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FROM THE MARGINS: IMPACT OF ACADEMIC ADVISING ON FIRST-GENERATION
STUDENT RETENTION

A Dissertation Presented to the
Faculty of the College of Education
Bellarmine University

In Partial Fulfillment of the
Requirements for the Degree

Doctorate in Higher Education

By

Xavia Harrington-Chate

March 2021

From the Margins: Impact of academic advising on first-generation student retention

Xavia Harrington-Chate

Bellarmino University

Abstract

This study examines the influence of academic advising on first-generation student retention using secondary data via data from an online survey. Specifically, the researcher explored advising experiences to explain the retention of freshman first-generation college students from Year One to Year Two. A total of 1,716 freshman students during the 2017-2018 academic school year participated in this study. The survey's setting is a mid-sized, four-year public university in the Midwestern United States. The research questions seek to identify if first-generation students' status or self-reported data of academic advising experiences affect student retention during the critical first year of college enrollment. Logistic regression indicated a statistically significant association between first-generation student status and retention from Year One to Year Two. Further, logistic regression analysis determined that of the variance in first-generation student retention 74.6% was correctly classified. This study's findings help suggest enhancements for this historically vulnerable student population's student success and retention.

Keywords: academic advisor; student success; retention; academic advising; first-time, full-time first-generation college students

Dedications

To the late Mrs. Alice Carson Tisdale, former First Lady of Claflin University, for believing in me and other students like me when we needed you most, you will never be forgotten. This is dedicated to you in your loving memory.

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To my beloved parents, for never letting me know what first-generation was or that I might be inferior because of it; for making me value and prioritize my education over beauty pageants, dance classes, sports, or fun with friends at a young age; for always saying that I would be the one to write a book one day; and for never telling me that those big dreams were not an attainable reality, thank you.

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Chapter One

Historically, student success during the first year of college has been seen as a predictor of future student success (Seidman, 2012). Thus, first-time, full-time first-generation students' success illustrates an even larger issue within higher education still today. It has been noted that in the 2011-2012 school year, first-generation students, who are the first in their families to attend college, represented anywhere from 30% to 34% of U.S. college and university attendance (National Center for Education Statistics, 2014). Furthermore, undergraduate students, who had parents with some college experience but no bachelor's degree, represented approximately 28% of U.S. college and university attendance.

While the number of students identifying as first-generation college students make up more than a quarter of the U.S. college student population, the average stop-out and/or drop-out rate of first-time, full-time first-generation students is alarming when compared to the number of non first-time first-generation students currently enrolled in America's institutions of higher education (Ishitani, 2006; Choy, 2001). Specifically, Ishitani (2006) noted that first-generation students were 1.3 times more likely to dropout or transfer during their first year of college when compared to their non-first-generation status peers. Similarly, Choy (2001) argued that first-generation students, when compared to their non-first-generation peers, were, on average, "about twice as likely" (p. 22) to transfer or drop out after the first year of school. This points to an obvious issue for this vulnerable student population. If first-time, full-time first-generation students are more likely than their non-first-generation peers to leave their institution via dropout, then, today's stakeholders within higher education must become far more concerned with not just identifying barriers to this student population's success in research, but also genuinely considering what these results may mean for the future of higher education tomorrow.

In states, like Indiana, where student enrollment trends show an obvious decline in enrollment numbers, institutions of higher education must understand the plight of first-time, full-time first-generation student success.

According to the National Student Clearinghouse's Research Center (2017), for three consecutive academic years, the overall enrollment at Indiana's postsecondary institutions has continuously decreased. From Fall 2013 to Fall 2016, the state of Indiana has had an overall decrease of 8.4% undergraduate student enrollment (National Student Clearinghouse Research Center, 2017). Indiana's continuous decline in undergraduate enrollment at its Predominantly White Institutions (PWIs) mimics the enrollment trends seen in many of its neighboring Midwestern states (National Student Clearinghouse Research Center, 2017). Due to the steady decline projected in Indiana's undergraduate enrollment, similar Midwestern institutions of higher education must seek to increase current first-time, full-time first-generation student success. To do this, institutions should seek to find the connections between assisting vulnerable students and increasing overall academic success. One area for further exploration is academic advising. Formal academic advising provides an effective retention strategy for students, particularly those who are considered vulnerable and at-risk for dropping out, to develop connections to campus officials, whom are considered purveyors of common academic knowledge (Glennen & Baxley, 1985; Schwebel, Walburn, Jacobsen, Jerrolds, & Klyce, 2008; Vander Schee, 2007).

Theoretical Framework

Two theories guided this study, including: the interactionalist theory of college student departure (Tinto, 1975, 1987, 2006) and the theory of involvement (Astin, 1970, 1984, 1999). Additionally, the student engagement work of Kuh and NSSE (2009) have been used to make

sense of the significance of the academic advising relationship on students' integration into academic life, decisions to drop out, and successful retention from year to year. In order to understand the impact of academic advising on said student population's overall retention, we must first seek to understand if a relationship exists within this student population's important first year. Tinto's model of student departure (1975, 1987, 1993) looks closely at college students' behaviors and attrition.

Interactionist Theory

Specifically, Tinto (1975) looks at persistence when a student's personal needs and motivation are met with the institution's abilities to create an environment, which the student can integrate into. Tinto (1975) believed that all students enter into the college setting with their own skills, abilities, familial status, and other characteristics. However, the work to integrate into the college setting helps said students to feel as though they become valuable community members and stakeholders. It is here that Tinto (1975) argues that all interactions on college campuses have an impact on students.

To better explain the nuances of these interactions, Tinto (1975) theorizes social integration versus academic integration. However, Tinto (1975) does not argue that one is more important or more effective than another; he merely suggests that both social and academic integration levels are large predictors for students' feelings of inclusion and commitment to the campus community. For institutions of higher education, Tinto's (1975, 1987, 1993) work showed that students' decisions to persist onto graduation were inextricably linked to students' feelings of how they fit into the current academic and social models and expectations at work on their college or university campuses.

Theory of Involvement

Additionally, the Theory of Involvement is a model, which attempts to explain persistence at institutions of higher education. Here, Astin (1970, 1975, 1977, 1984, 1991, 1993) argued that student development was a contributing factor to student involvement. What Astin (1975) argued is that the more students were involved on their college campuses, the chances that the students would drop out decrease. To truly measure the effect of involvement on students' development and decision-making, Astin created the Input-Environment-Outcome Model, also known as the I-E-O Model.

The I-E-O Model pays attention to the relationship of students' inputs, environment, and outcomes to explain the ways that students develop during their college years. However, this model showed that involvement or experiences in both academic advising and faculty interactions showed to play a significant role on students' persistence (Astin, 1985). To further detail the effects, Astin (1997) proposed the types of involvement shown to promote student persistence and argued that both the quantity and quality of involvement opportunities help to attribute to students' feelings of fit and persistence towards graduation.

National Survey of Student Engagement

Many experts have attempted to better understand college students' experiences, yet the National Survey of Student Engagement (NSSE) is the preeminent self-reporting survey designed with validity and reliability in mind to provide accurate insight into the lives of college students (Kuh, 2009). The NSSE looks closely at students' experiences by asking questions regarding their perceptions of: academic rigor, learning, interactions, experiences, and their integration into the campus culture. Over the years, the NSSE has attempted to provide

researchers and academic professionals in the field of higher education with clear insights into the minds of college students.

Specifically, NSSE's 2014 Annual Results suggested that first-generation students did not meet with an academic advisor at the same frequency as their non-first-generation/continuing education peers. The study went on to argue that these first-generation students, who rarely met with an academic advisor, relied on the advice of family members 23% of the time (National Survey of Student Engagement, 2014). The study suggested that as students' interactions with an academic advisor increased, their reliance on family members decreased from 23% to 16% (National Survey of Student Engagement, 2014). Thus, NSSE data denotes that the presence of an academic advisor allows first-generation students to rely on the feedback of their non-college going family members less and their academic advisor more.

Problem & Gap

The Morrill Land-Grant Act of 1862 & The Second Morrill Act of 1890

When discussing the history of equity and inclusion within higher education, one must start with The Morrill Land-Grant Act of 1862, which sought to grant large acreage of land to states in order to enhance the "support, and maintenance of at least one college" (Morrill Act of 1862). This new federal support was intended to assist states with educating those Americans, largely the working class, who had previously never been able to attend American colleges and universities. Years later, these newly built institutions of American higher education sought to teach agricultural and technical specialties to the majority, yet American land grant universities did not allow these new opportunities for education to be utilized by every American citizen equally (US Department of Education). Despite our long and tattered history of: the chattels of American slavery, the brow beating of segregation, the pioneers of the Civil Rights Movement,

and the bumpy terrain on the long, hard fought road to integration, many land grant institutions would go on to continue to enforce deeply rooted segregationist and discriminatory policies and practices to keep Americans of color, specifically Black Americans, from ever entering their hallowed halls for years to come.

It must be noted that the prejudiced policies and practices of many of the country's new land grant institutions did not keep all African Americans away from higher education. African Americans had been attending Historically Black Colleges and Universities (HBCUs) for years before the Morrill Land-Grant Act passed, as they were some of the only American institutions that, from inception, were built to cater to the needs of diverse student populations. This meant that, even then, despite sex, gender, race, ethnicity, nationality, religion, and/or creed interested students could attend an HBCU to further their educational pursuits. However, this new legislation did very little to help create more access to the newly established land grant institutions for these African Americans. Thus, what was meant to introduce so many Americans into the culture of academia within American higher education simultaneously excluded Black Americans from the promise of a higher education at these institutions.

For decades before the Morrill Land-Grant Act of 1862, American institutions of higher education remained predominantly affluent, white, and male. In the years after the enactment of Morrill Land-Grant Act of 1862, little about the college going population changed; however, the federal government sought to support these newly established institutions with the Second Morrill Act in 1890 (U.S. Department of Education, 2017). Additionally, the federal government established the original Department of Education, which was used to collect information on schools and their teaching not encourage Americans to consider higher education. That is until

the federal government was met with the possibility of another recession and depression after a lengthy, expensive world war.

The G.I. Bill: The Servicemen's Readjustment Act of 1944

After the end of the World War II (WWII) and with the enactment of the Servicemen's Readjustment Act of 1944, widely known as the G.I. Bill, American higher education enrollment increased drastically. At this time, there was a "significant expansion of federal support for education" (U.S. Department of Education, 2017, para. 6). Specifically, the federal government provided unprecedented postsecondary education assistance to veterans, which sparked the aforementioned monumental college enrollment increases. There are several intersecting reasons why the surge in college enrollment happened in the late 1940s in a way that had never been seen before or, sadly, even after that time. However, one major catalyst for this drastic increase in higher enrollment numbers during that time is that higher education simply became more accessible for a larger number of previously marginalized Americans. Specifically, higher education became more accessible for the millions of WWII veterans, who returned from war to a country begging to thank them for their patriotic service with far more than just lip service.

Led by President Franklin D. Roosevelt and in an attempt to simultaneously bypass a looming recession and properly thank veterans for their services, the 1944 G.I. Bill meant that the country allowed some veterans easier access to several federal accommodations including access to: higher education, mortgage loans, business loans, and unemployment pay. Many of those veterans, who never had such access before serving on this most recent tour of duty, were given this unprecedented opportunity to uplift themselves and their families via the G.I. Bill federal legislation. However, this sweeping legislation once enacted created clear pathways into the American middle class for some veterans but not all.

Although the number of veterans enrolled in higher education increased and remained high, a new administration led by President Harry S. Truman began to see the need to consider what higher education had become and what it could be. President Truman questioned what facets of the American population would seek postsecondary education if only there were ways to eliminate the barriers that stood in their paths. To do this, President Truman's quest to recreate American higher education would require a great deal of transparency and assessment. For President Truman, redefining the American higher education landscape would become an important goal of his presidency steeped largely in his own personal experiences.

In 1947, President Truman argued that it was the federal government's duty to ensure that access to higher education is provided as an option to all American citizens, who wished to attend, in an equitable manner. In this way, President Truman was a proponent for American public higher education even though he, himself, never earned a degree from an American college or university. A Commission, now known as President Truman's Commission on Higher Education, was tasked with articulating how the skills and knowledge gained from greater higher education enrollment would benefit the entire country. The Commission produced a scathing report that detailed how wider, equitable access to higher education for all would not decrease the value of a college degree but would increase the value that everyday Americans could add to their smaller communities and the larger country. In summation, the Commission's report detailed three recommendations concerning: the lack of access to college enrollment, the role of colleges to every American, and the need for federal funding of colleges. While all of these recommendations are important, identifying that the spike in higher education enrollment still not provide equitable access for marginalized Americans to attend meant that the federal government still had some work to do.

The American Civil Rights Movement

The American Civil Rights Movement would seek to end all of the hurdles that racial and ethnic minorities faced. However, the Civil Rights Movement also sought to dismantle the barriers that stood in the way of higher education attainment for some of the most marginalized Americans. These Americans, who were found at several intersections, specifically the intersections of race, ethnicity, and socio-economic status, would not have been seen as capable or able before this national fight for equality and inclusion. With this shift in national ideology and a call for equal opportunities for all, the federal government's Department of Education began to change.

The anti-poverty and civil rights laws of the 1960s and 1970s brought about a dramatic emergence of the Department's equal access mission passage of laws such as Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, and Section 504 of the Rehabilitation Act of 1973 which prohibited discrimination based on race, sex, and disability, respectively made civil rights enforcement a fundamental and long-lasting focus of the Department of Education (U.S. Department of Education, 2017, para. 8). Not only did the federal government began to tackle issues surrounding diverse forms of bias (i.e. racial, ethnic, sex, and ability based discriminatory policies and practices), but the federal government also began to focus on how students' locations affected their educational attainment and student success.

Specifically, it became evident that the quality of the educations and access to education found in urban versus rural locations affected students' educational attainment and academic abilities.

In 1965, the Elementary and Secondary Education Act launched a comprehensive set of programs, including the Title I program of Federal aid to disadvantaged children to address the problems of poor urban and rural areas. And in that same year, the Higher Education Act authorized assistance for postsecondary education, including financial aid programs for needy college students (U.S. Department of Education, 2017, para. 8).

Thus, the Department of Education began to think deeply about ways to remove the barriers to quality education that exist solely due to poverty and/or become more insurmountable when poverty is compiled with another marginalized characteristic, identity, or culture. “In 1980, Congress established the Department of Education as a Cabinet level agency” (U.S. Department of Education, 2017, para. 9). This historical perspective on the development of America’s institutions of higher education and the governing federal agency that supports these institutions provides a clearer lens to better understand higher education, as a theme, entity, and catalyst for social mobility, as we know it today.

Academic Advising within Higher Education

A few years after the passage of the Civil Rights legislation to make obtaining a quality education more attainable for diverse students in K-12 and postsecondary educational settings, many still considered students solely responsible for the successes or failures associated with their educational pursuits. Many felt as though gaining admission to college was a gift that the federal government gave to underrepresented students; therefore, they should want no more assistance from the federal government or the institution itself to help see them onto graduation. To make this ideology clearer, Tinto & Cullen (1973) argued that there was a notion of “inferiority on the part of the individual who drops out” (p. 6). While American higher education has changed some since the 1970s, American higher education still allows those, who have a

desire to obtain a college education, to fall short, stop out, or drop out while erroneously placing the blame and shame on the outcome of this journey on students. An individual who drops out or stops out is neither inferior nor solely to blame for this decision. It is the responsibility of the institution backed by the state and the federal government to ensure that the most vulnerable students have all of the resources necessary to be successful in all phases of the postsecondary admissions, matriculation, and graduation processes. In this way, the gap and primary reason for this study become evident.

First-Generation College Students

Unfortunately, in American higher education today, first-generation students make up a sizable student population; however, while first-generation students continue to be recruited, they fail to be properly retained and, oftentimes, fail to fully understand academia and its standards or fail to be fully integrated in the campus climate of their respective institution (Arnold, Lu, & Armstrong, 2012; Engle, Bermeo, & O'Brien, 2006; D'Amico & Dika, 2013; Gibson & Slate, 2010; Stephens, Hamedani, & Destin, 2014; Tierney, 1999). First-generation students, attending the nation's colleges or universities, often face many similar challenges that hinder their collegiate success (Bers & Schuetz, 2014; Sandoval-Lucero, Maes, & Klingsmith, 2014; Stephens, Hamedani, & Destin, 2014; Wilkins, 2014). To better understand the first-generation student population, we must first look at the history of undergraduate enrollment rates in this country.

Trends in enrollment are linked, at least in part, to trends in employment opportunities (e.g. the Great Recession between 2008 and 2010). In periods of fewer job opportunities and higher unemployment, college enrollment generally increases. Undergraduate enrollment increased sharply during the Great Recession, rising from 15.6 million in fall

2007 to a peak of 18.1 million in fall 2010, and then declined by 2 percent between fall 2011 and fall 2012, and then declined by 2 percent between fall 2011 and fall 2012 and by 1 percent between fall 2012 and fall 2014. Enrollment declined again between 2014 and 2015, reaching 17.04 million. Estimated undergraduate enrollment increased by about 200,000 between 2015 and 2016 and by 200,000 more between 2016 and 2017. In 2017 total undergraduate enrollment returned to about the level of 2009 (NCES, 2016). With this clear depiction of the trends of undergraduate enrollment rates in this country, it is easier to understand the amount of first-generation students currently enrolled within higher education.

Harackiewicz et al. (2014) found that first-generation students represent 15%-20% of today's American college students. Additionally, NCES (2012) found that students of color were almost twice as likely to be first-generation college students, who had no parent earn any college degree, than white students (NCES, 2012). Specifically, NCES (2012) found that 48% of Hispanic students and 42% of Black students were first-generation students as compared to 28% of White students. Almost twenty percent of first-generation students are bi-lingual or multilingual and do not consider English to be their native language (NCES, 2012). Sadly, the Pell Institute (2011) found that continuing education status/non-first-generation status makes a college student five times more likely to persist unto graduation within six years of initial enrollment. Specifically, 11 percent of first-generation college students, who also identify as low-income, will earn a college degree within six years of initial enrollment; this is compared to about 54 percent of continuing education/non first-generation students, who did not identify as low-income (Pell Institute, 2011).

Therefore, first-generation students, who are predominantly students of color, must rely on the institution's policies and practices and the education and experiences of others to see them through to graduation. Institutional admissions departments oftentimes eagerly recruit these students. However, as the institutional effectiveness wanes, these same students are too often retained for only a short time. If first-time full-time first-generation students are a vulnerable student population, then, it is of the utmost importance that institutions not only understand their role in student success but also be fully equipped to help deconstruct the hurdles that these students face while attempting to be successful. To do this, institutions of higher education must seek to identify what facets of the college experience are failing to fully serve first-time full-time first-generation students and seek to increase the probability of student retention and success.

Many erroneously continue to point to student grit, preparedness, intelligence, fit, etc. to better explain correlation and/or causation to student retention and success in higher education. However, today, the overwhelming majority use these phrases as merely a reincarnation of yesterday's biased dog whistles. In this way, elitism, racism, classism, sexism, and xenophobia are thinly veiled through the use of these new terms in an attempt to further marginalize underrepresented minority students. By studying student success and retention through the lens of students' grit, preparedness, intelligence, fit, etc., researchers, scholars, and proponents of higher education work to keep vulnerable; marginalized; and, in many ways, multi-hyphenate minority students from ever seeing let alone entering the doors of the ivory tower. It is still easier to place the blame of an unsuccessful college journey on the diverse and underrepresented students, who do not represent the majority of your institutional funding dollars or larger student population. However, today's largest minority student population is not found at just one but at the intersection of several characteristics and identities that require sincere commitment to

institutions: building their cultural knowledge, creating more diverse campus climates via policies and practices, and making clear their willingness to learn how to best serve all vulnerable students. Sadly, if institutions do not seek to identify and better serve this large, vulnerable student group and better understand what institutions are not doing correctly to assist these students, the current misplaced blame, institutional lack of cultural knowledge, and institutional ineffectiveness will continue to the detriment of said students, entire campuses, communities, states/commonwealths, and the nation.

According to Howell (2010), academic advising is an important, albeit, neglected predictor of higher education success. The National Academic Advising Association (NACADA, 2004) noted that many postsecondary institutions are not properly utilizing their established academic advising initiatives while other postsecondary institutions continuously fail to see the significance of effective academic advising delivery methods. Over the years, this has not changed as many studies have described the connections between the purpose of effective academic advising, the role of academic advising on student success, and academic advising as a key predictor of students' matriculation and graduation rates (e.g., see Backhus, 1989; Ender, Winston, & Miller, 1982; Frost & ASHE-Eric Higher Education Reports, 1991; Gerdes & Mallinckrodt, 1994; Habley, 1981, 2004; Habley & McClanahan, 2004; Kadar, 2001; Lotkowski, Robbins, & Noeth, 2004; Metzner, 1989; National Survey of Student Engagement, 2012; Seidman & Tinto, 2005; Schlosser & Gelso, 2001; Swecker, Fiftolt, & Searby, 2013; Tinto, 1987, 2000; & Tuttle, 2000). Despite the clear connections between academic advising and students' academic success within the extant literature, few studies focus on the relationship between academic advising and academic success of first-time, full-time first-generation students, a traditionally diverse student population, at predominantly White institutions within the

Midwestern United States and place the responsibility on the institution to better understand these connections. Thus, more institutions, like those in the Midwest, are seeking to make the most of their current, albeit declining, student enrollment numbers and increase student matriculation and graduation rates by focusing their attention on their most vulnerable, at-risk student populations (e.g., first-time, full-time first-generation college students).

The results of this study will help to identify what we truly mean when we discuss today's first-generation college students, illustrate the implicit bias that exists in the use of this buzzword, and expand extant literature regarding the relationships between the important first-year advising experiences of new full-time first-time first-generation students and their success. In this way, this study explores if a relationship exists between first-year academic advising experiences and students' future success and retention from year one to year two for a vulnerable student population that typically has not been the object of this specific focus at the intersections of socio-economic status, poverty, race, ethnicity, citizenship, and educational disenfranchisement. Additionally, this study's purpose promotes a new way of identifying effective first-year academic advising experiences to better support first-time, full-time first-generation college students' retention at a public four-year PWI in the Midwestern United States by using students' self-reported experiences.

Research Questions

This quantitative study will utilize secondary data from an institutional first-year student online survey to address the following research questions:

RQ1: Is there a significant relationship between first-generation student status and retention from Year One to Year Two?

H₁: First-generation student status has a significant relationship on student retention from Year One to Year Two.

RQ2: What are the significant predictors of first-generation student retention from Year One to Year Two?

H_{2a}: Frequency of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2b}: Knowledge of one's academic advisor is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2c}: Meeting with a substitute academic advisor is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2d}: The impact of academic advising is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2e}: Duration of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2f}: The effectiveness of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2g}: The importance of academic advising is a significant predictor of first-generation student retention from Year One to Year Two.

Methodology

This study will examine the academic advising experiences of first-generation first-time, full-time students at a 4-year public, regional institution located in the Midwestern United States. This site enrolls a high number of first-generation students, yet it struggles to retain these

students without any attempts to explain this disappointing phenomenon. This study will utilize quantitative methodology utilizing one dependent variable, Retention, and seven independent variables. These independent variables will include: Frequency, Knowledge, Substitution, Impact, Duration, Effectiveness, and Importance. According to Creswell (2009), regression design effectively and efficiently suggests if any relationships exist between two or more variables, which, in this study, are the retention of first-time full-time first-generation students and their academic advising experiences shown via the independent variables. Further, this study will utilize regression design to include descriptive analysis and statistical modeling on this secondary data.

Operational Definitions

In this study, the following terms and definitions were used:

1. *Academic advisor*. An academic advisor is an institutional representative assisting students with their academic concerns via delivery of academic advising techniques (Kuh, 2008).
2. *Academic success*. From Astin's Input-Environment-Outcome (I-E-O) model, academic success is known as the overall output or outcome seen when observing the most commonly used determiners of academic success from one year to the next, specifically a students' grades and their GPA (Pascarella & Terenzini, 2005).
3. *Persistence*. Within higher education, persistence can be seen in a student's continued enrollment from one year to the next at, what may be, different institutions towards successful completion of educational goal(s) (National Center for Education Statistics, 2016).

4. *Retention*. While often used synonymously with persistence, retention refers to a single institution's ability to successfully retain students from one semester to the next (National Center for Education Statistics, 2016).

5. *Attrition*. The number of individuals who leave an institution before successful completion of educational goals; describes the decrease in the number of enrolled students due to lowered student retention rates (Ascend Learning, 2012).

6. *Developmental academic advising*. Developmental academic advising suggests that advisors help students to develop both academically and personally. In this reciprocal advising relationship, students and advisors learn simultaneously as students learn more about themselves as they matriculate; while, advisors learn more about advisees via completion of comprehensive developmental tasks (Frost & Brown-Wheeler, 2003).

7. *Prescriptive academic advising*. In this one-sided advising relationship, students, who have specific academic requests or questions, related to their matriculation, seek the advisor, who must produce clear instructions and help for the student (Crookston, 1994).

8. *First-time, full-time first-generation college students*. For the purposes of this study, students, who are the first in their families to attend college and are beginning their full-time (i.e., 12 credit hours or more) attempt at a college education without first receiving any college credits post high school graduation, are considered first-time, full-time first-generation college students.

9. *GPA*. While often used synonymously with grades, GPA does not refer to individual course grades; it instead refers to the level of academic achievement seen in a student's collective grade point average for all coursework taken that term (i.e. semester GPA) and/or the

student's grade point average from Year One until graduation (i.e. cumulative GPA) (Choi, 2005).

Delimitations of Study

This research study had some delimitation. Only first-generation, first-time full-time students enrolled at one Midwestern four-year institution were selected to serve as the population for this study.

Organization of the Study

Herein, five chapters will be used to organize this study. Chapter One will serve as the introduction to the study; it will provide: preliminary information, statement of the problem, theoretical framework, purpose statement, research questions, methodology, defined commonly used terms, significance of the study, review of the delimitations and limitations of the study, and the researcher's study assumptions. Chapter Two will provide a review of extant literature via themes of: departure, involvement, engagement & student success, interaction, first-year first-generation students, barriers within higher education, student retention, academic advising & student success. Chapter Three will summarize the study's research design and detail its methodological procedures. Chapter Four will detail the data analysis. Finally, Chapter Five will provide discussion of the study's findings.

Chapter Two

This chapter presents the study's review of the literature, which examines a likely connection between first-generation students' academic success during their first year and their self-reported academic advising experiences. The first section discusses the theoretical framework to articulate the definitions of first-year students, student engagement, and student interactions with faculty and staff within the collegiate setting. The second section highlights research on first-time first-generation students within higher education. Finally, the third section examines postsecondary academic advising, while paying close attention to its history, types of advising, duties and goals of academic advising, and the researched outcomes associated with academic advising and student success.

Theoretical Framework

This study was conducted with the following student departure and student development theories in mind including: the interactionalist theory of college student departure (Tinto 1975, 1987, 1993, and 2006), the theory of involvement (Astin 1984, 1999), and student engagement paradigms (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). These important theories are utilized herein to examine the topic of new first-generation student success being inextricably bound to the topics of student engagement or immersion and student retention within college settings.

Interactionalist Theory of College Student Departure

While his work has not been without heavy critique and rebuke for its failure to consider students within the margins, it is important to note the impact of Tinto (1975) on better critiquing and understanding some portion of college student departures. Tinto's (1975) interactionalist theory is regarded as seminal in the field of student attrition in college settings. Tinto's (1975,

1987, and 1993) work provided a theoretical lens to better identify and, subsequently, understand college students' behaviors, which, over time, illustrate issues of student retention (i.e., decision making and actions). Before Tinto (1975), scholars largely ignored the importance of the connection between student and institution; therefore, this model pioneered discussions of how institutions contribute to students' retention and, subsequent, success. Tinto's initial model illustrated that students, who are properly integrated into the campus community, are more likely to graduate; thus, matriculating towards graduation was defined as the student's work to negotiate the college process and its systems. Specifically, the model suggests explanations for students' decisions to leave college earlier than previously expected. Because this theory presents a heuristic lens at which to better view students' behavior, Tinto's theory explained how the catalysts for students' decisions to leave college are found at the intersections of several key students' characteristics.

Tinto (1975) argued that students' decisions to continue through their postsecondary/higher education journey depended solely on the connection found between students' characteristics and their institutions. He argued that this connection is based on characteristics that students have both before and after entering the postsecondary institution (Tinto, 1975). These student characteristics, which Tinto argued influenced graduation, included: race, gender, socio-economic status, parental values, secondary school grades, and course of study. Once the student is enrolled within a postsecondary/higher education institution, the author begins to evaluate the student's integration into the new academic environment via intentional interactions with others, grades obtained, and campus involvement (Tinto, 1975). Tinto summarized that the student's characteristics and positive campus integration help to deepen the student-institution relationship and the student's commitment to

the postsecondary/higher education institution; therefore, he argued that the student-institution fit is a predictor of the student's decision to dropout. Although Tinto's retention ideology was first introduced in 1975, it was later expanded.

As previously stated, this initial ideology initially had five categories, which Tinto (1975) believed explained students' behaviors. However, years later, Tinto's 1987 work provided further explanation to what he considered to be a confused and contradictory state of research regarding student departure. During this time, many authors could not agree on what characteristics were catalysts for students' behaviors and decisions to drop out. Later, Tinto (1993) continued to expand his initial ideology suggesting several additional characteristics at the intersections of academic and social integration and how these new characteristics affected students' decisions to drop out and the importance of adjustment to campus environment (Tinto, 1987, 1993). Tinto (1993) articulated that there are three factors contributing to student departure. However, it is made clear that "the term 'dropout' has come to connote a form of individual failure, a failure of the person to measure up to the demands of college life regardless of their content and character" (Tinto, 1993, p. 140). Tinto (1993) makes it clear that higher education should no longer use the term dropout, as it is not an accurate way to describe students, who do not successfully matriculate at one postsecondary institution.

Further, Tinto (1993) asserts that students often withdraw from one institution and decide to re-enroll at another institution later. Tinto argues that this common theme of student retention at a different institution goes against common assumptions that these non-enrolling students drop out of college all together. In this 1993 work, Tinto also reflects on the responsibility of the individual institution to ensure that students feel as though they are central parts of the larger campus environment. Tinto explains that an institution's retention programs must suit the needs

of diverse students, who would otherwise decide to leave the institution without some feeling of connectedness to faculty, staff, or the larger school environment. To conclude the text, Tinto explained that institutions must seek to understand and evaluate student retention in more holistic ways, which take students' experiences specifically their overall college life into consideration. Tinto further explained that this evaluation of students' college lives and experiences can be used to help institutions create more effective ways to retain students with varied needs, who may come from diverse backgrounds, and have non-traditional experiences. After Tinto's 1993 research on student retention, his final model went on to describe college students' experiences and their decision-making abilities.

Tinto (2006) focused entirely on student retention based on institutional responsibilities. For Tinto, national student success rates were disappointing because they showed little to no improvement. Tinto articulated that institutions share some responsibilities with students to derail the negative student success rates. To make this clear, Tinto (2006) stated, "Though some institutions have been able to make substantial improvements in the rate at which their students graduate, many have not" (p. 2). The text sought to provide an examination of the vast history of the student retention field and offer new areas for scholars and researchers to explore in the near future. Tinto (2006) argued, "The really difficult work of shaping institutional practice, in particular for low-income students, has yet to be tackled" (p. 13). Tinto (2006) argues on behalf of the low-income student to better explain the differences in institutional and faculty action, academic preparation, and completion rates as they pertain to students, who may struggle with financial security.

Tinto (2006) made it clear that institutional inaction was because institutional settings had too many differing ways to help students succeed. Tinto did not believe that higher education

institutions were using all of the known research and wealth of knowledge, including discussions of faculty classroom interactions, learning communities, and innovations as ways to assist the most vulnerable students matriculate onto graduation. Tinto argues that the work of the faculty is important in enhancing student retention efforts. Tinto (2006) stated, “as we are often reminded, that student retention is everyone’s business, it is now evident that it is the business of the faculty in particular” (p. 4). This is important to note because faculty-student interactions are now considered an important part of students’ experiences and students’ decisions to withdraw from postsecondary institutions.

Theory of Student Involvement

An early version of Astin’s theory of student involvement was first published in 1985. However, over the years, the impact of Astin’s 1999 work has made him a preeminent voice in higher education. The theory focuses solely on the type of environment that the college provides to said students in their own undergraduate postsecondary educational experiences. Astin’s theory of student involvement was designed to help create a more concise model for evaluating undergraduate postsecondary students’ level of involvement (Astin, 1999). Before Astin’s work, scholars had mixed opinions on what lead to college students’ success. However, with Astin’s theory, institutions are able to view students’ involvement in their own postsecondary experiences to better articulate students’ development both inside and outside of the classroom. Astin believed that, “students learn by becoming involved” (Astin, 1985, p. 133). For Astin, the important student involvement, which helped to encourage or dissuade students’ development, did not include both academic and extracurricular activities. Astin focused specifically on the academic experiences and how these experiences influenced students’ behavior.

Within Astin's work, student involvement is defined as, "...the amount of physical and psychological energy that the student devotes to the academic experience" (Astin, 1999, p. 518). Astin seemed interested in the ways that postsecondary institutions help to promote the success of and development of their students (i.e. critical thinking, communication skills, para professionalism, etc.) within the educational experience. For Astin, an institution has helped promote the success and development of its students if it is invested in the students' "intellectual and scholarly development, and to making a positive difference in their lives" (Astin, 1985, p. 61). Involvement would be actively participating in class discussion, regularly attending office hours, and/or happily mentoring incoming students. Therefore, Astin uses the I-E-O model and the variables of inputs (i.e. who they are before enrolling in school, college entrance exam scores, etc.), environment (i.e. campus climate, postsecondary institutions' policies and practices, programs, and interactions with those employed by the institution), and outcomes (success and/or satisfaction) to evaluate one's level of student involvement. Astin's theory helps to discuss personal persistence and one's quality of effort as equally important to the environmental stimuli to better explain students' feelings about their postsecondary experiences and success.

Student Engagement & Student Success

The extant literature suggests the impact of academic advising on student success from as early as the 1800s to present day. In its earliest definitions, academic advising within higher education was meant to strictly help students graduate; it was based on the traditional business-based consumer model but vastly different at each institution (Frost, 2000). Through the years, scholars attempted to centrally define the work of effective academic advising (Crookston, 1994; O'Banion, 1994). In order to analyze the impact of academic advising on students' abilities to

successfully matriculate and graduate as they meet their own personal, academic, and/or emotional developmental goals, years later, Kuh (1995, 2001, 2003, 2008, 2009) would begin to research the connections between academic advising and student centered success models (Gonyea et al., 1997; Kuh, 1995, 2003; Kuh, Kinzie, Buckley, Bridges, & Hayek, 2007; & Kuh, Kinzie, Schuh, & Whitt, 2005). This section looks deeply at the scholarship of Kuh (1995, 2001, 2003, 2009) and the National Survey of Student Engagement (NSSE) to better explain the need for meaningful student engagement within postsecondary institutions.

For years, scholars have defined student engagement in many ways. However, there are a few scholars, whose seminal works have helped to clearly define student engagement, its benefits, and how it should be measured. One of these important scholars is Kuh (1995, 2001, 2003, 2008, & 2009). Kuh found that,

engagement increases the odds that any student- educational and social background notwithstanding- will attain his or her educational and personal objectives, acquire the skills and competencies demanded by the challenges of the twenty-first century, and enjoy the intellectual and monetary advantages associated with the completion of the baccalaureate degree (2009, p. 698).

Specifically, Kuh & Hu (2001) outlined the measure of student engagement as the “quality of effort students *themselves* devote to educationally purposeful activities that contribute directly to desired outcomes” (p. 3). Developing this further some years later, Kuh (2009) defined student engagement as “the time and effort students devote to activities that are empirically linked to desired outcomes of college *and* what institutions do to induce students to participate in these activities” (p.686). Thus, Kuh places equal responsibility on both the students to participate in meaningful activities and their respective postsecondary institutions to promote this worthwhile

immersion. A large portion of the student engagement literature focuses on student engagement's ability to enhance student learning; however, some scholars, like Kuh (1995, 2001, 2003, 2009), sought to understand student engagement's ability to enhance student retention.

Specifically, Kuh (2008) said, "...student engagement in educationally purposeful activities is positively related to academic outcomes as represented by first-year student grades and persistence between first and second year of college..." (p. 555). One year later, Kuh (2009) looked at the impact of student engagement on vulnerable student populations and asserted, "...engagement has compensatory effects on grades and persistence for students who most need a boost to performance because they are not adequately prepared academically when they start college..." (p. 685). In that same text, Kuh (2009) reiterates that, "...engaging in educationally purposeful activities helps to level the playing field, especially for students from low-income family backgrounds and others who have been historically underserved" (p. 689). Thus, Kuh explains the connections between student engagement and retention for even the most vulnerable students (i.e. first-generation students, students of color, and/or non-traditional student populations). Kuh's many years of research on student engagement has been so impactful that he was commissioned to help establish a national survey designed to better understand undergraduates' educational experiences. This survey would go on to become what we now call the National Survey of Student Engagement (NSSE).

National Survey of Student Engagement

According to the National Survey of Student Engagement (n.d.), coined the NSSE, an annual higher education survey conducted at public and private postsecondary institutions here in the United States and in Canada, seeks to further understand the complexities of student engagement and its impact on college student success outcomes. The NSSE was first launched

in 2000, and, since this time, the North American NSSE and Australian Survey of Student Engagement (AUSSE) has been used by those in higher education to better articulate the needs of students, the importance of student engagement, and what it can teach us in higher education National Survey of Student Engagement (National Survey of Student Engagement, 2012).

The North American NSSE looks closely at five engagement scales including: academic challenge, active learning, student and staff interactions, enriching educational experiences, and supporting learning environment. Within the engagement scale of student and staff interactions, the NSSE looks closely at myriad interactions, which have direct connections to postsecondary students' success. One such interaction is the Student-Faculty Interaction (SFI), and it measures the extent of students' out of class communication with faculty and advisors (National Survey of Student Engagement, 2012). Light (2004) found that a 10-year-old Harvard Assessment Project with more than 90 colleges surveyed students and found that students' interactions with faculty members are ever present in the postsecondary campus culture but those interactions based upon advising or mentoring principles are highly valued. However, Ei & Bowen (2002) found that not every type of SFI is deemed valuable to the student.

However, in a vulnerable student population, where the student and faculty or staff interactions outside of class are clear indicators of engagement, it is critical to note how one form of SFI (i.e. guidance or academic advising) impacts these students' success and if this is different than the correlation found in their non-first-generation peers. In order to do this, we must first define the vulnerable student group at the core of this study.

First-Year First-Generation Students

Defining First-Year First-Generation Students

After the federal open enrollment policies of the 1960s, three programs (i.e. Talent Search, Student Support Services, and Upward Bound) focused on increasing postsecondary educational access for previously underserved populations; thus, the name TRIO was born (US Department of Education (ED), n.d.). According to the US Department of Education (n.d.), the original TRIO programs helped to usher in the collection of TRIO programs that we now know (i.e., Upward bound Math and Science, Veterans Upward Bound, Educational Opportunity Centers, Ronald E. McNair Post baccalaureate Achievement Program, and the Training Program for Federal TRIO Programs). The collective goal of the federal TRIO programs is to identify, assist, and track the participants, many of who are non-traditional students from diverse backgrounds, and their progress from high school onto the attainment of their chosen baccalaureate and/or post baccalaureate degrees (US Department of Education (ED), n.d.). From the creation of these TRIO Programs, more non-traditional students from diverse backgrounds began to further their educations.

In order to define whom today's first-time first-generation students are, one must first differentiate first-time first-generation students from their non-first-generation or continuing-education peers (Chen, National Center for Education Statistics, & Carroll, 2005; Choy, 2001; Ishitani, 2006; Lohfink & Paulsen, 2005; National Center for Education Statistics, 1998; Terenzini et al., 1996; Padgett, Johnson, & Pascarella, 2012; Pascarella et al., 2004; Somers et al., 2004; Stephens et al., 2012; Shepler & Woosley, 2011; & Ward, Siegel & Davenport, 2012). A student would be a first-time college student if: the student has attempted no college credits before enrolling at his/her current postsecondary institution. A student would be first-generation

if neither parent had any postsecondary education (Choy, 2001; Hahs-Vaughn, 2004; National Center for Education Statistics, 1998; & Saenz et al., 2007). Specifically, today's first-time first-generation college students, when compared to the larger second-generation or continuing education population, are largely female students of color from low-income households (Choy, 2001; National Center for Education Statistics, 2017).

However, the US Department of Education (ED) (2018) defines first-generation students as “undergraduate students whose parents had not participated in postsecondary education” (pg. 2). This distinction takes both parents' educational attainment in mind and asserts that this lack of familial college seeking behavior has its own side effects on the first-generation student, who is now the first one within the immediate family seeking a college degree.

Common Barriers within Higher Education

Financial support

The National Center for Education Statistics (2017) found that 27% first-generation students came from homes with incomes lower than many imagined. Specifically, they found that first-generation students' median home incomes totaled \$20,000 or less (National Center for Education Statistics, 2017). This means that first-generation status increases a student's chances of coming from a home, where the annual income is lower than the federal median poverty guideline for a family of three. Before COVID-19, the first-generation student was almost five times more likely to come from poverty than if the student was not the first one in the family to attend college (National Center for Education Statistics, 2017). While access to financial support from home is one barrier some first-generation students may face, it is not the only barrier.

Enrollment and academic preparedness

During the quest for a college degree, first-generation students face several common barriers before and after enrolling in the postsecondary setting (Pascarella et al., 2004; Pascarella & Terenzini, 2005; Terenzini et al., 1996). In regard to recent enrollment barriers, a lower percentage of first-generation college students enroll in postsecondary institutions within three months of completing high school (58 percent vs. 79 percent) (National Center for Education Statistics, 2017). Additionally, a higher percentage of first-generation college students enroll in postsecondary institutions between four and twelve months after high school completion (15 percent vs. 10 percent) (National Center for Education Statistics, 2017). Sadly, few first-generation students and their parents fully understand the connections and importance of high school grades (Gamez-Vargas & Oliva, 2013) and college entrance exams (National Center for Education Statistics, 2001) on said students' overall college readiness. Further, National Center for Education Statistics (2001) argued that because few first-generation students fully understood the importance of college entrance exams, fewer first-generation students prepared for and took advantage of college entrance examinations while in high school. According to Martinez, Sher, Krull, & Wood, 2009, most first-generation students enter college with lower median ACT scores and less access to Financial Aid.

Alongside the lower number of first-generation students fully understanding the impact of college entrance exams, first-generation students often enter the postsecondary setting with less general knowledge of what to expect when they begin. Due to this, fewer first-time first-generation students have knowledge of postsecondary education's degree completion process, and these first-generation students often lack the academic preparation necessary to propel them into and through the rigorous collegiate setting (Pascarella et al., 2004; Pike & Kuh, 2005). Specifically, researchers found that more first-generation college students experienced academic

and cultural challenges that outweighed the challenges of their non-first-generation peers (Choy, 2001; Dumais & Ward, 2010; London, 1989, 1996; National Center for Education Statistics, 1998; Pascarella et al., 2004). Sadly, some of these mounting academic challenges include the need to take one or more developmental college courses during their formative first-year, which may discourage students' matriculation onto year two (National Center for Education Statistics, 2016a).

Retention & lack of support

In 2018, the National Student Clearinghouse Research Center conducted a survey, which found that only 73.4% of students, who entered college in Fall 2015 persisted onto year two at a new institution into Fall 2016; however, only 61.1% of said college students were retained by the same institution. This research shows that recent college student retention data shows that higher education institutions are struggling to retain all college students, regardless of identity or status (National Student Clearinghouse Research Center, 2018). However, generation status has long been considered to play a significant role on the retention of first-generation students because first-generation college students are consistently less likely to persist through the first two of years of college when compared to their non-first-generation peers (Choy, 2001; Ishitani, 2006; Lohfink and Paulsen, 2005). At any moment, first-generation students account for approximately 15-20% of students enrolled within American universities (Harackiewicz et al., 2014). The US Department of Education (2017) found that being a first-generation student reduces students' chances of retention and graduation within four years by 51% (Ishitani, 2006). Respectively, it was noted years ago that being a first-generation student reduces students' chances of retention and graduation within five years by 32% (Ishitani, 2006). Years later, it was stated that, "ten years after they were a sophomore in high school, a lower percentage of first-

generation college students than continuing generation students had obtained a bachelor's degree" (National Center for Education Statistics, 2017, p. 11). Currently, this terrible norm continues to persist as a recent study suggested that 56% of first-generation students were either still enrolled or had not yet earned a degree six years after enrolling in college coursework (National Center for Education Statistics, 2018).

For years, researchers have found that first-generation students had fewer family members and/or hometown community members, who fully supported their decision to attend college, when compared to the levels of support their second-generation or continuing education peers received (London, 1989, 1992; Longwell-Grice, Adsitt, Mullins, & Serrata, 2016; Olenchak & Herbert, 2002; Rosas & Hamrick, 2002; Terenzini et al., 1994, 1996; York-Anderson & Bowman, 1991; & Zwerling & London, 1992). This lack of support was evident because, once first-generation students arrived on campus, they lacked the critical support needed to help them feel content (Engle & Tinto, 2006). This is further supported by current research which found that first-generation students' emotional well-being and retention are associated with the support found when building valuable connections with others (Pratt, Harwood, Cavazos, & Ditzfeld, 2017). Despite this lack of support, many first-generation students are driven to not only enroll in college but to make every attempt to persist in order to make their non-college going family, friends, and community members proud (Wang, 2013). Sadly, despite their own desires to do well for themselves and others, the rigor of college enrollment without support (i.e. knowledge and resource sharing and encouraging communications) make successful college integration, participation, and completion difficult for first-time first-generation college students (London, 1989, 1996; McCarron & Inkelas, 2006; & Stephens, Hamedani, & Destin, 2014). Due to the lack of support, researchers suggested that,

“first-generation students completed fewer first-year credit hours, took fewer humanities and fine arts courses, studied fewer hours and worked more hours per week...” (Pascarella et al., 2004, p. 275). Thus, first-time first-generation students experience fewer positive relationships with academics than their non-first-generation peers (Collier & Morgan, 2008). This is directly connected to some first-generation students’ post high school successes (Hudley et al., 2009; Sommerfield & Bowen, 2013; Sandoval-Lucero, Maes, & Klingsmith, 2014; Wilkins, 2014) and feelings of a lack of belonging on their respective college campus (DeRosa & Dolby, 2014).

Specifically, it has been found that first-generation students, “...were less likely than students whose parents had at least some postsecondary experience to have high levels of academic integration (23 percent versus 33 percent) and more likely to report low levels of integration (30 percent vs. 19 percent, respectively)” (National Center for Education Statistics, 2017, p. 29). Additionally, first-generation students also experience fewer forms of integration because they were less likely to live on campus; thus, you have students, who are secluded from the larger student population due to their housing choices, which may be financially sound but largely significant when added to other factors of retention and lack of support (Pascarella et al., 2004). In this way, all of the first-time first-generation students’ social and academic experiences act as opportunities for integration and are significant resources in their retention and persistence (Aspelmeier et al., 2012; Braxton et al., 2014).

Despite all of these hurdles, scholars assert that first-generation students can achieve success (i.e. matriculate and graduate) if they are afforded any combination of the proper campus resources to better meet the demands of college (Cuseo, 2018; Stephens, Hamedani, & Destin, 2014). Hicks (2002) proposed effective tools to better meet the diverse needs (i.e. social, personal, and academic needs) of first-generation students, who, traditionally, do not have the

support necessary to truly identify what they lack and need in this new college environment, these include: providing support groups, inviting parents and family members to campus for specific events, creating a first-year experiences, and encouraging students to interact with faculty and staff in extracurricular activities.

Specifically, Komarraju, Musulkin, & Bhattacharya (2010) argued that the time spent communicating with an approachable and well-respected faculty member or advisor acts as a beneficial resource particularly, “in the case of students who might be from first-generation, minority, or underprivileged backgrounds” (p. 340). Similarly, O’Keefe (2012) found that first-year students are traditionally susceptible to issues of retention, but when these students establish positive SFIs, they feel included in the campus climate and increase their sense of belong which both have historically illustrated a positive correlation to vulnerable student success and retention. To this point, Falcon (2015) argues that due to the lack of exposure to college culture, first-generation students desperately need exposure to the people and experiences that will assist them in assimilating to this foreign environment.

Academic Advising

In order for academic advising to prove meaningful, an advisor must know the roles and responsibilities associated with such a task.

Definition & Expectations

Within postsecondary institutions, an academic advisor is expected to help students matriculate successfully through careful guidance with the ultimate goal of graduation. However, higher education’s multi-layered and broad definition of advising helps to create more opportunities for many different types of academic advisors, who could all be housed on one

campus. One definition views academic advising as a tedious role, with great pressures to advise successfully and not fall victim to the lures of misadvising. In this way, an academic advisor, should be found “coaching new and continuing students through general education choices, major selections, minors and possibly certificate options. Misadvising can have a negative impact on students who enroll in unsuitably advanced courses and lose previous financial aid in an unsuccessful attempt in such courses” (Hollis, 2009, p. 31). Interestingly, this definition describes misadvising as the losing of aid on attempting advanced courses. This definition does not address the issue of misadvising as the act of guiding students to unnecessary courses, which force students to spend more of their aid on courses, which will not help them successfully move towards graduation.

Others define academic advising by the role of academic advising and the expectations of the advisors. Years ago, scholars argued that academic advising should support student success as advisors serve in multiple capacities including: teachers (Lowenstein, 2005), navigators (Light, 2004), and mediators (Campbell & Nutt, 2008). Specifically, “advisors are expected to share their knowledge of major and degree requirements, help students schedule their courses, and generally facilitate progress to degree in a timely manner” Baker & Griffin, 2010, p.2). This definition views the success of an academic advisor based upon not only the completion of the degree but how quickly the student progresses to graduation. Grites (2013) moves away from arguing for vague student success to arguing that academic advising should develop the whole student. It is also important to note that intentional interactions with advisees are used to evaluate the successfulness or quality of one’s academic advising practices to develop the whole student (Grites, 2013). To do this, Grites (2013) believed that an academic advisor must first know more about the students’ needs than just the student’s academic pursuits. Similarly, years

earlier, Choate & Granello (2006) asserts that intentional interactions are shown when an advisor “tailors advising methods to match the developmental needs of an advisee” (p. 117). Thus, viewing academic advising with the lens of intentional interactions dedicated to developing the whole student help to illustrate how invested academic advisors must be into the lives of their advisees far outside of the student’s current academic experience (Grites, 2013).

Types of Academic Advising

In the 1960s and 1970s, many theorists attempted to better explain the importance of and types of advising (Crookston, 1972; Erikson, 1968; Heath, 1964; Perry, 1970). From this time and into the present, there have been two commonly utilized academic advising strategies: prescriptive and developmental. For many, prescriptive advising is considered the traditional advising model. Prescriptive advising, also known as proactive, allows the advisor to merely tell the student all of the expectations. The student then accomplishes all of the advisors’ prescribed tasks without any input necessary from the student. For this reason, this strategy of prescriptive advising is deemed “impersonal and authority-based, answering only specific questions and not taking individual development into consideration” (Jordan, 2000; as cited in Hale, Graham, & Johnson, 2009, para. 3). Although prescriptive advising may be enticing for advisors with little resources and little time, another model highly permeates the field.

However, the phrase developmental advising was coined through the work of Burns B. Crookston’s 1972 article by the same name. For Crookston, developmental advising is seen when advisors spend time going far beyond the traditional roles of advising into more of the process of establishing and maintaining a lasting relationship with the advisee. Specifically, Crookston (1972) believed that developmental academic advising was far different than prescriptive academic advising because it “is concerned not only with a specific personal or

vocational decision but also with facilitating the student's rational processes, environmental and interpersonal interactions, behavioral awareness, and problem-solving, decision-making, and evaluation skills" (p. 5). Developmental academic advising places emphasis on the importance of relationships forged between the student and not just the individual advisor but also the entire campus community (Creamer, 2000; Creamer & Creamer, 1994; Crookston, 1994; Kramer, 1999; Raushi, 1993; Winston, et. al., 1984).

Winston, et. al. (1984) proposed, "developmental academic advising is defined as a systematic process based on a close student-advisor relationship intended to aid students in achieving educational, career, and personal goals through the utilization of the full range of institutional and community resources" (p. 19). Thus, developmental academic advising seeks to help students with the expectations of postsecondary and graduate life, yet it not one size fits all. Fielstein & Lammers (1992) argued the importance of developmental academic advising and argue against the notion that it is best suited for a certain type of advisor with plans to advise one way. In this way, scholars argued that truly meaning making developmental approaches may be deemed appropriate in diverse contexts like group advising, individual advising, classroom teaching, mentorship, and beyond.

Research on Academic Advising and Student Success

Winston (1984) established a positive relationship between advising and student success and used their study to encourage students to meet with their advisors frequently but argued that too few students sought the expertise of an academic advisor to enhance their learning. Years later, this would persist as student learning encompasses larger student development and success. In 2006, National Academic Advising Association (NACADA) published its concepts of academic advising as three key components: pedagogy, curriculum, and student learning

outcomes. Within the NACADA Journal, Swecker, Fifolt, & Searby (2013) argued quantity over quality of advisor meetings as a significant predictor of student retention as every meeting with an academic advisor increased chances of first-generation student retention by 13%.

Similarly, National Survey of Student Engagement's (NSSE) 2014 Annual Results suggested that, on average, meetings with an academic advisor were largely low for several vulnerable student groups (i.e. commuter students, part-time students, adult students, students who study less than 15 hours per week due to a number of factors, and first-generation students) but remain linked to larger concepts of student success and academic learning. NSEE's Annual Results (2014) showed that first-generation students, who rarely met with an advisor, relied on family members as their primary source of advice 23% of the time. Luckily, this number is even lower with the presence of an academic advisor in the first-generation students' lives. Specifically, for those first-generation students, who met with their advisor at least twice, these students only relied on family members as their primary source of advice 16% of the time. Likewise, first-generation students, who rarely met with an advisor, relied on friends or other students 21% of the time, but when these same students met with an advisor at least twice, they relied on friends and other students 13% of the time and only met with an advisor at least twice 16% of the time (NSSE Annual Results 2014).

Thus, NSSE, NACADA, and scholars within the student engagement field see academic advising as a significant student and staff interaction. "When viewed as an educational process and done well, academic advising plays a critical role in connecting students with learning opportunities to foster and support their engagement, success, and the attainment of key learning outcomes" (Campbell & Nutt, 2008, p. 4). The NSSE asserts that academic advising could come in many forms but to be successful it must be intentional. Scholars note that in order to promote

student success and retention, every student's academic advising must no longer follow this traditional model from yesterday (Choate and Granello, 2006, p. 166). "Academic advising has moved toward providing guidance to students that focuses on meeting their learning and developmental needs" (Pizzolato, 2008, p. 19). Thus, several studies suggest a correlation between student-faculty interactions, like academic advising, and retention and suggest that student-faculty interactions are even more important for vulnerable student populations but must be done intentionally and not based on a one size fits all model to best serve the needs of the most vulnerable students (Komarraju, Musulkin, & Bhattacharya, 2010; Lundberg & Schreiner, 2004; O'Keeffe, 2013; Sax, Bryant, & Harper, 2005).

In 2004, Lundberg & Schreiner studied if any relationships existed between students' interactions with faculty, whose race/ethnicity differs from that of the student, and student learning. Lundberg & Schreiner (2004) define student success as learning. The study's sample comprised of 4,501 undergraduate students. The study's tool was the College Student Experiences Questionnaire conducted during the 1998 to 2001 academic school years. The researchers explained, "first-generation status varied significantly by race/ethnicity, with a great proportion of Mexican American students being first-generation and a smaller proportion of White students being first-generation..." (Lundberg & Schreiner, 2004, p. 551). Hierarchical multiple linear regression yielded results, which revealed chilling details on the importance of faculty interactions for vulnerable students on predominantly white campuses. Student-faculty interaction was the sole variable to serve as a significant predictor of student learning for all students despite race/ethnicity. However, the researchers concluded,

"It (the student-faculty interactions variable) was the strongest predictor in the model for Asian/Pacific Islander students, Mexican American students, and Native American

students. It was the second largest predictor of learning for African American students, other Hispanic and Puerto Rican students, and multiethnic students. Its relative strength as a predictor was less for White students...” (Lundberg & Schreiner, 2004, p. 555)

Thus, this study’s results prompted stakeholders within higher education to consider the impact of student-faculty interactions on vulnerable student success based on first-generation status and race/ethnicity minority status on predominantly white campuses.

One year later, Sax, Bryant, and Harper (2005) studied whether students’ interactions with faculty showed gendered differences among men and women. The study surveyed 17,637 first year college students during both their first year (i.e. a Freshman Survey) and final year. Specifically, Sax, Bryant, and Harper (2005) attempted to compare the quality of the interactions between students and faculty interactions. The researchers utilized blocked stepwise regression analyses for each gender with 42 dependent variables. The researchers argued that the unusually large number of dependent variables were necessary to fully articulate the influences on gendered differences in student-faculty interactions (Sax, Bryant, and Harper, 2005). The results suggested that 27 of 42 variables showed that significant relationships existed. However, “in many cases, the effects of faculty support were significant for both women and men, but stronger among the men. These included the positive effects of faculty support on students’ college grades, critical thinking skills, and satisfaction with courses and instruction” (Sax, Bryant, and Harper, 2005, p. 648). Years later, research regarding students’ interactions with faculty and their success continue to emerge.

Specifically, Komarraju, Musulkin, & Bhattacharya (2010) conducted a study at a public university in the Midwest which utilized 242 undergraduate students and sought to understand the impact of faculty interactions on self-reported achievement, views of self, and overall

determination to persist. The researchers argued, “although previous research has established that student-faculty interactions are important, we still need to identify which aspects of student-faculty interactions are helpful and how these could significantly influence students to stay in college...” (p. 332). The study sought to explain that all types of faculty interactions were not equal in seeing benefits towards students’ persistence. The methodology consisted of a small group survey focused less on the frequency of advising meetings and more on eight variables of student’s self-reported faculty interactions (i.e. respect, guidance, approachability, caring, interactions outside of class, connection, access, and negative experiences) (Komarraju, Musulkin, & Bhattacharya, 2010, p. 335). The researchers used correlation and regression to further report if any relationships or predictors existed within the interactions. The results suggested that students, who identified their faculty with positive descriptors and felt respected, were more confident in their abilities and were more motivated during the path to graduation.

Lastly, O’Keefe (2013) explored higher education student attrition and the issues that higher education institutions face when attempting to retain their students through graduation. The author cited students are at risk for deciding to drop out or stop out, due to several common contributing factors, (i.e. ethnicity, disability, socioeconomic status, college classification as a first time freshman versus graduating senior, and continuing education or first-generation status). The paper attempted to determine how students’ sense of belonging develops and how it determines students’ retention choices. The study also provided solutions to the issue of student attrition and noted that the nationally high attrition rate hurts both students and institutions alike. O’Keefe (2013) described the State and Federal grants paid to institutions due to the drastic decrease of funds received from traditional enrollment and student tuition dollars. The author noted that not being willing to: establish a welcoming campus culture where diversity is

celebrated, promote genuine student-faculty interactions, and support a well-staffed counseling center will create more inequity in retention and graduation rates as the most vulnerable students are lost between the critical first year and graduation year.

With these studies in mind, it is clear that researchers have attempted to identify the factors that contribute to student retention. The studies of the past have found that students' communications with faculty members, coined student-faculty interactions, contributed to the students' positive feelings and satisfaction. These feelings then helped to decrease the students' decisions to drop out or stop out. Yet, few of those studies have looked exclusively at the factors, which contribute to the retention of first-generation students. Even fewer studies have questioned how first-generation students' retention is connected not just to their interactions with faculty but specifically their advising experiences. While, there have been studies that investigated the impact of advising on retention; this study will look exclusively at the impact of self-reported advising experiences on first-time full-time first-generation students' retention during the vulnerable first year of study.

Chapter Three

The purpose of this study was to investigate the influence of academic advising on student success. Specifically, the researcher explored advising experiences to explain the retention of freshman first-generation college students from Year One to Year Two. Thus, the study intended to help illuminate, from the students' self-reported data, first-generation students' academic advising experiences/faculty-staff interactions, and student retention during the critical first year of college enrollment. First, this chapter reintroduces the research questions this study explored. Then, this chapter provides the framework for the methodology. Finally, the chapter details the sampling approach, setting details, participant selection, and how the data was collected and analyzed.

Statement of the Problem

Academic advising is an important, albeit, neglected predictor of higher education success (Howell, 2010). The National Academic Advising Association (NACADA, 2004) has argued that many postsecondary institutions are not properly utilizing their established academic advising initiatives while other postsecondary institutions continuously fail to see the significance of effective academic advising delivery methods. As stated previously, despite the clear connections between academic advising and students' academic success within the extant literature, limited studies focus on the relationship between academic advising and academic success, specifically the successful retention, of freshman first-generation students at predominantly White institutions within the Midwestern United States. Thus, this study intends to better understand how first-generation students' self-reported knowledge of: frequency of advising meetings, advisor knowledge, substitution of an advisor, impact of advising meetings, duration of advising meetings, effectiveness of academic advising, and impact of academic

advising help to better explain if any variability exists in first-generation student retention from Year One to Year Two. With this in mind, the study hopes to provide higher education a better lens to view the factors that contribute to institutional successes and failures related to the successful retention of freshman first-generation students past Year One.

Research Questions/Hypotheses

RQ1: Is there a significant relationship between first-generation student status and retention from Year One to Year Two?

H₁: First-generation student status has a significant relationship on student retention from Year One to Year Two.

RQ2: What are the significant predictors of first-generation student retention from Year One to Year Two?

H_{2a}: Frequency of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2b}: Knowledge of one's academic advisor is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2c}: Meeting with a substitute academic advisor is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2d}: The impact of academic advising is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2e}: Duration of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2f}: The effectiveness of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2g}: The importance of academic advising is a significant predictor of first-generation student retention from Year One to Year Two.

Research Design

Sampling and Participants

In Fall 2017, the official student enrollment totaled 9,014, which excludes any dual enrolled high school students. Of this total, 7,582 undergraduates enrolled at this University with the following classifications including: 2,099 (Freshman), 1,630 (Sophomore), 1,589 (Junior), and 2,264 (Senior). Specifically, full-time students accounted for 7,252 students versus 1,762 part-time students. The gender and racial compositions for all enrolled students were: 5,677 (Female), 2,913 (Male), 7,730 (White), 1,070 (Minority), 204 (International), and 10 (Not Specified). In Fall 2017, as previously stated, all freshman students accounted for 2,099 and included dual-enrolled students. This includes those students, who were enrolled as freshman for registration purposes and were taking courses for college credit while still being dually enrolled in their local high schools. Of the 2,099 students, when dually enrolled high school students were removed from the population, there was a total of 1,722 true freshman students. Of this population, a total of 1,716 freshmen participated in the survey, yielding a response rate of 99.7%. This response rate was extremely high and helpful to argue the validity of the data collected on the survey instrument. The table below showcases how the study's sample compares to that of the larger student population. While, first-generation students account for 20.03% of the University's overall student population, freshman first-generation students are approximately 24.21% of the study's participants with the study sample of freshman first-generation students n=415. The details of this survey and data collection methods are detailed below.

Table 1*Participants compared to population by first-generation status*

	Participants Percent	Population Percent
First-Generation	24.21	20.03
Continuing/Non-First-Generation	75.79	79.97
Total	100.0	100.0

Survey Instrument

The survey instrument (see Appendix A) used a portion of the 2017 Freshman Experience Survey (FES), which measured enrolled freshmen students' self-reported first-year experience and engagement. Herzog and Bowman (2011) asked researchers to question the reliability of student self-reported data to ensure that surveys allow students to accurately report their experiences without over distortion. The chi-squared goodness of fit was significant ($X^2(1) = 110.28, p < .05$) and internal consistency with $\alpha = .89$. The FES was chosen for this study because it includes several questions on freshman students' experience and engagement with academic advising at an institution that traditionally struggles to retain first-generation students. These questions provide the seven independent variables (IV): *Frequency* (IV), *Knowledge* (IV), *Substitution* (IV), *Impact* (IV), *Duration* (IV), *Effectiveness* (IV), and *Importance* (IV). The first-generation students' self-reported knowledge of: frequency of advising meetings, advisor knowledge, substitution of an advisor, impact of advising meetings, duration of advising meetings, effectiveness of academic advising, and impact of academic advising will help to answer the research questions.

Table 2*Study Variables*

Name	Type / Level	Scale
Frequency	Independent/Interval	Once, Twice, Three times, Four times, Five times, Never
Knowledge	Independent/ Nominal	Yes, No
Substitution	Independent/ Nominal	Yes, No
Impact	Independent/Ordinal	Strongly disagree-Strongly agree
Duration	Independent/Ordinal	Less than 5 mins., 5-15 mins., 16-30 mins., More than 30 mins.
Effectiveness	Independent/Ordinal	Strongly disagree-Strongly agree
Importance	Independent/Ordinal	Strongly disagree-Strongly agree
Retention	Dependent/Nominal	Yes, No

Data Collection and Analysis

The data collected for this study is for the purpose of answering the research questions regarding the relationship between first-generation freshman students' retention and their academic advising experiences in Fall 2017. The researcher received approvals from two Institutional Review Boards to begin this study (see Appendices B and C). The data was initially collected during the fifth week of the Fall 2017 semester. On this day, no classes were held to allow students full participation in the survey, and first-year students were asked to self-report their college experiences thus far. The 2017 Freshman Experience Survey was administered online via the use of several on-campus computer labs. The University provided students with two hours to respond to the survey questions, and the 100-item online survey included 32 pages of questions important to both academic affairs and student affairs within higher education. To verify the participant's identity before beginning the survey, each survey asked that the University email address and ID number be provided as an extra security measure before being admitted into the proctored exam rooms. No additional demographic information was collected to protect all participants.

Creswell & Creswell (2017) explained the importance of confidentiality and the ethical role researchers play to ensure that participants' identities remain a mystery in both qualitative and quantitative research before, during, and after the research process. Thus, participants' identities remained confidential in all phases of this study with careful attention paid to the elimination of any identifying materials during the data collection, data analysis, and reporting of results. This exclusion was deliberately done to ensure confidentiality and anonymity so that no reader could later use this study to identify and/or harm the students, who serve as this study's participants.

This study analyzed the impacts of self-reported first year academic advising experiences on first-generation students' retention in higher education. Additionally, students' experiences in relation to: the *frequency* of advising meetings; the *duration* of advising meetings; *knowledge* of assigned advisor; and the *effectiveness*, *importance*, and *impact* of advising on their academic journey thus far. The original design sample proposed 400 first-year, first-generation participants. A sample of 400 would yield estimates with 95% confidence and 5% precision. With those parameter estimates, precision and confidence would have been sufficient; however, the actual analytic sample was different from the design sample. Specifically, of all of the freshman students surveyed, there would need to be at least 415 freshman first-generation students' responses included within the data. A post hoc power analysis was conducted to identify the parameters for logistic regression with 7 predictors and $n=415$ using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009). Results of the one-tailed test show an alpha of .05 and a large effect size via an odds ratio of 1.25 (Faul, Erdfelder, Buchner, & Lang, 2009). Thus, the total sample size of 415 freshman participants yielded power of .56. (Faul, Erdfelder, Buchner, & Lang, 2009).

Research question one asked if there was a significant relationship between first-generation student status and retention from Year One to Year Two. Logistic regression was used to test the association between retention and first-generation status. Logistic regression analysis was used because of the presence of two categorical variables.

Research question two asked what the significant predictors of first-generation students' retention were. Binary logistic regression was used to estimate the predictors' relationship. Binary logistic regression was used because of the presence of one dichotomous or binary predicted variable and seven categorical independent variables.

Secondary Data: Validity, Reliability, and Accuracy

When utilizing secondary quantitative data, researchers must weigh the validity, reliability, and accuracy of the dataset. Researchers, who were not actively involved in the primary collection of the data but intend to use it later for their own research purposes, must ensure it is appropriate for subsequent use. To do this, proponents of the use of secondary data like Stewart & Kamins (2013) suggest that researchers intentionally ask six questions. These questions include: what was the purpose of the original study; who previously collected the data; what was previously collected; when was the data previously collected; where was the data collected; how was the data previously collected; and if two secondary sources are now used, how consistent is the data from one source to the next?

Through the process of evaluating the validity, reliability, and accuracy of secondary data, Stewart & Kamins (2013) report that researchers are afforded the opportunity to: vet the data, consider their own potential biases, and consider all aspects of the original data collection process itself. When the secondary data used for this study was checked for validity, reliability, and accuracy, no missing values were present, the data is both accurate and reliable as the data is

exactly the same as it was in late 2017. However, because of the researcher's knowledge of what was collected, who collected it, where it was collected, when it was collected, how it was collected, why it was collected, and the use of one secondary source, the secondary data was used confidently in this exploratory research study with only a few limitations needing to be explicitly discussed.

Limitations

This study's first limitation is that the survey data was collected in early Fall 2017. Students were at week five of the semester and may reported early details that would go on to change before the end of the semester. However, reviewing students' self-reported academic advising experiences in this specific semester and year was chosen intentionally so that students' retention to Fall 2018 would be recorded and available to the researcher at the start of the data collection and analysis phases. The study's second limitation is the presence of secondary self-reported data. The accuracy of secondary self-reported data has been questioned as respondents could exaggerate their experiences and the nature of using secondary data, or data after the fact, could make identifying these exaggerations difficult. However, in this study, the triangulation of the validity, reliability, and accuracy of secondary data helped to mitigate this limitation and ensure that the data originally collected did not change from the data currently available to me.

The third limitation is the use of stepwise multiple logistic regression. Fields (2009) expounds on the limitations of stepwise multiple regression which include: reliance on a single computer assisted model, rate of type-I and type-II errors as large number of tests or steps during regression grow, and testing the validity of theories with stepwise which is better suited as an exploratory method. The stepwise regression method doesn't begin with a constant as it does in forward/conditional or backwards regression models. In this way, it is true that stepwise regression is computer assisted because the researcher's statistical software will produce the

output; however, the researcher is not lazily taking what is produced without doing any work. The researcher must set the statistical parameters for significance and carefully review the output by not putting trite assumptions on the relationships that may seem significant. In this model, only five steps were tested to find the best model to explain the variance found in first-generation student retention based on the predictor variables. This study's five-step model identification process helps to decrease the type-I and type-II errors. Because stepwise regression shows the relationship of predictor models and the significant effects of the predictor variables included within said models, it is important that the researcher attempting to utilize stepwise regression know its limitations well. The researcher must know how to check not just for the increase of R^2 to identify the model with the best fit, but the researcher must also know to check for individual predictors' contributions to the model. Stepwise multiple regression analysis could identify suppressor effects of one predictor on another or that one predictor's contribution to the model could be unique but largely impacted by the other predictors present in the model at the time.

Summary

This chapter reintroduced the research questions and hypotheses this study explores. The methodology, population, survey instrument, setting details, participant selection, data collection, and limitations. Chapter Four will identify this study's data analysis procedures and the results of said data analysis.

Chapter Four

This study investigated if freshman first-generation student status had any correlation to student retention from Year One to Year Two, and if so, what academic advising variables were significant predictors of freshman first-generation student retention. The study looked at secondary survey data detailing first-generation students' self-reported knowledge of: frequency of advising meetings, knowledge of advisor, substitution of an advisor, impact of advising meetings, duration of advising meetings, effectiveness of academic advising, and impact of academic advising. To answer both research questions, the survey data was analyzed using quantitative methods. The study's results are below.

Demographics

Of the 1,722 freshman students enrolled in Fall 2017, a total of 1716 students participated in the survey. So, the survey's response rate was 99.7%. This is considered an effective and exceptionally high response rate which further helps to decrease validity concerns. Of the 1,716 total survey respondents, first-generation students accounted for 415 students while non-first-generation or continuing education students accounted for the remaining 1,301 students.

Descriptive Statistics

The descriptive statistics for the study's variables are shown in Table 3.

Table 3

<i>Descriptive Statistics</i>					
	N	M	Mdn	SD	SE
Frequency	1714	.93	1.00	1.17	.028
Knowledge	1716	.75	1.00	.43	.010
Substitution	1716	.11	.00	.31	.008
Impact	1716	5.03	5.00	1.71	.042
Duration	1716	.58	0.15	1.00	.493
Effectiveness	1716	3.38	4.00	.75	.026
Importance	1716	3.09	3.00	.68	.017

Results

Initial exploratory analysis explored the survey data for missing values, value range, and other characteristics.

Research Question 1

RQ1: Is there a relationship between first-generation student status and retention from Year One to Year Two?

H₀: First-generation student status is not related to significant relationship on student retention from Year One to Year Two.

H₁: First-generation student status is related to student retention from Year One to Year Two.

Logistic regression analysis was used to analyze the association between first-generation student status and retention from Year One to Year Two. This method was chosen because the categorical dependent variable retention has two levels and first-generation student status has two levels (See Table 5).

Table 5*Retained Count*

			Not Retained	Retained to Year Two	Total
First Gen.	No	Count	324	977	1301
		% within First Gen.	24.9%	75.1%	100.0%
		% of Total	18.9%	56.9%	75.8%
	Yes	Count	132	283	415
		% within First Gen.	31.8%	68.2%	100.0%
		% of Total	7.7%	16.5%	24.2%
Total		Count	456	1260	1716
		% within First Gen.	26.6%	73.4%	100.0%
		% of Total	26.6%	73.4%	100.0%

Table 6*Chi-Square Tests, Retention*

	Value	df	B
Pearson Chi-Square	7.685	1	.006
Likelihood Ratio	7.492	1	.006
N of Valid Cases	1716		

Table 7*Symmetric Measures, Retention*

		Value	Approximate Significance
Nominal by Nominal	Phi	-.067	.006
	Cramer's V	.067	.006
N of Valid Cases		1716	

The logistic regression analysis of levels of retention and first-generation student status showed a significant association ($X^2=7.685$, $df(1)$, $p=.006$). Thus, the researcher rejected the null hypothesis and concluded that there is a statistically significant association between first-

generation student status and retention. The variance in the distribution of retention for first-generation status further confirms this significant association. The p-value is .006, and Cramer's V and the Contingency Coefficient show that a relationship exists albeit small at lower than .10 (Cohen, 1988). Therefore, with an $\text{Exp}(\beta) = .711$, there is an association between first-generation student status and retention with at least 95% confidence in the findings, and when students are first-generation, they are 28.9% less likely to be retained from Year One to Year Two.

Research Question 2

RQ2: What are the significant predictors of first-generation student retention from Year One to Year Two?

H_{2a}: Frequency of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2b}: Knowledge of one's academic advisor is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2c}: Meeting with a substitute academic advisor is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2d}: The impact of academic advising is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2e}: Duration of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2f}: The effectiveness of academic advising meetings is a significant predictor of first-generation student retention from Year One to Year Two.

H_{2g} : The importance of academic advising is a significant predictor of first-generation student retention from Year One to Year Two.

Logistic regression was utilized to determine how students' self-reported feelings associated with academic advising associated with their retention from Year One to Year Two. The following model was used to calculate the odds ratio:

$$\ln(\text{ODDS}) = \ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_{2a} X_{2a} + \beta_{2b} X_{2ab} + \beta_{2c} X_{2c} + \beta_{2d} X_{2d} + \beta_{2e} X_{2e} + \beta_{2f} X_{2ef} + \beta_{2g} X_{2g} + \beta_{2h} X_{2h}$$

In Table 8, the model summary is shown. In Table 9, the Hosmer and Lemeshow Test is shown.

Table 8

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
5	174.614	.174	.247

Table 9

Hosmer and Lemeshow Test

Step	Chi Square	df	Sig.
5	11.569	8	.172

A logistic regression was performed to identify the significant predictors of first-generation student retention $\chi^2(8)=11.569, p=.172$. The model explained 24.7% of the variance in first-generation student retention from Year One to Year Two. Table 9 shows the variables in the equation built with stepwise or forward conditional analysis. The researcher used stepwise regression because it provides an effective way to explore associations. Results of the logistic regression using Step 5 are reported in Table 10.

Table 10
Variables in the Equation

		B	S.E.	Wald	df	Sig.	Odds
Step 5	Frequency	-.291	.137	4.507	1	.034	.748
	Knowledge	1.604	.674	5.668	1	.017	4.974
	Substitution	2.275	.806	7.968	1	.005	9.725
	Effectiveness	.413	.128	10.435	1	.001	1.511
	Importance	-.712	.331	4.638	1	.031	.490
	Impact	.391	.108	13.218	1	.090	1.479
	Duration	34.397	.126	9.908	1	.960	1.487
	Constant	-.186	1.077	.030	1	.736	.830

Of the seven independent variables available to the regression model, five are statistically significant predictors of first-generation student retention from Year One to Year Two. Statistically significant independent variables odds ratios are presented in Table 10.

Frequency. As the number of meetings with the academic advisor increased so early into the semester, freshman first-generation students from the sample were .748 times less likely to be retained from Year One to Year Two.

Knowledge. Freshman first-generation students from the sample were 4.974 times more likely to be retained from Year One to Year Two if they know who their assigned academic advisor is.

Substitution. Freshman first-generation students from the sample were 9.725 times more likely to be retained from Year One to Year Two if they used a substitute academic advisor instead of the assigned academic advisor.

Effectiveness. For every additional level of agreement that the assigned academic advisor allows enough time to talk about problems, freshman first-generation students from the sample were 1.511 times more likely to be retained from Year One to Year Two.

Importance. For every additional level of agreement that students regard academic advising as a necessary part of their educational success, freshman first-generation students from the sample were .49 times less likely to be retained from Year One to Year Two.

Summary

This chapter provided the study's findings on the quantitative analysis for both research questions in order to investigate the associations between first-generation student status and retention from Year One to Year Two. A logistic regression was performed to test the associations between first-generation student status and retention. The results show that there is a significant association between first-generation student status and retention from Year One to Year Two. Additionally, a logistic regression was performed to test what are the significant predictors of first-generation student retention from Year One to Year Two. The model

explained 24.7% of the variance in first-generation student retention. Of the variance in first-generation student retention 74.6% was correctly classified. The results revealed five predictor variables that help to explain the variance found in first-generation student retention. These variables include: frequency of academic advising meetings, knowledge of assigned academic advisor, substitution of assigned academic advisor with another academic advisor, effectiveness of academic advising meetings, and the importance of academic advising on educational success. In summary, the relationship between first-generation students' retention and the frequency of said academic advising meetings and the relationship between first-generation students' retention and first-generation students' perceived importance of academic advising produced two negative relationships. Both negative relationships make first-generation students less likely to be retained from Year One to Year Two. While of the two, frequency has a more significant negative impact on first-generation student retention to sophomore year. However, the relationships between first-generation students' self-reported academic advising experiences with substitution, knowledge, and effectiveness in relation to their retention from Year One to Year Two are positive in that they make first-generation students more likely to be retained onto their sophomore year. In the next chapter, the exploratory research findings are further discussed alongside how these results produce clear implications, limitations, recommendations for future research, and recommendations for clinical practice within higher education that stem from these findings.

Chapter Five

Student retention has always been an important aspect of higher education. In the past, the types of students who were widely admitted into American colleges and universities were homogenous. These students often benefitted from singular models and methods to assist them as they matriculated onto graduation. Now that college going student populations are more diverse than ever before, higher education stakeholders must be intentional about successfully retaining the students who enroll. While there are many vulnerable student populations within higher education, the academic advising experiences of freshman first-generation students present an important entry point to study the dynamics of first-generation students' retention during the critical first year. This secondary data analysis study examined variables associated with self-reported academic advising experiences and students' retention from Year One to Year Two in order to suggest enhancements for this historically vulnerable student population's student success. The summary of the study's findings, conclusions, implications for future research, implications for clinical practice within higher education, and recommendations are found below.

Summary

Research Question 1

When reviewing the question, is there a significant relationship between first-generation student status and retention from Year One to Year Two, the analysis found that the association between first-generation student status and retention from Year One to Year Two was statistically significant. This finding is in agreement with Choy (2001), Ishitani (2006), and Lohfink and Paulsen (2005) as they found that first-generation status has long played a significant role on first-generation students' retention because first-generation college students

are consistently less likely to be retained through the first two of years of college when compared to their non-first-generation peers.

Research Question 2

When reviewing the question, what, if any, are the significant predictors of first-generation student retention from Year One to Year Two, the analysis found five of seven independent variables pertaining to academic advising offered statistically significant relationships with retention. Yes, a significant regression model was found which included five predictor variables. This finding is in agreement with Kuh (2009), who found that student engagement, specifically academic advising via student-faculty interactions, is associated with vulnerable student retention.

Conclusions

In this study, knowing that first-generation status is associated with student retention from Year One to Year Two (i.e. research question 1) prompts higher education stakeholders to ask what, if any, significant predictors of retention are seen in freshman first-generation students' academic advising experiences (i.e. research question 2). If we know that first-generation students by definition lack the privilege of vast familial collegiate experience that their continuing education peers have, institutions of higher education must know if academic advising experiences during the critical first year are significant predictors of their successful retention from their first year to their second year. This study makes this obvious as it shows the connection between those early first-year academic advising experiences and freshman first-generation students' retention to Year Two. This study's results help yield clear conclusions.

First-Generation Students and Retention

The results of this study show that first-generation student status is negatively associated with student retention. This supports the US Department of Education's 2017 findings. According to the US Department of Education (2017), first-generation student status reduced students' odds of retention and graduation by 51% within four years and by 32% within five years. With this study's findings in mind, institutions of higher education must move from the mundane routines which identify first-generation students and provide some support but go no further to think creatively about finding multi-modal and dynamic ways to provide first-generation students greater odds of student retention and success. Thus, American higher education must begin to consider what necessary retention and matriculation support is currently a missing piece of the puzzle. Institutions of higher education must conceptualize what safeguards can be implemented and provided to first-generation students intentionally. Once a first-generation student is identified, said student must be given every opportunity to beat the negative association linked to second year retention. This study suggests that intentional academic advising practices may provide one area of new support for freshman first-generation students.

First-Generation Students and Academic Advising

Frequency of academic advising meetings. The results of this study show that there is a relationship between the frequency of academic advising experiences and freshman first-generation students' retention from Year One to Year Two. However, in this study freshman first-generation students' retention is negatively impacted by the frequency of academic advising

meetings, as the number of academic advising meetings increase first-generation students are less likely to be successfully retained onto sophomore year.

According to the Center for First-Generation Student Success, within the first two years of enrollment, fewer first-generation students, some 55%, met with an academic advisor when compared to their continuing education peers, who met with an academic advisor at a rate of 70%. Researchers have long argued that first-year students have a responsibility to meet periodically with academic advisors. However, researchers have never agreed on what specific frequency constituted periodic and acceptable meeting frequencies to positively affect freshman student success and retention. Some forty years ago, Ender et al. (1982) claimed that in order to be successful, freshman college students were “obligated to visit [an advisor] three or four times each academic year” (p. 6). In the decades since, extant literature steered away from prescribing an exact number of desired academic advising meetings that freshman students should attempt to meet or exceed (Engle, Bermeo, Engle and Tinto, 2006). The results of this study supports that further research is needed to clarify the relationship between frequency of advisor meetings and retention.

Importance of academic advising. The results of this study show that there is a relationship between the importance of academic advising experiences and freshman first-generation students’ retention from Year One to Year Two. However, in this study, self-reported belief of the importance of academic advising decreases the probability that a first-generation student will be retained onto sophomore year. There is no apparent explanation for this finding in the literature. This finding may suggest that institutions should explain the reasons why they should find academic advising an important aspect of their collegiate success.

Knowledge of academic advisor and effectiveness of academic advising. The results of this study show that there are relationships between student retention from Year One to Year Two and a freshman first-generation students' knowledge of who their assigned academic advisor is and perspective on the effectiveness of their academic advisor. This means that institutions of higher education should work to strengthen the important freshman experience from welcome week to midterm examinations. Early in their collegiate careers, freshman first-generation students should be made to not only know who their assigned academic advisor is, but that effective academic advising, which closely resembles descriptive advising, are important aspects of their collegiate success. In agreement with this, Hollis (2009) argues that new students must be made aware of the academic advisor as a coach, who helps to ensure the student's long-term success and goal attainment. Institutions of higher education should promote academic advising in all its forms during the freshman year for all students, specifically for our vulnerable first-generation students.

Substitution of another academic advisor. This study's results show that substitution of another academic advisor over the assigned academic advisor is the most significant predictor of first-generation student retention. An example of this can be seen in the use of a faculty or staff member, with whom the student has developed a close relationship. This is not surprising as it corresponds with the National Survey of Student Engagement (NSSE) 2014 Annual Survey results. The NSSE's (2014) results showed that first-generation students, who rarely or never met with their assigned academic advisor, met with a substitute academic advisor about 23% of the time. With this study's findings, higher education institutions can promote the primary use of the assigned academic advisor or the secondary use of some advisor (i.e. staff from the professional academic advising center or a different departmental faculty or staff member). This

study's findings help to suggest that the importance of any advisor for freshman first-generation students, who largely avoid academic advising meetings, positively affects these students' retention from Year One to Year Two.

Magnitude of contributions. In this study, among the significant predictors of first-generation student retention from Year One to Year Two are three relevant contributions seen in: substitution, knowledge, and effectiveness. A first-generation student's decision to utilize a substitute academic advisor is the most significant predictor of retention from Year One to Year Two. Specifically, in this study, a first-generation freshman student's substitution of a new academic advisor is 6.4 times more likely to influence said student's retention from Year One to Year Two when compared to the students' perceived effectiveness of said academic advisor. While these freshman first-generation students' perceptions of the effectiveness of their academic advising experiences was a significant predictor of their retention to Year Two, their decision to substitute their academic advisor was 6 times more likely to predict their retention.

Further, a students' knowledge of the assigned advisor was the second most significant predictor of retention from Year One to Year Two. A first-generation students' knowledge of academic advisor is 3.29 times more likely to influence said student's retention from Year One to Year Two when compared to students' perceived effectiveness of said academic advisor. This means that while these freshman first-generation students' perceptions of the effectiveness of their academic advising experiences was a significant predictor of their retention to Year Two, their knowledge of the academic advisor was 3 times more likely to predict their retention.

Limitations

The results are limited due to the early Fall 2017 semester of data collection. At this time, students were still experiencing on campus classes and physical academic advising

meetings. Online academic advising may provide different results. Additionally, due to the data collection occurring in early Fall 2017, students may have experienced far more academic advising experiences before the end of the semester that would never have been reported so soon into the semester. The secondary survey data does not collect student characteristics. Thus, while it may be helpful, student data is not available to further extrapolate how variances in students' identities (i.e. race, gender, commuter status, etc.) may be associated to freshman first-generation student success.

Recommendations for Future Research

The first suggestion for future research is to collect the data at the end of the participants' first full year of college enrollment. This institution, like many others, collects students' perceptions early during the fall semester; thus, participants in this study were reporting their academic advising experiences during the first half of their first semester in college. This means that all experiences were from the first five weeks of the semester and pre-Midterm Examinations. While most advisors have already met with first-year students far before the survey was conducted, it may be beneficial to see if the predictor variables change when the students' self-reported academic advising experiences are collected at the end of Year One.

The second suggestion for future research is to compare these results to a benchmark institution, where this institution is also struggling to retain freshman first-generation students. If this study could be replicated at an institution with similar student enrollment numbers, first-year enrollment trends, and retention issues, any dissimilarities or similarities would allow higher education stakeholders to better understand why so many freshman students fail to be retained in as high percentages as their continuing education peers. Additionally, this comparison study would allow the researcher to compare the associations between academic advising and freshman

first-generation student status to further identify what variables help to predict freshman first-generation student retention.

The third suggestion for future research is to extrapolate more students' demographics (e.g. commuter status, employment status, and/or campus involvement data) in order to better understand what other student demographics may contribute to the statistically significant relationship and the variance shown in the model. While this data tells us a great deal about first-generation students' academic advising experiences, if we knew which freshman students were commuter students or residing on campus, we would also be able to use this information, proximity to campus, employment status, etc. to gain data that may tell us more about why some students within the sample met with their academic advisor more than others so early into the academic semester.

Recommendations for Clinical Practice within Higher Education

This study explicitly discusses a vulnerable student population within higher education: freshman first-generation students. However, this study also implicitly discusses the plight of marginalized students within higher education due to the intersections of: poverty, race, ethnicity, location, nationality, etc. These implicit discussions must not be ignored as first-generation students face far more barriers to higher education access and attainment than just being the first in their immediate families to attend college.

Specifically, today's first-generation students are more at-risk for non-college completion than ever before, and those within American higher education must address the traditional and new barriers that seek to keep these students from completion. In an economy that is seeing its largest unemployment numbers in decades, first-generation students, who are vulnerable to stopping out or dropping out of college will be heavily impacted by the dwindling number of

available jobs for those with only high school diplomas and lack the formal post-secondary trade or educational experiences to seek more than an entry level position. Sadly, at the time of this study's completion, the American unemployment rate, which had averaged 5.76 percent from 1948 until 2020 rose to an unprecedented level. In April 2020, the American unemployment rate rose to an all-time high of 14.70 percent; in literal terms, this means that some 23.1 million Americans were unemployed (U.S. Bureau of Labor Statistics, 2020).

While the national unemployment rate rose to historic highs, some states' unemployment rates soared far higher than the national average. In the presence of a global pandemic, years of turning a blind eye to pre-existing conditions related to equity were evident; these include: wealth inequality, homelessness, and widespread inequity and lack of access seen in rural versus urban living. Sadly, these issues worked in tandem to force many states into their highest unemployment rates, which would soar higher than the national unemployment rate. Ironically, in 2020, the Midwestern state where this study was conducted reported an unemployment rate that was only fourth behind: Nevada (28%), Michigan (22.7%), and Hawaii (22.3%). Sadly, neighboring states would also occupy the top ten states with the highest unemployment rates. The state where this study was conducted is followed by Ohio with 16.8% unemployment and Illinois with 16.4% unemployment. What this means for this Midwestern region is that many, who already lived with so little, may now be going completely without.

The effects of COVID-19 on Midwestern unemployment directly impacts the students, many of whom serve as the participants of this study, and makes the significance of this study even more important than when the study first began. Months ago, before COVID-19 entered our country, first-generation students were largely women of color, who were disproportionately navigating their collegiate experiences at predominantly white institutions, living with some

financial barriers to educational access and success, and largely working while attending college. As previously stated, before COVID-19, 27% first-generation students came from homes with incomes totaling \$20,000 or less (National Center for Education Statistics, 2017). Compare this number to those students, who identify as continuing education, and those coming from homes with incomes totaling \$20,000 or less is significantly less at only 6% (National Center for Education Statistics, 2017). This means that first-generation status increases a student's chances of coming from a home, where the annual income is lower than the federal median poverty guideline for a family of three. Before COVID-19, the first-generation student was almost five times more likely to come from poverty than if the student was not the first one in the family to attend college (National Center for Education Statistics, 2017).

Conclusion

We must believe. We, as higher education stakeholders, must believe that our first-generation students will continue to struggle with the same traditional barriers of: familial support, financial support, campus support, and a sense of belonging among other things. We must believe in our first-generation students more now than ever before. We must believe that when given an opportunity to meet our lofty academic expectations and with the right amount of support, our first-generation students can. We must believe in access to some form of higher education for all. We must believe that conversations of equitable access should extend to fighting for equitable success and opportunities for all to matriculate too.

We must believe that it is simply not enough to take federal funding, their savings, and their part-time job wages while placing these at-risk first-generation students on our campuses with inept resources to help them solve problems, do well academically, be well mentally and emotionally, and keep them enrolled. We must believe that all students, especially our most

vulnerable students, who are largely going into mountains of debt for this educational opportunity, are far more than institutional budgets and tuition dollars. We must believe that when institutions of higher education focus their resources on accepting first-generation students, they must also be committed to helping them fully understand the importance and impact of academic norms, specifically academic advising, on their academic retention and success.

We must believe that this investment in freshman first-generation students also sows seeds of investment into their families and their communities. We must believe that our work is both longitudinal and multigenerational as our work to assist vulnerable first-generation students through American higher education provides a more skilled, capable workforce for our small communities, our neighboring states, and our country. We must believe that we can effect change and that this change will shift the historically classist, racist, sexist, and elitist themes found within American higher education. We must believe that the work to see first-generation students, who are largely students living in poverty and students of color, through to graduation is important. We must believe that if we approach this moment well, our college and university campuses may become more accessible and supportive for students with intersecting identities (i.e. those students, who live with multiple and often compounding minority identities), so that these students never again be pushed to the margins, losing the trust that they once put in their institution to help them achieve their college dreams, and left with no other option than to stop out temporarily or drop out permanently. We must believe in American higher education and its ability to create lasting change. We must believe.

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Appendix A

Freshman Experience Survey

University Experience Survey

Fall 2017

Freshman

This survey includes questions on a variety of topics. Your honest responses to these questions will help USI develop better academic and non-academic programming for current and future students.

All of the information you provide will be kept completely confidential and the responses of all students will be compiled into a summary report. No individual responses will be released.

Once you have completed the survey, you will see a 6 character code. Please write this code down on the back of your test information card and turn this card into the test proctor as you leave the room.

Click 'Next' to begin

Please enter your Eagle ID (ex. 000123456)
(Be sure to enter all 9 digits - including the leading zeros.)

Do you know who your assigned academic advisor is?

- Yes
- No

Do you meet with another academic advisor instead of your assigned advisor?

- Yes
- No

My academic advisor...

	<i>Stron gly Di sagre e</i>	<i>Disag ree</i>	<i>Agree</i>	<i>Stron gly Agree</i>	<i>Not A pplica ble</i>
Is of assistance with the registration process.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has been helpful in understanding how AP, CAP (dual credit), and/or transfer credits apply to my graduation requirements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responds to emails and/or phone calls in a timely manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is approachable and easy to talk to.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate how much you agree or disagree with the following statements regarding academic advising.

	<i>Strongl y Disag ree</i>	<i>Disagre e</i>	<i>Agree</i>	<i>Strongl y Agree</i>
It is important to meet regularly with my academic advisor.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I regard academic advising as a necessary part of my educational success.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

My advisor...

	<i>Stro ngly disa gre e -</i>	1	2	3	4	5	6	7 - <i>Stro ngly agr ee</i>
Helps monitor my academic progress.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provides me with accurate information about requirements, pre-requisites, etc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Refers me to resources on campus from which I can obtain assistance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Encourages me to assume responsibility in planning my academic program.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Allows enough time to talk about issues or problems.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provides recommendations on how I can improve my study skills and habits.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Helps me explore / confirm academic major and career choices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Since starting at USI, how often have you meet with an academic advisor?

- Once*
- Twice*
- Three times*
- Four or five times*
- More than five times*
- Never*

How much time did you usually spend in each meeting with an academic advisor?

- Less than 5 minutes*
- 5 to 15 minutes*
- 16 to 30 minutes*
- More than 30 minutes*