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# What works? Supporting students from urban school districts at a Midwestern university

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### Running head: SUPPORTING STUDENTS FROM URBAN SCHOOL

What Works? Supporting Students From Urban School Districts at a Midwestern University

by

Eric Reed

Dissertation

Submitted to the College of Education Department of Leadership and Counseling Eastern Michigan University In partial fulfillment of the requirements for the degree of

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In

**Educational Leadership** 

**Dissertation Committee** 

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Ypsilanti, Michigan

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#### Dedication

This dissertation is dedicated to my family, friends, colleagues, and students for their support throughout this process of completing my doctoral degree. First and foremost, to God who has blessed me with the necessary skills, experiences, and people to complete this endeavor. I dedicate this dissertation to my grandfather, William Long, who never earned a high school diploma but always told me to "stay on the ball" and keep pushing every time I came home to visit him during my undergrad. To my wife, Kristen, for helping me stay focused, organized, and motivated each day. My father, Frank Reed, for setting the bar for a college degree early in my childhood and also keeping me disciplined. My mother, Erica Reed, for always providing words of encouragement and care. My brother, Brandon Reed, for continuing to push me through his own endeavors as "iron sharpens iron." My supervisors and coworkers for being patient during this process and by making a great work experience for me which made this endeavor much more achievable. My students for helping shape my interest area and my career journey through their experiences. Lastly, to all the individuals who will be positively impacted by this work and future research endeavors I partake.

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#### Abstract

Postsecondary administrators across the nation are in search for effective policies and practices that lead to higher rates of student academic performance, persistence, and completion rates. In a time of increased accountability and diminished resources, the empirical findings of this study help administrators by demonstrating that resources invested in retention yield long-term benefits to the institution. At a large, public, 4-year university in the Midwest, the average 6-year graduation rate of students from urban school districts was 24% compared to the overall 40% graduation rate for the institution. Historically, students from urban school districts enter postsecondary institutions after persevering through school districts and communities that encompass a unique set of challenges, which warrants the need for administrators' attention. For the purposes of this research, urban school districts are districts that are composed of both a high percentage of minority students and students from low income backgrounds. The purpose of this study was to evaluate the degree to which first-year programs impact academic performance of students from urban school districts. This quantitative study used secondary data to analyze the academic performance of 624 students from four urban school districts that were first time in any college students admitted at Midwestern University from years 2015-2017. An ANCOVA and a linear regression analysis were used to determine the relationship between demographical characteristics, precollege academic attributes, and student support services and first-semester GPA. The findings revealed that first-year programs were influential to student's academic performance. Students from urban school districts that participated in the required first-year program and the voluntary first-year program earned higher first-year GPAs (2.81 and 2.41, respectively) than students from the same school districts who were not enrolled in a first-year program (2.24). Several variables were found to be predictors of academic performance for the

student population as well: (a) high school GPA, (b) familial income, (c) number of attempted credits, and (d) number of study hours.

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#### **Chapter 1: Introduction**

In 2011, the 6-year graduation rate for full-time undergraduate students nationwide was 58% (Zhang, Fei, Quddus, & Davis, 2014). In 2009, former President Barack Obama declared, "By 2020, America should once again have the highest proportion of college graduates in the world" (as cited in Fry, 2017, para. 1). In addition to Obama's ambitious target, state governments have increased accountability on public institutions by linking state appropriation funding to retention and graduation performance (Tinto, 2006). These forces triggered a response by higher education practitioners to continually investigate the best practices of retention programming in efforts to accomplish institutional, federal, state, and local goals.

National persistence and graduation rates have shown little change (Tinto, 2006). In a time of declining state support and financial resources, postsecondary institutions must develop strategies to survive and sustain their operations. As the environment changed from one of plentiful of resources to one of diminishing, there has been a greater focus on how institutions increase the rate at which students persist and graduate from both 2- and 4-year colleges and universities (Tinto, 2006). During the last several decades, studies on college student retention and graduation have emerged as an essential body of literature for postsecondary administrators across the world (Astin, 1975, 1984, 1993, 1999; J. B. Berger & Lyon, 2005; Cabrera, Nora, & Castaneda, 1992; Pascarella & Terenzini, 1980, 1991, 2005; Tinto, 1975, 1993, 1996, 1999, 2006).

Interests in student retention and college completion literature grew in the mid-1900s as the college population expanded. The historical purpose of higher education was to provide an opportunity for people to attain a better quality of life through education, but after World War II, postsecondary institutions faced pressures to supply highly skilled individuals for the economic

demands of society (Card, 1991). In an article written by Trow (2006), he explained the transition from elite students to mass enrollment and the expansion to universal higher education. Prior to 1965, higher education institutions in the United States were predominantly populated by White males from middle- or upper-income families (Brock, 2010). In response to the rising demand for individuals with postsecondary education, there was an increase in governmental action to provide college access to a broader scope of demographics. By the passing several federal legislations, enrollment levels at postsecondary institutions across the nation increased substantially throughout the mid-1900s: GI Bill, Higher Education Act of 1965, Great Society Programs, Vocational Education Act, The Morrill Land Grant Act of 1862, Basic Educational Opportunity Grant, and the Civil Rights Act. In 1960, about 4 million people enrolled in postsecondary education and more than 20 million enrolled in 2009 (Baum, Kurose, & McPherson, 2013). These events led to a broader and more diverse enrollment of students many institutions were not prepared to serve (Demetriou & Schmitz-Sciborski, 2010).

Postsecondary education access has expanded greatly since 1960 for the masses and the nations demographically diverse population. Despite these gains, retention and college completion rates have emerged as the newest challenge for postsecondary institutions (Brock, 2010). Brock (2010) asserted the lack of preparation for college is more of a barrier to student success than it is to college access. With the increase of nonselective institutions and the open access movement, more students are being admitted to college unprepared for the academic rigor and new environment presented. Nevarez and Wood (2010) described the right to fail as "the policy of admitting students without regard to their academic skill level and without providing services to support their success" (p. 41). This era led to high attrition rates on campuses across

the nation and shifted higher education's focus from access to retention and college completion (Nevarez & Wood, 2010).

The United States once led the world in the percentage of adults with a degree, but most recently, in 2006, it ranked 17th in adults with a bachelor's degree (Ebersole, 2010). In many other developed countries, the number of college graduates is steadily rising (Lumina Foundation for Education, 2010). The state of America's college completion rates has created a future concern on the nation's economic workforce. Due to this trend, Ebersole (2010) predicts "the US economy and per capita income will actually decrease over the next 15 years, for the first time in US history" (p. 23). By 2018, nearly 60% of all jobs in the United States will require postsecondary education (Lumina Foundation for Education, 2010). Additionally, many Americans are still recovering from unemployment and low-wage jobs that transpired during the Great Recession. College graduates are more likely to obtain employment than individuals without a postsecondary degree; furthermore, they are more likely to earn higher wages. Even during the current economy, employers are paying higher wages and salaries to college graduates and this trend is also true in 29 other developed countries (Lumina Foundation for Education, 2010). Although there are clear and supported benefits to obtaining postsecondary degrees, the United States still has much progress to make toward increasing degree completion rates.

To counter the emerging issue of student attrition, numerous scholars investigated the causes of student attrition, predictors of student success, and effective institutional retention practices (Astin, 1975, 1984, 1993, 1999; Bean, 1980, 1982, 2001; Pascarella & Terenzini, 1980, 1991, 2005; Tinto, 1975, 1993, 1996, 1999, 2006). A precursor to student's college completion or attrition is their success during their first year of college. Muraskin (1998) asserted students are of greatest risk of not completing college during their first year. The first year is a unique

time for students because they are called upon to leave childhood, often to live away from home for the first time, and they are required to adapt to a new and unfamiliar environment (Tinto, 1996). The first year is "the next critical period in a student's career . . . especially during the first semester or quarter" (Tinto, 1993, p. 163). Retention programs should include initiatives that change the everyday academic experience of students, especially during the critical first year (Muraskin, 1998). According to Zhang et al. (2014), early intervention has a positive effect on improving the student's academic outcomes and reducing a student's chance of being on academic probation. Researchers have conducted "numerous evaluations of intensive freshmanyear interventions providing various combinations of advising, tutoring, study groups, supplemental instruction, study skill courses or workshops, and summer bridge programs that offer an academic head start" (Muraskin, 1998, p. 4).

All students, and particularly the most vulnerable student populations, are more likely to persist at institutions that provide academic, social, and personal support (Tinto, 1999). There are some student populations that complete their degrees at much lower rates than others. Tinto (2006) asserted understanding students' high school background can help an institution more effectively configure their support programs for differing student situations. Students from urban precollege settings are often disadvantaged compared to their peers because of the lack of resources and student support of the collegiate environment they enter in. Students from urban school districts face a unique degree of challenges linked to the school districts through which they matriculate as well as the urban environment (Abbott, 2010). Urban school districts often have large amounts of principal and teacher turnover, large bureaucratic systems, insufficient resources, lack qualified teachers or challenging curricular offerings, high student-to-counselor ratios, and focus greater attention toward personal and social problems of students (Abbott,

2010; Frankenberg, 2009; Lindsey, 2012). In addition to these challenges, issues such as poverty, welfare dependency, violence, and substance abuse persist in the urban communities (Abbott, 2010). The combined complexities of the urban environment and the educational systems can create difficulties in adequately preparing students for postsecondary education. Franco (2012) asserted, "Historically, urban public high school districts have struggled to academically prepare minority, first-generation, low-income students, whose families typically have low education attainments" (p. 1).

Although prior studies have indicated first-year interventions are likely to enhance retention and college completion rates for specific student populations (Cabrera et al., 1992; Moore & Shulock, 2009; Pascarella & Terenzini, 1991; Roderick et al., 2008; Tinto, 1975, 1993), some recent laws have complicated those efforts. During the Civil Rights movements of the 1960s, affirmative action emerged as a solution to improve opportunities for groups historically excluded in the United States. For higher education institutions, affirmative action focuses on admissions policies that provide equal access to historically excluded or underrepresented groups, particularly women and minorities (National Conference of State Legislatures, 2014). These policies helped institutions enroll and retain minority students who came from urban school districts. Garces and Cogburn (2015) claimed, "In 2006, [state] voters passed Proposal 2, which amended the state constitution to ban the consideration of race or ethnicity in admissions policies at public educational institutions" (p. 829). Garces and Cogburn (2015) also stated laws like Proposal 2 have made it more difficult to offer equitable programs related to enrollment and retention for institutional administrators in charge of implementing diversity-related policy for supporting students of color. In a newspaper article about State University (pseudonym), since the passing of Proposal 2 retention and graduation rates of

students who were helped by Proposal 2 has stagnated and is still significantly lower than peer groups. Since the passing of Proposal 2, institutional administrators have been forced to creatively work around the banning and find ways to include opportunity for postsecondary education for all students of our society. Administrators began using factors such as high school of attendance, income status, and parent educational level in efforts to successfully enroll and retain the same groups of students who were supported under affirmative action (Garces & Cogburn, 2015).

In summary, college graduation rates are among the most pressing issues on the higher education agenda today. From the 1960s until present, the enrollments of postsecondary institutions grew substantially due to governmental action. Although these laws granted greater access to a plentiful and more diverse student population, issues of attrition grew greatly because institutions were not prepared to serve the varying needs of the broad population. In efforts to mitigate this issue of attrition, scholars concluded institutional action during students first year of college may lead to increased retention and degree completion. Furthermore, some student groups, such as students from urban school districts, have been identified as populations who are more likely to encounter difficulties during their matriculation through college due to their prior schooling experience.

#### **Problem Statement**

College graduation rates have shown little improvement during the last few decades (Tinto, 2006). In addition, the United States once led the world in percentage of college graduates, but several other developed countries have recently passed the United States (Ebersole, 2010). If this trend continues, the nation's per capita income may be impacted, and unemployment may rise because of the increased demand of individuals with a college degree.

As the population of college students converted from elite to mass from early-1900s through the mid-1900s (post World War II), research shifted from college access to student retention because many institutions were not readily prepared for the varying student populations. As a remedy to this new issue of student attrition, researchers began investigating practices that impact student retention. Tinto (1999) claimed institutional action can largely influence students' success. Thus, first-year programs are identified as an effective practice for student retention.

There is an abundance of literature on first-year programming and the impact these efforts have on retention, persistence and graduation rates (Braxton et al., 2013; Tinto, 1993, 1999; Upcraft & Gardner, 1989). Many first-year programs are similar in their purpose but vary quite differently in their programmatic components, design, and structure. These components may include, but are not limited to, advising, tutoring, study groups, supplemental instruction, study skill courses or workshops, and summer bridge programs (Muraskin, 1998). Some firstyear programs are structured for students as voluntary participation and others mandatory participation. Although there is a significant body of research on each of these different types of first-year programs, there are limited studies on which type of first-year programs, comparatively, are most effective. Additionally, postsecondary institutions continually serve a diverse student body with a wide array of needs in which retention programs may be catered to the varying subpopulations.

First-year programs are often designated for specific student populations at postsecondary institutions. These student populations are usually identified by unique identity characteristics and their trends of retention, academic performance and graduation rates at an institution. Retention and first-year programs can be grouped into three main categories: (a) federal grant funded programs designed to support first-generation and low-income students, (b) institutional

initiatives for specific minority groups, and (c) bridge and retention programs designed for students who are academically underprepared (Thayer, 2000). However, a gap in literature exists on student success in these programs, specifically of students from urban school districts. Although targeted retention efforts provide better opportunities for success for some traditionally marginalized groups, students from urban school districts lack sufficient support and there is limited research on this group (Clinton, 2011). Students from urban school districts are more likely to be from a minority group, low income or first generation, and, in some cases, may have matriculated through low-performing school districts (Burleson, Hallet, & Park, 2008; Callon, 2009).

In summary, many institutions top priority is college completion. National, state and local policymakers are holding postsecondary institutions more accountable to the number of graduates from their campuses. In efforts to increase retention and graduation rates, institutions are devoting more resources and supportive services to students during a time period when they are in greatest jeopardy, the first year. Many first-year programs are designated for student populations in the most need of support to graduate. Students from urban school districts can be considered a student population in need of intrusive first-year support because of their background, varying characteristics and student needs.

#### **Purpose of Study**

Numerous colleges invest substantial resources in programs designed to increase student retention and many have adopted a variety of programs to enhance student academic performance (Tinto, 1999). The university studied in this research has committed resources toward increasing persistence of its students and has developed several first-year programs for incoming freshmen. Currently, this university has two first-year programs dedicated to improved

academic performance and retention of first-year students. Additionally, this university is a predominantly White institution (PWI) and has a large population of students from urban school districts. These students graduate at much lower rates than the university average. The purpose of this study was to evaluate the degree first-year programs at MU impact the academic performance of students from urban school districts.

#### **Research Questions**

The following questions will be investigated for this study:

- 1. Is there a difference in academic performance of students from urban school districts who are enrolled in a first-year program (required program or voluntary program) and those who are not enrolled?
- 2. To what degree do demographical characteristics, precollege attributes, and student support services (i.e., success coach meetings, number of study hours, peer mentor meetings, LLC) predict academic performance of students from urban school districts?

#### **Definition of Key Terms**

In this section, several terms and phrases used throughout this study have been defined.

Academic performance. Often interchanged with student success or persistence. In this study academic performance will be an outcome defined as students' first-semester GPAs in college.

**Effectiveness.** For the purposes of this research, effectiveness is defined as a first-year program's influence on the academic performance and retention of first-year students. Essentially, effectiveness will determine if increases or decreases in academic performance of students are observed as a result of the programmatic efforts.

**First-year program.** This term is often interchanged with the terms, *student support* or *retention programs*. In this study first-year programs are student support programs designed to increase the academic performance and retention of students, especially during their first year. Students are either admitted to the university directly through the first-year program or voluntarily enroll.

**First-year student.** This term is often interchanged with freshman. First-year students will be defined as any student for which it is their first time in any college (FTIAC).

**Precollege academic background.** A first-year student's high school GPA and standardized test scores (ACT or SAT).

**Required participatory first-year program.** A first-year program at Midwestern University in which students are admitted and required to sign a contract agreeing to meet program requirements. This type of program incentivizes students to take the program seriously because there are consequences, such as dismissal, if a student fails to meet requirements (Kamphoff, Hutson, Amundsen, & Atwood, 2007).

**Urban school districts.** For the purposes of this study, an urban school district refers to a district with minority students making up at least 35% of its student population minority and 50% of its students eligible for free or reduced lunch (McKenzie Group, 1999). In addition, an urban school district is located in a principle city and metropolitan area with a population of 250,000 or more people (National Center for Education Statistics [NCES], 2006).

**Voluntary participatory first-year program.** A first-year program at Midwestern University to which students are admitted as a condition of their acceptance into the university. They are expected to meet the program requirements but are not held accountable if they choose not to comply.

#### Significance of Research

This study is significant because it has the potential to inform postsecondary institutions, of the most effective policy and practices that impact academic performance during a time of diminished resources and increased accountability. Postsecondary institutions across the nation have experienced declined funding while at the same time they are being held more accountable to increase college completion rates by local, state and federal governments. Many institutions have labeled retention and graduation as an institutional priority, but some of these same institutions have not committed the necessary funding and resources to address the issue. To make a valid argument for the funding and resources needed, "retention programs have to provide empirical evidence that resources committed to them are an investment that yields longterm benefits to the institution" (Tinto, 2006, p. 10). Tinto (1996) claimed, in today's society of action, "what matters are not our theories per se, but how they help institutions address pressing practical issues of persistence" (p. 6). If practitioners can strategically use data to demonstrate program effectiveness, they could validate that resources devoted are an investment that generates benefits to the institution in the short and long term (Tinto, 1996). This research is essential to college completion literature because first-year student retention and academic performance are predictors of graduation.

Although this study is not intended to evaluate K12 school districts, secondary and other school district administrators would likely find this study significant because it would inform them of additional outcomes that could help them assess their college readiness efforts. Roderick, Nagaoka, and Coca (2009) stated, "High schools must begin to view the postsecondary performance of their graduates as a key measure of their own performance" (p. 186). The assessments conducted in this study on students from urban school districts and first-year

programs can be replicated at any postsecondary institution, which could create new evidence to meet accountability standards and potentially increase funding. The Department of Education is now investing in building datasets that connect high school and postsecondary performance that serve as accountability systems around college readiness and enrollment (Roderick et al., 2009).

This research also helps build equity and social mobility for individuals who are affected by of systemic oppression. Many individuals of urban communities are from an ethnic minority group. In particular, African Americans have endured centuries of systemic oppression and terrorism (from slavery, Jim Crow era, housing discrimination, familial separation, drug infiltration, mass incarceration, police brutality, to unsolved killings) that have placed them at a far disadvantage to thrive in today's society. Providing catered educational support to help individuals of oppressed backgrounds navigate through the complex and contradistinctive collegiate system gives these individuals an equitable opportunity to experience the benefits associated with degree attainment. It is important for more individuals in our society to receive a college education because of the economic benefits. According to the Institute for Higher Education Policy (2005), student's benefit from college by receiving higher salaries and benefits, maintaining higher savings levels, experiencing improved working conditions, enjoying an improved quality of life, and engaging in more hobbies and leisure activities. Today's economy demands higher skills and high school graduates with no postsecondary experience face declining economic prospects (Roderick et al., 2009). Abel and Deitz (2014) asserted, "Average wages for those with a college degree are far greater . . . and individuals with a bachelor's degree on average earn well over \$1 million more than high school graduates during their working lives" (p. 4).

Lastly, higher educational attainment levels benefit the job economy regionally. In an article written by N. Berger and Fisher (2013), higher educational attainment levels benefit states by doing the following:

- Overwhelmingly, high-wage states are states with a well-educated workforce. There is a clear and strong correlation between the educational attainment of a state's workforce and median wages in the state.
- States can build a strong foundation for economic success and shared prosperity by investing in education. Providing expanded access to high quality education will not only expand economic opportunity for residents, but also likely do more to strengthen the overall state economy than anything else a state government can do.
- States can increase the strength of their economies and their ability to grow and attract high-wage employers by investing in education and increasing the number of well-educated workers.

The state studied in this research has struggled with keeping high educational attainment levels and has suffered consequences because of this. In 2018, the state was overlooked in the establishment of a second headquarters by one of the nation's largest companies, Amazon, because the region lacked the educational levels the company needed (Gallagher, 2018).

#### Assumptions

In this study, it is assumed all incoming freshmen represented in the dataset intended on finishing their first year successfully and eventually completing their degree from the institution studied. It is also assumed each of the first-year programs were constructed and are operated to the best benefit of the students served.

#### **Scope of Study**

The scope of the study was bounded to only an institutional assessment of students first semester in college. This study assesses institutional practices and their impact on academic performance and not necessarily student's experiences and their actions, although prior research concludes these factors do have an impact.

#### Limitations

This study was limited by the varying sample sizes of each of the student populations, first-year programs and students from urban school districts. External factors may also pose limitations to the findings. These external factors include, but are not limited to, full-time or parttime work status, family size, housing, familial and personal issues, health issues, campus involvement and financial aid packaging.

#### **Summary**

National persistence and graduation rates have shown little change over the past decade (Tinto, 2006). A precursor to student's college completion or attrition is their student success during their first year of college. Although there is substantial research on first-year programs, a gap in literature exists of which components of first-year programs are most effective in academic performance of first-year students from urban school districts. Students from urban school districts in the institution studied have experienced high attrition rates but may benefit from the types of first-year programming offered to other groups found in prior research. This study will evaluate the effectiveness of these first-year programs and to what degree they impact academic performance of students from urban high schools during their first year. Research in this area is needed for two main reasons: (a) to help practitioners validate the need for funding

and resources toward retention programming and (b) to help institutions ensure equity for all students by developing a tailored support system for students from urban school districts.

#### **Chapter 2: Literature Review**

The purpose of this review of literature was to provide background and further context of the problem statement and variables associated with the academic performance of first-year students. This literature review includes history of the issue presented to raise awareness of the concerning college graduation rates in the nation. An overview of theories on student retention provides a general understanding of actions taken by colleges and universities to impact degree completion in the last several decades. Literature on the history of first-year programs and urban school districts is reviewed, as well as the theoretical context behind the purpose of the study, and the variables (e.g., high school GPA, ACT, SAT, study hours, success coaches, peer mentors, LLCs, first-semester GPA) are presented.

#### **College Student Retention Theories**

Interest in student retention and graduation started as the population of college students evolved throughout the mid-1800s to mid-1900s in the United States. Early studies on college student retention theories began in the 1930s, and one of the most notable studies is on college student mortality by John McNeely (Demetriou & Schmitz-Sciborski, 2010). McNeely (1938) defined student mortality as "the failure of students to remain in college until graduation" (p. 1). In conjunction with the U.S. Office of Education, McNeely investigated how institutions assessed student retention, the effect of student's characteristics on retention, and the reasons why students drop out of college (LaRocca, 2015). Studies prior to McNeely's (1938) were only focused on single institutions compared to his study of 60 institutions. McNeely's study served as a foundation to several larger scale studies that emerged in the 1960s and 1970s on college student retention.

As highlighted in Chapter 1, there were several national events that expanded college student populations in the mid-1900s: GI Bill, Higher Education Act of 1965, Great Society Programs, Vocational Education Act, The Morrill Land Grant Act of 1862, Basic Educational Opportunity Grant, and the Civil Rights Act. These events led to a broader and more diverse enrollment of students many institutions were not prepared to serve (Demetriou & Schmitz-Sciborski, 2010). The 1960s era of student retention literature focused on preventing dropouts with an influx of research on personality attributes of students (Center for the Study of College Student Retention, 2015; Summerskill, 1962). Retention studies during this era were often grounded in psychology and explained "in terms of students' characteristics, personal attributes and shortcomings" (Aljohani, 2016, p. 2). In the 1970s, retention theories became more sociological, including studies on student departure between commonalities of groups of students rather than individuals (Bean, 2001). Bean (2001) noted research after 1980 was focused on "how individuals assess themselves in an educational context . . . how economic factors affect retention . . . and how the cultural factors typical of subgroups of students affect retention decisions, particularly in terms of minority student retention" (p. 5).

Following this era of literature on preventing dropouts, researchers began to develop theories on retention in the 1970s. Spady developed the first sociological student retention model in 1971 in his study titled, "Dropouts from Higher Education: An Interdisciplinary Review and Synthesis" (Aljohani, 2016; Bean, 2001; J. B. Berger, Ramírez, & Lyon, 2012; Demetriou & Schmitz-Sciborski, 2010). According to J. B. Berger et al. (2012), Spady's (1970) work was significant for three main reasons:

 It was the first attempt to merge existing empirical studies into a conceptual framework.

- 2. It was grounded in sociology rather than psychology like prior studies.
- 3. It was a precursor for Tinto's groundbreaking student departure model.

Spady's sociological model drew upon French philosopher and sociologist Émile Durkeim's suicide model, in which the study concluded, "People committed suicide because they lacked the values of the social system in which they participated, and because they were not supported by a group of friends" (Bean, 2001, para. 22). Likewise, students withdraw due to their inability to adapt to the new academic values of the college system and integrate socially, establishing support from peers, faculty, and staff.

Spady's (1970) contributions paved the foundation for several widely recognized studies in student retention developed in the 1970s. In 1975, Tinto developed the institutional departure model (student integration model), which was based on Durkheim's suicide model and focuses on academic and social integration as major influences on student attrition (Voigt & Hundrieser, 2008). Tinto's theory suggests, "The degree of success a student has in his or her pursuit of higher education influences the level of commitment a student has to an institution, academic goals and career goals" (as cited in Demetriou & Schmitz-Sciborski, 2010, p. 3). Tinto (1993) developed his theory on student departure further over the coming decades and eventually published his more renowned book titled, *Leaving College: Rethinking the Causes and Cures of* Student Attrition. Grounded on Dutch anthropologist Van Gennep's The Rites of Passage, Tinto (1993) asserted a student's likelihood to withdraw depended on three distinct stages: (a) separation, (b) transition, and (c) incorporation. In the stage of separation, new college students need to detach themselves from family and high school peers, then they immediately go into in the transition stage once they have begun disassociating themselves from former communities, and lastly, the student acquires the new values and norms needed to succeed in the incorporation

stage (Aljohani, 2016; Tinto, 1993). Tinto (1993) indicated there are "several institutional actions [that] are effective in treating early student withdrawal: transition assistance, early contact and community building, academic involvement" (p. 163).

Astin (1968) began his studies of retention in the 1960s using large national databases that included several hundred colleges. His extensive analysis led him to conclude student involvement was an aspect of retention (J. B. Berger et al., 2012). Astin's (1975, 1984, 1993) student involvement model concludes the quantity and quality of the physical and psychological energy students invest in college (academic and social) is positively related to the amount of learning and personal development. Essentially, the more a student is involved at their academic institution, the greater rates of retention and degree completion for the institutions (Aljohani, 2016). Further context on Astin's studies will be provided in a later section of Chapter 2 because his input-environment-output model was used as the conceptual model for this study.

Bean (1980, 1982) took a unique perspective on student retention by correlating it to workplace turnover and disassociated his model from Tinto and Spady's models that were founded on suicide and rites of passage studies. Bean's student attrition model is based off of Price's (1977) research in the study of turnover. According to Price (1977), employee turnover is the "degree of individual movement across the membership of boundary of a social system" (p. 4). Aljohani (2016) claimed, "Bean's model shared with employee turnover models the postulation that student and employee satisfaction, and subsequently their persistence, is affected by organizational determinants" (p. 7). Students who are not satisfied with their institution will be less committed and more likely to leave, thus increasing attrition rates.

Pascarella (1980) modeled Tinto's (1975) and Spady's (1970) findings that studentfaculty interactions are essential to a student's integration to the new collegiate environment but

centered his studies more on student's informal interactions with faculty. Pascarella's (1980) student-faculty informal contact model is a longitudinal model that identifies positive relationships between the quantity and quality of student-faculty informal interactions and retention (Aljohani, 2016). Since then, retention has been a growing sector of higher education and numerous researchers have made notable contributions to the field (Bean & Metzner, 1985; Cabrera et al., 1992; Kuh, Kinzie, Schuh, Whitt, & Associates, 2005; Levitz & Noel, 1998; Pascarella & Terenzini, 1980). Factors such as financial background, class (Cabrera et al., 1992), race and ethnicity (Tinto, 1975, 1993), parental educational attainment level (Pascarella & Terenzini, 1991), and precollege academic background (Moore & Shulock, 2009; Roderick et al., 2008) are also identified as indicators in predicting retention.

Tinto's (1993) and Astin's (1975) theories are essential to the study of students from urban school districts and first-year programs. These two theories credit prior schooling, student characteristics, and student involvement as being important factors to student retention. Each of these three factors are focal points of this study. In Tinto's theory, he notes prior schooling, such as high school grades, have indirect and direct effects on student departure. In addition to high school grades (i.e., GPA), this study also takes into consideration high school of attendance (i.e., urban school district). Tinto does not explicitly mention urban school district attendance as a factor of student departure; however, he does refer to several student characteristics that are highly prevalent in the urban school districts in this study: race/ethnicity and class. Tinto's theory is also significant for this study because of its emphasis on institutional action. Adding to institutional action, Astin's theory connects to this study by helping the researcher understand the significance of a student's level of involvement in relation to retention.

In summary, numerous authors have made notable contributions to student retention literature dating back to the early to mid 1900s, such as Astin (1975), Bean (1980), McNeely (1938), Pascarella (1980), Spady (1970), Tinto (1975), and others. In the early stages of higher education, the system was designed for only the elite to persist. But, as several federal acts were passed an expansion of the college student population to the masses began. Most universities were not prepared to serve the new diverse student body. Thus, a greater need for retention studies evolved during the 1960s. The majority of early studies before the 1930s were at single institutions and was focused on the effect of student's characteristics on retention, and the reasons why students drop out of college. As the literature advanced during the 1960s, more attention was devoted toward preventing dropouts and the personality attributes of students in relation to attrition. During the 1970s and 1980s, more retention theories were dedicated to research on retention of various subgroups and in particular, students of underrepresented populations. Since this era, several notable theories have provided a theoretical foundation for retention studies of the following decades: Tinto's institutional departure theory, Astin's student involvement theory, Pascarella's student-faculty informal contact model, and Bean's student attrition model.

#### **First-Year Programs**

The academic persistence of students may be largely attributed to student characteristics and their academic and social involvement. However, the degree of which a student accomplishes their intended goals (e.g., graduation) can be largely impacted by institutional action as well. Tinto (1999) asserted, "Institutions must recognize that the roots of attrition lie not only in their students and the situations they face but also in the very character of the settings" (p. 5). Institutions have the ability to control the environments into which students

matriculate through intentional retention programming, especially during the first year. Approximately one third of students do not graduate from college and most withdraw during their first year (Pittman & Richmond, 2008). A student's inability to adapt to the new college environment often leads to withdrawal from the first year or low academic performance (Garza & Bowden, 2014). College students are at their most vulnerable state during their first year and institutional support is warranted to achieve higher levels of degree attainment. To proactively mitigate this issue, institutions have developed programmatic retention practices specifically for first-year students, known as first-year programs.

First-year programs, also known as retention programs, have garnered increased interest in the last several decades (Clinton, 2011). The earliest model of first-year programs was freshmen seminar courses (Barefoot & Fidler, 1996; Raymondo, 2003). According to Barefoot, Fidler, Gardner, Moore, and Roberts (1999), a first-year experience program is more than a seminar course and it should be defined as a comprehensive effort that increases academic performance, provides a cohesive learning experience, and increases student persistence. Through first-year programs, postsecondary institutions aid a first-year student's transition and ensures most students have at least a reasonable opportunity to complete their degree (Tinto, 1993). Habley and McClanahan (2004) highlighted first-year programs as a practice responsible for the greatest contribution to retention in 4-year public colleges. First-year programs have proven to be effective in promoting student academic achievement, academic and social integration, involvement, satisfaction, sense of community, and persistence (Knight, 2002).

Attention toward first-year programs began in the 1800s and during this time first-year programs were primarily delivered as freshman seminar courses. The first freshmen seminar course was offered in 1882 at Lee College, followed by similar versions at Boston College in

1888 and Reed College in 1911 (Barefoot & Fidler, 1996; Raymondo, 2003). Since the pioneering of these first-year programs, institutional interest fluctuated at the same rate as college enrollment levels. Popularity of first-year programs decreased in the late 1960s as colleges experienced an influx in enrollment levels from the baby boomer generation, who were now high school graduates ready to enroll in college (Raymondo, 2003). College administrators specified their efforts on recruitment and enrollment activities because of the larger population of college-aged adults. Therefore, retention programs were not a higher priority because institutions became more financially sustained from enrollment. As the number of live births declined in the 1970s, postsecondary administrators focused more on retaining students and less on enrollment (Raymondo, 2003). Administrators had no choice but to invest more in resources that kept students at the institution longer, which eventually led to higher degree completion rates. Today, first-year programs are essential to university sustainability and student success at many postsecondary institutions in the United States. According to Gardner, Barefoot, and Swing (2001a, 2001b), 85% of postsecondary institutions have some type of first-year program.

First-year programs are prevalent at the majority of institutions across the United States, but it is also important to understand the unique composition of retention practices. Upcraft, Gardner, and Barefoot (2004) noted the components of first-year programs vary widely depending on institutional needs but the most common areas are new student orientations, firstyear curriculums, academic advising, student support services (academic and nonacademic), and administrative policies and practices. ACT (2010) conducted a national survey called *What Works in Student Retention?* that was completed by more than 258 public 4-year postsecondary institutions to identify the impact of various practices of college student retention and degree completion. In this study, respondents were asked to review 94 retention practices and identify

those that made the greatest contribution to retention on their campus. The top 10 practices were freshmen seminar courses, supplemental instruction, tutoring, LLCs, advising interventions with selected student populations, mandated placement of students in courses based on test scores, academic advising centers, summer orientation, and early warning systems (ACT, 2010). Tinto (1997) explained the various first-year student retention practices can be classified into "five broad categories: transition assistance, early contact and community building, academic involvement and support, monitoring and early warning, and counseling and advising" (p. 163).

First-year programs are widely accepted as an institutional action that increases retention among college students. In addition to the general importance of first-year programs, the extensive scholarly literature on this subject also includes examination of individual cases. For example, students who participated in the ESSENCE program (Entering Students at South Engaging in New College Experiences) at the University of South Alabama had averaged a firstyear GPA of 0.15 points higher than non-ESSENCE students and are 45% more likely to graduate than students who did not participate in the first-year program (K. Noble, Flynn, Lee, & Hilton, 2007). During the last several decades, numerous first-year programs at individual institutions have been assessed to highlight the most effective retention practices (Barefoot, Warnock, Dickinson, Richardson, & Roberts, 1998; Braxton, Hirschy, & McClendon, 2004; Schnell, Louis, & Doetkott, 2003; Wright Sidle & McReynolds, 2009). Since 1989, over 170 institutions have been recognized by the Lee Noel-Randi Levitz Retention Excellence Awards as the most successful student success and retention programs in the nation (Ruffalo Noel Levitz, 2019).

# **Urban School Districts**

Before reviewing literature on the challenges of urban school districts, it is important to understand what is meant by the word "urban" in reference to school districts. There are many variations of the meaning of urban school districts; some refer to urban school districts as low performing schools, while others might view it as a school that has a high level of poverty stricken students in the school and in the community (Frankenberg, 2009; Maranowski, 2012; Roderick et al., 2009). Kopetz, Lease, and Warren-Kring (2006) define an urban area as a city and its surrounding suburban areas. Thus, for the purpose of this study, urban school districts are defined as school districts with at least a 35% minority student population and at least 50% of students eligible for free or reduced-price lunch (McKenzie Group, 1999). In addition, an urban school district is located in a principle city and metropolitan area with a population of 250,000 or more people (NCES, 2006). Free or reduced-price lunch is commonly used as an indicator to show the rate of students from low-income families (Morrissey, Hutchinson, & Winsler, 2014). The racial composition and income levels of the school districts selected in this study are more distinct than many other large urban school districts in the United States. The districts selected for this study are comprised of mostly minority students and have higher percentages of students from low-income families.

The demographic makeup of urban communities has shifted substantially during the last 50 years. By the end of the 1990s, most urban cities had a majority of non-White residents and White and middleclass students made up a smaller portion of enrollment in the school districts (Frankenberg, 2009). In 2005-2006, 12,000 out of 95,000 public schools were located in urban areas and 52% of them were segregated minority; segregated minority schools are schools that were 90-100% non-White (Frankenberg, 2009). During this same time period, almost two out of

three students in schools in large urban areas were from low-income families (Frankenberg, 2009). Understanding demographic context of urban schools is important because the composition of students in schools is related to students' academic and nonacademic outcomes (Frankenburg, 2009).

Urban school districts face a unique degree of challenges that are inextricably linked to and affected by the urban environment (Abbott, 2010). In many urban communities, issues such as poverty, welfare dependency, violence, and substance abuse persist (Abbott, 2010). The formation of the urban environment can be attributed to a long-standing history of public housing projects, or "the projects." These government funded attempts to provide fair housing resulted in greater negative consequences as Semuels (2015) claimed crime, drug, and educational issues were linked to housing projects, particularly in urban areas. McLean, Robinson, and Densley (2018) stated, "What had once been bustling, blue-collar African-American communities subsequently collapsed into 'ghettos' hemmed in by freeways, redlining (i.e., systematic housing discrimination), and hostile white neighborhoods" (p. 5).

In addition to urban public housing, a factor that impacted the urban environment greatly is the birth of mass incarceration. From the "War on Crime" and the "War on Drugs" of the 1960s and 1970s to the more recent Violent Crime Control and Law Enforcement Act of 1994, federal government mandates have filled the prison system with individuals from urban communities, particularly men of color (Western & Wildeman, 2009). These governmental actions created stricter criminal punishments and intensified urban police enforcement to produce high incarceration rates among minority men (McLean et al., 2018; Western & Wildeman, 2009). During the "Prison Boom" (1980-2004), the rate of young White men incarcerated rose from 0.6 to 1.9 and the percentage for young Black men increased from 5.7 to

13.5 (Western & Wildeman, 2009). The Crack-Cocaine Era of the 1980s and 1990s gave rise to incarceration through penalties of the Anti-Drug Abuse Act of 1986 for crack cocaine possession. This era also led to an increase of violence as urban areas became the marketplace for illicit drug distribution and gangs. Due to the decades of distrust of protection for Blacks (slavery, Jim Crow, unsolved Black homicides, and more), in some urban communities, the gang functions as its own police force (McLean et al., 2018).

Inheritably, the many conditions of mass incarceration have had major effects of youth of urban areas as well, especially during the 1980s and 1990s. Just over 50% of African American children born in 1990 whose fathers dropped out of high school had fathers who were imprisoned, and the rate was 25% of fathers for all African American children (Wakefield & Wilderman, 2013). Thompson (2013) stated:

By 2010, more than 2.7 million children in the United States had a parent in prison and approximately 10 million had a parent who had been incarcerated at some point in their childhood. This experience fell disproportionately on children of color, with one in nine African American kids experiencing this trauma compared to one in 57 White kids. As bad as it was to lose a parent to incarceration, the vast majority of these children also witnessed the often-violent arrest of their parent, and an overwhelming number never got to see their parent once imprisoned because the money to do so was not available-either the funds to travel or to call. (p. 51)

The prevalence of violence, incarceration, and other environmental factors may increase the likelihood of experiencing trauma among individuals from urban communities. For many youth in urban communities, exposure to trauma is a daily living experience that can eventually lead to the development of traumatic stress disorders at disproportionate rates (Kiser, Medoff, &

Black, 2010). This continuous exposure to traumatic events increases the prevalence of posttraumatic stress disorder (PTSD) symptomatic responses, such as affective (sadness and rage), physiological deregulations, and other reactions (Cook et al., 2003; Herman, 1992; Kaysen, Resick, & Wise, 2003; Kiser, Millsap, & Heston, 1992; Terr, 1991; van der Kolk, 2005). Posttraumatic stress disorder is higher among those living in low-income urban areas than the general population, which is 7.3% (Frissen, Lieverse, Drukker, van Winkel, & Delespaul, 2015). In a study of 100 African American youth from one urban city, 87% of the children were exposed to multiple traumatic events with a mean number of five events per child (Kiser et al., 2010). Kiser et al. (2010) stated, "The most common events included illness/death of a family member/friend, family member arrested/jailed/imprisoned, separation from caregiver, family members physically fighting, and serious accidents" (p. 36). Other factors also include community violence and criminal victimization. Additionally, Kang and Burton (2014) found childhood trauma and racial discrimination experiences are both significantly linked to juvenile delinquency.

For some children the experience of having an incarcerated parent can serve as motivation to do better in their own life and foster resiliency. Resilience can be defined as our ability to recover strength and persist under adversity in the face of life risks and challenges (Hollingsworth, Cornhill, & Mitchell, 2015). Although individuals from urban school districts students are often exposed to higher rates of crime and violence, poverty, school dropout, incarceration, substance abuse, and many other factors, some students persevere through the stressors and demonstrate positive adaptation (Speight, 2009). In Speight's (2009) study, resilience was significantly and positively related to achievement and self-efficacy.

But, for many other children there can be adverse consequences if parental incarceration that continue into adulthood, including generational incarceration (Wakefield & Wilderman, 2013). The phrases "I'm just a product of my environment" or "The streets raised me" are often used when the life and decisions of a youth is heavily influenced be the challenging circumstances of their setting: fatherless, violence, poor schooling, drug trafficking, and more. Jones (2018) noted your environment consists of more than your parents and family, it also includes the era you grew up in, your peers, and characteristics of your setting. The characteristics of these issues influence a culture of norms, values, and expectations. Young adult/teenage/single parenthood, governmental assistance, narcotics, and incarceration may become socially common because of its widespread prevalence in the urban community over decades. The monetary and materialistic acquisitions of the rare few individuals who have "made it out" of urban communities through sports, entertainment, social media, and criminal activity can provide challenges to creating value and attracting individuals to attain postsecondary education.

In addition to the various issues attributed to the surrounding communities, urban school districts encompass a complexity of challenges. Urban school districts often have large amounts of principal and teacher turnover, large bureaucratic systems, insufficient resources, fewer qualified teachers or challenging curricular offerings, high student-to-counselor ratios, and typically focus more attention on students' personal and social problems (Abbott, 2010; Frankenberg, 2009). In a report by the American School Counselors Association (2015), the state in this study had an average student to counselor ratio of 729:1 compared to the national average of 482:1, which is the third highest ration in the nation. Lindsey (2012) noted there is a significant correlation between a low student-to-counselor ratio and higher enrollment of

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students in postsecondary education. The ideal student to counselor ratio is approximately 300 to 1, but some urban schools have reported ratios of 500 to 1 and as high has 5,000 to 1 at large urban schools (Lindsey, 2012). With such large ratios, counselors are left with little time to provide college counseling and planning for students served in urban school districts. The combined complexities of the urban environment and the educational systems can create difficulties in adequately preparing students for postsecondary education.

Franco (2012) asserted, "Historically, urban public high school districts have struggled to academically prepare minority, first-generation, low-income students, whose families typically have low education attainments" (p. 1). Students from urban school districts are more likely to dropout, lack access to rigorous academic coursework and have fewer familial role models to guide their progression into postsecondary education (Franco, 2012). This leads many urban school district graduates to enrolling in 2-year colleges and less selective 4-year colleges that provide significantly lower chances of degree attainment (Roderick et al., 2008). When students from this population enroll into a college or university, they oftentimes face the reality they are not prepared to excel in a collegiate system when they are placed in remedial courses in core areas, such as mathematics and English (Franco, 2012).

These issues described may be very prevalent in urban communities and school districts; however, it is highly important to note urban communities are not monolithic nor homogenous settings. These issues are simply presented in this study to highlight the differences between urban and other communities with no intent to stigmatize or generalize individuals from the urban community as a whole. Note, there are some individuals who are from middle and upperclass familial incomes, two-parent households, and attend statewide acclaimed schools in the urban setting. This is true for city researched in this study, as 20% earn a household income

between \$50,000-\$100,000 and 8% above \$100,000 (U.S. Census Bureau, 2017). Of the 265,000 households, 29% were two-parent households and almost 15% of individuals have a bachelor's degree or higher (U.S. Census Bureau, 2017). In addition, several high schools in the city study have been historically acclaimed for their academics and preparing students for postsecondary education. One school, in particular, was ranked 126 out of over 1,000 high schools in its state ("Best High Schools," 2019). This same school has higher performance on state tests, higher rates of students in advanced coursework, higher graduation rates, and higher postsecondary enrollment than the state average.

Although there is an extensive amount of literature on the context of the urban environment, studies on retention and first-year programs specifically for students from urban areas is drastically limited (Clinton, 2011). Clinton (2011) highlighted three retention studies focused on urban school districts: Boston Public School System, Chicago Public School System, and Denver Public Schools. Sum et al. (2008) conducted an assessment of college enrollment and graduation rates of 2,964 class of 2000 Boston Public Schools (BPS) graduates. Of the 2,964 BPS graduates, 69% of students were underrepresented minority (Black or Hispanic) and 58% of those students enrolled into a postsecondary institution (Sum et al., 2008). Only 35% of BPS graduates completed a 4-year degree compared to the 57% national graduation rate (Sum et al., 2008). Authors of a 2006 study of graduates from Chicago Public Schools (CPS) found 45% of CPS graduates completed a 4-year degree compared to the national graduation rate of 64% (Allensworth, 2006). Students who graduated from CPS with GPAs less than 3.00 were very unlikely to graduate from a 4-year institution; 36% of students with a 2.60-3.00 high school GPA graduated compared to 54% of students who had a GPA of 3.1-3.5 and 75% who had a high school GPA of 3.6 and above (Roderick et al., 2008). Of 75,000 students who attended Denver

Public Schools (K-12), 55% of students were Hispanic, 18% Black, and 66% were eligible to receive free or reduced-price lunch. Roderick et al. (2008) discovered far lower percentages of DPS graduates earn degrees compared to the national average and recommend "local colleges should evaluate programs for improving the college success of low-income and minority students" (p. 5).

Historically, there has been more attention devoted to college access initiatives for urban school district students than retention and degree completion of them. Burleson et al. (2008) asserted college access for students living in urban areas has been a priority for decades, and, recently, more programs have been designed to assist urban students transition from high school to college. Gaining access simply focuses on college applications and securing financial aid. In order for students to successfully achieve degree completion, they need to understand how to navigate the collegiate system. Burleson et al. claimed urban school district students who were not in a college supports program were more likely not able to interpret aid award information and were not aware of various costs associated with college. Lindsey (2012) stated, "Access to information and guidance acquired through support programs could make the difference between academic success urban students" (p. 74).

#### The Need for Research on Students from Urban School Districts

As explained in previous paragraphs, students from urban school districts experience a complexity of challenges in their grade school upbringings and are oftentimes underprepared for a collegiate environment (Franco, 2012; Roderick et al., 2008). There is an extensive amount of literature on the urban context and the challenges in the school districts, such as high principal and teacher turnover, insufficient resources, student-to-counselor ratios, and schools are often located in communities where poverty, welfare dependency, violence, and substance abuse

persist (Abbott, 2010; Cuban, 2001; Frankenberg, 2009; Lindsey, 2012; Noguera, 1996). The majority of prior studies on students from urban school districts in college are devoted to college access and preparing students for their transition (Burleson et al., 2008). Clinton (2011) stated, "Similar to the literature on the retention of urban students, literature about first-year supportive programs for urban students is limited with respect to research specifically focused on students from urban areas" (p. 44).

Although there is limited research specifically on urban school districts, research on the various subpopulations often in urban communities (low-income, first-generation, and minority students) may provide a valuable understanding of the relationship between first-year retention programs and students from urban school districts. Braunstein, Lesser, and Pescatrice (2008) conducted a quantitative study of low-income first-generation students at a private liberal arts college in the Northeast. Of the 2,400 freshmen and sophomores included in their sample, the authors concluded the first-year program for low-income and first-generation students (which included 130 students) increased retention and persistence of the student population (Braunstein et al., 2008). Students in the retention program entered the institution with a SAT score of 894 compared to 996 of all freshmen at the college and a high school GPA of 2.49 compared to 2.69 of all freshmen (Braunstein et al., 2008). In the retention program, 52% of students were from low-income backgrounds and the retention rates were identical to the overall freshman class, 76.2% for program participants and 76.4% for all freshmen (Braunstein et al., 2008). At Lansing Community College in Michigan, a retention program for Latino students has helped students persist at higher rates than nonparticipants because of one of their primary components of providing mentoring and support (Cunningham, Cardenas, Martinez, & Mason, 2006). Program participants of HORIZONS at Purdue University were retained at 85% compared to

nonparticipants at 47% (Dale, 1995). Program participants who were first-generation or lowincome reported the supportive network, learning study skills, and tutoring were the most beneficial services of the program (Dale, 1995).

# **Demographic Characteristics**

The expansion from elite to mass after the 1960s helped created a broader more diverse college student population across the nation. More students from varying demographical groups are now enabled access to higher education through several legislations targeted at access for disadvantaged groups. Astin's (1993) inputs-environment-outputs (I-E-O) conceptual model suggests students enter postsecondary institutions with preexisting characteristics called inputs, these inputs typically include family background, high school grades, test scores, race, gender, ethnicity, marital status, and their individual reasons for attending the university. Garza and Bowden (2014) stated, "The conceptual model [Astin's I-E-O] indicated that the Input elements not only directly influence the student Outputs, but they also have an effect on the Environment which also influences the student Outputs" (p. 408). Demetriou and Schmitz-Sciborski (2010) concluded first-generation status, gender, race and ethnicity, familial income and distance of hometown from the institution all play a part in student retention. Tinto (1993) found different subgroups, such as African American students, students from low-income families, nontraditional students and transfer students, enter with unique experiences requiring groupspecific interventions and policies. In some studies, retention interventions have proven to be beneficial regardless of differences in gender, ethnicity, age, and other characteristics. Pascarella and Terenzini (1991, 2005) claimed participants of first- year seminar programs based on gender, ethnicity, high school achievement, and admissions test scores had higher success rates

than nonparticipants. This section includes an overview of several demographical characteristics and their relationship to student success.

**Gender.** The earliest studies on gender date back as far as McNeely's research on college student mortality in 1938. McNeely studied 22 public universities and found 15 of them had higher attrition rates for males than females. In student departure theory, student's individual gender was related to a student's chance of dropping out and women were more likely to leave college for social reasons (Tinto, 1975, 1987, 1993). Several recent studies indicated there is no significant relationship between gender and student success (Adelman, 2005; Garza & Bowden, 2014; Herzog, 2005; Raymondo, 2003). However, other recent studies have revealed there are differences in retention related to gender (Demetriou & Schmitz-Sciborski, 2011; Fin & Ishak, 2012). Most studies conclude women experience higher levels of academic achievement and have higher graduation rates than man (Alon & Gelbgiser, 2011; Bergman, Gross, Berry, & Shuck, 2014; Brock, 2010; Carbonaro, Ellison, & Covay, 2010; Carlan & Byxbe, 2000; Goldin, Katz, & Kuziemko, 2006; Mortenson, 2003; K. Noble et al., 2007; Wang, 2009).

**Race and ethnicity.** Nationally, in 2009, the percentage of adults over 25 years and older with a college degree or higher was 29.5% and degree attainment by race was 52.3% for Asians, 29.9% for Whites, 19.3% for Blacks, and 13.2% for Hispanics (NCES, 2011). In their research, Demetriou and Schmitz-Sciborski (2011) asserted race and ethnicity are correlated to student success, especially at institutions lacking diversity. Several studies conclude students of traditionally underrepresented minority groups (Black/African American, Latino/a or Hispanic, Native American/American Indian) experience higher levels of attrition than peer groups (Brock, 2010; K. Noble et al., 2007; Pascarella & Terenzini, 1991, 2005; Tinto, 1975, 1993). In addition, the intersection between race and gender can also play a factor as Baum et al. (2013) stated

Black men are more prone to have lower graduation rates than other groups. Garza and Bowden (2014) found a first-year course a race was statistically significant with retention. However, a recent student by Adelman (2005) concluded race and ethnicity were not significant predictors of graduation.

First generation. Some research studies define a first-generation college student as an individual whose parents have earned a high school diploma or less, but the U.S. Department of Education TRIO programs define it as a student whose parents have not earned at least a bachelor's degree (Chen, 2005; Choy, 2001; Nunez & Cuccaro-Alamin, 1998; Warburton, Bugarin, & Nunez, 2001). In many cases, minority students are also first-generation students and first-generation students often come from low-income families (Demetriou & Schmitz-Sciborski, 2011). Numerous studies on the subpopulation conclude there is a relationship between firstgeneration status and persistence (Baum et al., 2013; Demetriou & Schmitz-Sciborski, 2011; Pascarella & Terenzini, 1991; Spady, 1970. Ishitani (2003), Lohfink and Paulsen (2005), and Nunez and Cuccaro-Alamin (1998) asserted as parental education level increased, retention also increased. Chen (2005) concluded first-generation college students earned GPAs of 2.60 compared to non-first-generation students' GPA of 2.90. In Nunez and Cuccaro-Alamin's research, 44% of first-generation students graduated compared to 56% of their non-firstgeneration students. In one study by Braunstein et al. (2008), retention rates were identical for first-generation and low-income students compared to peers, although the students had lower SAT scores and lower high school GPAs.

**Familial income.** Studies by Astin (1993) and later research by Tinto (1993, 1996, 1999) suggest a relationship exists between student's familial income, also known as family income, and student success. Brock (2010) asserted higher familial income is moderately linked to higher

academic achievement. Students from high familial income backgrounds were enrolled at rates of 38% higher and graduated at rates of 32% higher than other familial income groups (Johnson, 2011). Familial income was determined to be a significantly linked to degree completion in Adelman's (2005) study. Gohn and Albin (2006) stressed low-income students are more likely have to work full-time jobs, which influences their course load enrollment as well as their ability to commit to academic demands. Furthermore, students from low-income backgrounds have less financial support from family and run the risk of being unable to pay off balances and occur large debt (Gohn & Albin, 2006).

# **Precollege Academic Attributes**

Precollege academic attributes such as standardized test scores and high school academic performance are the most common standards used for admissions at postsecondary institutions (Veenstra, Dey, & Herrin, 2009; Waugh, Micceri, & Takalkar, 1994). These precollege academic characteristics usually include high school GPA, ACT scores, and/or SAT scores. Colleges and universities use these credentials to predict a student's likelihood of succeeding at the institution. Roderick et al. (2008) asserted gaining admission and completing college requires students to have "skills that colleges traditionally assess by looking at students' high school coursework, their performance on achievement exams, their relative class rank, and grade point average" (p. 190). Tinto's (1975) student integration model notes student's precollege academic characteristics (prior schooling) as a key influence on institutional commitment and student attrition. The student integration model strongly supports that high school academic achievement predicts college student success (Veenstra et al., 2009). Westrick, Le, Robbins, Radunzel, and Schmidt (2015) conducted a study of 50 universities and found mean correlation of first-year GPA was .51 for ACT score and .58 for high school GPA, which validates a moderate positive

relationship between the two predictors (GPA and ACT score) and first-year GPA. In two additional studies, high school GPA was a better predictor of first-year academic performance at GPA thresholds of 2.00, 2.50 and 3.00 (J. Noble & Sawyer, 2002; Sawyer, 2010), but ACT scores were slightly better predictors of academic performance at thresholds of 3.50 and 3.75 GPA (J. Noble & Sawyer, 2002; Sawyer, 2010). Thus, high school GPA is a better predictor for students who achieve first-year GPAs of 2.00-3.00 and ACT scores are better predictors for first-year GPAs of 3.5 and above.

High school grade point average. There are a variety of measures used to predict student success: past academic performance, family background, personal goals, and experiences at the institution (Sperry, 2015). High school GPA and standardized test scores are known to be very useful in predicting students who may be academically at-risk as well as students who are more likely to persist (Waugh et al., 1994). Students with higher high school GPAs typically experience greater success and graduation rates. Waugh et al. (1994) conducted a study of 8,573 freshmen at University of South Florida and found students with a high school GPA of 2.5-2.9 graduated at rates of at least 9% higher than students with a high school GPA of less than 2.4. In a study of 80,000 who attended the University of California between 1996-1999, high school grades were noted as the strongest predictor of college GPA and college graduation (Geiser & Santelices, 2007; Roderick et. al, 2009). Roderick et al. (2009) also examined graduates from Chicago public schools who attended 4-year colleges and found students with a high school GPA of 3.00 had a 50% or greater likelihood of graduating in 6 years. In a study of 760 students at Lima Technical College, one third of college graduates entered the college with a high school GPA of 3.00 and less than 10% entered college with less than a 2.00 GPA (Metz, 2001).

ACT/SAT scores. Standardized test scores, such as ACT and SAT scores, are indicators used for college admissions. According to Noel, Levitz, Saluri, & Associates (1985), attrition rates are lower for students with higher standardized test scores. Gifford, Briceno-Perriott, and Mianzo (2006) claimed ACT scores as a significant predictor of first-year academic success (measured by end-of-first-year cumulative GPA). In their study of more than 3,000 students at a large southern public university, freshmen with higher ACT scores obtained higher cumulative GPAs (Gifford et al., 2006). Snyder, Hackett, Steward, and Smith (2002) discovered SAT quantitative scores were a predictor of a student returning for the second year and having a university GPA of 2.5 or better. Veenstra et al. (2009) stated, "There was noticeably strong support for the ACT Composite and SAT total and academic-related skills in the general college empirical studies" (p. 10). In a study of 56,939 students at 55 institutions, students with a SAT score between 600-1190 earned a mean fourth-year cumulative GPA of 2.72, students with scores between 1200-1490 had a mean GPA of 2.92, students between 1500-1790 had a mean GPA of 3.13, students with scores between 1800-2090 had a mean GPA of 3.34, and students with scores between 2100-2400 had a mean GPA of 3.52 (Mattern & Patterson, 2006). Radunzel and Noble (2012) found the probability of graduating in 6 years was significantly higher for students with an ACT score of 25 compared to students with a 16, or 0.54 compared to 0.31.

## **Enrollment Status and Number of Credit Hours**

Upon making the decision to attend college, students have the option of enrolling at either full- or part-time status. At many institutions, undergraduate students who enroll in fewer than six credits are considered part time and students who enroll in more than 12 credits are full time. Raymondo's (2003) research highlights higher credit hour enrollment is a significant

predictor of college persistence. In a study of students at Oakland University and Northern Michigan University, Duby and Schartman (1997) found study three trends:

- First-year students who enrolled in lower credits took more than 4 years to graduate.
- First-year students who took higher course loads earned higher GPAs.
- Low course load enrollment appeared to be related to student debt.

Specifically, minority and low-income students are more likely to enroll part time, but Adelman (2005) suggested they are more likely to graduate if they complete at least 20 credits during their first year (Demetriou & Schmitz-Sciborski, 2011). However, Fidler's (1991) research concluded the number of credits a student enrolls into has no influence on retention.

Gohn and Albin (2006) stated, "Students attending public, two-year institutions are more likely to work full-time than students who attend public and private, four-year institutions (54% compared to 26%) and are most likely to be attending part-time" (p. 199). As college became more expensive, family and/or financial priorities shifted for students and more students worked longer hours taking longer to graduate (Gohn & Albin, 2006).

#### **Retention Program Student Contracts/Agreements**

Retention programs often have outlined requirements for students to meet for the duration of the program. These requirements are typically called contracts or agreements. A number of institutions, such as Syracuse University, have established contracts to inform students of standards of educational and social behavior so it is clearly spelled out what the institution expects of them (Tinto, 1993). The Lee Noel-Randi Levitz Retention Excellence Awards (Noel & Levitz, 2012) recognizes 160 postsecondary institutions in the United States from years 1989-2012 that have been the "most successful, state-of-the-art retention programs" (p. 1). Several programs cited contractual agreements as a key element to the success of the program. For

example, the Options Through Education program at Boston College has each student sign a contractual agreement for study hours (Noel & Levitz, 2012). The Program for Academically Deficient Readmitted Students at the College of Charleston has students who were suspended or on probation sign a contract agreeing to meet a minimum GPA until they have reached good academic standing, attend counseling sessions, and enroll in a Learning Strategies course (Noel & Levitz, 2012). After a 7-year span, graduation rates of readmitted students who were in the program matched the overall graduation rate at the College of Charleston (Noel & Levitz, 2012).

At the Suspension Waiver Program at University of Central Missouri the contract is essential because students benefit from courteous reminders of successful strategies as well as firm reinforcement of the outlined requirements and consequences (Noel & Levitz, 2012). The retention rate of program participants of the Suspension Waiver Program was 12.76% higher than the university retention rate and participants GPA increased by 0.26 points while enrolled in the program (Noel & Levitz, 2012). At the Learning Enrichment for Academic Progress Program at Loyola University of Chicago, students must adhere to the LEAP contract to continue as a registered student in good standing at Loyola (Noel & Levitz, 2012). First-year retention rates of LEAP participants reached 90%, exceeding the university retention rate by 7% (Noel & Levitz, 2012). Thus, contracts have been found to have a positive correlation with higher academic performance and retention of program participants.

Tinto (1993) stated, "The most effective retention programs result in heightened, not lessened, standards" such as contracts (p. 156). Habley and McClanahan (2004) surveyed 33 high-performing (top quartile in both retention and degree completion rates) 4-year public colleges and 24 low-performing (bottom quartile in both retention and degree completion rates) 4-year public colleges. Of the high-performing institutions, 61% of them used contracts in their

retention programming and only 42% of low-performing institutions used contracts (Habley & McClanahan, 2004). This study concluded institutions with higher retention and degree completion rates used contracts more.

The Strategies for Academic Success (SAS) at The University of North Carolina Greensboro made numerous program changes since the start of their program in 1999, which led to improvements in student success. One of those changes was the implementation of a student contract. Before the contract was implemented, the majority of students were suspended because they lacked the support networks necessary to persist (Kamphoff et al., 2007; Noel & Levitz, 2012). This contract laid out the expectations of the program and included various mandatory program components, including a study skills course, meetings with program advisors and academic mentors, and individualized academic success plans (Kamphoff et al., 2007; Noel & Levitz, 2012). To establish more accountability among program participants, UNC Greensboro enforced the contract by suspending students if they missed requirements (Kamphoff et al., 2007). This type of enforcement is referred to as the "teeth" of the program. Kamphoff et al. (2007) claimed the teeth are essential for this course to be effective because it "forces the students to take the course seriously" (p. 403) and other institutions with less stringent enforcement have been less successful. Since the implementation of the contract the number of students being eligible to return back to the university after being placed on probation increased by 18% and students in the program had a significantly higher GPA than nonparticipants (Kamphoff et al., 2007).

# **Peer Mentors**

In recent years, research on peer mentors has gained more attention in the retention and student success sector (Kuba, 2010; Posa, 2011; Short, 2012). Institutions have employed

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upperclassmen as peer assistants in orientation programs, as residence hall assistants, and as tutors for many years, but in recent years, institutions began supplementing their academic advising efforts through them (Noel, Levitz, Saluri, & Associates, 1985). Several studies on peer advisors demonstrate there is an absence of empirical evidence peer advising is connected to academic success (Jacobi, 1991). In Rodger and Tremblay's (2003) study, peer advising had no effect on first-year retention; however, it did influence GPAs for students with high and low anxiety. Sanchez, Bauer, and Paronto (2006) reported peer advising was related to students earning their degree in a business major after they participated in a peer advising program and declared their major. Rodger and Tremblay (2003) found no significant differences in retention and grades in first-year university courses between participants and nonparticipants in a peermentoring program, in a study of 983 students at the University of Western Ontario. As stated earlier in this section, most empirical studies on peer mentors are fairly dated. Latino students who participated in the Student Affirmative Action (peer mentoring program) at California State University, Long Beach earned a first-year cumulative GPA of 2.45 compared to Latino nonparticipants GPA of 2.25 (Ramirez, 1987). At Lamar University, students enrolled in a peermentoring program had 4-year retention rates higher double the rate of all entering freshmen (Forristall-Brown & Brown, 1984).

Faculty and staff have served as mentors to new incoming students traditionally, but many administrators are designing programs that include undergraduate students as peer mentors (Terrion, Philion, & Leonard, 2007). According to Posa (2011), peer-mentoring programs can help first-year students integrate into the new collegiate environment and advisees are more likely to succeed. Mentors are able to share "school-smart" knowledge and strategies that help freshmen maneuver through and succeed in the new college environment they are matriculating

through (N. H. Cohen & Galbraith, 1995). There are varying definitions of peer mentors, but the most common understanding is an individual who provides guidance and support. More specifically, peer mentors are "college students who share similar experiences with those whom they are mentoring, but who are, at the same time, a step or two ahead of those they are mentoring" (Short, 2012, p. 30). Jacobi (1991) outlined 15 core functions of mentoring and categorized them into three groups: those with a career development function, those with a psychosocial function, and those that deal with the role model aspect of mentoring. Jacobi's 15 functions include acceptance/support/encouragement, advice/guidance, bypassing bureaucracy/access to resources, challenging/opportunity/plum assignments, clarify values/clarify goals, coaching, information, protection, role model, social status/reflected credit, socialization/host and guide, sponsorship/advocacy, stimulate acquisition of knowledge, training/instruction, and visibility/exposure.

Short (2012) explained peer mentors provided social and emotional support for mentees as they experience the many frustrations in their first year of college. Peer mentors help first-year students with social adjustment of college through campus engagement activities to college life. Jacobi (1991) claimed a peer mentor's "role model influence is of greatest importance to student development followed by emotional support and direct assistance" (p. 526). Typically, peer mentors are students who are junior and senior level students and, at some intuitions, sophomores (Kuba, 2010; Posa, 2011). The ideal peer mentor is "aware and can relate to the feelings experienced by uncertain freshmen because they often have experienced similar challenges including learning difficult material and needing stronger time management skills so that they can complete all the tasks expected of them" (Posa, 2011, p. 11). Students who have experienced high academic achievement (such as Honors students) are not the only model peer

mentors. Peer mentors can be students who struggled early in their academic career, but eventually improved their academic performance and can provide valuable information about study and time management skills and can inform first-year students of the "do's" and "don'ts" to be academically successful (Terrion et al., 2007).

## **Success Coaches**

Colleges have made efforts to improve retention and graduation rates through adding an array of student support services, including peer mentors, tutors, academic advisors, and supplemental instruction. Numerous institutions have added an additional layer of student support-the success coach (Farrell, 2007; Allen & Lester, 2012; Jeffries, 2010; Neuhauser & Weber, 2011; Robinson & Gahagan, 2010). At a 2-year technical college in Georgia, retention for students who took MATH 98 and used a success coach was 83.86% compared to students who took the same course and did not have a success coach, 64.45% (Allen & Lester, 2012). Furthermore, students who used a success coach earned a mean GPA of 2.54 for MATH 98 compared to nonparticipants' 2.49 GPA (Allen & Lester, 2012). Farrell (2007) conducted a study of 264 students who were predominately Hispanic and first generation at Our Lady of the Lake University in Texas. Farrell reported students who attended at least seven success coach meetings were retained at 93% compared to the 69% for students who only attended one meeting. At the University of South Carolina, 92% of 182 students who met with a success coach improved their GPA over one academic year and suspensions of probations students was 40% less than predicted (Robinson & Gahagan, 2010).

Success coaches are also referred to as academic coaches and achievements coaches at some institutions (Farrell, 2007; Allen & Lester, 2012; Jeffries, 2010; Neuhauser & Weber, 2011; Robinson & Gahagan, 2010). Academic advisors and success coaches may have some

overlapping purposes, but they are distinctive in their performed duties. An academic advisor assists students prior to their classes beginning; they provide program information, suggest courses to take, and outline graduation requirements (Jeffries, 2010). A success coach is an encourager and enforcer who assists students once they are enrolled in their courses; they assist with test taking strategies, study skills, time management, and success plans (Farrell, 2007; Jeffries, 2010; Neuhauser & Weber, 2011). A success coach "focuses on three main steps: selfassessment, reflection, and goal setting" (Robinson & Gahagan, 2010, p. 27). Success coaches use coaching strategies to partner with students and "foster critical thinking, decision making, goal setting and action planning that empowers the student as the expert and the one responsible for implementing these tools" (Jeffries, 2010, p. 45). Outside of academic issues, success coaches encourage students to use campus and community resources and provide referrals to students encountering personal obstacles including transportation, childcare, food, counseling, financial aid and housing (Farrell, 2007; Jeffries, 2010). To be more proactive and to avoid waiting until students come in mid-semester wanting to drop out, coaches meet weekly with students and help them connect their goals to daily habits (Farrell, 2007; Neuhauser & Weber, 2011). This approach increases the likelihood of the student completing their intended college goals and has increased retention, persistence, and academic success to graduation at many institutions across the nation (Allen & Lester, 2012; Farrell, 2007; Jeffries, 2010).

## Living Learning Community

Student engagement is positively related to academic outcomes of first-year students including academic achievement, persistence, and retention (Cruce, Gonyea, Kinzie, Kuh, & Shoup, 2008). Living learning communities (LLCs) are identified as an institutional strategy that effectively engages students (Bewley, 2010). Research suggests LLCs have a positive impact on

academic performance and enables a smooth transition of first-year students into college life. In the year 2005-2006 at the University of Nevada, first-year students who were in an LLC were retained at a rate of 92.86% and had a first-semester GPA of 3.19 compared to 88.3% and 2.8 GPA for all student students who lived on-campus (Bewley, 2010). At the University of Minnesota, students who lived in LLCs earned a first-year GPA of 3.11 compared to 2.98 for non-LLC students (Bewley, 2010). Retention of LLC participants at St. John Fisher College in New York increased by 9% compared to previous years when there was an LLC for incoming first-year students (Katz, 2015). Between years 2008-2013, LLCs improved retention by 12% at Cabrini College (Katz, 2015). At Florida State University, LLC participants earned a 3.15 GPA, compared to on-campus nonparticipants 2.70 GPA and off-campus students GPA of 2.87 (Bewley, 2010).

Katz (2015) defined LLCs as residence-hall-based undergraduate programs with structured programmatic interventions that often involve paired or clustered courses. Katz (2015) claimed, "Living-learning communities almost always have a dedicated living space, may have faculty members and/or student affairs staff in residence, and usually provide opportunities for service learning and extracurricular activities" (p. 2). LLCs are derived from a well-researched concept known as learning communities, which does not have a residential component (Bewley, 2010; Inkelas, Daver, Leonard, & Vogt, 2007). LLCs are listed as high-impact practices by the Association of American Colleges & Universities (2012), which include teaching and learning practices that have been widely tested and shown to increase student retention and student engagement.

# **Study Hours**

Retention programs provide a variety of academic services to impact persistence of students, but one that is commonly employed across institutions nationwide is study hours. Of the studies available, there are mixed findings on the correlation between study hours and academic performance (Nonis & Hudson, 2010). Schuman's (2001) study concluded a student's amount of time spent studying has partial influence on their GPA. Lahmer and Zualuf (2000) conducted a small study of 79 students and found each additional hour spent studying per week resulted in a 0.025 increase in GPA. Based on their study of 676 students at a large mid-Atlantic university, Michaels and Miethe (1989) agreed the amount of study time influences grades. However, there are also studies that indicate a negative relationship between study hours and academic performance. Ackerman and Gross (2003) reported students with more structured or required study time had significantly lower GPAs than students who had more free time to study. In a study of 85 students at a private university in Pennsylvania, authors found students who studied less for the course earned higher midterm exam scores (Krohn & O'Conner, 2005).

Some research studies have concluded there is no significant relationship between the amount of study time and academic performance (Nonis & Hudson, 2006; Schmidt, 1983). In a study of 216 students, Schmidt (1983) found no relationship between study hours and student learning in a macroeconomics course. Of 264 students, Nonis and Hudson (2006) determined study time had no significant direct relationship with GPA. At the conclusion of Nonis and Hudson's (2010) study, they stated, "Considering these mixed results, there is a need to reinvestigate the direct relationship between study time and academic performance" (p. 230).

The amount of time spent on studying is referred to as study hours. Oftentimes, retention programs (like the programs at MU) require students to accumulate a certain number of study

hours each week during the semester with the assumption higher academic achievement will occur. Although study hours seem to be a common practice among retention programs, studies on the effectiveness of this academic support service are limited. Stinebrickner and Stinebrickner (2007) asserted, "Knowledge of the causal impact of the most fundamental input in the education production function—students' own study time and effort—has remained essentially non-existent" (p. 1).

# **First-Semester Grade Point Average**

Academic performance of first-year students can be assessed by a variety of indicators: retention, good academic standing and probation rates, completion rates, credit hour completion, major declaration, first-year GPA, and others. First-year GPA has proven to be a reliable variable for indicating a student's probability of completing their college degree (Jackson, 2010; Mohammadi, 1994; Stewart, Lim, & Kim, 2015; Veenstra et al., 2009). Jackson's (2010) longitudinal study on 3,450 college students concluded higher first-year GPAs decrease the likelihood of attrition. Mohammadi (1994) also found student GPAs were significant indicators of student retention. Furthermore, prior studies conclude a student's chance of persisting can be based on their GPA at the end of their first year. In the *Beginning Postsecondary Students Longitudinal Study: Second Follow-Up*, students with GPAs between 1.00-1.99 were 150% more likely to dropout than student's who had above a 3.00 and students with a GPA between 2.00 and 2.99 were 67% more likely to drop out than students with GPAs 3.00 and above (Ishitani & DesJardins, 2002).

In the article titled, "The Murky Middle," Tyson's (2014) reviewed a study conducted by the Education Advisory Board of sixty 4-year colleges and universities. The "murky middle" refers to students with GPAs between 2.00 and 3.00 who tend to have a graduation rate between

30% and 60% (Tyson, 2014). Students with a GPA below 2.00 had a 6-year graduation rate of only 12% and students with a GPA of 3.00 or higher graduated at 61% or above (Tyson, 2014). Tyson (2014) recommends institutions offer support services to students in the murky middle, such as one-on-one tutoring and time management counseling, as they are the students most likely to persist and benefit from additional support.

Academic performance, whether defined as college grades or GPAs, is widely studied as the most consistent predictors of persistence and degree completion (McGrath & Braunstein, 1997; Pascarella & Terenzini, 2005; Reason, 2003). Not only is a student's GPA at the conclusion of the first year proven to be a valid predictor of student success, but several researchers have taken the measure a step further and reviewed students first-semester GPA as a possible predictor of graduation (Adelman, 1998; Belcheir, 1997, 2000; Sperry, 2015; Stewart et al., 2015). Belcheir (2000) found first-semester GPA, among various variables, was one of the most important measures in predicting graduation from both new freshman and transfer students. In a study of 1,692 first-year students at Boise State University, each unit of increase in first-semester GPA improved the probability of graduating by 1.85 times (Belcheir, 2000). In a study of 3,213 students at a large 4-year public research institution, authors found first-semester college GPA had a statistically significant effect on persistence, p < .01 (Stewart et al., 2015). Additionally, first-semester GPA and high school GPA together accounted for 26% of persistence in college (Stewart et al., 2015).

## **Theoretical Framework**

To guide this study, two student retention theories are used to provide the theoretical framework for this study: Tinto's (1993) theory of institutional departure and Astin's (1984) theory of involvement. Tinto developed the institutional departure model (student integration

model) in 1975 and made later redevelopments of the model in 1987 and 1993. Tinto's theory suggests the decision to "drop out" is influenced by a combination of student characteristics and their degree of academic, environmental, and social integration in an institution. The first segment of Tinto's institutional departure model highlights pre-entry attributes of college students. Tinto asserts family background, skills, abilities, and prior schooling are associated with a student's departure decision. Pre-entry attributes such as prior schooling (i.e., urban school district attendance, high school GPA, and standardized test scores) are used in this study to determine the effectiveness of retention programming.

Tinto's (1993) model also includes institutional experiences as an element of institutional departure. Tinto (1993) indicated there are "several institutional actions [that] are effective in treating early student withdrawal: transition assistance, early contact and community building, academic involvement" (p. 163). Both academic and nonacademic staff have the ability to impact student departure decisions (Tinto, 1993). Institutional experiences, including retention components implemented by staff and faculty, are commonly used to determine the effectiveness on student outcomes. These components range from advising, tutoring, study groups, supplemental instruction, study skill courses or workshops, summer bridge programs, and more (Muraskin, 1998). Each first-year program at the institution in this study includes several of the program components outlined in this study: (a) peer mentors, (b) success coaches, (c) LLCs, (d) study hours, and (e) retention program student contracts/agreements. Academic performance is another subcomponent of institutional experiences in Tinto's institutional departure theory. Tinto's theory also emphasizes the degree of a student's academic performance influences departure decision. This study uses academic performance (i.e., first-semester GPA) as the dependent variable, which in turn influences student departure.

Based on prior studies, a first-year program in itself is known to be effective in academic achievement and persistence (Habley & McClanahan, 2004; Knight, 2002; Tinto, 1993). But more specifically, the program components in the first-year program may be the actual influencers on student outcomes. To validate such influence of these first-year programs it is important to monitor the level of involvement with the program components. The theory of involvement, developed by Astin in 1984 concludes students learn from becoming involved (Knepp, 2011). In most cases, highly involved students devote considerable energy to studying and interact frequently with faculty/staff, while an uninvolved student neglects their studies, does not spend much time on campus, and has little to no contact with faculty/staff (Astin, 1999). According to a report titled *Involvement in Learning*:

There is now a good deal of research evidence to suggest that the more time and effort students invest in the learning process and the more intensely they engage in their own education, the greater their growth and achievement will be, their satisfaction with their educational experiences, and persistence in college, and the more likely they are to continue their learning. (National Institute of Education, 1984, p. 17)

Astin's theory of involvement is based on five basic assumptions: (a) involvement necessitates psychological time and physical energy, (b) involvement continues and varies by student, (c) involvement can be quantitative or qualitative, (d) the extent of a student's involvement is correlated to their outcomes, and (e) academic performance can be influenced by student involvement (Astin, 1999). Astin (1999) claimed, "The extent of a student's involvement in academic work, for instance, can be measured quantitatively (how many hours the student spends studying)" (p. 519). This study will include an assessment of the level of involvement

(i.e., number of hours, number of meetings) in retention program components and their ability to influence academic performance.

## Astin's Inputs-Environments-Outputs Model

Astin's (1993) inputs-environment-outputs (I-E-O) model is employed as the conceptual model for this study. An overview on components of first-year programs was provided, including success coaching, peer mentoring, LLCs, and study hours. The dependent variable is academic performance, which is defined by a student' first-semester GPA. Each variable is tied to Astin's I-E-O model and supporting theories, which led to the methodologies selected for this study. Figure 1 shows the basic components of the I-E-O model. This model is appropriate for this study because it provides the grounding for a researcher to conduct a quantitative analysis to determine cause-effect influences of student's background, the college environment, and student outcomes. The I-E-O model will allow the researcher to prove and/or disprove any linkages between the various independent and dependent variables in an understandable and concise layout.

Thurmond and Popkess-Vawter (2003) concluded that Astin developed the I-E-O model to assist researchers with educational assessment. This model gives postsecondary institutions the opportunity to assess the impact of retention practices while considering essential student characteristics. Inputs "refer to those personal qualities the student brings initially to the education program (including the student's initial level of developed talent at the time of entry)" (Astin, 1993, p. 18). The environment is defined as the student's actual experiences during the educational program (Astin, 1993). Outputs are variables that may include posttests, consequences or end results (Thurmond & Popkess-Vawter, 2003). This model will help assess

the effectiveness of two first-year programs and the impact they have on students from urban high schools. For this study, inputs will be considered the urban high school district status, demographical characteristics, and precollege academic attributes; the environment will be the two first-year programs and support services (such as success coaches and study hours); and the outcome will be referred to as first-semester GPA.

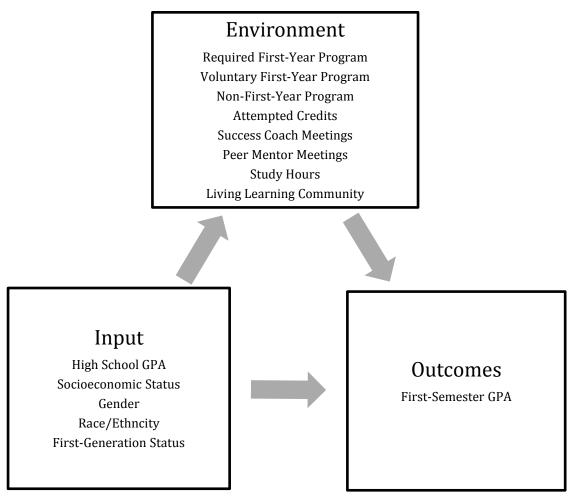


Figure 1. Astin's inputs-environment-outputs model.

# **Chapter 3: Methodology**

The purpose of this study was to evaluate the degree first-year programs at Midwestern University (MU) impact the academic performance of students from urban school districts. Midwestern University is a large, public 4-year university in the Midwest United States that has struggled with graduation rates over the last 5 years. Their 6-year graduation rate is just under 40% and is the second lowest among higher education institutions in the state. Midwestern University is less than 40 miles away from the City of Metropolis (pseudonym), a large urban city in the Midwest United States. Students from every major feeder high school in the City of Metropolis and surrounding suburbs enrolled at Midwestern University had 6-year graduation rates below Midwestern University's 40% average, and some were significantly lower—in single digits. These alarming statistics warrant a need for further investigation into the issue of academic performance and degree completion of students from these urban school districts, as the students may benefit from some of the retention practices referenced in the literature review. Figure 2 depicts data on 6-year college graduation rates at MU of the four urban school districts selected.

Midwestern University has dedicated resources toward increasing academic performance, retention and degree completion of its students by developing several first-year programs for incoming freshmen. This study focused on two of those programs: (a) required participatory first-year program and (b) voluntary participatory first-year program. Essentially, this study answered if first-year programs are beneficial for students from urban school districts. The following questions were addressed during this study:

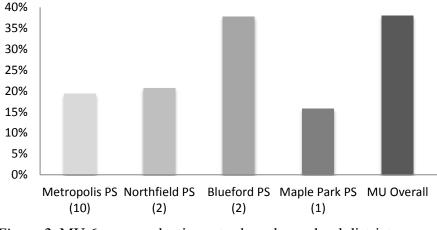


Figure 2. MU 6-year graduation rates by urban school district.

- Is there a difference in academic performance of students from urban school districts who are enrolled in a first-year program (required program or voluntary program) and those who are not enrolled?
- 2. To what degree do demographical characteristics, precollege attributes, and student support services (i.e., success coach meetings, number of study hours, peer mentor meetings, LLCs) predict academic performance of students from urban school districts?

The researcher examined factors that may impact first-year academic performance, such as demographic characteristics, precollege academic characteristics, and retention programming. This study is significant because of the following:

- It has the potential to inform postsecondary practitioners of effective policies and practices that impact academic performance of urban college students.
- During a time of declined funding and increased accountability, postsecondary administrators can use these findings to justify program expenditures.

- Although this study is not intended to evaluate K12 school districts, secondary and other school district administrators can use findings from this study to help assess their college readiness efforts.
- This research also helps build equity and social mobility for individuals who are affected by of systemic oppression.

• Lastly, higher educational attainment levels benefit the job economy regionally. This chapter includes an explanation of the research design, sample, data collection, and data analysis.

# **Research Design**

A positivist research paradigm was employed for this study based on the understanding that the findings are factual knowledge, which is most commonly derived from quantifiable data. According to Kivunja and Kuyini (2017), positivist paradigms are used to explore cause-and-effect relationships and aim to provide explanations to make predictions based on measureable outcomes. The researcher used a quantitative research method with secondary data to assess the effectiveness of first-year programs for urban high school students. A nonexperimental research design was used to answer the research questions using existing secondary data. This quantitative study included an analysis of existing academic performance data of first-year students from urban school districts to determine the effectiveness of those programs. The academic performance of students in the first-year programs, who were from urban school districts, was compared to students who were not in a first-year program but came from the same school districts. Additionally, only students with similar academic backgrounds (high school GPA) was compared in both groups.

# Midwestern University Urban School Districts

The urban school districts in this study were selected because they were feeder high schools of MU that had 6-year graduation rates at or below MU's overall graduation rate. Feeder schools consistently (year to year) provide a high enrollment of students to the university. These four school districts are in the City of Metropolis or in bordering suburbs: Metropolis Public Schools (MPS), Northfield Public Schools (NPS), Blueford Public Schools (BPS), and Maple Park Public Schools (MPPS). Table 1 shows enrollment and graduation rates of students at MU who matriculated from one of the four selected urban school districts, as well as the high schools in each district.

Table 1

MU District Enro	lment and	Grad	luation	Rates
MU District Enro	lment and	Grad	uation	Kates

School District/School	2007-2009			
School District/School	Enrollment	6-Year Grad %		
Metropolis PS (10)	413	19%		
MPS – School 1	105	38%		
MPS – School 2	75	19%		
MPS – School 3	57	12%		
MPS – School 4	33	18%		
MPS – School 5	31	6%		
MPS – School 6	29	28%		
MPS – School 7	24	21%		
MPS – School 8	21	10%		
MPS – School 9	19	21%		
MPS – School 10	19	21%		
Northfield PS (2)	97	21%		
NPS – School 1	63	24%		
NPS – School 2	34	18%		
Blueford PS (2)	64	38%		
BPS – School 1	35	34%		
BPS – School 2	29	41%		
Maple Park PS (1)	38	16%		
MPPS – School 1	38	16%		

Metropolis Public Schools (MPS) has 30 high schools in its district, but only 10 schools were depicted in Table 1 because these schools had the highest enrollments at MU. Staff of the MU Research Management Office advised that schools enrolling fewer than 10 students per year at MU may not have as much value when looking at graduation rates. Of the 10 high schools in MPS in 2014, 97% of the students were African American/Black compared to the state average of 18% (Common Core of Data, 2015). Additionally, low-income status among MPS students is more prevalent compared to other districts around the state. An average of 63% of MPS students were eligible for free or reduced-price lunch compared to the state average of 46% in 2014 (Common Core of Data, 2015). Table 2 shows demographic data of the four urban school districts.

Although Northfield Public Schools, Blueford Public Schools and Maple Park Public Schools are outside of the city limits of Metropolis, their similarities in the demographical makeup of the student populations make them relevant to this study. This is likely due to the fact students in this area have left inner-city schools to attend suburban, private, or charter schools. The Metropolis School District lost nearly 4,000 students a year between 1990s and late 2000s to suburb and other schools surrounding school districts (Council of the Great City Schools, 2003).

Northfield Public Schools (NPS) has three high schools in its district, but only two were depicted because these schools had the highest enrollments at MU. Of the two high schools in NPS in 2014, 96% of the students were African American/Black compared to the state average of 18% (Common Core of Data, 2015). An average of 59% of MPS students were eligible for free or reduced-price lunch compared to the state average of 46% in 2014 (Common Core of Data, 2015).

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Blueford Public Schools (BPS) has two of high schools in its district. Of the two high schools in BPS in 2014, 65% of the students were African American/Black compared to the state average of 18% (Common Core of Data, 2015). An average of 60% of BPS students were eligible for free or reduced-price lunch compared to the state average of 46% in 2014 (Common Core of Data, 2015).

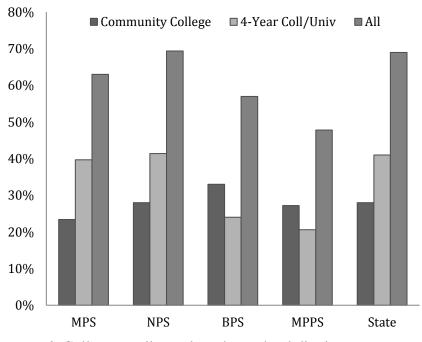
Maple Park Public Schools (MPPS) has one high school in its district. In 2014, 97% of the students were African American/Black compared to the state average of 18% (Common Core of Data, 2015). An average of 85% of MPPS students were eligible for free or reduced-price lunch compared to the state average of 46% in 2014 (Common Core of Data, 2015).

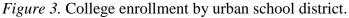
Table 2

	2014-2015			
School District/School	Enrollment	Black %	Free and Reduced Lunch %	
Metropolis PS (10)	8868	97%	63%	
MPS – School 1	2320	86%	52%	
MPS – School 2	1556	99%	69%	
MPS – School 3	861	98%	67%	
MPS – School 4	592	99%	51%	
MPS – School 5	343	99%	71%	
MPS – School 6	1148	99%	45%	
MPS – School 7	512	97%	71%	
MPS – School 8	400	99%	76%	
MPS – School 9	524	100%	69%	
MPS – School 10	612	99%	61%	
Northfield PS (2)	2026	96%	59%	
NPS – School 1	1035	95%	55%	
NPS – School 2	991	98%	62%	
Blueford PS (2)	1765	65%	60%	
BPS – School 1	1021	72%	57%	
BPS – School 2	744	57%	64%	
Maple Park PS (1)	1616	97%	85%	
MPPS – School 1	1616	97%	85%	

### Demographics of Urban School Districts

In relation to state college enrollment levels, the four urban school districts in this study are at or below the state average. Compared to the state total of 69% of students attending a postsecondary institution (4-year college/university or community college), 63% of MPS, 69% of NPS, 57% of BPS, and 48% of MPPS students attend a college or university. The data include all high schools in each district. Figure 3 depicts college enrollment data at all postsecondary levels for the four urban school districts.





Students standardized test scores on the ACT or SAT often assess college readiness of school districts. In 2014, each of the four school districts had ACT composite scores below the state average ACT score. This data included all high schools in each district as well. Table 3 shows college readiness data for the four urban school districts.

# Table 3

	ACT Composite	ACT English	ACT Math	ACT Reading	ACT Science
MPS	16.5	15.7	16.5	16.6	16.5
NPS	16.4	15.7	16.3	16.3	16.6
BPS	16.4	15.6	16.2	16.8	16.8
MPPS	15.2	14.4	15.0	15.5	15.4
State	19.9	19.4	19.5	20.1	20.1

# College Readiness by Urban School District

# Sample

The populations of this study included all students of the 2015-2017 Midwestern University first time in any college cohorts who are graduates from the four urban school districts selected. Midwestern University has several retention programs catered to various student populations on campus. Some are based on minority and gender identity, some on firstgeneration and low-income status, others on scholarship students, and there are some for athletes and others based on a student's precollege academic background. The programs selected for this study were chosen because the academic background of the students enrolled were similar. The two first-year programs will be referred to as the required participatory first-year program and the voluntary participatory first-year program.

# **Required Participatory First-Year Program**

The required participatory first-year program is a retention program at MU designed to impact academic success and retention of first-year students. Students whose precollege academic credentials are slightly below the admission standards of MU are admitted to this program. Once students are admitted to the required participatory first-year program, they sign a contract agreeing to participate in the academic support program during the first year. Students agree to attend an extended orientation, meet with an academic coach each week, attend study hours with a peer mentor each week, reside in the LLC, and other components that contribute to academic success. If a student fails to adhere to their signed contract, they are at risk of being dismissed from the institution.

# **Voluntary Participatory First-Year Program**

The Voluntary Participatory First-Year Program is also a retention program at MU geared toward first-year students to retain and help them be successful. Very similar in purpose to the required participatory first-year program, these students fall just below the admissions standards at MU. Students are offered a wide range of academic services including success coaching, peer mentors, tutors, workshops, and study tables. A key difference with this program is the enforcement of the signed contract. Although students sign a contract at the beginning of the program agreeing to participate in the various components, the students are not necessarily held accountable for failing to meet the requirements. Meaning if they choose not to participate, there are no ramifications for breaching the agreement, thus making the program voluntary.

# **Data Collection**

All data were obtained from the MU Research Management Office and the two first-year programs. The researcher followed the steps of Human Subjects Review through MU's Institutional Review Board (IRB) to ensure moral, ethical, and legal issues were prevented. Data on student's high school of attendance, high school GPA, standardized test scores, college GPAs, and retention program status was needed to answer Research Question 1. In addition to the aforementioned data, data on the number of success coach meetings, number of peer mentor meetings, number of study hours, and participation in LLC status were needed to answer Research Question 2. Table 4 provided descriptions of each variable used in this study.

# Table 4

# Description of Variables

Q1	Q2	Variable	Туре	Level of Measurement	Description
Х	Х	HS GPA	Input, Precollege	Independent, Continuous	0 to 4.0
Х	Х	ACT	Input, Precollege	Independent, Continuous	1 to 36
Х	Х	SAT	Input, Precollege	Independent, Continuous	400 to 1600
Х	Х	First-Year Program	Environment, Student Involvement	Independent, Categorical	Required, Voluntary, None
	Х	Peer Mentor Meetings	Environment, Student Involvement	Independent, Continuous	0 to Infinite
	Х	Success Coach Meetings	Environment, Student Involvement	Independent, Continuous	0 to Infinite
	Х	Study Hours	Environment, Student Involvement	Independent, Continuous	0 to Infinite
	Х	Living Learning Community	Environment, Student Involvement	Independent, Categorical	Yes, no
Х	Х	First-Semester GPA	Output, Academic Performance	Dependent, Continuous	0 to 4.0

#### **Data Analysis**

The primary unit of analysis for this study was at program and student level, which ultimately determined the effectiveness of each program and its various components. The data analysis of the research was conducted through SPSS 25, which is statistical software. A oneway ANCOVA analysis was conducted to determine the results for the question one. The oneway ANCOVA was determines group differences and is used because there was one independent variable that included three groups (required first-year program, voluntary first-year program, and non-first-year program), a continuous dependent variable (first-semester GPA), while controlling for a continuous covariate (high school GPA or ACT/SAT). Descriptive statistics were used to describe the sample size of all students from urban school districts, the sample sizes

of each group (required first-year program, voluntary first-year program, and non-first-year program), precollege academic background (high school GPA, ACT/SAT), demographical characteristics, and the differences of academic performance. Descriptive statistics allowed the researcher to provide summaries and observations made in a simplistic format. Table 5 describes the statistical analysis for each question.

# Table 5

Research Question	Types of variables	Statistical Analysis
1. Is there a difference in academic	HS GPA, ACT, SAT	One-way ANCOVA
performance of students from urban school	(Inputs)	
districts, enrolled in first-year programs		
(required program, voluntary program) and not	First-Year Program	
enrolled in first-year programs?	(Environment)	
	First-Semester GPA (Outcome)	
2. To what degree do demographical	HS GPA, ACT, SAT,	Linear Multiple
characteristics, precollege attributes, and	Income, First Gen.,	Regression analysis
student support services (i.e., success coach	Gender, Race/Ethn.	
meetings, number of study hours, peer mentor	(Inputs)	
meetings, LLC) predict academic performance	E'met Ween Due en en	
of students from urban school districts?	First-Year Program,	
	Peer Mentor, Success	
	Coach, Study Hour, LLC, Attempted Cred.	
	(Environment)	
	(Environment)	
	First-Semester GPA	
	(Outcome)	

# Statistical Analysis for Each Research Question

For Research Question 2, a linear multiple regression analysis is appropriate because

there were several continuous independent variables (e.g., high school GPA, ACT/SAT, first-

year program, peer mentor meetings, success coach meetings, LLCs) and the dependent variable

(first-semester GPA) is also continuous. A linear multiple regression analysis was selected for

this study because it allowed the researcher to understand the possible causal effects of each variable independently and combined with other variables. This analysis was also selected because it allowed the researcher to control for the effect of covariates, such as high school GPA. Each set of independent variables was added sequentially to determine its individual effect on the dependent variable, which will enable the researcher to conduct a comparison of regression models. Linear multiple regression analysis was also used to predict academic performance based on different values of the independent variables. When using a linear multiple regression, there are eight assumptions that should be considered:

- 1. There should be at least one continuous dependent variable.
- 2. There should be at least two independent variables.
- 3. There should be independence of observations.
- 4. There should be a linear relationship between the dependent variable and independent variables individually and collectively.
- 5. The data should show homoscedasticity of residuals.
- 6. The data should not show multicollinearity.
- 7. There should be no significant outliers, leverage, and influential points.
- 8. The residuals should be normally distributed.

Assumptions 1 and 2 have already been met because this study had one continuous dependent variable and several independent variables. To meet the criteria of Assumption 3, a Durbin-Watson statistic was performed to check for independence of variables. Scatterplots and partial regression plots were used to address Assumption 4. The researcher also transformed variables as necessary to achieve normality of distributions and checked for residual errors and evidence of nonlinear relationships to meet Assumption 5. SPSS statistics were used to address

Assumption 6 through an inspection of correlation coefficients and tolerance/VIF values. An analysis to remove any outliers from the data was conducted to check for Assumption 7. To address Assumption 8, a histogram with superimposed normal curve and a P-P Plot was used for checking assumption of normality of residuals.

Each independent variable created an individual model in the analysis, which is simply a standard multiple regression for the specific variable. As such, each model was evaluated to determine whether it is statistically significant in predicting the dependent variable. A reliable instrument is a measurement that is consistent or predictable in nature. Since an analysis of secondary data was used, there was no change to the analysis' outputs over time because there was no deviation between the analysis procedures administered. Validity refers to the degree of which values of a measure actually reflect different levels of the construct it intends to measure and that it measures what it should measure. Therefore, a test-retest was employed to measure validity and reliability, using the same instrument with the same sample each time.

# Legal, Ethical, and Moral Considerations

There was limited to no risk of injury related to this study because the investigation conducted was an analysis of archival secondary data, and there was no contact with human subjects. Only aggregate data were reported and no individual student records, which minimized risk of possible identification of participants. All data were stored in electronic form on an encrypted external hard drive, which was maintained in a locked office drawer. At the conclusion of the research project, all data were destroyed.

# **Chapter 4: Results**

The purpose of this study was to evaluate the degree first-year programs at Midwestern University (MU) impact academic performance of students from urban school districts. This chapter starts with a brief overview of the variables used in this study followed by a presentation of descriptive statistics of the sample. Then a presentation of descriptive statistics of selected variables in comparison to institutional, state, and national data are outlined. Next, each research question is presented including an outline of results from the analysis. Finally, the chapter concludes with a brief summary of the findings from the study.

The variables reviewed in this study include: (a) student demographics (race/ethnicity, gender, first-generation status, and familial income); (b) precollege academic characteristics (high school GPA, ACT, and SAT); (c) type of first-year program; (d) number of attempted credits; (e) number of meetings with an success coach; (f) number of meetings with a peer mentor; (g) number of study hours; (h) participation in an LLC; and (i) first-semester GPA. All variables except for race/ethnicity, gender, first-generation status, familial income, type of first-year program, and participation in an LLC are continuous variables. Race/ethnicity, gender, first-generation status, familial income, type of first-year program, and participation in an LLC are continuous variables. Race/ethnicity, gender, first-generation status, familial income, type of first-year program, and participation in an LLC are continuous variables.

Table 4 outlines the type and description of each variable used in this study. Categories for gender were either male or female. In this study, male studies were the referent category. Categories from the U.S. Department of Education (2007) website were used for race and ethnic variables (American Indian or Alaska Native, Asian, Black or African American, Hispanic, and White). Familial income was determined by the students Pell eligibility. First-generation status was determined from data responses from student's university admissions data. High school

GPA, ACT, and SAT were also data taken from student's admissions data and included a continuous scale of scores from 0.00 to 4.00 for high school GPA, a continuous scale of 1 to 36 for ACT, and a continuous scale of 400 to 1600 for SAT. The number of attempted credits included how many credit hours a student enrolled for during their first semester. Type of first-year program was determined if the student was admitted to a first-year program and what type. Number of success coach meetings was found by counting the number of success coach meetings a student attended. For the number of peer mentor meetings, the researched analyzed data of the number of meetings a student had with a peer mentor. The number of study hours was determined by how many hours a student studied during sessions hosted by the first-year programs. Participation in an LLC was determined if the student variable) included a continuous scale of score from 0.00 to 4.00.

# **Descriptive Statistics**

The full sample for this research consisted of 624 students from four urban school districts selected that were first time in any college students admitted at MU from 2015-2017. This section provides an overview of the descriptive statistics for each of the variables employed in this study. First, a description of input variables, including demographical data and precollege academic characteristics. The input variables include categorical variables: gender, race/ethnicity, familial income (Pell eligibility), and first-generation status, and three continuous variables: high school GPA, ACT, and SAT. Next, the results of environmental variables are described with the mean and standard deviation of the data. Environmental variables presented include categorical variables, including first-year program type and participation in an LLC, and continuous variables, including attempted credits, success coach meetings, peer mentor meetings,

and study hours. Lastly, descriptive statistics of the sole outcome variable, first-semester GPA, are shown. First-semester GPA is also a continuous variable. The mean, standard deviation, minimum, and maximum are presented for each continuous variable.

Table 6 outlines the frequency counts for each input variable employed in this study. The majority of students in the sample were female (64.1%), followed by male (35.9%). The most frequently represented racial/ethnic group were Black students (79.6%), followed by White (5.4%), Hispanic (5.4%), American Indian (1.6%), and Asian (0.2%). Additionally, 7.7% student's race/ethnicity status was missing from the data. Familial income status was defined by Pell eligibility and the majority of students were eligible (86.2%), followed by 13.8% students being ineligible. Two hundred nineteen students reported being a first-generation college student (35.1%), followed by 266 (42.6%) reporting not being a first-generation college student, and 139 (22.3%) status having missing data. Nearly all students in the sample had a high school GPA (623) and the mean was 3.02. Four hundred sixty-five students had an ACT score and the mean was 18.59. Although the majority of students in the sample did not have a SAT score (430 students did not have an SAT), the mean score was 966.15.

Table 7 outlines the frequency counts for each environmental variable employed in this study. The majority of students in this sample were not in a first-year program (72.4%), followed by 22.1% being in the voluntary first-year program, and 5.4% in the required first-year program. Thirty-four (0.05%) students in this sample participated in the LLC. The mean for the frequency of success coach meetings was 1.24. The mean for the frequency of peer mentor meetings was 1.18. The mean for the frequency of study hours was 20.23. The mean for the frequency of attempted credit hours was 13.64. Table 8 outlines the mean score of the sole outcome variable, first-semester GPA. Of the 621 students who had first-semester GPA, the mean score was 2.30.

# Table 6

Variable	N (624)	% (100)	Mean	SD	Min	Max
Gender						
Female	400	64.1%	-	-	-	-
Male	224	35.9%	-	-	-	-
Race/Ethnicity						
Black	497	79.6%	-	-	-	-
White	34	5.4%	-	-	-	-
Hispanic	34	5.4%	-	-	-	-
Am. Indian	10	1.6%	-	-	-	-
Asian	1	0.2%	-	-	-	-
Missing	48	7.7%	-	-	-	-
Familial Income						
Pell Eligible – Yes	538	86.2%	-	-	-	-
Pell Eligible – No	86	13.8%	-	-	-	-
Missing	0	0.00%	-	-	-	-
First Gen. Status						
First Generation – Yes	219	35.1%	-	-	-	-
First Generation – No	266	42.6%	-	-	-	-
Missing	139	22.3%	-	-	-	-
High School GPA	623	-	3.02	.457	.010	4.00
ACT	465	-	18.59	2.947	14	31
SAT	194	-	966.15	127.75	400	1500

# Descriptive Statistics for Input Variables

# Table 7

# Descriptive Statistics for Environmental Variables

Variable	N (624)	% (100)	Mean	SD	Min	Max
First-Year Program						
Voluntary FYP	138	22.1%	-	-	-	-
Required FYP	34	5.4%	-	-	-	-
Non-FYP	452	72.4%	-	-	-	-
Services						
LLC	34	0.05%	-	-	-	-
Success Coach Meetings	622	-	1.24	2.49	0	13
Peer Mentor Meetings	624	-	1.18	4.99	0	27
Study Hours	624	-	20.23	37.69	0	231
Attempted Credits	621	-	13.64	1.59	3	19

# Table 8

# Descriptive Statistics for the Outcome Variable

					Min	Max	
Variable	N (624)	% (100)	Mean	SD			
Urban School Districts	621	-	2.30	1.164	0	4.00	

#### **Comparative Precollege Characteristic Statistics**

After reviewing the precollege characteristic data, the researcher felt the need to compare the sample from this study to data collected from the MU Research Management Office, school data from 2014 and 2018, ACT (2014a), and Scholastic Aptitude Test (2018). Figure 4 depicts a chart comparison of high school GPAs between the sample in this study (Urban School Districts) and the 2017 FTIAC class at MU. The mean high school GPA of the entire 2017 class at MU (3.27) was slightly higher than the students in this sample (3.01).

The mean of ACT composite scores of the study's sample was compared to the overall 2014 first time in any college class of MU, state, and national mean scores. The year 2014 was selected because sources for state-level data only report mean state-level ACT scores up until year 2014. Figure 5 depicts a chart in which the mean ACT score of students in this sample (18.6) was several points below the school average (22.15) and also below the state (19.9) and national (21) levels (ACT, 2014a).

The mean of Scholastic Aptitude Test (SAT) composite scores of the study's sample was compared to the overall 2018 first time in any college class of MU, state, and national mean scores. Figure 6 depicts a chart in which the mean SAT score of students in this sample (966) was several points below the school average (1084) and also below the state (1000) and national (1068) levels (Scholastic Aptitude Test, 2018).

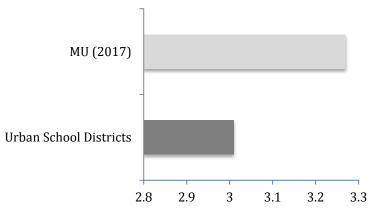


Figure 4. Comparison of high school grade point averages.

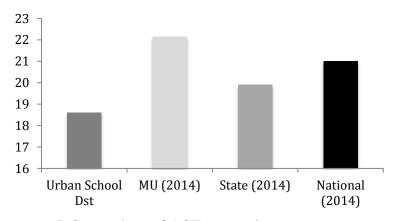


Figure 5. Comparison of ACT composite scores.

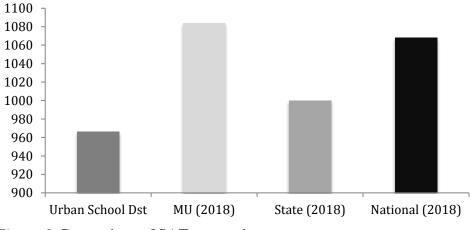
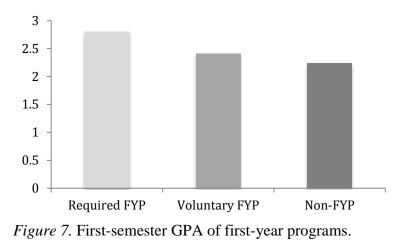


Figure 6. Comparison of SAT composite scores.

**Research Question 1.** Research Question 1 was: Is there a difference in academic

performance of students from urban school districts, enrolled in first-year programs (required

program, voluntary program) and not enrolled in first-year programs? A one-way ANCOVA was conducted to determine if first-semester GPA was different for the three groups, after controlling for high school GPA. First, the 10 assumptions were checked before interpreting the results of the analysis. There was a linear relationship between high school GPA and first-semester GPA for each first-year program, as assessed by visual inspection of a scatterplot. There was homogeneity of regression slopes as the interaction term was not statistically significant, F(2,(614) = 2.933, p = .054. Standardized residuals for required first-year program sample was normally distributed, as assessed by Shapiro-Wilk's test (p > .05). There was homoscedasticity and homogeneity of variances, as assessed by Levene's test of homogeneity of variance (p =.573). First-semester GPA data were normally distributed for voluntary first-year program and non-first-year program samples, as assessed by visual inspection of Normal Q-Q Plots. There were no outliers in the data, as assessed by no cases with standardized residuals greater than  $\pm 3$ standard deviations. After adjustment for high school GPA, there was a statistically significant difference in first-semester GPA between first-year programs, F(2, 616) = 3.335, p < .05, partial  $\eta 2 = 0.011$ . First-semester GPA was greater for the required first-year program group (2.81  $\pm$ 0.218), followed by the voluntary first-year program group  $(2.41 \pm 0.101)$ , and then the non-firstyear program group (2.24  $\pm$  0.056). Post hoc analysis was performed with a Bonferroni adjustment. First-semester GPA was statistically significantly greater in the required first-year program group (compared to the non-first-year program group, a mean difference of 0.573 (95%) CI, 0.017 to 1.128), p < .05. Figure 7 depicts the first-semester GPAs of the first-year program groups after controlling for high school GPA.



Research Question 2. Research Question 2 was: To what degree do demographical characteristics, precollege attributes, and student support services (i.e., success coach meetings, number of study hours, peer mentor meetings, LLC) predict academic performance of students from urban school districts? A multiple regression was run to predict first-semester GPA based on students' gender, race/ethnicity, familial income, first-generation status, high school GPA, attempted credits, success coach meetings, peer mentor meetings, study hours, and LLC. The researcher elected to use a backward regression to identify a useful group of predictor variables. First, the eight assumptions were checked before running the analysis. There was linearity as assessed by partial regression plots and a plot of studentized residuals against the predicted values. There was independence of residuals, as assessed by a Durbin-Watson statistic of 1.952. There was homoscedasticity, as assessed by visual inspection of a plot of studentized residuals versus unstandardized predicted values. There was no evidence of multicollinearity in all variables except for peer mentor meetings, as assessed by tolerance values greater than 0.1. As a result, the peer mentor meeting variable was removed from the study. There were no studentized deleted residuals greater than  $\pm 3$  standard deviations, no leverage values greater than 0.2, and values for Cook's distance above 1. The assumption of normality was met, as assessed by a Q-Q

Plot. Four variables were found to be statistically significant in this study, p < .0005. High school GPA, attempted credits, study hours, and familial income (Pell eligibility) statistically significantly predicted first-semester GPA, F(4, 563) = 16.456, p < .05.  $R^2$  for the overall model was 10.5% with an adjusted  $R^2$  of 9.8%. Regression coefficients and standard errors can be found in Table 9.

#### Table 9

Summary of Regression Analysis for Variables Predicting First-Semester GPA

Variable	В	SE	β	р
High School GPA	.702	.111	.283	.000
Attempted Credits	.070	.030	.098	.019
Study Hours	.008	.001	.251	.000
Pell Eligibility	266	.132	081	.044

*Note*. B = unstandardized regression coefficient; SE = standard error of the coefficient;  $\beta$  = standardized coefficient; p = significance

The coefficient for high school GPA is .702. An increase in high school GPA of 1.00 is associated with an increase in first-semester GPA of .702. The regression equation predicts the higher a student's high school GPA, the higher their first-semester GPA, when all other dependent variables are held constant. The p value is .000, which means the coefficient is statistically significantly different to 0.

The coefficient for attempted credits is .070. An increase in attempted credits of 1.00 is associated with an increase in first-semester GPA of .070. The regression equation predicts the higher amount of credit hours a student attempts, the higher their first-semester GPA, when all other dependent variables are held constant. The p value is .019, which means the coefficient is statistically significantly different to 0.

The coefficient for study hours is .008. An increase in study hours of 1.00 is associated with an increase in first-semester GPA of .008. The regression equation predicts the more study

hours a student has, the higher their first-semester GPA, when all other dependent variables are held constant. The p value is .000, which means the coefficient is statistically significantly different to 0.

The coefficient for Pell eligibility is -.266. Pell eligible status is associated with a decrease in first-semester GPA of -.266. The regression equation predicts if a student is Pell eligible, the lower their first-semester GPA, when all other dependent variables are held constant. The p value is .044, which means the coefficient is statistically significantly different to 0.

From the regression analysis, the researcher determined all other variables (success coach meetings, race/ethnicity, LLC, gender, and first-generation status) were not significant predictors. There was no significant relationship between first-semester GPA and each of these variables.

# Summary

This research examined the relationship between demographic characteristics, precollege academic characteristic, first-year program, support services, and first-semester GPA. This chapter presented the descriptive statistics, comparative statistics, and regression results of this study. For Research Question 1, the outcomes suggest the mean first-semester GPA for both first-year program samples (required and voluntary) were higher than the mean first-semester GPA of the non-first-year program sample, when controlling for high school GPA. Additionally, the mean first-semester GPA of the required first-year program sample was significantly higher than the non-first-year program group. The outcomes of Research Question 2 suggest there is a significant correlation between first-semester GPA and independent variables: high school GPA, attempted credits, study hours, and familial income (Pell eligibility). Each of these variables, except for familial income (Pell eligibility), has a strong positive relationship with first-semester

GPA. Being Pell eligible has a negative effect on first-semester GPA. Lastly, success coach meetings, peer mentor meetings, race/ethnicity, LLC, gender, and first-generation status were not found to be significant factors when determining a student's first-semester GPA. Although these were not significant predictors, these results are important contributions to existing literature. Chapter 4 presented the findings of this study. Chapter 5 will present a summary of the findings by addressing the research questions, interpret the findings, discuss implications of the study, and provide recommendations for further research.

# **Chapter 5: Conclusions and Recommendations**

The purpose of this study was to evaluate the degree first-year programs at Midwestern University (MU) impact academic performance of students from urban school districts. The research questions that informed this study include:

- Is there a difference in academic performance of students from urban school districts who are enrolled in a first-year program (required program or voluntary program) and those who are not enrolled?
- 2. To what degree do demographical characteristics, precollege attributes, and student support services (i.e., success coach meetings, number of study hours, peer mentor meetings, LLC) predict academic performance of students from urban school districts?

The findings from this study have the potential to inform postsecondary institutions, of the most effective policy and practices that impact academic performance during a time of diminished resources and increased accountability. Postsecondary institutions across the nation have experienced declined funding while at the same time they are being held more accountable to increase college completion rates by local, state and federal governments. Additionally, although there is substantial research on first-year programs, a gap in the literature exists on which first-year program components are most effective in academic performance of students from urban school districts. Research in this area was needed for two main reasons: (a) to help practitioners validate the need for funding and resources toward retention programming and (b) to help institutions ensure equity for all students through developing a tailored support system for students from urban school districts. This chapter will begin with a summary of the findings followed by a critique of the study and a discussion of the implications for policy and practice. Finally, the chapter concludes with recommendations for further research.

# **Summary of Findings**

Research Question 1. Research Question 1 was: Is there a difference in academic performance of students from urban school districts who are enrolled in a first-year program (required program or voluntary program) and those who are not enrolled? The mean firstsemester GPA of students from four urban school districts of FTIAC cohorts 2015-2017 was compared, broken down into three groups (required first-year program, voluntary first-year program, and non-first-year program). While controlling for high school GPA, first-semester GPA of the required first-year program group  $(2.81 \pm 0.218)$  was greater than the voluntary firstyear program group ( $2.41 \pm 0.101$ ), and then the non-first-year program group ( $2.24 \pm 0.056$ ). High school GPA was used as a covariate based on several prior studies concluding it has significant influence on student success and graduation rates (Geiser & Santelices, 2007; Metz, 2001; Roderick et al., 2009; Waugh et al., 1994). These findings support literature on first-year programs as an effective practice for academic performance and graduation. Tinto (1993) claimed first-year programs aid a first-year student's transition and ensure most students have at least a reasonable opportunity to complete their degree. First-year programs were highlighted as a practice responsible for the greatest contribution to retention in 4-year public colleges (Habley & McClanahan, 2004). Several empirical studies highlighted the impact first-year programs have on student academic achievement, academic and social involvement, and persistence (Barefoot et al., 1998; Braxton et al., 2004; Knight, 2002; K. Noble et al., 2007; Schnell et al., 2003; Wright

Sidle & McReynolds, 2009). In a study by K. Noble et al. (2007), students who participated in a first-year program had higher first-year GPAs and graduation rates compared to nonparticipants.

Based upon the post hoc analysis, first-semester GPA was statistically significantly greater in the required first-year program group compared to the non-first-year program group (a mean difference of 0.573, 95% CI, 0.017 to 1.128, p < .05). This finding supports prior research on the use of student contract in making stipulations of first-year programs required for participants. In several cases, the use of student contract (or required program) was shown to improve GPAs, retention rates, probation and dismissal rates, and graduation rates (Kamphoff et al., 2007; Noel & Levitz, 2012). Habley and McClanahan (2004) concluded institutions with higher retention and degree completion rates used student contracts more. Kamphoff et al. (2007) discovered, after the implementation of a required program, the number of students eligible to return back to the university after being placed on probation increased, and students in the program had a significantly higher GPA than nonparticipants. Kamphoff et al. (2007) claimed the required program contract is essential to the effectiveness because it forces the students to "take the course seriously" (p. 403), and other institutions with less stringent enforcement have been less successful.

In the required participatory first-year program, students sign a contract agreeing to attend an extended orientation, meet with an academic coach each week, attend study hours with a peer mentor each week, reside in the LLC, and engage in other components that contribute to academic success. If a student fails to adhere to their signed contract, they are at risk of being dismissed from the institution. This type of enforcement influences commitment to program expectations and likely contributes to mean difference between the required first-year program and non-first-year program groups in this study. Tinto (1993) stated, "The most effective retention programs result in heightened, not lessened, standards" (p. 156), such as contracts.

**Research Question 2.** Research Question 2 was: To what degree do demographical characteristics, precollege attributes, and student support services (i.e., success coach meetings, number of study hours, peer mentor meetings, LLC) predict academic performance of students from urban school districts? As a result of multiple regression analysis, four variables were found to be significant predictors (p < .05) of first-semester GPA: high school GPA, attempted credits, study hours, and familial income (Pell eligibility). On the other end, success coach meetings, peer mentor meetings, race/ethnicity, LLC, gender, and first-generation status were not found to be significant factors when determining a student's first-semester GPA (p > .05). The following paragraphs will provide further context on each variable as it relates to the dependent variable, first-semester GPA. Literature of whether prior studies support or refute the findings of this study will also be included in each section.

*High school GPA*. High school GPA was found to be a significant predictor of firstsemester GPA. This study revealed students who came in with higher high school GPAs were expected to have significantly higher first-semester GPAs. For example, a student with a high school GPA of 3.00 is expected to have a .702 higher first-semester GPA than a student with a high school GPA of 2.00. This finding supports prior studies on high school GPA as it relates to academic performance and retention (Geiser & Santelices, 2007; Metz, 2001; Roderick et al., 2008; Waugh et al., 1994). In Waugh et al.'s (1994) study, students who had a high school GPA of 2.50 or higher graduated at a rate of 9% higher than students who had high school GPAs less than 2.50. Roderick et al. (2008) found high school GPA to be the strongest predictor of college GPA, persistence, and graduation. Specifically, students with high school GPAs of at least 3.00 have been linked to higher persistence, academic achievement, and gradation (ACT, 2014b).

Attempted credits. The number of attempted credits or course load a student enrolls into during their first semester had a significantly positive relationship with first-semester GPA. The regression analysis predicted students would earn an additional .070 GPA points for each credit they added to their course load. This finding supports the existing body or research on enrollment status and course loads. Strong evidence from prior studies suggest students who enroll in higher amounts of credits have higher levels of academic performance and are more likely to persist (Adelman, 2005; Demetriou & Schmitz-Sciborski, 2011; Duby & Schartman, 1997; Gohn & Albin, 2006; Raymondo, 2003). Particularly, Adelman's (2005) findings are very similar to this study's findings, claiming minority students who enroll and complete a higher number of credits have greater persistence. The studies at two universities also located in the Midwest, Oakland University and Northern Michigan University, also correlate with this finding (Raymondo, 2003).

*Study hours.* The more study hours a student had during their first semester, the higher their GPA can be predicted during the first semester. For every additional study hour, a student's GPA would increase by .008. To further quantify, for example, a student with 50 study hours is predicted to have a GPA of 0.4 higher than a student with 0 study hours. This finding neither supports nor refutes exiting literature of this variable, because studies are very limited on its effectiveness. There are mixed findings on the correlation between study hours and academic performance, persistence, and graduation (Ackerman & Gross, 2003; Krohn & O'Conner, 2005; Lahmer & Zualuf, 2000; Michaels & Miethe, 1989; Nonis & Hudson, 2010; Schuman, 2001). Lahmer and Zualuf (2000) concluded each additional study hour per week accounted for a .025

increase in GPA, but another study found study hours had significantly negative relationship with college GPA. There are also studies that conclude there is no significant relationship between study hours and academic performance (Nonis & Hudson, 2006; Schmidt, 1983). The findings from this study support literature that claims study hours to be a positive predictor of academic performance, persistence, and graduation. However, due to mix findings of prior literature, study hours as an effective predictor cannot be generalized based off of this study.

*Familial income*. This study determined students of lower familial income (defined by Pell eligibility) had lower levels of academic performance. Pell eligibility had a significantly negative relationship with first-semester GPA. The analysis predicted students who were Pell eligible have GPAs .266 points lower than non-Pell eligible students. This finding supports prior research on familial income. Research studies on familial income also suggest students with higher familial incomes are expected to have a better chance at earning better grades and graduating (Adelman, 2005; Astin, 1993; Tinto, 1993, 1996, 1999; Gohn & Albin, 2006; Johnson, 2011). Higher familial income levels predict higher academic achievement (Brock, 2010). Students from low familial income backgrounds may enroll part time, work full-time jobs, and in turn have a more challenging road to degree completion. Gohn and Albin (2006) stressed the inability to pay of student balances and the accumulation of higher debt influences students' persistence.

*Insignificant variables.* Race and ethnicity, gender, first-generation status, success coach meetings, and LLC participation were not statistically significant predictors in this study. Although these were not significant in this study, several of them should be considered for future studies based on prior research. As cited in the literature review of this study, the existing body of literature claims students from traditionally underrepresented minority groups experience have

higher levels of attrition throughout history (Brock, 2010; K. Noble et al., 2007; Pascarella & Terenzini, 1991, 2005; Tinto, 1975, 1993). Gender has been a key factor in numerous research studies, and many recent studies suggest female students persist at higher levels than males (Alon & Gelbgiser, 2011; Bergman et al., 2014; Brock, 2010; Carbonaro et al., 2010; Carlan & Byxbe, 2000; Goldin et al., 2006; Mortenson, 2003; K. Noble et al., 2007; Wang, 2009). In Chen's (2005) study, first-generation college students had lower GPAs compared to non-firstgeneration student's and several additional studies support higher parental educational levels are associated with persistence (Baum et al., 2013; Demetriou & Schmitz-Sciborski, 2011; Pascarella & Terenzini; 1991; Spady, 1970). The majority of prior studies conclude success coach meetings have a significantly positive relationship with academic performance, persistence, and graduation (Allen & Lester, 2012; Farrell, 2007; Robinson & Gahagan, 2010). Katz (2015) and Bewley (2010) found LLCs are significant predictors of student persistence at several institutions: University of Nevada, University of Minnesota, Florida State University, and Cabrini College.

# **Implications for Policy and Practice**

In the mid-1900s, the U.S. higher educational system underwent the transition of college only being for the elite to expanding it for the masses. In 50 years, the college population became more demographically diverse growing from 4 million to exceeding 20 million by 2009 (Baum et al., 2013). Although the opportunity and access improved for ethnic minorities and women, the very same institutions were not prepared to serve such a diverse new student population. Thus, college completion rates became the new issue for postsecondary institutions (Brock, 2010). At one point in time, the United States ranked 1st in world in the percentage of adults with a degree,

but, as of 2006, the nation has fallen to number 17 (Ebersole, 2010). Then, in 2009, former President Barack Obama mandated the United States be ranked 1st again by year 2020.

To counter the emerging attrition problem, scholars began to focus more attention toward the first year of college. Students are at the greatest risk withdrawing from college during their first year (Muraskin, 1998). As a remedy, first-year retention programs are implemented at numerous institutions across the nation to increase retention and college completion rates. Although efforts in developing support programs for traditionally marginalized groups have improved, very few studies, if any, exist on first-year programs for students from urban school districts. This study adds to the limited body of literature on students from urban school districts and encourage institutional administrators to focus more attention on the population in efforts to increase higher completion rates.

From this study, administrators can begin to access the success rates of students from urban school districts at their institution. In chapter three of this study, the researcher highlighted the primary issue of students from urban school districts graduating at much lower rates compared to the overall institutional rate. The average 6-year graduation rate of the four urban school districts was 24% compared to the overall 40% graduation rate for MU. This issue could also be prevalent at other institutions, which gives reason for administrators to consider investigating the state of this student population.

Tinto (2006) suggested institutions should attempt to understand students' high school background in efforts to design effective support programs catered to the varying population needs. Historically, students from urban school districts have entered postsecondary institutions after persevering through school districts and communities that encompass unique challenges (Abbott, 2010). Thus, institutions can examine how the characteristics of their setting contribute

to the achievement gap for students from urban school districts. This will enable institutions to contribute equitable educational platforms that create a legitimate opportunity of social mobility for individuals who have endured systemic oppression for centuries.

This study concludes students from urban school districts who participated in first-year programs at MU obtained higher levels of academic success during the first semester than nonparticipants from the same school districts. The first-semester GPA for both the required first-year program (2.81) and voluntary first-year program (2.41) was higher than the non-firstyear program group (2.24). Tinto (1999) claimed all students, especially the most vulnerable student populations, are more likely to persist at institutions that provide catered supportive services. This finding provides additional evidence that first-year programs, in general, are effective practices to mitigating longstanding attrition issues. Prior literature also attests to the benefits of first-year programs (Barefoot et al., 1998; Braxton et al., 2004; Knight, 2002; K. Noble et al., 2007; Schnell et al., 2003; Wright Sidle & McReynolds, 2009). More specifically, this finding proves first-year programs are beneficial for students from urban school districts. In Clinton's (2011) study, he claimed studies on retention and first-year programs for students from urban areas are severely limited. The observed GPA differences between first-year program participants and nonparticipants contribute to the fairly new body of literature on students from urban school districts.

Administrators may also find this study helpful as they continually search for practices that may likely increase the completion rates of students at their institutions. In a time of increased accountability and diminished resources, the findings of this study help administrators "provide empirical evidence that resources committed to them are an investment that yields longterm benefits to the institution" (Tinto, 2006, p. 10). First-year programs for students from urban

school districts may aid the declined completion rates experienced at numerous campuses throughout the nation.

Individuals from urban communities experience issues that are byproducts of historical systemic oppression. Some individuals, particularly African Americans, have persevered through eras of oppression including slavery, Jim Crow era, housing discrimination, familial separation, drug infiltration, mass incarceration, police brutality, unsolved killings, and more. These layers of issues have hindered individuals from urban communities from accessing higher education and being prepared to thrive broadly at the collegiate level. Postsecondary institutions are not designed to provide an equitable opportunity for these students to succeed. Providing support services catered to the characteristics and needs help individuals of oppressed backgrounds will build equity. It is understood receiving a college education provides higher salaries and benefits, higher savings levels, improved working conditions, improved quality of life, and increased engagement in hobbies and leisure activities. Implementing the findings of this study for students from urban school districts may foster well-required equity, break generational oppression that many of these individuals have endured, and serve as a component of educational reparations. As the conversation of diversity continues to expand, it can potentially lose its initial meaning. Diaz (2016) claimed diversity is now defined as "as simply individual differences among persons rather than focusing on historically excluded groups in the United States" (para. 1). While it may be well intentioned to create a level playing field for everyone, it is important to remember the experiences of historic oppression of individuals from urban communities extend far beyond the scope of the now-evolved definition of diversity of simply "individual differences." Future research on the restorative measures for individuals from urban communities is needed because many of the injustices experienced by these individuals have been untreated. Further attention

toward this research area will ensure these experiences are not forgotten, ignored, disparaged, and continually push for restorative measures as the meaning of diversity broadens.

The findings of this study can help institutions graduate more students, which in turn, can provide more individuals with postsecondary education to live and work in urban regions. A highly educated workforce enhances the job economy for the region. Well-educated workforces may provide higher salaries though attracting high-wage employers. Recently, some of the nation's largest companies have overlooked some urban regions due to their lower levels of individuals with postsecondary degrees. This study enhances regional job economy through providing catered educational support services to individuals from urban communities which will eventually build a more highly educated workforce through increased degree attainment rates.

Finally, this study urges administrator to consider certain demographical, precollege academic, and programmatic characteristics when implementing first-year programs for students from urban school districts. In the first question of this study, students in the required first-year program experienced the highest levels of academic success compared to the other two groups, a difference of 0.40 GPA points between the voluntary group and 0.57 GPA points between the non-first-year group. Thus, institutions may potentially experience similar results by making first-year programs required for the student group. Kamphoff et al. (2007) stated the required nature of the first-year course is essential to the success of the program because it urges students to take the program serious. Administrators should also consider the characteristics identified as predictors in this study when implementing first-year programs: (a) high school GPA, (b) attempted credits, (c) study hours, and (d) familial income. Based on these predictive variables, administrators should consider the following questions when designing supportive services for this population:

- Since students with higher high school GPAs earn higher first-semester GPAs, what can be done to support incoming freshmen from urban school districts with lower high school GPAs?
- Since prior research and the findings of this study suggest students who enroll in lower course loads work more hours and students from low-income backgrounds tend to be academically impacted by student debt and balance, how can institutions better financially support students from urban school districts to diminish these barriers?
- How can we (institutions) create a realistic opportunity for success by the use of supportive services, such as study hours, that cater to the needs of students from urban school districts?

Although the other variables (success coach meetings, peer mentor meetings, race/ethnicity, LLC, gender, and first-generation status) were not identified as predictors of first-semester GPA, administrators should still consider these characteristics when designing first-year programs for this population due to the critiques of this study discussed in the next section. Some of these variables have an abundance of supporting literature that suggests effectiveness, which is another reason why institutions should still consider them. Also, some variables may be leveraging other variables causing a background effect of them not showing up as significant predictors. For example, although success coach meetings did not prove to be a predictor, those same meetings could have influenced a student to attend more study hours, which was discovered to be significant. Some of the other insignificant variables may show up as significant variables with longer term outcomes, such as graduate rates.

# **Recommendations for Future Research**

This study assessed the impact of first-year programs on academic performance for students from urban school districts. The study also analyzed relationship between student demographics, precollege characteristics, and student support services and academic performance. Students in first-year programs were found to have higher first-semester GPAs than students not enrolled in a first-year program. Additionally, students in the required first-year program had significantly higher GPAs than non-first-year program students. A further investigation should be taken into what exactly makes the first-year programs effective and how. This research could be undertaken through further data analysis, surveys, interviews, or focus groups. For example, of the support services offered, study hours were found to be a significant predictor of academic performance for students from urban school districts. To determine exactly why and how the study hours are impacting academic performance surveys and interviews of program staff could be conducted. This additional research may determine best practices of how study hours are run, as well as staffing, training, and other issues.

The researcher used secondary data over a 3-year period (2015-2017) for the analysis. Only 3 years of data were used because the first-year program studies were recently modified to include the support services that were evaluated in this study (success coaches, peer mentors, study hours, LLCs). The available data were limited to only 3 years. In the future, a longer longitudinal study that includes more years of data may provide stronger results. A larger longitudinal study may provide more reliable data for some of the variables employed in this study: (a) SAT, (b) ACT, and (c) first-generation status. In addition, adding more years to the data may increase the sample sizes of the students in the first-year programs. The sample sizes of the required first-year program (34) and voluntary first-year program (138) were fairly smaller

than the nonparticipant sample (452). Increased sample sizes of the first-year programs may also yield stronger results.

Race and ethnicity were not determined to be significant predictors of academic performance, which may be due to the lack of diversity in the study's sample. To determine the significance of race and ethnicity, future studies may benefit from using a more diverse sample. Perhaps, expanding the sample to include suburban and rural school districts may increase the makeup of races other than Black/African American students. The suburban and rural school districts may likely have less minority students in the sample. In addition, there was a relatively small sample size of Latino/a students, which may be a reason why there was no significance. However, it is also essential to further investigate race as the population of Latino/a individuals continue to grow in the United States. By 2050, the Latino/a population is expected to triple in size and will count for 60% of the nation's population growth, making up nearly one third of the total population (Passel & Cohn, 2008). Factors of persistence for Latino/a students will be vital for postsecondary administrators to understand, as there will be larger representations of the population on campuses nationwide. Although gender was not found to be a significant predictor, there has been growth in the implementation of retention programs specifically for minority males and females across the nation in recent years. Practitioners may benefit from future research that includes similar assessments conducted on retention programs designed based on gender and race.

It is understood from prior studies that students from urban communities are more likely to be exposed to traumatic events during their upbringing (Frissen et al., 2015; Kang & Burton, 2014; Kiser et al., 2010). Students from urban communities experience perpetuated trauma through daily life experiences, including illness/death of a family member/friend, family member

arrested/jailed/imprisoned, separation from caregiver, family members physically fighting, serious accidents, criminal victimization, and community violence. These events may cause posttraumatic stress disorder symptoms including affective responses (sadness and rage), physiological deregulations, and other reactions. It is unfortunate that these daily life experiences may become common to individuals from these communities, but it is more disturbing that these same students enter college campuses that have a culture vastly contrary to their experiences. Since students from urban communities are exposed to trauma at rates higher than the general population, it is important to understand the role of counseling and therapy on college campuses. Some institutions lack adequate staffing needed to support the campus student population, furthermore, many campuses counseling staff does not have representation of counselors from urban communities who may be able to better understand and work with the population. As mental health has excelled as a priority issue for many campuses, further research should be conducted on counseling services for students from urban communities and their adaptation to the culture of postsecondary institutions.

In this study, attempted credits were determined to be a significant predictor of academic performance. The more credits students enrolled in during their first semester, the higher their first-semester GPA. For this reason, further studies on the comparison of full-time and part-time students should be considered. Surveys and interviews of students on their experience of being a full-time student versus part time can be conducted. Research on if there is a relationship between working full- or part-time, campus involvement, and family (having spouses and children) has a relationship with enrollment and persistence may be beneficial. Related to attempted credits, a further look can be taken into which courses students take during their first

semester. Future research may benefit from the identification of particular courses that may be predictors of academic performance and persistence.

Lastly, future research can be conducted on the graduation rates of this same sample. Completion rates are usually assessed six years after a student begins college. Since the oldest cohort of this sample is year 2015, none of the students in this sample have reached their 6-year graduation mark yet. In the year 2021, the 2015 cohort will reach its 6-year mark and graduation rates can be assessed then. Longer term outcomes, such as graduation rates, may also help discover the significance of other variables that were not determined significant in this study (mentors, success coach meetings, LLC). Because some variables may have background influence on each other they may not be determined as a predictor due to the short-term outcomes of this study. Future research on the long-term influence of first-year programs on the graduation rates of students from urban school districts may provide valuable evidence to practitioners and the body of literature.

# Conclusion

Institutions nationwide are continually investigating solutions to the student attrition epidemic in efforts to improve completion rates for the country's diverse student population. This issue is especially true for MU, as there is an achievement gap between the graduation rates of students from urban school districts compared to the overall graduation rate (24% compared to the overall 40%). During a time of budget cutbacks and increased accountability, administrators are put to the task to develop policy and practice to increase academic performance and completion rates. Although there is a vast amount of studies on retention, the body of literature on student success and first-year programs for students from urban areas are severely limited. The purpose of this study was to evaluate the degree first-year programs at MU impact academic performance of students from urban school districts.

This study found students from urban school districts who participated in the required first-year program (2.81) and the voluntary first-year program (2.41) earned higher first-semester GPAs than students from the same school districts who were not enrolled in a first-year program (2.24). In addition, students who participated in the required first-year program had significantly higher first-semester GPAs than non-first-year program students. Several variables were found to be predictors of academic performance for the student population as well. Of the precollege academic variables, a student's high school GPA had a significant relationship with the outcome variable. For familial income, Pell eligibility status had a negative effect on first-semester GPAs. Both the results for high school GPA and familial income may suggest students with lower high school GPAs and familial income may benefit from support services and financial support. As aligned with prior research, the number of credits a student attempted had a significant positive relationship with the outcome variable, which may suggest students who take a larger course load or are at least enrolled full-time status achieve higher levels of academic performance. Lastly, the number of study hours a student had was a significant predictor of first-semester GPA. A students first-semester GPA increased by 0.20 points for every 25 hours they logged.

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