replicate characteristics of successful students including intellectual curiosity, the desire to succeed, student perspective, leadership, and parental involvement. While school leaders saw it as the school's responsibility to address and instill characteristics in students that lead to success, limited programmatic means seemed to exist to address these factors. In fact, there was little discussion of the development or utilization of the characteristics of successful students, rather there was an acknowledgement that common characteristics of successful students existed. This could be a reflection of instrumentation based on how I asked the question or little attention actually being paid to how schools can support specific characteristics in students. Future studies should develop additional means by which to analyze how schools address and work with students to develop these characteristics.

Prioritized engagement with and support for families. Respondents emphasized the importance of designing organizational structures that enhanced engagement with families. Again, while the level of programming varied by site, educational leaders commonly emphasized flexibility of organizational structures and sought parental involvement of diverse socioeconomic statuses and ethnicities. Schools shared common programmatic structures, including the use of family liaisons, technological support, and formal academic programming. Again, participant responses suggested that educators used programming to assist with acceleration and support, not for remediation.

Leaders' practices aligned with research showing a strong correlation between family influence, school partnerships, and college readiness (Holcolm-McCoy, 2010, Herdon & Hirt, 2004, Martinez Cortez, & Saenz, 2013). According to Holcolm-McCoy (2010) parental involvement, beliefs, and attitudes combined with school partnerships were important in post-secondary planning. Herndon and Hirt (2004) highlighted the need for partnerships between schools and families as students are prepared for college. While Martinez, et al. (2013) stated that families rely on schools for both partnerships and information.

Each school in this study had its own means by which it engaged families. Attempts were made to communicate with families using unconventional means. Often this meant alternative types of conferences and communication, including phone conversations or home visits. As noted above, schools typically engaged families through the use of community liaisons that were often ethnically representative of the group with whom they worked. Another means of making connections with families was through technology. This often referred to email or electronic communication as a means by which information was disseminated. In some settings, schools assisted families who could not afford technological tools by offering electronic tools to families for home use. Leaders of participant schools also made attempts to communicate with the families of underrepresented students through school programs such as AVID by inviting families to evening events waiving fees and providing meals and child care for younger siblings.

While there seems to be an attempt to work with the familial structures of underrepresented families, measurements of the success of familial engagement were not

explicitly addressed in participant sites. Programming, often extensive in nature, existed and continued to be developed, however, no indicators of success were in place.

Limitations of Study

Several limitations existed in this study. The first limitation had to do with replication of the study due to the study location. That is, Minnesota is a progressive state, and the educational conditions of the time period of this study demonstrated a period of high accountability and governmental regulation. Minnesota regulated post-secondary readiness programs, and replication and transferability of this study outside of the state to one with less emphasis on accountability through regulations could be difficult.

A second limitation was that of potential bias. Both the researcher and interviewees were professionals employed as educational leaders in public school settings. Because of familiarity with site settings and the intersection of experiences of the researcher and interviewees, misinterpretation of data and intention could result in faulty information. Likewise, the answers given by the respondent could have been given because the respondent may have anticipated what the researcher wanted to hear and answered the questions in that way. During the research and interviews, the researcher should take particular care to remain on script asking pertinent questions that do not deviate from topics relevant to the study so as to avoid both bias and reflexivity. The researcher had the potential of leading the questions based on preconceived perceptions of answers of the interviewee. While similar to bias, the difference lies in the area of the construction of content. In other words, the researcher needed to take care not to anticipate answers and construct questions based on what was preconceived.

One major additional limitation of this study was that of site selection in regards to community location. Because all sites were suburban in nature, the transference of practices to non-suburban settings could be difficult. For example, both urban and rural settings may face different challenges and obstacles than the ones described for participating schools. Further, because this was a purposive study and not a random sample, the findings of this study may not be generalizable. Future studies should include diverse settings, addressing the needs and challenges that exist in each.

Finally, when examining the scope of questions asked, a limitation can be seen in the focus of the study. The questions focused on a model of college readiness derived from the literature. That model included school programming, familial influences, and student characteristics. Questions asked during the interviews were from these areas and had a tendency to draw the participants to the model rather than allowing them to express their individual ideas.

Conclusions and Recommendations

All sites consciously addressed the need to identify and assist underrepresented populations. They were intentional about outreach to ethnic and socioeconomic underrepresented students and families. They designed and implemented programming intended both to help students succeed in high school and to prepare them for college. This was seen through the continual development of rigorous courses. Schools also stressed access working with and encouraging student enrollment in rigorous courses. Additionally, schools worked to ensure familial engagement as they sought to develop relationships with families.

When examining college readiness, schools play a large role in the academic development of students. As familial systems and familial engagement contribute to college readiness, it is important for school leaders to be cognizant of individual and cultural needs of students. The schools in this study, sought to meet student and family needs through programmatic planning as well as through assistive supports such as technology provision and the use of cultural liaisons. Additionally, rigorous academic programming offered by schools contributed to student readiness. Students in all study sites earned college credits and left high school with those credits. While data suggested that college readiness levels for underrepresented students at study sites performed and persisted in college at lower rates than their White classmates, underrepresented student groups at study sites exceeded the averages for their demographic group statewide. As study sites continue to expose underrepresented students to rigor, it would be informative to conduct a longitudinal study of programmatic efficacy. Specifically, after more underrepresented students take advanced courses, such as AP, CIS, or dual enrollment courses, researchers should conduct follow up studies with a focus on long-term student success.

Additionally, schools work with factors outside of the traditional role of education. When examining the elements of college readiness, this includes working with familial structures. Intentionality of communication was seen at each site in this study to varying degrees. Further examination of school programming targeted at development of relationships and partnerships with families is needed. When examining both the literature on family connectivity to schools and the practices seen in this study, families desire connections with schools. Therefore, an examination of how schools can

successfully reach out to families and address needs of students, families, and communities is needed.

The educational leaders of study site schools made concerted efforts to address the components of college readiness. That is, they developed rigorous academic programs, sought to include and engage families in students' educational choices and options, and considered and cultivated characteristics that enabled students to succeed. While underrepresented populations in this study typically performed at levels above those of their statewide ethnic group, it was evident, that they did not perform at the level of their White peers within their buildings. This was measured by comparisons of preparation levels examining developmental course taking and ACT scores, as well as by examining college enrollment and persistence after high school.

The model of college readiness developed in this study addressed factors that contribute to college readiness. The premise of the study sought to understand leadership perspectives in schools that send students to college at rates equal to or higher than Minnesota's state average. Further, this study sought to learn how underrepresented students at these sites did in comparison to both their building and state-wide peers. Data from interviews demonstrated that all leaders at study sites felt it important that schools consciously address underrepresented populations. Data from the Minnesota Department of Education suggested that while underrepresented students in these sites tended to do better than similar ethnic groups statewide, they did worse than the White peers in their buildings. School leaders in this study felt it to be the school's responsibility to rectify this. As was stated by one principal in this study, "Privilege enables students to succeed. Much of what the school is attempting to do is to assist students without privilege." In an

attempt to achieve an equitable public educational system, the work of schools should continue to be to educate all students, and through education, allow opportunity for all.

This is the work of a public school.

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APPENDIX A

irb@umn.edu

12/17/15

to me

TO : nalexand@umn.edu, wien0059@umn.edu,

Study Number: 1512E81605

Principal Investigator: Scott Wiens

Title(s):

EDUCATIONAL LEADERSHIP IN SCHOOLS THAT ARE SUCCESSFUL AT
PREPARING UNDERREPRESENTED STUDENTS FOR POSTSECONDARY
EDUCATION

APPENDIX B

Dear “Principals Name”,

I am a doctoral student in the Department of Organizational Leadership, Policy, and Development at the University of Minnesota and am writing my thesis on college readiness. I am specifically interested in leadership in public schools in the Twin Cities Metropolitan Area and the means by which they are preparing students for college.

Your school has been identified as a school that is successful in sending large portions of students to postsecondary settings. In addition, your school has percentages of students from non-white and/or low socioeconomic groups that are higher than the state’s average.

The purpose of my email is to request a meeting with you. As I conduct my research for my doctoral thesis, I would like to interview you to gain information and your perspective on how you prepare students for college. If you agree to be interviewed, I also will contact the counselor or dean in your school in order to get their perspective.

While I am a student at the University of Minnesota, I am also a public-school employee in the Mounds View School District where I work as a dean. Please let me know if you would be interested in being part of my research project. As I am hoping to finalize my study participants by the end of the school year, I would appreciate a response to this inquiry by January 31, 2016. Thank you for your consideration.

Sincerely,

Scott R. Wiens
University of Minnesota

APPENDIX C

Consent Information for Study Participants

INFORMATION SHEET FOR RESEARCH

Educational Leadership in Schools that are Successful Preparing Underrepresented Students for Postsecondary Education

You are invited to be in a research study of educational leadership in schools that are successful at preparing underrepresented populations for postsecondary studies. You were selected as a possible participant because you are a leader in a school that has been successful in preparing underrepresented students for college. We ask that you read this form and ask any questions you may have before agreeing to be in the study.

This study is being conducted by: Scott Wiens, Organizational Leadership, Policy and Development, University of Minnesota

Procedures:

If you agree to be in this study, we would ask you to do the following things: Participate in an interview lasting approximately one hour that will be audio taped. After the interview, there may be a follow up conversation to clarify any of the researcher's questions.

Confidentiality:

The records of this study will be kept private. In any sort of report, we might publish, we will not include any information that will make it possible to identify a subject. Research records will be stored securely and only the researchers associated with the study will have access to the records. Only the researcher will have access to the names of the interviewers and any recordings made. After the dissertation is approved, all recordings will be erased.

Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with the University of Minnesota. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

Contacts and Questions:

The researcher conducting this study is: Scott Wiens. You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at: Scott Wiens, 612-269-2128, wien0059@umn.edu.

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher(s), **you are encouraged** to contact the Research Subjects' Advocate Line, D528 Mayo, 420 Delaware St. Southeast, Minneapolis, Minnesota 55455; (612) 625-1650.

You will be given a copy of this information to keep for your records.

APPENDIX D

Interview Protocol

Thank you for meeting with me. As I indicated in my initial contact, your school was chosen because you have done an exceptionally good job in preparing your students for college, and I think that there is a lot that we can learn from you. Consequently, I would like to ask you some questions that center on college readiness. I expect that this interview will take approximately one hour.

I would like to start by asking you a few background questions.

1. How long have you been in this leadership role?
2. What other leadership roles have you held as an educator?
 - Would you share a story or provide an example that illustrates how you prepare students for post-secondary education in your school?
 - Can you share with me the kinds of experiences you have had working with students, especially those from underrepresented populations in preparing them for post-secondary education?

[Potential Prompt]: Are there any differences in the course-taking behavior of students in your setting based on student ethnic or socioeconomic status?

- Based on these experiences, what have you found really helped in promoting post-secondary education in your school?

Follow up, if necessary: Can you say something about the academic programming here? How do you see the role of academic programming in preparing students for college?

[Potential Prompts]

- a. What type of advanced academic programming is available in your school?
- b. How are students identified for advanced courses in your school?
- c. How do students enroll in advanced course at your school?

Follow up, if necessary: Can you share a story that depicts the role of families in the education of students in your school?

[Potential prompts]:

1. How does the school communicate with families?
2. Do you think your families feel connected to your school? Do you have an example?
3. How is information about post-secondary options communicated to families?
4. Does your school provide any special services for families from underrepresented backgrounds? If so, how do families access these services?

Follow up, if necessary: Can you say something about the skills outside of academics that you think are important for kids to have to be prepared for college?

[Potential Prompts]:

How do you impart those skills to students in your school?

What's the most important thing for principals to know regarding preparing students for college? That is, what are the key characteristics that you think most successful students possess?