2014

An Investigation of the Differences between Continuing and Non-Continuing Undergraduate Special Admission Students Related To Academic Advising Factors

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AN INVESTIGATION OF THE DIFFERENCES BETWEEN CONTINUING AND
NON-CONTINUING UNDERGRADUATE SPECIAL ADMISSION STUDENTS
RELATED TO ACADEMIC ADVISING FACTORS

A dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy at Virginia Commonwealth University

by

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December 2014
Acknowledgments

First, I would like to thank God for allowing me to embark on this incredible journey.

My wife, Shalaunda, without you I could not have accomplished this task. With your love, support and guidance, I am confident that I can accomplish anything. You have added value to my life, I am forever grateful.

From the moment our eyes met, Kevin Jr., I have strived to become the type of father that you could be proud of. How I am doing? You, son, are my inspiration.

To my Mom and Dad, thank you for instilling in me a commitment to teaching and learning. Your unwavering belief in my abilities has carried me farther than I ever imagined.

This dissertation would not have come to fruition without the love, support and encouragement from my awesome friends and family. Every well wish and “keep it up” has had a significant impact; you have held me accountable and helped me persist to completion.

I would like to thank the following VCU faculty and staff members for their support, guidance and assistance along the way: Dr. Leslie Bozeman, Dr. Michael Davis, Dr. Cathy Howard, Dr. Jim McMillan, Dr. Lynn Pelco, Dr. Maike Philipsen, and Dr. Kurt Stemhagen.

Last but certainly not least, a huge thank you goes out to my dissertation chair, Dr. William Muth and committee members: Dr. Susanne Croasdaile, Dr. Mary Hermann, and Dr. Seth Sykes. You have all served as examples for me to follow and endless resources during my time at VCU. Thank you all for preparing me for a life in academia.
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Abstract

AN INVESTIGATION OF THE DIFFERENCES BETWEEN CONTINUING AND NON-CONTINUING UNDERGRADUATE SPECIAL ADMISSION STUDENTS RELATED TO ACADEMIC ADVISING FACTORS

By Kevin Patrick Reeves, M.S.

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

Virginia Commonwealth University, 2014

Major Director: William Muth, Ph.D.
Associate Professor, School of Education

This study examined some differences between continuing and non-continuing special admission students in areas of academic advising in ways that are more systematic and thorough than past research. The premise of the study is that having a clearer understanding of how academic advising affects retention might provide colleges and universities with information to optimize the collegiate experience for special admission students. Therefore, research on the effect academic advising has on special admission student retention might offer insight into how the interactions between student and advisor affect retention issues.

A non-experimental descriptive research design was employed to investigate the differences between the independent variables (advising style, frequency of contact,
gender match, and race or ethnicity match) and the dependent variable, student retention. There were three sources of data used in this study. First, data were collected from students through the use of the Academic Advising Inventory (AAI) and External Factors of Retention Survey (EFRS) using online survey software. Second, data were collected from existing databases provided by an urban higher education institution. Finally, brief phone surveys were conducted with non-continuing students.

Due to low survey response, no statistical analysis for significance was reported in this study. However, patterns observed from the AAI/EFRS and the phone surveys provided the following results. First, continuing special admission students had more advisor contact than non-continuing students. Second, despite continuing students’ higher average scores on the Developmental-Prescriptive Advising Scale (measure for advising style) of the AAI, the higher perceived advising style scores did not suggest a higher frequency of student-advisor contact in the first semester. Third, perceived advising style may have influenced frequency of student-advisor contact among non-continuing students. Fourth, continuing students had a decrease in frequency of student-advisor contact in consecutive semesters. Fifth, the perception of students that their race or ethnicity are respected by their advisor may matter more than a race or ethnicity match. Sixth, gender match was not related to frequency of student-advisor contact for continuing students. Seventh, clearly stating the objectives of a research study and how participation serves the objectives may aid in the recruitment of difficult to reach populations. Eighth, institutional efforts to reach out to these students could influence the students’ decision to continue enrollment.
Chapter I: Introduction

Retaining undergraduate college students is a goal for institutions of higher education across the United States. A student’s decision to remain in college is influenced by many factors (Wetzel, O’Toole, & Peterson, 1999). Institutional satisfaction, grades, and finances all can have an effect on students remaining with their higher education institution. University-controlled strategies can offer college students the support they need to become academically successful, maintain a consistent level of success, and complete their goal of earning a college degree. One particular institutional factor is academic advising. Some scholars have argued that academic advising is essential to student success in college and retention, and the success of retention programs can be determined, at least in part, by the efficacy of academic advising efforts at a university (Beal & Noel, 1980; Astin, 1984; Tinto, 1993).

Research on the retention of undergraduate students has focused on retaining the general student body (Barefoot, 2004). Typically, studies investigate students who were regularly admitted into their institution of higher education and evaluate retention issues based on demographic variables. Research on student retention has also examined how effectively students are retained in particular subgroups based on culture, race, gender, and-to a limited degree-admission status, specifically special admission students (Laden, Matranga, & Peltier, 1999; Campbell & Campbell, 2007; Rodgers & Summers, 2008;
Oseguera & Rhee, 2009). Some academic advising factors have been examined in research pertaining to regularly admitted undergraduate students (Lau, 2003); however, there has been little research to examine the effects of these factors on special admission students. While there has been a modest amount of research conducted regarding the retention of special admission students, little inquiry has been made on the effect of academic advising on retention of special admission students. This study focused on some academic advising factors and their relationships to the retention of special admission students.

**Statement of the Problem**

Colleges and universities across the nation are facing the challenge of retaining their student population. However, the task of offering appropriate services and support to assist in students’ academic success is a daunting one. The national first to second year student retention rate at four-year public institutions is 74% (American College Testing, 2010), while the six-year graduation rate is approximately 57% (Carey, 2004). The inconsistency between those figures suggests a lack of continuous enrollment of college students.

Moreover, attrition rates nationwide have been reported to be between 40 and 70 percent with less than 50% of students who enter undergraduate institutions graduating from that same institution within five years (Barefoot, 2004). The college student retention problem is compounded as colleges and universities seek to serve and support special admission students. In contrast to the figures related to regular admission
students, Laden, Matranga, and Pertier (1999), reported only 23.4% of a special admission student cohort ($n=465$) completed their degree requirements, while 28% of a regularly admitted student cohort ($n=996$) had persisted to degree completion over a five-year period. This modest, but significant finding begins to describe the difference in retention rates between regularly and specially admitted students.

Special admission programs are offered at colleges and universities across the United States as a means of offering opportunities to students who are admitted to the college or university at standards that are lower than the “regular” admissions. Typically, special admission students’ grade point averages, standardized test scores, or reading and writing placements are lower than regular admission students (Gabriel, 2008; Laden et al., 1999). In addition, special admission students tend to exhibit one or more of the following characteristics: 1) evidence of academic potential, 2) personal motivation for success, 3) special talents and abilities, 4) improvement trend in recent academic scholarship, 5) ability to overcome hardship/adversity, and 6) other special circumstances (Eastern Kentucky University, 2010; NSHE Board of Regents Code, 2008; Wayne State University, 2010). While there is some evidence that institutional factors make a difference on the retention of regular admission undergraduate students (Lau, 2003), research on the factors that affect special admission student retention is limited.

The challenge for colleges and universities is to determine what systems and programs best serve special admissions students in their efforts to obtain a college education. Admitting students who do not meet the regular admission requirements puts
more responsibility on the college and university infrastructure to monitor the academic progress of special admission students and to promote the tools and resources that assist students in achieving academic success (Laden, Matranga, & Pertier, 1999). One such resource may be academic advisors. An academic advising presence may play a significant role in creating an environment where special admission students receive the support and development necessary to promote persistence until degree completion (Weir, Dickman, Fuqua, 2005). The terms persistence and retention can be seen in research as similar in meaning. However, there are some subtle differences between the meanings of these terms. Persistence refers to a student’s ability and/or desire to continue in the pursuit of their academic goals at the same institution for a specified time period, typically semester-to-semester or school year-to-school year (Astin, 1975; Hagedorn, 2005). Whereas retention refers to an institution’s ability to keep students enrolled from academic year to year until degree completion (Astin, 1975; Hagedorn, 2005; Lau, 2003). This research will refer to these terms based on the definitions provided above.

**Rationale of the Study**

Research on regularly admitted student retention has shown many factors that affect students’ decisions to persist in or depart from their academic pursuits such as mentoring, level of college preparedness, institutional fit, sense of belonging, financial aid, commitment to family and home life, and academic advising (Campbell & Campbell, 2007; DeWitz, Woolsey, & Walsh, 2009; Herzog, 2005; Lau, 2003; Oseguera & Rhee,
Academic advising has been found to play a significant role in regularly admitted students’ satisfaction with their higher education institution and ultimately their desire to continue enrollment (Metzner, 1989; Mohr, Eiche, & Sedlacek, 1998). Regarding advising, some possible factors include advising style (Yarborough, 2010), frequency of student-advisor contact (Petress, 2000), and race or ethnicity and gender matching (Campbell & Campbell, 2007). A considerable amount of research has been conducted on the advising factors that affect student retention, but literature that examines how those factors affect special admission students is lacking.

Improvements to advising might lead to greater academic achievement and persistence. There have been few issues in higher education over the years that have been researched as much as retention (Barefoot, 2004). However, research into academic advising’s effect on retention is a relatively new area of interest; Habley (2009) reported a search on advising in the ERIC database yielded 43 documents from the 1980’s compared to 386 in the 2000-2008 time periods. Academic advising has been debated as a field of inquiry worthy of research (Habley, 2009). One criticism of academic advising research is that it produced little evidence of the effectiveness or importance of the practice of academic advising (Habley, 2009; Pascarella & Terenzeni, 1991; Vorhees, 1990). Additionally, views of research on academic advising may be held in low regard because prior research tended to proclaim academic advising as an effective tool of the institution and a major contributor to student success, without a quality body of rigorous research to affirm such claims (Habley, 2009; Pascarella & Terenzeni, 1991). Despite the
criticisms of advising research, the practice of academic advising remains one of the structured links between the institution and the student (Hunter & White, 2004; Kuhn, 2008).

This study attempted to examine some differences between continuing and non-continuing special admission students in areas of academic advising in ways that are more systematic and thorough than past research. The study is based on the premise that having a clearer understanding of how academic advising affects retention might provide colleges and universities with information to optimize the collegiate experience for special admission students. Research on the role academic advising plays in student retention efforts is necessary to provide evidence for the differences of academic advising in relation to the success of special admission students (Habley, 2009). Academic advising often serves as the only one-on-one contact these students have with an institutional representative (Frost, 1991; Hunter & White, 2004). Therefore, research on the effect academic advising has on special admission student retention might offer insight into how the interactions between student and advisor affects retention issues.

This study explored differences in academic advising factors between continuing and non-continuing special admission students through the use of survey research and institutional student data. The researcher anticipated adding to the research and knowledge base by creating a better understanding of the link between the institution and the special admission student, particularly related to the following advising factors:
advising style, frequency of student-advisor contact, race or ethnicity matching, and gender matching.

**Purpose of the Study**

The purpose of this study was to examine differences between continuing and non-continuing special admission students based on academic advising factors at a large public research university. The study investigated the following areas:

1. The link between academic advising style and the retention of special admission students.
2. The differences between continuing and non-continuing special admission students, if any, in frequency of advisor-student contact and gender and race or ethnicity matching.
3. The differences in the perception of academic advising style between continuing and non-continuing special admission students.

**Literature Overview**

Research on the retention of special admission students begins with a discussion of student retention in general and its difference from student persistence. The issue of student retention is not exclusive to special admission students. The literature is broken down into five sections related to the retention of regularly and specially admitted students: (a) factors of retention: external and internal, (b) a closer look at external factors, (c) a closer look at internal factors, (d) academic integration and (e) academic advising.
The first part of the review, titled *Factors of Retention*, will describe student retention and some of its factors. Research on student retention has been growing, especially over the past 20 years (Barefoot, 2004). In contrast to student persistence (student’s ability and/or desire to continue their enrollment at the same institution), retention refers to an institution’s ability to keep students enrolled on a year-to-year basis until degree completion (Astin, 1975; Hagedorn, 2005). Factors of retention will be discussed in two categories: external and internal factors of retention. Research into student retention has typically focused on how external factors led students to dropout (Barefoot, 2004). Recently, research has continued to investigate how internal factors affect student retention (Barefoot, 2004).

The second part of the review, titled *External Factors of Retention: A Closer Look*, will take an in-depth look at some external factors of student retention. This examination will review some specific external factors of retention and their effect on both regular and special admission students. The factors discussed in this section will include student persistence, family demands and support, pre-collegiate achievement, and finances.

The third part of the review, titled *Internal Factors of Retention: A Closer Look*, will take an in-depth look at some internal factors of student retention and their effect on both regular and special admission students. The factors discussed in this section include academic integration, social integration, financial resources available to students, the role of faculty mentors, and first-year seminars.
The fourth part of the review, titled *Academic Integration: A Closer Look*, will take an in-depth look at one internal factor of student retention, academic integration. Academic integration is the degree of the match between a student’s goals and the institution’s academic programs (Wetzel, O’Toole, & Peterson, 1999). This section reviews some specific aspects of academic integration, i.e., the role that faculty mentors and academic advising plays in the academic integration.

The fifth part of the review, titled *Academic Advising: A Closer Look*, will take an in-depth look at some factors of academic advising. The section begins by describing research on two advising styles: developmental and prescriptive. Developmental advising contains a close student-advisor relationship intended to promote students’ achievement in three areas: 1) educational, 2) career, and 3) personal goals through the utilization of the full range of institutional and community resources (Ender, Winston, & Miller, 1984). Prescriptive advising relationships contain an expert-novice aspect, with the advisor as the expert and the student as the novice. Additionally, students are limited in their involvement with the planning and direction of their academic development (Crookston, 1972). Other factors of academic advising discussed in this section are: frequency of contact, and gender and race or ethnicity matching. The review of the literature will conclude with a summation of the factors of retention and gaps in research on advising special admission students.
Theoretical Framework

Tierney (1997) described the process of socialization that occurs in organization culture. Tierney defined culture as the total amount of activities that exist within an organization with the purpose of creating a common set of understandings. He described socialization as the ability of an organization’s new member(s) to understand and follow such cultural activities. These cultural activities in a group or organization are typically learned through one’s interactions with significant members of the group (Merton, 1968; Weidman, 1979). The college and university serve as the organization whose cultural activities must be learned and understood by incoming freshmen. Additionally, as the socializing agent, the institution attempts to further its goals of institutional growth and/or survival by socializing new students to institutional values and the institution itself (Clausen, 1968). Socialization in the case of undergraduate special admission students can be achieved, in part, through the relationship between the academic advisor and the student. A student’s ability to understand the inter-workings of the collegiate infrastructure; and an institution’s ability to facilitate the learning through university activities, creates a likelihood of student academic success and retention. Academic advisors are the university’s representatives. A sound student-advisor relationship allows the student to learn the university culture, while also building a positive viewpoint of the institution.

In addition to socialization, this study is framed by Vincent Tinto’s (1975) student integration theory of retention, which is based on the relationship between students and
their higher education institution. Tinto considered two student commitments as key for integration. First, students had to be committed to obtaining a college degree, which he referred to as degree commitment. Second, students need to be committed to obtaining their degree from that particular institution, which he referred to as institutional commitment. Tinto saw a combination of those two commitments as significant factors affecting the retention of college students. Wetzel, O’Toole, and Peterson (1999) argued the match between a student’s motivation and academic ability and an institution’s academic and social makeup determined the student’s likelihood of student retention.

The two theories presented above—Socialization in Organizational Culture and Tinto’s Integration Theory of Retention—serve as the framework for this study. Each theory helps explain the role institutions play in integrating students into the university culture and removing the dissonance caused by disconnects between the students expectations and their reality. Past research has found that academic advising serves as students’ main connection to their institution (Kuhn, 2008). The goal of the study is to examine some of the aspects of academic advising to determine the role they play in advising a particular subgroup—special admissions students.

Hypothesis

This study seeks to provide evidence that might support the argument of a link between academic advising style and the retention of special admission students (Winston and Sandor, 1984a). Additionally, the study sought to determine if there exist any differences between continuing and non-continuing special admission students in
frequency of advisor-student contact and gender and race or ethnicity matching. Lastly, the study sought to determine if there exist any differences in the perception of academic advising style between continuing and non-continuing special admission students.

The researcher hypothesized there is a positive link between certain academic advising styles and the retention of special admission students. Additionally, the researcher hypothesized there are differences between continuing and non-continuing special admission students in frequency of advisor-student contact based on gender and race or ethnicity matching. A reasonable expectation hypothesized in this study is that: (1) continuing special admission students had more contact with their academic advisor than non-continuing special admission students; (2) continuing special admission students who were a gender match with their advisor had more contact with their academic advisor than non-continuing special admission students who were not a gender match with their advisor; (3) continuing special admission students who were a race or ethnicity match with their advisor had more contact with their academic advisor than non-continuing special admission students who were not a race or ethnicity match their advisor; and (4) continuing special admission students perceived that they received mostly developmental academic advising, while non-continuing special admission students perceived that they received mostly prescriptive advising.

**Research Questions**

The study sought to address the following research questions (All questions were explored using student data from their first year of enrollment):
1. Is there a difference in the perception of styles of academic advising (developmental versus prescriptive) between continuing and non-continuing special admission students?

2. Is there a difference in the frequency of student-advisor contact between continuing and non-continuing special admission students?

3. Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived advising style?

4. Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived race or ethnicity matching?

5. Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived gender matching?

As will be discussed in the methodology chapter, the recruitment of non-continuing participants presented challenges to providing answers to the questions above. Partially, the challenges of recruiting non-continuing participants were addressed through the use of brief phone surveys. These additional phone surveys allowed for the examination of some factors in the advisor/non-continuing student dynamic. Moreover, additional research questions provided the opportunity to better understand what considerations could be made when recruiting difficult to reach populations. The additional research questions examined to investigate these issues were:
6. What are the challenges of recruiting non-continuing students to participate in an online survey?

7. What information was the phone survey able to provide about the non-continuing special admission students that the online survey was not?

Methodology

The purpose of this study was to examine the differences between continuing and non-continuing undergraduate special admission students based on their perceptions of academic advising factors. This study examined these differences with a non-experimental quantitative design. Additionally, this study examined the challenges of recruiting difficult to reach populations for survey research and non-continuing student experiences with academic advisors. Quantitative methodology was used to examine student’s perceptions about the type of academic advising they received based on the advising style of their advisor. The research was conducted using survey data collected from a sample of continuing and non-continuing special admission students and institutional student data provided by a public research university, which enrolled approximately 30,000 students (referred to Atlantic Urban University [AUU]), using non-proportionate, purposive sampling (Research Methods Knowledge Base, 2011). Non-proportional quota, purposive sampling was used to take a nonrandom predetermined sample for a specified purpose. The independent variables were advising style, frequency of contact, gender match, and race or ethnicity match. The dependent variable was
retention. These variables were analyzed to investigate differences between continuing and non-continuing undergraduate special admission students.

Descriptive qualitative methodology was used to investigate the advisor-student dynamic of non-continuing students as well as motivations for difficult to reach samples to participate in survey research. This investigation was conducted through the use of phone surveys. Participants for the phone surveys were recruited by telephone calls made to non-continuing students from the contact list provided by Atlantic Urban University. Phone calls were made to the non-continuing student sample, where the purpose of the study and study protocols where explained. Students were then invited to participate in a “brief” phone survey.

Statistical analyses were performed using Microsoft Excel. Excel software was used to compile descriptive statistics to examine patterns in the data, including means and standard deviations.

Data for this study were collected from four sources. First, an administrator at AUU provided institutional student data. These data were provided via a computer-generated list of student information as well as student-advisor related data. Second, a survey instrument, the Academic Advising Inventory (Appendix A) was used to collect a sample of student perceptions of their academic advising experiences. Third, the Perception of External Factors of Retention Survey (EFRS) (Appendix A) is a seven-item instrument developed by the researcher to explore student’s perceptions of the link between some external factors of retention and their actual retention. Additionally, the
EFRS was used to collect student perceptions of gender and race or ethnicity matching with their advisor. This survey was administered after the Academic Advising Inventory via REDcap software. Lastly, non-continuing students provided data regarding their student-advisor experience via a phone survey. The phone survey consisted of four questions, with three of four having potential follow-up questions.

The Academic Advising Inventory (AAI) was administered to students online via REDcap Survey. According to Winston and Sandor (1984a), the AAI measures three factors of academic advising; a) the nature of academic advising relationships, seen along a developmental-prescriptive advising continuum, b) the frequency of activities taking place during advising sessions, and c) student satisfaction with academic advising. As a means of preserving the validity of the survey instrument, the usage of the Academic Advising Inventory followed the guidelines for use set by the National Academic Advising Association (NACADA).

The Perception of External Factors of Retention Survey was administered online via REDcap Survey after completion of the AAI. The Perception of External Factors Survey is a seven-item instrument to explore student’s perceptions of the link between some external factors of retention and their actual retention. Specifically, this survey asked students about their perceptions regarding student persistence, family demands and support, finances, and pre-collegiate achievement. This survey tool was developed and piloted by the researcher with the purpose of providing control for some external factors of retention and additional data to this study.
The institutional student data provided by Atlantic Urban University included names, contact information (email addresses and phone numbers), gender, frequency of student-advisor contacts (per semester), and race. These data were used to administer the survey instrument and to answer all research questions. In conjunction with the Academic Advising Inventory, institutional student data were used to analyze the research questions to determine any differences between continuing and non-continuing student’s frequency of student-advisor contact based on advising style, race or ethnicity matching and gender matching.

The phone survey was used to provide qualitative data discussing varying aspects of the non-continuing student experience. The survey consisted of four items; the final three items had follow-up questions, where applicable. Specifically, the phone survey covered participant motivations for online survey participation, their reasons for university departure, if they notified their advisor of their departure, and if they have had any contact with their advisor since departing the university. The questions were created by the researcher and approved by the AUU IRB. Participants who completed the phone survey received a $10 Amazon.com Gift Card. Six gift cards were given to phone survey participants in this study.

The Academic Advising Inventory/Perception of External Factors of Retention Survey was administered from June-October of 2013. Once the sample had been selected, participants received an invitational email from the researcher via REDcap Survey explaining the purpose of the study and requesting their participation. Students
were invited to participate in the study through their AUU email addresses. All
participants had to provide their informed consent as a prerequisite for participation.
Participants who had not completed the AAI received a once a week reminder from the
date of initial contact. Participants who completed the survey were entered in drawing to
win to a $20 Amazon.com Gift Card. Five gift cards were randomly given away to
students at AUU in this study.

The data were examined for patterns showing possible differences in advising
style, frequency of contact, gender matching, and race or ethnicity matching between
continuing and non-continuing special admission students.

The findings of this study are not generalized to all public institutions as the
findings of one university cannot be generalized to all institutions that accept special
admission students. Additionally, because of the low response rate for non-continuing
students, no statistical differences between the two groups were calculated. However, the
findings may offer insight into the effect academic advising has on special admission
student retention. As a result, the findings of this study serve as a relevant contribution to
the literature on, and study of, academic advising, student retention and special admission
students.
Definition of Terms

For the purposes of this study the following terms were used and defined as follows:

*Academic Advising.* The situations in which the advisor, serving as an institutional representative, offers insight/direction to a college student about academic, social, and/or personal matters (Kuhn, 2008).

*Academic Integration.* The match of the student’s goals and the institution’s academic program constitutes the degree of academic integration (Wetzel, O’Toole, & Peterson, 1999).

*Attrition Rate.* The rate at which students leave their higher education institution before completing degree requirements.

*Developmental Academic Advising.* The systematic process based on a close student-advisor relationship intended to promote students achievement in three areas: 1) educational, 2) career, and 3) personal goals through the utilization of the full range of institutional and community resources (Ender, Winston, & Miller, 1984).

*Dropout.* The student act of leaving school without the intention of returning to continue studies (Herzog, 2005).

*Institutional Factors.* Factors of the academic environment under the control of the institution, which can have an effect on the student population (Lau, 2003).
According to Lau, some examples of institutional factors are mentoring, college major options, and student services like tutoring and advising.

**Mentoring.** An institutional factor defined by Campbell and Campbell (2007) as any situation in which a more-experienced member of an organization maintains a relationship with a less-experienced, often new, member and provides information, support, and guidance for the purpose of enhancing the latter’s chances of success. Campbell and Campbell also refer to the more-experienced member as a mentor and the less-experienced member as a protégé.

**Persistence.** Refers to a student’s ability and/or desire to continue in the pursuit of their academic goals at the same institution for a specified time period, typically semester-to-semester or school year-to-school year (Astin, 1975; Hagedorn, 2005).

**Prescriptive Academic Advising.** Prescriptive advising takes the characterization of an authoritative relationship. The advisor analyzes the student’s issue, advises a course of action, and the student follows the exact recommendation (Crookston, 1972). In prescriptive advising the relationship contains an expert-novice aspect, with the advisor as the expert and the student as the novice. Additionally, there are limitations to the student’s involvement with the planning and direction of academic development (Crookston, 1972).

**Regular Admission Students.** Students who admitted to the college or university solely by the admission standards set forth by the higher education institution.
Social Integration. The degree of a student’s fit with the school’s social and institutional framework (Wetzel, O’Toole, & Peterson, 1999).

Socialization. The process through which an individual learns to adopt the values, skills, attitudes, norms, and knowledge needed for membership in a given society, group, organization (Gardner, 2010). This definition is derived from Tierney’s (1997) description of acclamation into organization culture as the total amount of activities that exist within an organization with the purpose of creating a common set of understandings. Tierney goes further to describe socialization as the ability of an organization’s new member(s) to understand and follow such cultural activities.

Special Admission Students. Students who are admitted to the college or university by standards lower than the “regular” admission standards. These standards include special admission students’ grade point averages, standardized test scores, and/or reading placements, among other criterion (Gabriel, 2008; Laden et al., 1999). Additionally, special admission students have also been categorized in research as “at-risk” and “borderline” students (Campbell & Campbell, 2007; Bahnke, Sawyer, & King, 1999).

Student Retention. Refers to an institution’s ability to keep students enrolled from academic year to year until degree completion (Astin, 1975; Hagedorn, 2005; Lau, 2003).

Student Retention Rate. Refers to the rate at which students return to the same higher education institution for a specific time period, typically year-to-year.
Stopout. Considered a student’s act of leaving school with the intention of returning to continue studies at a later date (Herzog, 2005)
Chapter II: Review of the Literature

Forty-seven percent of students who began at a four-year institution graduated from the same institution within five years (Barefoot, 2004). Additionally, Barefoot (2004) stated another 29% of students remained enrolled at the same institution or had graduated from another higher education institution. As college and university enrollment numbers continue to grow, there must be further research into effective ways to retain the student population, especially special admission students. An increased focus on student retention could allow colleges and university to better serve the students who inhabit their campuses and allow more students to attain a college degree.

Understanding student retention required a review of various subject areas in the literature, including: (a) characteristics of students who discontinued their collegiate enrollment (Herzog, 2005), (b) factors inside the college and university that lead students to dropout (Barefoot, 2004), and (c) factors outside of the college and university that lead students to dropout (Barefoot, 2004). Recent research has turned towards the factors inside the college and university that affect student retention (Barefoot, 2004).

In order to better understand research on student retention, one should have a working knowledge of student persistence and its difference from retention. Persistence refers to a student’s ability and/or desire to continue in the pursuit of their academic goals.
at the same institution on a specified time period, typically semester-to-semester or school year-to-school year (Astin, 1975; Hagedorn, 2005). In contrast to persistence, retention refers to the university’s efforts to fulfill the same goal of keeping students at the same institution for a specified time period (Hagedon, 2005). Despite their definitions, persistence and retention have been used interchangeably in research; however persistence should be considered an attribute of students rather than universities. For the purposes of this study, persistence and retention were referenced as contrasting terms, according to the definition provided above. Thus, research on persistence was presented with the external factors of retention, since they are external to the purview of the institution.

This study presented a review of the research on factors that affect the retention of special admission students. The following sections will describe research that focused on: 1) factors of retention (both external and internal); 2) an overview of some specific external factors of retention: student persistence, family demands and support, pre-collegiate achievement, and finances; 3) an overview of some specific internal factors of retention, including academic integration, social integration, and financial resources available to students, roles of faculty mentors, and first-year seminars; 4) academic integration: roles of faculty members and academic advising and 5) the following factors of academic advising research: advising style, race or ethnicity matching, and gender matching. Each of the above sections (excluding academic advising) is delineated in terms of regularly admitted students and specially admitted students. Understanding the
literature in relation to all collegiate students can help researchers identify possible issues faced by special admission students.

**Factors of Retention**

Research on factors of student retention can be viewed as internal and external to the purview of the university (Table 1). There are many factors that may affect retention.

Table 1

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Table 1 depicts some internal and external factors of student retention. Although the purpose of this research is to examine the effect of academic advising, an internal factor, it is important to situate this study within a larger review of the literature on both internal and external factors. This review of the literature begins with the external factors.

**External Factors of Retention**

External factors are those issues that are not related directly to the college or university system, but the factors that encompass the student’s life and circumstances outside of the university (Barefoot, 2004). Elkins, Braxton, and James (2000) described some of the external factors that affect student persistence. Some of the external factors that had a direct effect on student persistence in college were positive support from
parents, peers, and friends from the student’s community (e.g., church, neighborhood) and a student’s perceived need to reject the previous negative attitudes and values of family members and others (Elkins et al, 2000). For example, some student’s family members have negative perspectives of the institutions their loved ones attend, which caused the students to reject the attitudes or values of their family members in order to remain comfortable in their academic institutions. Elkins et al. conducted a longitudinal study that surveyed 411 students using the First Semester Collegiate Experiences Survey (FSCES). The survey solicited responses from first-time, first-semester students with 95.8% of students between the ages of 18 and 19 years of age. Elkins et al. reported women students were more likely to receive support for attending college than male students. Likewise, Caucasian students were more likely to receive support for attending college than students from ethnic minority groups. Also, the study reported that support for college attendance had a statistical impact on first to second semester persistence.

**Internal Factors of Retention**

The internal factors that affect general student retention, also known as institutional factors, have been well documented in recent research. According to Barefoot (2004), researchers have tried to focus on the role of the institution as a means of improving student retention rates. Lau (2003) provided a descriptive review of literature on potential institutional factors that may have had an effect on student retention. Lau examined possible institutional factors by researching several comprehensive studies related to reasons for student dropout. The study
discussed the institutional factors through three specific groups: institutional administrators (e.g. funding, academic support, and facilities), faculty, and students.

Borrowing from Tinto’s (1987) Model of Institutional Departure, Lau (2003) suggested that the more positive experiences students have in their formative first years of college the more likely they are to persist. Lau’s research illustrated the institutional factors that offer support to students as they pursue a college education. Some of the factors suggested by Lau are academic support, diversity, and faculty. For example, Lau recommended that these academic support services should be made available: learning centers, freshman year programs/seminars, and honors programs. These programs are used to aid students in their adjustment to college life. Additionally, colleges and universities should allow opportunities for students to interact with other students from different cultures and ethnicities, as a means of allowing students to overcome feelings of isolation and alienation (Lau, 2003). Faculty members are important to the educational growth of college students. According to Lau, the maintenance of a positive learning environment can help students make the adjustment to college life. Additionally, faculty initiatives like hands-on computer labs and collaborative learning through student-faculty presentations and projects aid in students becoming acclimated to college life.
An Association for the Study of Higher Education-Education Resources Information Center (ASHE-ERIC) (2003) report described a need to further investigate the relationship between the student and institution (internal) factors of retention. This need stems from the many variables that differ on a case-to-case basis; the differing variables leading to departure include institutional fit, academic support programs, and diversity. The models, such as Tinto’s Stages of Institutional Departure, that have been created over time are well intentioned; however they may fail to account for the ever-present “unknown” variables that exist in everyday life, not to mention in higher education settings (ASHE-ERIC, 2003). The ASHE-ERIC (2003) report introduced additional programs that try to compensate for the missing elements of student experiences. Programs such as: The Campus Retention Committee at UCLA, The Collegia Program at Seattle University, and The Freshman Academic Support and Tracking Program are a few examples of the efforts that universities have put forth to aid retention efforts. Other internal factors that affect student retention include funding, academic support, a positive learning environment, and the facilitation of opportunities to explore other cultures (Herzog, 2005; Lau, 2003; DeWitz, Woosley, & Walsh, 2009).

**External Factors of Retention: A Closer Look**

External factors of retention are those issues not within the college or university’s direct control. These factors tend to encompass the student’s private life and circumstances (Barefoot, 2004). External factors, while not necessarily caused by the university, can have a direct effect on university retention efforts. The following section
examines some external factors (Figure 1) and the effects they may have on regularly and/or specially admitted college students.

Figure 1: External Factors of Retention

The external factors that were examined are student persistence, family demands and support, finances, and pre-collegiate achievement.

**Student Persistence**

Student persistence is often used in literature in a similar fashion to retention (Astin, 1975; Hagedorn, 2005). However, Hagedorn (2005) explained persistence refers to a student’s ability and/or desire to continue in the pursuit of their academic goals, while retention focuses on an institution’s effort towards the same goal. There are many factors that can affect a student’s desire and/or ability to continue enrollment at an institution. These factors can be affected by other factors, both external and internal to the institution. Some of these factors are major field, student grade point averages, sense of belonging, institutional retention climates, and pre-college predictors.
Regular Admission Students. St. John, Hu, Simmons, Carter and Weber (2004) researched the effect of college major on the persistence of African American and Caucasian students in their freshman and sophomore years. According to St. John et al., the persistence rates were as follows: African American freshmen \((n=1,289)\), 69.3%; Caucasian freshmen \((n=1,283)\), 76.9%; African American sophomores \((n=724)\), 81.9% and Caucasian sophomores \((n=888)\), 86.4%. The study tested the influence of college major on student persistence. St. John et al. (2004) reported that Caucasian freshmen that majored in subjects that had low economic potential, like social sciences were less likely to persist. Also, Caucasian freshmen students who had not decided on a major were less likely to persist in college (St, John et al., 2004). Moreover, of the African American sophomores surveyed \((n=724)\) there were three majors that showed a statistical significance in likelihood to persist in college; those majors are health, business, and engineering & computer sciences (St. John et al, 2004). St. John et al. reported African American sophomores who majored in health, business, and engineering & computer sciences are 11.2%, 11.3%, and 11.8% more likely to persist in college than Caucasian sophomores in those majors, respectively. According to St. John et al., these findings also inferred that the economic potential of a major played a significant role in African American sophomore’s likelihood of persistence.

In a recent study, Oseguera and Rhee (2009) sought to find what variables cause students to persist in college to degree completion. The sample \((n=37,006)\) was 58% female; most of the sample was Caucasian (87%), while students of color (13%) represented in the study were African American (3%), Latino/a (3%), Asian (4%), and
other races (3%). Their study, conducted over a six-year period, considered persistence to degree completion as those students who had received their degrees in the six-years from their initial enrollment or those enrolled in the same institution over a six-year time period. Approximately 67% of the students (n=37,006) in this study persisted to degree completion under the study’s criteria (Oseguera & Rhee, 2009). The study listed several variables that affected student’s likelihood of persistence. For example, one “unit” of increase in a student’s high school grade point average increased their probability of persistence in college by 5.9%. Similarly, a one standard deviation increase in the cumulative grade point average of Caucasian students increased likelihood of their third semester persistence by 37% and the probability of persistence in Hispanic students by 36% (Vaquera & Maestas, 2009). Moreover, Vaquera and Maestas’ (2009) study (n=1,113) reported an increase of one standard deviation in cumulative grade point average increased the probability to 51% and 55% for Caucasian (n=622) and Hispanic (n=491) students, respectively.

Other factors also have been studied for their effect on student persistence; according to Oseguera and Rhee (2009) students (n=37,006) who live on-campus increased their likelihood of persistence by 4.5%. Vaquera and Maestas (2009) reported that having greater cultural awareness-as measured by a three-item factor (race and cultural awareness, knowledge of other’s culture, and knowledge of own culture) on the survey instrument-had an effect on the persistence of students (n=1,113); an increase of one standard deviation increases the probability of persistence in Caucasian students by 12%.
Research on the effect of sense of belonging discusses several factors; sense of belonging refers to peer interaction, interaction with faculty, family support and intentions to persist, among others (Hausmann, Schofield, & Woods, 2007). Hausmann et al. reported all first-year African American students (n=254) and a random sample of 291 first-year Caucasian students were invited to participate in the study. Secondary analysis of data reported that a sense of belonging was “associated with peer-group interactions, interactions with faculty, peer support, parental support, but not academic integration” (Hausmann et al., 2007, p. 824). The study reported, in relation to peer support, race and gender did have an interactive relation to the “initial status” or beginning of the year status and rate of (sense of belonging) change categories of the sample (n=365). Caucasian males reported having less support from their peers at the beginning of the year than Caucasian females. However, over time, peer support increased for Caucasian males and decreased for Caucasian females. However, these findings were reversed and more distinct for African American males and females. According to Hausmann et al., both parental and peer support were factors that led to a student’s sense of belonging, which was offered as an important factor in student persistence. The study gave two general states regarding how sense of belonging increases or decreases over the course of time and why, as Hausmann et al. reported, “On average, students reported a small but statistically significant decline in sense of belonging over the course of the academic year…” (2007, p. 824). The mean sense of belonging score modestly declined over the course of the year (Time 1, M=4.00,
$SD=0.87$; Time 2, $M=3.99$, $SD=0.91$; Time 3, $M=3.93$, $SD=0.92$). Hausmann et al. (2007) explained:

This decline was not associated with any student background characteristics. It was, however, associated with academic integration and parental support. Students who reported more academic integration experienced an increase in sense of belonging over time, whereas those with less academic integration experienced a decrease in sense of belonging. Having more parental support, however, was associated with a faster decline in sense of belonging over time. (p. 824)

A student’s need to belong has been researched in its relationship to their level of integration in the college and university environment. Questions remain, however. Is it more important for students to have a sense of belonging to the university or a sense of support in their home life? What other factors aid in persistence and do these needs vary by gender or race?

**Special Admission Students.** Factors that caused students to persist in college are under studied. One research team found that only pre-college achievement showed a significant effect on the persistence of special admission students (Laden et al., 1999). Laden et al. (1999) reported 287 of the 465 participants who took two years of foreign language in high school were 2.15 times as likely to graduate from college as those who did not take two years of foreign language in high school (Laden et al., 1999).

**Family Demands and Support**

An external factor that played a role in the retention of college students is commitment to family life and family support. The responsibilities a student has to their
home and family life, and the level of support they receive from their family have been shown to have an effect on the retention of both regular and special admission students.

**Regular Admission Students.** Guiffrida (2005) conducted qualitative interviews with African American students at predominately White institutions. Two subgroups of participants in Guiffrida’s sample were students who had left their undergraduate institution ($n=15$) and academically low achieving students ($n=65$). The study asked these students to describe the events leading up to their leaving their institution. Guiffrida (2005, p. 52) cited several students as listing “the impact of their families” on the decision to leave the institution, some listing their “lack of support” (p. 53) as a reason for dropping out. In contrast, a subgroup of academically high achieving students ($n=19$) spoke of the impact of their family with great regard in respect to their accomplishments (Guiffrida, 2005). These students described their family’s support as the “backbone” and “inspiration” for their success (p. 53). The support of and commitment to family is a factor outside of the institution’s control, however it can have a significant effect of the institution’s effort to retain students.

**Special Admission Students.** Hand and Payne (2008) interviewed first-generation students in the Appalachian region of the US to understand their experiences in college and the factors that helped them succeed. The study interviewed five males and four females (one African American) whose parents had never attended college; the study did not report the ages of students, however participants had “at least two college semesters completed” (p. 5). Hand and Payne (p. 7) claimed “Most university students
struggle between independence and loyalty to home and family.” Students have grown quite accustomed to having family and friends around and the thought of separation can be a tough adjustment for some, as one student remarks, “It would be hard to live really far from my family” (p. 7). Moreover, family can present a negative feeling of isolation when students pursue academic endeavors. Hand and Payne (2008) described the contrast of this situation with most students, “Only Craig expressed a feeling of alienation from his family because of his decision to go to college.” (p. 7). External factors have different effects on students as no two students are alike or have the same home environment.

**Pre-collegiate Achievement**

The area of pre-collegiate achievement begins to tell the story of how prepared students are for college and the link between their preparedness and retention. Pre-collegiate achievement is typically measured through a combination of ACT/SAT scores, high school grade point averages (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008) and/or courses taken (Laden, Matranga, & Peltier, 1999). Pre-collegiate achievement data has been used to predict and analyze the effect several factors have on retention.

**Regular Admission Students.** Kuh et al. (2008) analyzed data of undergraduate students \((n=6,193)\) from approximately 18 schools to predict the effect certain aspects of pre-collegiate achievement may have on retention and first year grade point average. The sample was 69% female; most of the sample was Caucasian (76.8%), followed by African American (12.8%), Hispanics (5.5%), Asians (3.5%), and other races (1.5%).
One of Kuh et al. findings was that students who spent more than 20 hours studying in college had higher ACT scores. Study time explained a significant portion of the variance in ACT scores (used to determine pre-college achievement). Additionally, Kuh et al. (2008) discussed the effect pre-collegiate achievement had on student retention. Using logistic regression analysis, Kuh et al. reported one standard deviation above and below the mean yielded a predicted probability of persistence to the second year of .844 and .875, respectively.

**Special Admission Students.** No research studies on pre-collegiate achievement and its effect on special admission students were found in the literature.

**Finances**

Financing a college education can be a very costly endeavor. Even with financial assistance, the cost of continuing a college education for some students can be more than their family’s income permits. Long and Riley (2007) stated that even after financial assistance students are left with a hefty sum of unmet financial need; on average a full-time dependent student annually averages $6,726 of unmet need, while full-time independent students average $7,049 of unmet need. The financial aid system struggles to keep pace with the growing costs of attendance at colleges and universities. These struggles have left some students and their families unable to afford college tuition.

**Regular Admission Students.** The amount of money students and their families have to pay “out of pocket” and the dynamic increases of college tuition have significant effects on student retention (Wetzel, O’Toole, & Peterson, 1999). Wetzel, O’Toole, and
Peterson reported an increase in college tuition and/or out of pocket student costs slightly decreases the likelihood of student retention. Herzog (2005) conducted a similar study that investigated which determinants increased/decreased the likelihood of retention versus dropout/stopout versus transfer. The study compared three cohorts of students to determine what factors led to retention. The cohorts were a Fall semester Millennium (2000-2002) group \((n=5261)\), students from the Fall cohort who enrolled in the Spring \((n=4671)\), and a pre-Millennium year (1996-1999) cohort \((n=4298)\). The Millennium program examined in the study was a scholarship program for state residents who graduated from a state high school with a “B” average in 2000 or later. The award amount was based on a per credit basis, with a lifetime maximum of $10,000; and students must have enrolled in 12 credits and maintained a “C” average. The study yielded different effects of family income for different subgroups of students. Family income was categorized by upper (income greater than $80,000), middle (income $42,000-$80,000), and lower (income less than $42,000). Financial status of Spring-enrolled students from upper-income families positively affected their likelihood of retention, while Spring-enrolled students from middle-income families who identified as having unmet financial need had an increased likelihood of dropout.

**Special Admission Students.** Financial issues obviously can have an effect of the retention of students from various backgrounds and subgroups. However, no research on the subject and its effect on special admission students were found in this literature review.
Internal Factors of Retention: A Closer Look

Internal factors of retention are those the college or university system employs to keep students enrolled on a year-to-year basis (Barefoot, 2004). Internal factors can have a direct effect on university retention efforts. The following section examined some internal factors (Figure 2) and the effects they may have on regularly and/or specially admitted college students.

Figure 2: Internal Factors of Retention

The internal factors examined are academic integration, social integration, available funding, and academic support services.

Academic Integration

The match of the student’s goals and the institution’s academic program constitutes the student’s level of academic integration (Wetzel, O’Toole, & Peterson, 1999). Academic integration is related to the retention of college students (Ari, 2009; Tinto, 1993). One way academic integration of a college student becomes evident is
when the student cares about their academic performance (Coll & Stewart, 2008).

Academic integration is separated into two categories, informal and formal (Severiens & Schmidt, 2009). Informal and formal integration are differentiated in the following manner:

While formal academic integration involves contacts related to studying and the institute itself, informal academic integration involves contacts between teachers and students outside the direct context of the learning environment, i.e. whether students and teachers consider themselves to be more or less at the same level socially, and whether they discuss personal matters with each other. (Severiens & Schmidt, 2009, p. 60)

Severiens and Schmidt (2009) explained the interactions that encompass academic integration are extended to teachers and academic staff persons at the institution. Severiens and Schmidt, and Tinto (1997) hypothesized that students who had significant contacts with academic staff and faculty at their institution have a greater likelihood of degree completion.

**Regular Admission Students.** Severiens and Schmidt conducted a study to determine the effect of curriculum type on academic and social integration. The curriculums compared in this study were problem-based learning, or PBL (small group tutorials, where students work on problems that serve as a starting point for learning), conventional (lecture based), and mixed (combination of activating and conventional). In this study, Severiens and Schmidt found PBL ($M=3.17$, $SD=0.72$, $n=92$) yielded higher mean scores on formal academic integration ($p < .000$), than mixed ($M=2.68$, $SD=0.85$, $n=111$) and conventional ($M=2.47$, $SD=0.63$, $n=123$) curriculum. Also, PBL ($M=2.81$, $SD=0.71$, $n=92$) produced higher mean scores on informal academic integration, ($p <$
than mixed ($M=2.32, SD=0.85, n=111$) and conventional ($M=1.92, SD=0.62, n=123$) curriculum. Coll and Stewart (2008) conducted a retention study to compare students ($n=304$) who were regular and special admission students on factors of academic and social integration. The sample was 60% female and 40% male; most of the sample was Caucasian (92%), followed by African American (2.1%), Hispanics (1.9%), Native Americans (2.9%), and other races (1%). They found regular admission students ($n=132$) reported higher faculty interest in students than special admitted students ($n=30$).

Hausmann, Schofield, and Woods (2007) reported, in relation to academic integration, race and gender did have an interactive relation to “initial status” (parameter estimate $=-0.091, p < .01$) or beginning of the year status categories of the sample ($n=365$). For example, Caucasian students reported having more support from their peers at the beginning of the year than African American students, while also having more parental support than African American students. Woosley and Miller (2009) investigated the importance of institutional commitment and integration (social and academic) on student retention. The study surveyed incoming freshmen ($n=2,744$) after 3 weeks of enrollment to determine if their current level of academic and social integration, and institutional commitment, could be used as predictors of retention. Academic integration was measured by analyzing five items on the MAP Works Transition Survey. Academic and social integration (in addition to institutional commitment) were determined to be predictors of retention. Woosley and Miller found academic integration was the second highest predictor to retention (behind institutional commitment).
Special Admission Students. Aside from the results found in Coll and Stewart (2008), the literature bore little research in regard to the academic integration and the retention of special admission students.

Social Integration

Like, academic integration, social integration is separated into two categories, informal and formal (Severiens & Schmidt, 2009). The difference between informal and formal social integration is the nature of contact amongst students and their peers. Formal integration refers to those “contacts between peers based on matters of learning” (p. 60), while informal integration refers to social (non-academic) contact and participation in activities amongst students. For example, faculty and staff making inquiries to students about the nature of their home lives is considered informal social integration. Borrowing from Tinto’s (1997, 1998) model on student persistence, Severiens and Schmidt claimed that students who enjoy the school they attend, have lots of friends, and feel at home are more likely to remain in school. Additionally, Coll and Stewart (2008) noted that social integration becomes evident when the student values the relationships they have established within their institution.

Regular Admission Students. As explained above, Severiens and Schmidt conducted a study to determine the effect of curriculum type on academic and social integration. The curriculums compared in this study were problem-based learning, or PBL (small group tutorials, where students work on problems that serve as a starting point for learning), conventional (lecture based), and mixed (combination of activating
and conventional). Severiens and Schmidt found PBL ($M=3.72$, $SD=0.52$, $n=92$) yielded higher mean scores on formal social integration ($p < .001$), than mixed ($M=3.50$, $SD=0.67$, $n=111$) and conventional ($M=3.40$, $SD=0.60$, $n=123$) curriculum. Also, PBL ($M=3.89$, $SD=0.79$, $n=92$) produced higher mean scores on informal social integration, ($p< .0241$), than mixed ($M=3.78$, $SD=0.85$, $n=111$) and conventional ($M=3.69$, $SD=0.85$, $n=123$) curriculum. Coll and Stewart (2008) reported informal social integration interactions with faculty illustrated significant differences between regular and special admission students ($t=2.24$, $df=283$, $p=.03$; $d=.41$). Analysis of the means revealed that regular admission students reported to a greater degree than special admission students that their non-classroom interactions with faculty had a more positive influence on them.

Woosley and Miller (2009) investigated the importance of institutional commitment and integration (social and academic) on student retention. The study surveyed incoming freshmen ($n=2,744$) after three weeks of enrollment to determine if their current level of academic and social integration, and institutional commitment could be used as predictors of retention. Social integration was measured by analyzing three items on the MAP Works Transition Survey. Social integration was determined to be a significant predictor of retention, only when institutional commitment was not part of the regression equation. Woosley and Miller suggested institutional commitment might serve as a mediator for social integration’s indirect effect on retention.

**Special Admission Students.** Coll and Stewart (2008) also found some non-significant differences in their study. Special admission students ($n=36$), in general, did well finding friends in college and reported a satisfaction with their peers ($M=5.47$, $SD=0.54$, $n=36$).
However, statistical significance was not reported. Peer interaction for students who exhibit low-grade performances is listed as factor that warrants further investigation as a retention strategy.

**Financial Resources Available to Students**

An institutional factor that played a significant role in student retention is the amount of financial resources available to students (Oseguera & Rhee, 2009). The financial resources a university can dedicate to students have been examined in research in a number of ways. Research has shown that monies allocated directly to student tuition and financial resources spent on a per student basis have shown a positive relationship to student retention (Ari, 2009; Herzog, 2005; Oseguera & Rhee, 2009).

**Regular Admission Students.** The type of funding available for students has varying effects on student retention. Herzog (2005) reported the use of unsubsidized loan funds has shown an increase in the risk of college dropout, while receiving scholarships has shown an increase in the likelihood of retention for students who persisted into their second semester. Ari (2009) found the mean financial resources on a per student basis \( (n=36) \) was positively correlated with student retention. Financial resources on a per student basis were determined by dividing the total program budget (operating budget plus personnel budget) by the total number of students enrolled in the program. The effect of institutional funding like scholarships and grants has shown a positive relationship on student retention. Lau (2003) offered some reasons financial needs have increased and the effect of scholarship funding, as follows:
With the escalating costs of a college education, coupled with the diminishing availability of federal and state grants and loans, students are finding it increasingly more difficult to obtain financial assistance. Full-time students often have to work part-time in order to put themselves through school. Frequently, students are so exhausted from working twenty to thirty hours a week that they just do not have the energy or desire to attend class or to study. Studies have indicated that scholarship programs are needed because many students are motivated to improve their grades and stay in school with this type of funding. (p. 128)

Herzog (2005) reported that students \( n=4177 \) who received the Millennium Scholarship were 1.5 times more likely to persist in their college education than those who did not receive the additional funding. The Millennium Scholarship was a state-funded award for students who graduated from a state high school with a “B” average in the year 2000 or later.

**Special Admission Students.** Similar to the literature on the effect of finances on special admission students, research on the subject and its effect on special admission students were not found.

**First Year Seminar**

First-year seminars (FYS) are regularly scheduled class meeting times for new students; the goal of FYS is to improve academic performance and student persistence through academic and social integration studies (Goodman & Pascarella, 2006). The effect of first-year seminars on student retention has yielded varying results in research. There are some studies (Goodman & Pascarella, 2006; Seybert, 2009) that suggest first-year seminars have an effect on student retention, while others (Barton, 2009; Darwin, 2006; Friedman & Marsh, 2009; Strayhorn, 2009) have not found a significant difference
in the retention of students participating in FYS from those who are not. Although they are not specific, Goodman and Pascarella (2006) claimed first-year seminars benefit both special and regular admission students.

**Regular Admission Students.** Summarizing the findings from Pascarella and Terenzini (2005), Goodman and Pascarella (2006) reported the likelihood of continued enrollment increased by 7% for students who participated in first-year seminars compared to students who did not participate. This increase was calculated by comparing the retention rates of two groups (FYS participators and non-participators). Additionally, the actual retention rate for students who participated in first-year seminars was 13% higher than those who did not participate (Goodman & Pascarella, 2006).

**Special Admission Students.** Current research does not contain any literature that describes the effect of first-year seminars on special admission students.

**Academic Integration: A Closer Look**

The match of the student’s goals and the institution’s academic program constitutes the student’s level of academic integration (Wetzel, O’Toole, & Peterson, 1999). Academic integration is a factor to the retention of college students (Ari, 2009; Tinto, 1993). Moreover, academic integration has been suggested as the factor that has the most bearing on student retention (Wetzel, O’Toole, & Peterson, 1999). Students who show an interest in their academic performance exhibit a progression in their level of academic integration (Coll & Stewart, 2008). Academic integration is divided into two types, informal (interactions between students and advisors, about university-related
matters, e.g., registration, major selection) and formal (interactions between students and advisors, about personal matters, e.g., home, work, family) (Severiens & Schmidt, 2009), but this portion of the review only discussed formal academic integration. There are several factors that can attribute to students’ academic integration. Teachers and academic staff are pivotal to academic integration, as they represent the institution in their various functions (Kuhn, 2008). The factors of academic integration that will be discussed in the following section are how the roles of (a) faculty mentors and (b) advisors are linked to academic integration and retention.

**Roles of Faculty Mentors**

The role of faculty in student retention is important to the academic integration of college students. A relationship with faculty affects student’s satisfaction with and fit in an institution (Coll & Stewart, 2008). As researchers continue to examine how institutions affect student retention, the relationship between the student and faculty members has become a topic of investigation. Faculty members have played multiple roles in the development and satisfaction of college students. Faculty members serve in their primary roles as instructors, however sometimes they play the role of mentors to students (Campbell & Campbell, 2007; Santos & Reigadas, 2004). The purpose of mentoring in the educational setting is to enhance academic and professional success; however another central purpose of mentoring is to increase retention (Campbell & Campbell, 2007).
Regular Admission Students. Strayhorn and Saddler (2008) investigated the relationship between faculty-student mentoring and student’s satisfaction with college among African American Students. The study used the College Student Experiences Questionnaire as their survey instrument. Additionally, the study was restricted to African American college students, who were unmarried, enrolled full-time, and lived on campus. The sample \( n=653 \) was 65% female and 35% male; the study was mostly made up of first-year students (55%), with sophomores (12%), juniors (17%), and seniors (17%) represented. Strayhorn and Saddler found a significant relationship between faculty-student mentoring and student’s satisfaction with college among African American Students.

Special Admission Students. Faculty mentors are important to the integration of special admission students. Lee (1999) conducted a qualitative study to examine student’s perceptions of their transition to college and the significance of having a faculty mentor. Lee conducted multiple focus groups of approximately seven students each over the academic year, 120 students throughout the academic year. Students were admitted through a special admissions program for students who were denied regular admission at North Carolina State University. Lee described the program as predominately African American, with Native Americans also eligible for admission; according to Lee, non-minority students, “will be eligible for the program in future years” (p. 34). Lee reported one theme that emerged from the study was how students received having a faculty mentor. Students wanted to be linked with faculty mentors, as one student explained: “I would love to have a person that I could talk to about my field! It would be great to talk
to someone who has already been there” (p. 36). Students described faculty mentors as those who can guide them along their journey; one student described this aspect of the faculty-student mentorship, “So I would like to have someone take me under their wing...someone to show me the ropes” (p. 37). One first year student explained what Lee described as a group consensus, “College is so different from high school. I am slowly adjusting, finally.” (p. 36). In Campbell and Campbell’s (2007) study, 339 special admission students who participated in a mentoring program completed an average of 0.84 credit hours more than the control group (also 339 special admission students) over two semesters. Furthermore, the study reported the mean second semester GPA’s of mentored students was 2.45, while the mean second semester GPA of the control group was 2.29. Additionally, Campbell & Campbell reported that when special admissions students were paired with mentors they have a lower dropout rate. Students with mentors had a dropout rate of 15%, while those students without mentors had a dropout rate of 26%. Grant-Vallone, Reid, Umali and Pohlert (2003) reported a 91% of students surveyed (n=100) that their faculty mentoring relationship played a role in their collegiate success.

Santos and Reigadas (2004) conducted a study of mentoring students using multiple regression to determine the effects of faculty mentors on “at-risk” students; the sample of students (n=65) was 49% Latino, 30% African American, 12% European American, and 8% other. Their study examined the effect of different social aspects of mentoring like ethnic matches between students and mentors. The study found students
who were paired with mentors of the same ethnicity visited their mentor with greater frequency.

**Academic Advising**

The role of the academic advisor in student retention has received a considerable amount of attention. Pascarella and Terenzini (2005) contended academic advising plays a role in whether a student is retained by the institution and their persistence until graduation. Additionally, the student-advisor relationship serves as a liaison between the institution and the student (Hunter & White, 2004; Kuhn, 2008). Tinto (1999) explained that academic advising must be part of the experiences of first year students to improve retention. Academic advising may have a significant impact on the academic integration, in addition to student retention.

**Regular Admission Students.** Bell and Anasri (2008) provided an evaluation of a university whose partial mission was to provide academic advisement as a means of helping students fulfill degree requirements. However, the retention rate at the university, referred to as Bay State was 38%. Students in the study reported dissatisfaction with the academic advising at the university. Bell and Anasri reported student dissatisfaction with: their ability to see an academic advisor in a timely fashion, advisors’ lack of knowledge on degree requirements, and their advisors lack of help with selecting courses to help fulfill educational goals.

Effective communication with an advisor can have an influence on retention. Singell (2004) reported, in a survey of non-continuing students \( n=1,236 \), admission type
is assumed regular), students who listed problems with their advising had a 12.5% higher probability of dropping out of college. These studies show a potential need for students and advisors establish open lines of communication as a means of preparation for potential issues.

**Special Admission Students.** Advising for special admission students has been shown to have an effect on their retention. Molina and Abelman (2000) conducted a study to determine the effect of intrusive advising on the academic and persistence of at-risk students. Intrusive advising refers to advising that results in academic adjustment (Earl, 1988). Intrusive advising involves a student’s ability to take ownership over their academic performance, without overreliance on the advisor (Molina and Abelman, 2000). Intrusive advising can be seen as neither good nor bad, rather an extension of developmental advising, where students and advisors collaborate on academic endeavors as opposed to advisors imposing mandates (Creamer and Creamer, 1994). Moreover, Molina and Abelman explained intrusive advising is invasive and personal, as opposed to professional. The study found at-risk students \((n=50)\) who received highly intrusive developmental advising had a retention rate of 73%. In comparison, at-risk students who received moderately intrusive developmental advising had a retention rate of 60%, and those at-risk students who did not receive intrusive developmental advising had a retention rate of 53%. Similar to intrusive advising, developmental advising is a style proposed by Crookston (1972); along with traditional prescriptive advising, developmental advising concepts will be present later in this literature review.
Academic Advising: A Closer Look

Academic advising is considered to be a critical part of the student success in college and retention; the success of retention programs often hinged on the effectiveness of academic advising efforts at a university (Astin, 1984; Beal & Noel, 1980; Pascarella & Terenzini, 2005; Tinto, 1987). Performed by university employees (called academic advisors), advising programs are conducted several ways (Kuhn, 2008). For example, academic advising occurs in both a centralized way, where students come to a central office for this specific purpose of receiving general academic advice. In contrast, advising is also performed in specific programs (e.g., mathematics, English, engineering). Additionally, in some universities faculty members also serve in the role as advisors. Although critical, no research studies on academic advising related to special admission students were found; all the studies in this section focus on academic advising in relation to regular admission students. Kuhn (2008) described academic advising as the situations in which the advisor, serving as an institutional representative, offers insight to a college student about academic, social, and/or personal matters. Additionally, Habley (2003) described the importance of academic advising as the students have few opportunities to receive relatively frequent one-on-one interaction with a representative of the higher education institution. Despite the importance of academic advising to student success, in relation to retention, there are debates on the importance of academic advising as a field of inquiry (Habley, 2009). The debate of the importance of academic advising is due to the criticism that research produced little evidence of the effectiveness or importance of the practice of academic advising (Habley, 2009; Pascarella & Terenzini, 1991; Vorhees,
However, the importance of academic advising can be examined for its utility in integrating students into the university environment. Kuhn (2008) argued the academic advisor often serve as students’ only opportunity to have one-on-one interaction with their institutions. Determining how institutions can use these interactions between advisors and students may provide insight into how student experiences and retention can be improved. There are many factors of academic advising that are important for research and its future use in higher education. The factors of academic advising that will be examined in this study are advising style, frequency of student-advisor contact, race or ethnicity matching, and gender matching. An understanding of academic advising is essential for collegiate administrators as they attempt to offer students an optimal experience in higher education.

**Developmental-Prescriptive Advising Styles**

Crookston (1972) was one of the first researchers to begin the discussion on advising styles and their importance to academic advising. His work primarily focused on two academic advising styles: prescriptive and developmental. Prescriptive advising occurs when the relationship between the student and academic advisor closely resembles authority-subordinate characteristics, with the advisor as the authority and the student as subordinate. Yarbrough (2010) described prescriptive advising as focusing on the expertise of the advisor, with the student following through on the advice that is provided. The advisor typically addresses the problem(s) that a student presents; however prescriptive advising can present itself as traditional in nature with the advisor tackling issues that are status quo to university dealings. In prescriptive advising, the
advisor may be limited to course selection and university rules and regulations (Bland, 2004). Additionally, there are limitations to the student’s involvement with the planning and direction of academic development with prescriptive advisors (Crookston, 1972).

Developmental academic advising makes use of collaborative processes between the student and the advisor. Developmental 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” (Ender, Winston, & Miller, 1984, p. 19). In developmental advising, the advisor serves as a facilitator more so than a dictator of those factors necessary for student development and success. According to Crookston (1972), developmental academic advising is defined as a process based on a non-directive student-advisor relationship. It is intended to assist students and attaining their personal and educational goals through the use of institutional resources, while encouraging students to take ownership and responsibility of their academic progress.

**Advising Style Studies**

Typically, studies examining advising style use an instrument such as the Academic Advising Inventory (AAI) to investigate its effect on the developmental-prescriptive continuum. Winston and Sandor (2002) created the AAI as a survey instrument to measure student perceptions of three factors of academic advising: a) the nature of academic advising relationships between students and advisors, along a development-prescriptive continuum; b) the nature and frequency of activities that take
place during advising sessions; and c) student satisfaction with their academic advising experiences. The AAI has been used in studies to measure the above stated factors of academic advising for nearly 20 years. Herndon, Keiser, and Creamer (1996) examined a sample of 481 students at a community college to determine perceptions of their advising style experiences. Their study reported several differences in the type of advising among the groups in the sample. Students who were enrolled part-time received advising that were more prescriptive, in nature in comparison to their full-time counterparts; moreover, the studied reported African-American students received less advising than Caucasian students.

Weir, Dickman, and Fuqua (2005) used a modified version of the AAI to examine the feasibility of measuring student preferences for advising styles as separate constructs; previously advising preferences were not included. Their study revised the AAI to measure developmental advising in a separate section from measures on prescriptive advising. The study (n=228) reported that there was “some” (p. 79) basis to suggest that developmental and prescriptive advising can be measured as separate constructs. Weir et al. reported a statistically significant correlation, $r=0.22, p < 0.01$ with less than 5% common variance for the two scales, which implied the independence of the scales.

Yarborough (2010) used the AAI to further investigate the research conducted by Weir, Dickman, and Fuqua. The study examined the AAI in comparison to a scale developed by Yarborough to measure developmental/prescriptive advising, The Prescriptive/Developmental Preference Scale. The study investigated the change in
advising style preference (using an updated version of the AAI that included advising style preference) during the college career and how student preparedness for college impacted students’ advising style preference. Yarborough (2010) found \((n=118)\) evidence to suggest the AAI and the Prescriptive/Developmental scale measured similar constructs. Yarborough reported the Developmental scale was significantly correlated to the AAI \((r=.433, p < .001)\). In contrast, the Prescriptive scale was slightly negatively correlated to the AAI, however at a non-significant level \((r=-.07, p < .45)\). These findings suggested that there was cause for further investigation on the scales of AAI becoming separate constructs. Yarborough found no evidence to suggest advising style preference changed over time and that student preparedness for college is a predictor of advising style.

**Frequency of Advisor-Student Contact**

Academic advising can only be effective if students and advisors are in some form of contact. Research on a link between effective academic advising and frequency with which students make contact with advisors was not found. However, several scholars have made precursory investigations into the link. Crockett (1978) claimed that effective advising is characterized, in part by frequent high quality contact between students and advisors. Petress (2000) asserted one of the characteristics that build a good student-advisor relationship is frequency of contact. Further, they found that the responsibility of this frequent contact belonged to both the student and the advisor; frequency of contact between the advisor and student served to make the advising process
“active, not passive” (p. 598). Frequency of advising contact might foster the student development process and introduce students to aspects of the university environment that they may not have the capacity or wherewithal to discover on their own. This dissertation study examined how frequency of contact between the student and advisor affects student persistence.

**Gender and Race/Ethnicity Matching**

This area of research in relationship to academic advising was limited. However, there were some studies conducted on the subject of gender and race or ethnicity matching in relationship to mentoring. Research on academic advising and mentoring are often lumped together in the literature (Campbell & Campbell, 2007). Although mentoring tends to contain a deeper level of connection than advising (Campbell & Campbell, 2007), aspects of advising and mentoring such as gender and race or ethnicity matching present similarities worthy of investigation.

Santos and Reigadas (2004) reported that individuals who are ethnically paired with mentors meet with faculty mentors with greater frequency. The study reported 45% of the sample (n=65) was paired with mentors of the same ethnicity; antecedent variables homogenous ethnicity (defined as students and mentors of the same ethnicity), student mentor contact (defined as student and mentor interactions), perceived mentor support, and student attitudinal adjustment accounted for a significant percentage of the variance in academic performance ($R^2=.363, p < .01$) and satisfaction with the faculty mentoring program ($R^2=.550, p < .01$). While research does suggest race or ethnicity matching is an
important aspect of the relationships between students and mentors, Schlosser and Foley (2008) argued the manner in which race or ethnicity differences are approached in mentoring relationships is key to success, not the racial differences or matches.

In relationship to gender matching, Campbell and Campbell (2007) reported no significant advantage came from pairing students ($n=678$) with mentors by gender. Students who were paired with mentors by gender ($n=209$) had cumulative GPA of 2.50 ($SD=0.68$), while those students who were not paired with mentors by gender ($n=128$) has a cumulative GPA of 2.58 ($SD=0.67$). Additionally, students paired by gender (16%) had modestly different first year dropout rates from students not paired by gender (12%). However, further investigation could show a relationship between pairing students and advisors by gender. This study intends to examine the role of the relationship between gender and race or ethnicity matching to how often special admission students visit their academic advisor.

**Summary**

There is a wealth of literature that exists on the topic of student retention. Factors that affect retention are both external and internal. The external factors of retention covered in this review were: student persistence, family demands and support, finances, and pre-collegiate achievement. Student persistence is a student’s ability and/or desire to remain at an academic institution. Sense of belonging, cumulative GPA, and perceptions of integration are external factors that affect persistence for regular admission students, while research on special admission students has been limited to pre-collegiate
achievement and its effect on special admission student persistence. Family demands and support have been shown to have an effect on the retention of both regular and special admission students. A perceived lack of support and a struggle to balance their independence and loyalty to home and family were reported as having an impact on retention. Pre-collegiate achievement (typically measure by high school GPA and SAT/ACT scores) was reported as having an effect on regular retention students; pre-collegiate achievement was listed as an external factor of student persistence for special admission students, but no studies were found on pre-collegiate achievement and its effect of special admission student retention. Finances were shown to have an effect on the retention of regular admission students, while no studies existed on their effect on special admission students.

The internal factors of retentions covered in this review were academic integration, social integration, financial resources available to students, and first-year seminars. While students reported faculty interest in regular admission students had an effect on their academic integration, studies singled out special admission students. As it related to social integration, regular admission students reported significant differences in the effect that faculty inquiries regarding their personal lives had on them. The availability of scholarships and financial resources spent on a per student basis had a positive effect on the retention of regular admission students; however, no studies reporting the effect of financial resources on special admission student retention were found. First year seminars were shown to have a positive effect on the retention of both regular and special admission students.
There was a gap in the knowledge base related to research that addresses academic advising and its effect on the retention of special admission students. Advising style, frequency of student-advisor contact, gender matching, and race or ethnicity matching are factors of academic advising, which have been found to significantly affect the retention of regular admission students. Yet there was little research on special admission student retention. This study addressed this subset of factors related to the academic advising of special admission students.
Chapter III: Methodology

The purpose of this study was to determine the differences between continuing and non-continuing special admission students based on factors of academic advising at publicly funded institutions. The following research questions were addressed, (all questions were explored using student data from their first year of enrollment):

1. Is there a difference in the perception of styles of academic advising (developmental versus prescriptive) between continuing and non-continuing special admission students?
2. Is there a difference in the frequency of student-advisor contact between continuing and non-continuing special admission students?
3. Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived advising style?
4. Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived race or ethnicity matching?
5. Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived gender matching?

Due to challenges faced in the recruitment of non-continuing participants, the opportunity to explore some of the research questions was limited. To some degree, the recruitment challenges of non-continuing participants were addressed through the use of brief phone surveys. The phone survey allowed me to examine some factors of the advisor/non-continuing student dynamic as well as to probe new research questions to better understand what considerations
could be made when recruiting difficult to reach populations (See Chapter IV). The additional research questions examined to investigate these issues were:

6. What are the challenges of recruiting non-continuing students to participate in an online survey?

7. What information was the phone survey able to provide about the non-continuing special admission students that the online survey was not?

This study explored the differences between continuing and non-continuing special admission students based on factors of academic advising. Additionally, this study examined the challenges of recruiting difficult to reach populations for survey research as well as non-continuing student experiences with academic advisors. An explanation of the research design, population and sample, proposed instrumentation, data sources, and data collection procedures are provided in this chapter.

**Research Design**

A non-experimental descriptive research design was employed to investigate the differences between the independent variables (advising style, frequency of contact, gender match, and race or ethnicity match) and the dependent variable, student retention. There were two sources of data used in this study. First, data were collected from students through the use of the Academic Advising Inventory (AAI) and External Factors of Retention Survey (EFRS) using online survey software. Second, data were collected from existing databases provided by an urban higher education institution. Finally, brief phone surveys were conducted with non-continuing students to gain descriptive data from the sample (Gorard, 2001).
Population and Sample

Non-proportional quota sampling was used due to a relatively low of number of expected non-continuing special admission students. The target population included continuing and non-continuing special admission students (N=approximately 300) who were enrolled at an urban public university referred to as Atlantic Urban University (AUU) during the 2011-2012 school year. Continuing students were considered those whose first semester of enrollment at AUU was in the 2011-2012 school year and who were still enrolled through the Fall 2012 semester. Non-continuing students were considered those whose first semester of enrollment at Atlantic Urban University was in the 2011-2012 school year and did not reenroll either after the Fall 2011 or Spring 2012 semester. This sampling technique was used in the study due to a relatively low number of non-continuing student participants in relation to continuing students. Therefore, the researcher used the entire non-continuing special admission student population as its sample. Additionally, the entire population of continuing students was invited to participate in the online survey (Table 2). Table 3 presents a summary of study participants.

Despite the invitation of the entire population, there were some challenges recruiting students to participate in the online survey, particularly non-continuing students. Therefore, a convenience sample was taken for phone surveys with non-continuing students. Non-continuing students who had completed the AAI/EFRS or agreed to do so, were invited to take part in a phone survey. Phone survey data and additional information is provided in Chapter IV and V.

Access to the dataset was granted by the participating university. This university offered special or alternative admission criteria. The presence of the study’s target population and the working rapport between the researcher and the staff at Atlantic Urban University offered the
study an ideal research environment. The researcher worked with AUU to evaluate students’ perceptions of the efficiency and effectiveness of programs offered to increase student academic success (e.g., academic advising, tutoring, writing centers, and supplemental instruction). The researcher’s prior working relationships with AUU and the fact that the researcher has worked as an advisor with special admission students could have presented the potential for personal biases to influence the aims and outcomes of this study. However, the design of the study controlled for the influence of any personal biases using an online survey to examine students’ perceptions of their academic advising experience.

Table 2

Online Survey Pool Summary

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<thead>
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<th>Description</th>
<th>C</th>
<th>NC</th>
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</thead>
<tbody>
<tr>
<td>Original Number of Students (ONS)</td>
<td>230</td>
<td>54</td>
</tr>
<tr>
<td>Removed: Lacking Advisor Consent</td>
<td>11</td>
<td>2</td>
</tr>
<tr>
<td>Removed: Advisor Contact Data Not Tracked</td>
<td>15</td>
<td>6</td>
</tr>
<tr>
<td>Total Number of Students Removed (TNR)</td>
<td>26</td>
<td>8</td>
</tr>
<tr>
<td>Total Online Survey Pool (ONS-TNR)</td>
<td>204</td>
<td>46</td>
</tr>
</tbody>
</table>

*Note. C = Continuing Students    NC = Non-Continuing Students*
Table 3:

Study Participation Summary

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<tr>
<th>Description</th>
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<th>NC</th>
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</thead>
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<td>Number of Participants Invited</td>
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</tr>
<tr>
<td>Number of Actual Participants</td>
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<td>11</td>
</tr>
<tr>
<td>Removed: Incomplete Submissions</td>
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<td>2</td>
</tr>
<tr>
<td>Total Number of Completed Surveys</td>
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<td>9</td>
</tr>
<tr>
<td>Total Number of Phone Survey Participants</td>
<td>NA</td>
<td>6</td>
</tr>
</tbody>
</table>

*Note. C = Continuing Students  NC = Non-Continuing Students*

Table 4 depicts a gender breakdown of sample participants. The overall race breakdown for the study is depicted in Table 5.

Table 4

Continuing and Non-continuing Students by Gender

<table>
<thead>
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<th>Gender</th>
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<th>NCs</th>
<th>NCp</th>
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</tr>
</thead>
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<td>0</td>
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</tr>
<tr>
<td>Female</td>
<td>51</td>
<td>7</td>
<td>6^a</td>
<td>58</td>
</tr>
<tr>
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<td>6^a</td>
<td>75</td>
</tr>
</tbody>
</table>

*Note. C = Continuing  NCs = Non-Continuing Online Survey  NCp = Non-Continuing Phone Survey  
^a = Participants also included with NCs*
Table 5
Continuing and Non-continuing Students by Race/Ethnicity

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>C</th>
<th>NCs</th>
<th>NCp</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American or Black</td>
<td>26</td>
<td>5</td>
<td>4</td>
<td>31</td>
</tr>
<tr>
<td>White or Caucasian</td>
<td>15</td>
<td>3</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>Hispanic American or Latino/a</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Asian American or Pacific Islander</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>Biracial or Multiracial</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Decline to Respond</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td>9</td>
<td>6</td>
<td>75</td>
</tr>
</tbody>
</table>

Note.  C = Continuing  NCs = Non-Continuing Online Survey  NCp = Non-Continuing Phone Survey  
a = Participants included with NCs

Definition of Variables

The variables examined in this study were selected based on their previous use in student retention research. However, due to the limited research on the retention of special admission students, many of these variables have not been investigated in relationship to this category of students.

Dependent Variable

The study included one dependent variable, retention. Retention was measured as a dichotomous variable, as students’ retention status was either continuing or non-continuing. Special admission students were considered continuing if they continued to be enrolled at the same institution for consecutive school years (e.g., Fall and Spring semester plus subsequent Fall...
semester). An interruption to a student’s enrollment status was considered non-continuing. Retention, was evaluated in all of the research questions (Table 6).

**Independent Variables**

The independent variables in this study were advising style, frequency of student advisor contact, gender match, and race or ethnicity match. Advising style was a continuous variable and identified an academic advisor's perceived style of advising as developmental or prescriptive along a developmental-prescriptive continuum.

Frequency of student advisor contact was a continuous variable. Frequency of contact denoted the average number of times a student and advisor make contact in a semester. As some students would have discontinued their enrollment after one semester, frequency of contact will denoted by the average number of times students saw advisors in a semester. They included but were not limited to contacts in an academic advising center, contacts by phone, scheduled campus meetings, and random meetings on campus. Frequency of contact data were collected from the institutional student data provided by Atlantic Urban University and used to answer research questions two through five (Table 6).

Gender match was a dichotomous variable; it denoted if the student and advisor shared the same gender. The outcome was either matched or not matched. A match was considered a male advisor paired with a male student or a female advisor paired with a female student. Not matched was considered a male advisor paired with a female student or a female advisor paired with a male student. Gender match data were collected in Part IV of the Academic Advising Inventory and the institutional student data provided by Atlantic Urban University and used to answer research question five (Table 6).
Race/Ethnicity match was a dichotomous variable, as it denoted if the student and advisor identified as the same race or ethnicity. The outcome was either matched or not matched. An example of a “match” was considered a Caucasian advisor paired with a Caucasian student or an African American advisor paired with an African American student. “Not matched” was considered a Hispanic advisor paired with an Asian student or an African American advisor paired with a Hispanic student. Race/Ethnicity match data were collected in Part IV of the Academic Advising Inventory and the institutional student data provided by Atlantic Urban University and used to answer research question four (Table 6).

Table 6
Summary Variables Used to Answer Research Questions

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Variables Analyzed</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ 1</td>
<td>Retention, Advising Style</td>
</tr>
<tr>
<td>RQ 2</td>
<td>Retention, Frequency of Contact</td>
</tr>
<tr>
<td>RQ 3</td>
<td>Frequency of Contact, Retention, Advising Style</td>
</tr>
<tr>
<td>RQ 4</td>
<td>Frequency of Contact, Retention, Race/Ethnicity Match</td>
</tr>
<tr>
<td>RQ 5</td>
<td>Frequency of Contact, Retention, Gender Match</td>
</tr>
<tr>
<td>RQ 6 &amp; 7</td>
<td>Phone Survey Data</td>
</tr>
</tbody>
</table>

**Instrumentation and Data Sources**

The study used an online survey to collect some independent variable data from participants. The Academic Advising Inventory/Perceptions of External Factors of Retention Survey was the survey instrument administered in this study. Once the survey was uploaded, participants were invited (via email or phone) to complete the survey. Before students were allowed to complete the survey, they were required to provide their informed consent (Appendix
G). Additionally, all participants who completed the survey were entered into a drawing with a chance to win a $20 Amazon.com Gift Card, as incentives have been utilized in previous research on survey participation (Dillman, 2007). A total of five gift cards were given away in this lottery.

Due to low response rates from non-continuing students, brief phone surveys to explore challenges faced when recruiting difficult to reach populations. Additionally, the phone survey presented the opportunity to examine non-continuing student perceptions of the student-advisor dynamic. Participants in the phone surveys received a $10 Amazon.com Gift Card for their participation in the online and phone survey. A total of six gift cards were distributed to participants.

**Academic Advising Inventory**

Winston and Sandor (1984a) created the Academic Advising Inventory (AAI). The National Academic Advising Association (NACADA) grants permission for use of the AAI to its members at no cost. While there is no formal requirement to use the AAI or to include it in dissertation research, NACADA does ask its members to inform them of planned usage. The researcher did inform NACADA of his intent to use the AAI (Appendix D). Data on student perceptions of advising style was provided by Part I of the AAI (Table 7).

Crookston (1972) was one of the first researchers to discuss the concept of developmental advising. Developmental advising is founded on a strong student-advisor relationship where the work of student development is a shared experience between the two entities. Another model of advising, prescriptive advising the expertise of the advisor supersedes the desires of the student (Crookston, 1972). The Academic Advising Inventory is a survey instrument used to gauge a
student’s academic experiences and perceptions along the developmental-prescriptive continuum.

The Academic Advising Inventory consists of four parts. The first part is geared towards an assessment of student’s perceptions of advising style in relation to practical advising activities (e.g., course selection, academic planning). The second part of the instrument lists activities that typically take place during advisor sessions and is meant to gauge how many and how often those activities are discussed in advising sessions. Part three examines the student’s satisfaction with their academic advising experiences. Part four collects demographic information from the participants.

The Developmental-Prescriptive Advising Scale portion of the Academic Advising Inventory contains three subscales: Personalizing Education, Academic Decision-Making, and Selecting Courses (Winston & Sandor, 2002). The scale evaluates a student’s perceptions of whether they received descriptive or prescriptive advising. While the Developmental-Prescriptive Advising Scale measures student’s perceptions of whether they received developmental or prescriptive advising, the subscales measure concentrated elements of advising. The Personalizing Education subscale focuses on a wide range of student education-related experiences; this includes issues of goal setting, career planning, extracurricular activities, and campus resources (Winston & Sandor, 2002). The Academic Decision-Making subscale focuses on student’s perceptions of the role the advisor takes in assisting students with potential major selection, course selection that coincide with potential majors, and monitoring academic progress (Winston & Sandor, 2002). The Selecting Courses subscale focuses on student’s perceptions of activities related to advisor’s role in course identification and selecting a schedule. Scales are scored from low to high, where low scores denote a perception of receiving
prescriptive advising, while high scores denote a perception of receiving developmental advising.

The internal consistency/reliability for the Developmental-Prescriptive Advising scale and the subscales of the Academic Advising Inventory were estimated using the Crombach Alpha analysis (Winston & Sandor, 2002). The Developmental-Prescriptive scale had a coefficient alpha of .78. The coefficient alpha of the subscales Personalizing Education, Advising Decision-Making, and Selecting Courses were .81, .66, and .42, respectively. Winston and Sandor reported these alpha scores as “homogeneous and stable” enough for use on groups of students.

The validity of the Academic Advising Inventory was difficult to determine because no instruments existed to measure advising style prior to its creation (Winston & Sandor, 2002). Winston and Sandor (1984a) determined validity of the Academic Advising Inventory by examining two groups of students they believed were receiving different types of advising. The first group was specially admitted students (n=53) who were perceived to be receiving developmental advising, while the other was regularly admitted students (n=74) receiving advising (thought to be prescriptive) through the university’s Academic Advising Center. Winston and Sandor (2002) found the students in these groups reported receiving contrasting advising styles on the Developmental-Prescriptive Advising Scale (t=6.57, df=115, p< 0.001) and the Personalizing Education subscale (t=8.36, df=122, p< 0.001). Winston and Sandor (2002) reported the group of special admission students (M=80.91, SD=10.46) reported receiving more developmental-oriented advising than the regularly admitted students (M=66.61, SD=12.29) on the Developmental-Prescriptive Advising Scale and Personalizing Education Subscale (M=54.96, SD=8.76; M=38.65, SD=11.94). Also of note, both groups reported on all
measures that their advising was more developmentally oriented. These findings began to validate the face-value expectations of the Winston and Sandor Developmental-Prescriptive Advising Scale and Personalizing Education Subscale. The next step was to determine the differences those advising styles had on students’ retention.

Winston and Sandor (1984a) provided norming data to estimate the reliability of the Academic Advising Inventory; this data included three categories: gender, Race/Ethnic Background and Academic Class (e.g., freshman, sophomore, junior, senior). The total number of participants was 469. Demographics on gender reported as follows: male=42.3% and female=57.7%. The majority of participants identified as Caucasian (77.8%), while African Americans represented 8.1%, Native American 3.6%, Spanish Surname 3.0%, Asian 1.9% and 5.7% Declined to Respond. Data on academic class designation were as follows: freshman 36.8%, sophomore 20.8%, junior 23.3%, and senior 19.1%. Additionally, data reported 48% of the participants were either 18 or 19 years old and 86% were not married (Winston & Sandor, 2002).

**Perception of External Factors of Retention Survey**

After completion of the AAI, The Perception of External Factors of Retention Survey (EFRS) was administered online, also via REDcap Survey. The Perception of External Factors of Retention Survey was a seven-item instrument to explore student’s perceptions of the link between some external factors of retention and their actual retention. Specifically, this survey asked students about their perceptions regarding student persistence, family demands and support, finances, and pre-collegiate achievement.
The seven questions of the EFRS inquired to what degree students perceived the effect that the given external factor of retention had on their retention status. All four questions used a five-point Likert scale to measure students’ perceptions. This survey tool was developed by the researcher with the purpose of providing control for some external factors of retention and additional data to this study. Additionally, this survey was piloted to ensure its validity, understandability and online functionality.

**Non-continuing Student Phone Survey**

During the administration of the Academic Advising Inventory/External Factors of Retention Survey the low response of the target population, particularly non-continuing students presented challenges to reporting significant differences between continuing and non-continuing students. Therefore, a phone survey for non-continuing students was created to investigate a number of perspectives of the non-continuing student’s perspectives of: a) what might motivate a non-continuing student to complete an online survey, b) reasons for departing Atlantic Urban University (AUU), and c) their interactions with their advisors during and after their enrollment at AUU.

The phone survey questions were developed by the researcher with the purpose of providing context to a group of students who were underrepresented in the analysis for this study. (This survey was created and administered with the approval of the AUU IRB). The phone survey consisted of four questions, with follow-up questions if necessary. All four questions were open-ended, and were intended to acquire the participant’s description of their experiences.
Institutional Student Data

In addition to the Academic Advising Inventory and Perception of External Factors of Retention Survey, other data related to the student sample was provided by Atlantic Urban University. The data included student’s name, student’s contact information (email address and phone number), gender, and student-advisor contacts (per semester) (Table 7). These data were used to help administer the AAI and to answer research questions one though five.

Student name and contact information were used to invite students to participate in this study. The online survey was sent to each student’s email address with a personalized message and invitation to participate in the study. The preferred method was email contact, if necessary, phone numbers were used to invite students to participate in the study (see below).

The administrator at Atlantic Urban University provided an Excel spreadsheet list that contained each participant’s number of advising contacts for the school year as well as specific advisor-student pairings (Table 7). The number of student contacts per academic semester was converted into an average number of student-advisor contacts per semester. Lastly, the perception of the race and gender of the academic advisors was reported by Atlantic Urban University student survey participants in the External Factor of Retention Survey (Table 7).
Table 7

Sources of Data Elements

<table>
<thead>
<tr>
<th>Data Elements</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Advising Style Preference</td>
<td>Academic Advising Inventory</td>
</tr>
<tr>
<td>Student Race/Ethnicity</td>
<td>Academic Advising Inventory</td>
</tr>
<tr>
<td>Student Gender</td>
<td>Academic Advising Inventory</td>
</tr>
<tr>
<td>Frequency of Student-Advisor Contact (Per Semester)</td>
<td>Institutional Student Data</td>
</tr>
<tr>
<td>Student-Advisor Assignment</td>
<td>Institutional Student Data</td>
</tr>
<tr>
<td>Enrollment Status (Continuing/Non-Continuing)</td>
<td>Institutional Student Data</td>
</tr>
<tr>
<td>Race/Ethnicity Match</td>
<td>External Factors of Retention Survey</td>
</tr>
<tr>
<td>Gender Match</td>
<td>External Factors of Retention Survey</td>
</tr>
</tbody>
</table>

Data Collection and Procedures

The data collection for this study consisted of a pilot study and the main study. A focus group was used to pilot the online functionality and clarity of the Academic Advising Inventory and the Perceptions of External Factors of Retention survey. At the conclusion of the pilot study, the main study commenced.

Piloting Procedures

This study was piloted with a twofold purpose. First, the Academic Advising Inventory survey was piloted to insure its online functionality was efficient and seamless for participants. Second, the Perception of External Factors of Retention survey was piloted to insure the questions offered clarity to participants in addition to its online functionality.

The pilot study was conducted in two stages (Gorard, 2001). College graduates—undergraduate and graduate students (who do not meet the requirements of the study)—were recruited to complete the online survey instruments and provide feedback (Gorard, 2001). There
were eight participants. After feedback from the participants, changes were made. The sole change was the addition of page breaks at various points of the online survey to reduce scrolling through relatively large amounts of survey content. This change resulted in an 11 page survey compared to the original two page survey. The online survey instruments were again administered to the pilot participants. Data collected from the second round of piloting was analyzed to determine adjustments that were necessary. No additional adjustments were made after the second round of piloting. Results from the pilot study were not used in the main study.

**Administering Online Survey Instruments**

The time period for administering the Academic Advising Inventory/External Factors of Retention Survey (AAI/EFRS) was from June 2013 to October 2013. The AAI/EFRS was available for student participation approximately two months from the initial invitation. After the two month period expired and due to low survey response rates among both groups, but particularly non-continuing special admission students, an Institutional Review Board addendum was submitted to gain permission to use alternative methods to investigate some of the characteristics of non-continuing students and their dealings with academic advisors. Moreover, the alternative methods allowed the researcher to begin to investigate some of the issues faced by these students. Participants were contacted through their email address and invited to complete and submit the AAI through the use of the online software REDcap Survey. Continuing students and non-continuing students were contacted through their university-issued email addresses. In cases where email addresses were invalid or no longer in use, participants were invited to participate by telephone. In those cases, the purpose and a brief overview of the study were shared with the participant and they were asked to provide a valid email address for correspondence. The web correspondence included a brief description of the study (including its
purpose). Participants were informed that the purpose of the study is to examine the effects of academic advising on the retention of special admission students. Further, they were told that participation in the study was voluntary, and their information and all responses would be kept confidential and only be seen by the researcher. On a separate and subsequent web page, consent was requested and required in order for participation in the study.

Student responses to the AAI/EFRS were linked to the institutional-provided student data for analysis. To protect the confidentiality of the participants, study codes were used in the data collection. The process of using study codes helped to insure the confidentiality of study participants. A unique survey link was assigned to every participant. Once students provided consent to participate in the survey a unique ID number was assigned to their survey submission. Each unique ID number was filed with the name of the corresponding student participant in a separate document. The computerized document was accessible only by the researcher. Additionally, the computerized document was password protected.

The first contact with participants consisted of a combination of the pre-survey letter and the actual survey instrument. In this contact, a personalized message containing a brief overview of the study, the purpose of the study, and a confidentiality statement was sent to the participants. The participant also had an opportunity to provide their consent for participation in the study before the Academic Advising Inventory/External Factors of Retention Survey was administered.

As a means of increasing the response rate, the second contact was made in the form of weekly follow-up messages sent to the participant until the end of the data collection. Dillman (2007) explained studies without follow-up contact are more likely to experience lower response
rates than studies that use follow-up contact. The follow-up contact(s) were sent to any participant who had not yet taken the survey after seven days after the initial contact.

A third contact was sent to everyone in the study. One of two personalized messages was sent to all participants. If the participant had completed the survey they received a thank you for their participation. Participants who had not completed the survey received a message restating the purpose of the study and reminding them of their opportunity to participate. This correspondence was meant to remind participants and encourage their participation (Dillman, 2007).

The fourth contact was sent every other day for the final two weeks of the survey instrument’s availability. The message was personalized and informational in nature, and made participants (who had not completed the survey) aware of the scheduled survey closing, as suggested by Dillman (2007).

A token financial incentive was offered to promote student participation (Dillman, 2007). Students who completed the survey were entered into a drawing to win one of five Amazon.com Gift Cards. Dillman (2007) recommended offering a financial incentive to all participants. However, this method was not the most feasible option for this study due to limited funding. Therefore, a total of five, $20 Amazon.com Gift Cards were given to randomly selected participants who completed the Academic Advising Inventory/External Factors or Retention Survey. The offering and subsequent distribution of the $20 Amazon.com Gift Cards was approved by the AUU Institutional Review Board IRB.

Study participants were informed that their participation in the study was strictly voluntary and that they could discontinue their participation at any time. Additionally,
participants were notified that any information provided in the study would be protected and kept confidential and only released as summaries, in which no individual’s name or answers could be identified. Additionally, the researcher had sole password-protected access to their responses and to files and records containing any identifying information.

**Administering Non-continuing Student Phone Survey**

Non-continuing students were invited by telephone to participate in a phone survey. The administering of the non-continuing student phone survey took place during two weeks in late September to early October, 2013. Students who accepted the phone survey invitation received a verbal explanation of the purpose of the phone survey. Once all study information was explained and informed consent obtained, participants were asked the survey questions (and applicable follow-up questions). At the conclusion of the phone survey, participants were invited to take the online portion of the study (if they had not already done so).

**Data Analysis**

Data from the Academic Advising Inventory and the External Factors of Retention Survey were exported (from REDcap) to calculate mean and standard deviations using Microsoft Excel. Due to a low number of survey participants, inferential statistical analysis were not used to answer research questions one through five. However, interesting patterns between the two groups of special admission students were derived from the mean and standard deviation calculations. Additionally, concerns with the low number of survey participants were offset by brief phone surveys with the non-continuing student sample.
Academic Advising Inventory and External Factors of Retention Survey

Research questions one through five were investigated using the Academic Advising Inventory and the External Factors of Retention Survey. After survey data were collected from study participants, each survey entry was reviewed manually by the researcher for completeness. Surveys were considered complete if every question of both survey instruments was answered. Surveys with missing data were treated with listwise deletion from mean and standard deviation calculations (Allison, 2001). The researcher manually examined mean and standard deviation calculations for patterns warranting further investigation.

Non-continuing Student Phone Survey

The phone survey was administered over a two-week period to the non-continuing student sample. The purpose of the survey was to understand what motivates hard to reach populations to participate in online surveys. It was also used to examine the experiences non-continuing students at Atlantic Urban University had with their academic advisors. Given the brief nature of the phone surveys, responses were directly transcribed by the researcher using Microsoft Word.

All six phone survey participants’ responses were compiled into a Microsoft Word document. Phone survey data were manually coded by the researcher using the constant comparative method. The constant comparative method (CCM) was used to develop emerging themes by coding and analyzing large amounts of data at the same time (Miles, Huberman, & Saldaña, 2014; Kolb, 2012). Additionally, CCM allowed the researcher to experience an increased understanding of the data and the experience(s) of the non-continuing student participants. The constant comparisons of each participant’s responses offered both
confirmations of participant’s experiences and burgeoning theories. For each phone survey question, open coding via the use of the phone survey questions (Appendix F) was used to create categories for the survey responses. Axial coding was used to place survey responses into the specific categories. Lastly, selective coding was employed to highlight themes that provided insight into the non-continuing student’s experiences.

**Institutional Review Board**

The researcher submitted necessary documentation for Virginia Commonwealth University (VCU) and Atlantic Urban University (AUU) Institutional Review Board (IRB) approval. Additions to the research plan made during the study were submitted to and approved by the VCU and AUU IRB.

**Delimitations**

This research study was meant to discover the difference, if any, between continuing and non-continuing special admission students based on academic advising factors. However, it was limited to participants who attended an urban undergraduate institutions in the United States. This study did not investigate institutional factors applicable to graduate school students, specially admitted or otherwise. Additionally, at the outset of this research, the plan was to restrict the literature review and research analyzed to research studies that provide statistical analysis to the 1995-2014 time-periods. The retention of collegiate students is one of the primary goals of colleges and universities. This research did not investigate college students who were regularly admitted into their higher education institution. It only examined the effect academic advising had on special admission students attending one publicly funded university. Moreover, the study only investigated the effect of the following academic advising factors advising style,
frequency of student-advisor contact, race or ethnicity matching, and gender matching. Lastly, this research did not investigate the effect these academic advising factors had on special admission students attending community colleges, junior colleges, preparatory academies, or other two-year institutions.
Chapter IV: Findings

The purpose of this study was to investigate differences between continuing and non-continuing special admission students based on academic advising factors. Despite the connections with Atlantic Urban University (AUU), challenges in the recruitment of non-continuing participants and the opportunity to explore some of these questions were limited. To some degree, the recruitment challenges of non-continuing participants were addressed through the use of brief phone surveys. The phone survey created opportunities to examine some factors of the advisor/non-continuing student dynamic as well as to probe new research questions to better understand what considerations could be made when recruiting difficult to reach populations.

The response rates for continuing ($n=66$) and non-continuing ($n=9$) students were lower than anticipated (32% and 20%, respectively). The low response rates for both groups presented challenges in the impending inferential data analysis. As the survey progressed, the response rates for both groups were not sufficient for the planned data analysis methods. In particular, the non-continuing students were difficult to reach via their AUU email addresses. Subsequently, the researcher began making telephone invitations to continuing and non-continuing students who had not completed the survey. Telephone invitations were conducted over a month-long period. At the conclusion of the telephone and email invitations, the responses from both groups of students were insufficient to calculate statistical significance. Statistical significance here describes differences (among continuing and non-continuing groups) that are unlikely due to chance variations in sample selection (National Science Foundation, 2012). Given the low
response rates from the samples, tests of difference in central tendency such as independent t-tests and ANOVA could not be used. With only nine non-continuing student participants, any differences found between students based on retention status would not be meaningful. While the response rates from both groups were low, the response rate from the non-continuing student population was a major challenge of the study and warranted further investigation. Therefore, an Institutional Review Board addendum was submitted to gain permission to use alternative methods to investigate some of the characteristics of non-continuing students and their dealings with academic advisors and begin to investigate some of the issues faced by these students. The alternative methods included a telephone survey to collect the new data and a change in the compensation of the non-continuing students. Lastly, the alternative methods created the opportunity to address two new research questions (questions six and seven). Thus, the initial purpose of the study was expanded to explore the research design itself. Chapter five will discuss in greater detail some options related to the redesign of this study.

Despite the sampling challenges to statistical analysis there are important patterns revealed by this study.

**Research Question One**

*Is there a difference in the perception of styles of academic advising (developmental versus prescriptive) between continuing and non-continuing special admission students?*

Research question one was intended to investigate any existing differences in the perceived academic advising styles received by continuing and non-continuing special admission students. Descriptive statistics (frequencies, means, and standard deviation) suggested interesting patterns that warrant further study (Table 8). A score of 56 and lower on the
Developmental-Prescriptive Advising (DPA) section of the Academic Advising Inventory (AAI) is indicative of prescriptive advising; score of 57 and higher indicates a perception of having received developmental advising (Winston & Sandor, 2002).

Table 8

Descriptive Statistics for Retention and Academic Advising Style

<table>
<thead>
<tr>
<th>Retention Status</th>
<th>(n)</th>
<th>Mean DPA Score&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuing</td>
<td>66</td>
<td>72.5</td>
<td>18.72821</td>
</tr>
<tr>
<td>Not Continuing</td>
<td>9</td>
<td>67.8</td>
<td>24.33505</td>
</tr>
</tbody>
</table>

<sup>a</sup>Score on the Developmental-Prescriptive Advising Scale of AAI

Both continuing and non-continuing special admission students reported a mean score (72.5, 67.8) suggesting they received developmental advising from their advisors. However, the continuing students score, being approximately five points higher, implies a more concentrated developmental advising. The low number of non-continuing students (n=9) with a high standard deviation (24.33505) would suggest a wide varying range of scores reported.

**Research Question Two**

*Is there a difference in the frequency of student-advisor contact between continuing and non-continuing special admission students?*

Research question two was intended to investigate any differences in the frequency of student-advisor contact between students who were retained and not retained by the university. Descriptive statistics (frequencies, means, and standard deviation) suggested interesting patterns that warrant further study (Table 9). The frequency of student-advisor contact data in Table 9 is presented for both the Fall and Spring semesters; the average number of student-advisor contacts
per semester is presented for the number of students \((n)\). These data were provided by Atlantic Urban University and represent actual visits rather than “perceived” or self-reported data provided by students.

Table 9

Frequency of Student-Advisor Contact Based on Retention Status

<table>
<thead>
<tr>
<th>Retention Status</th>
<th>Semester</th>
<th>(n)</th>
<th>Mean Frequencies (^a)</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuing</td>
<td>Fall 2011</td>
<td>66</td>
<td>3.58</td>
<td>1.370689</td>
</tr>
<tr>
<td></td>
<td>Spring 2012</td>
<td>66</td>
<td>2.89</td>
<td>1.755235</td>
</tr>
<tr>
<td>Non-continuing</td>
<td>Fall 2011</td>
<td>9</td>
<td>2.78</td>
<td>0.833333</td>
</tr>
<tr>
<td></td>
<td>Spring 2012</td>
<td>9</td>
<td>2.56</td>
<td>3.045944</td>
</tr>
</tbody>
</table>

\(^a\)Source: Atlantic Urban University Student Data

The Fall 2011 semester at AUU was a little over three months in duration, running from late August to early December; while the Spring 2012 was a little over three months lasting from mid-January to early May. Continuing special admission students saw their advisor more than non-continuing students (Table 9). Additionally, continuing and non-continuing students both presented a decline in the mean number of times they met with their advisor in between the Fall and Spring semesters.

**Research Question Three**

*Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived advising style?*

Research question three was intended to investigate any differences in the frequency of student-advisor contact between students who were retained and not retained by the university based on perceived academic advising style. Descriptive statistics (frequencies, means, and
standard deviation) suggested interesting patterns that warrant further study (Table 10 and 11).

The frequency of continuing student-advisor contact data in Table 10 is presented for both the Fall and Spring semesters; the average number of student-advisor contacts per semester is presented for the number of students \((n)\). Frequency of non-continuing student-advisor contact data are presented in Table 11.

Table 10

<table>
<thead>
<tr>
<th>Advising Style</th>
<th>Semester</th>
<th>((n))</th>
<th>Mean Frequencies</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental</td>
<td>Fall 2011</td>
<td>53</td>
<td>3.60</td>
<td>1.45892</td>
</tr>
<tr>
<td>Prescriptive</td>
<td>Fall 2011</td>
<td>13</td>
<td>3.46</td>
<td>0.967418</td>
</tr>
<tr>
<td>Developmental</td>
<td>Spring 2012</td>
<td>53</td>
<td>2.96</td>
<td>1.742702</td>
</tr>
<tr>
<td>Prescriptive</td>
<td>Spring 2012</td>
<td>13</td>
<td>2.62</td>
<td>1.850156</td>
</tr>
</tbody>
</table>

Table 11

<table>
<thead>
<tr>
<th>Advising Style</th>
<th>Semester</th>
<th>((n))</th>
<th>Mean Frequencies</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental</td>
<td>Fall 2011</td>
<td>7</td>
<td>2.86</td>
<td>0.899735</td>
</tr>
<tr>
<td>Prescriptive</td>
<td>Fall 2011</td>
<td>2</td>
<td>2.50</td>
<td>0.707107</td>
</tr>
<tr>
<td>Developmental</td>
<td>Spring 2012</td>
<td>7</td>
<td>2.71</td>
<td>3.498299</td>
</tr>
<tr>
<td>Prescriptive</td>
<td>Spring 2012</td>
<td>2</td>
<td>2.00</td>
<td>0.000000</td>
</tr>
</tbody>
</table>

Data presented (Table 10 and 11) did not suggest any differences between continuing and non-continuing students based on perceived advising style. Patterns from the Spring 2012 semester
suggested students who perceived receiving developmental advising, regardless of retention status, had more contact with their advisor than students perceiving prescriptive advising. While the Spring 2012 differences are small, it could begin to suggest patterns that over time students perceiving receiving developmental advising have more contact with their advisor. Also, for non-continuing students, this pattern of preference for developmental advisors may start even in the first semester.

**Research Question Four**

*Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived race/ethnicity matching?*

Research question four was intended to investigate any differences in the frequency of student-advisor contact between students who were retained and not retained by the university based on a perceived race or ethnicity match between student and advisor. These data were collected in question number six of the External Factors of Retention Survey, where participants were asked “Were you and your advisor of the same race?” The frequency of student-advisor contact data for continuing and non-continuing special admission students based on perceived race or ethnicity matching for the Fall 2011 and Spring 2012 semesters is presented in Table 12 and 13, respectively.
Table 12

Continuing Special Admission Student Frequency of Student-Advisor Contact Based on Perceived Race/Ethnicity Matching

<table>
<thead>
<tr>
<th>Race/Ethnicity Match</th>
<th>Semester</th>
<th>(n)</th>
<th>Mean Frequencies</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match</td>
<td>Fall 2011</td>
<td>20</td>
<td>3.85</td>
<td>1.899446</td>
</tr>
<tr>
<td>No Match</td>
<td>Fall 2011</td>
<td>46</td>
<td>3.46</td>
<td>1.068884</td>
</tr>
<tr>
<td>Match</td>
<td>Spring 2012</td>
<td>20</td>
<td>3.10</td>
<td>2.245463</td>
</tr>
<tr>
<td>No Match</td>
<td>Spring 2012</td>
<td>46</td>
<td>2.80</td>
<td>1.514663</td>
</tr>
</tbody>
</table>

Table 13

Non-continuing Special Admission Student Frequency of Student-Advisor Contact Based on Perceived Race/Ethnicity Matching

<table>
<thead>
<tr>
<th>Race/Ethnicity Match</th>
<th>Semester</th>
<th>(n)</th>
<th>Mean Frequencies</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match</td>
<td>Fall 2011</td>
<td>4</td>
<td>3.00</td>
<td>0.816497</td>
</tr>
<tr>
<td>No Match</td>
<td>Fall 2011</td>
<td>5</td>
<td>2.60</td>
<td>0.894427</td>
</tr>
<tr>
<td>Match</td>
<td>Spring 2012</td>
<td>4</td>
<td>1.50</td>
<td>1.914854</td>
</tr>
<tr>
<td>No Match</td>
<td>Spring 2012</td>
<td>5</td>
<td>3.40</td>
<td>3.714835</td>
</tr>
</tbody>
</table>

Continuing students who were matched with an advisor they perceived to be of the same race saw their advisor more than any other group in the Fall 2011 semester. However, there was no pattern to suggest that matching students with advisors by race or ethnicity would cause a greater frequency of contact. Notice the second highest group for the Fall 2011 semester was continuing students who were perceived a non-matched with an advisor by race, followed by non-continuing (Match) and non-continuing (No Match). The Spring 2012 semester presented roughly the same
results, except non-continuing students (No Match) mean frequency of contact were higher than non-continuing students (Match) mean frequency of contact.

**Research Question Five**

*Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived gender matching?*

Research question five was intended to investigate any differences in the frequency of student-advisor contact between students who were retained and not retained by the university based on a perceived gender match between student and advisor. These data were collected in question number seven of the External Factors of Retention Survey, where participants were asked “Were you and your advisor of the same gender?” The frequency of student-advisor contact data for continuing and non-continuing special admission students based on perceived gender matching for the Fall 2011 and Spring 2012 semesters is presented in Table 14 and 15, respectively.

**Table 14**

Continuing Special Admission Student Frequency of Student-Advisor Contact Based on Perceived Gender Matching

<table>
<thead>
<tr>
<th>Gender Match</th>
<th>Semester</th>
<th>(n)</th>
<th>Mean Frequencies</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match</td>
<td>Fall 2011</td>
<td>47</td>
<td>3.30</td>
<td>1.101676</td>
</tr>
<tr>
<td>No Match</td>
<td>Fall 2011</td>
<td>19</td>
<td>4.26</td>
<td>1.726979</td>
</tr>
<tr>
<td>Match</td>
<td>Spring 2012</td>
<td>47</td>
<td>2.66</td>
<td>1.255883</td>
</tr>
<tr>
<td>No Match</td>
<td>Spring 2012</td>
<td>19</td>
<td>3.47</td>
<td>2.568364</td>
</tr>
</tbody>
</table>
Table 15

Non-continuing Special Admission Student Frequency of Student-Advisor Contact Based on Perceived Gender Matching

<table>
<thead>
<tr>
<th>Gender Match</th>
<th>Semester</th>
<th>(n)</th>
<th>Mean Frequencies</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Match</td>
<td>Fall 2011</td>
<td>6</td>
<td>3.00</td>
<td>0.894427</td>
</tr>
<tr>
<td>No Match</td>
<td>Fall 2011</td>
<td>3</td>
<td>2.33</td>
<td>0.57735</td>
</tr>
<tr>
<td>Match</td>
<td>Spring 2012</td>
<td>6</td>
<td>3.33</td>
<td>3.50238</td>
</tr>
<tr>
<td>No Match</td>
<td>Spring 2012</td>
<td>3</td>
<td>1.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

There was no pattern to suggest continuing special admission students have a higher frequency of contact with their advisor than non-continuing students based on a perceived gender match. In the Fall 2011 semester, continuing students who were matched with an advisor of the same gender had roughly the same number of contacts as non-continuing students who were also matched with an advisor of the same gender (Table 14 and 15). Moreover, the Spring semester saw non-continuing students who had an advisor they perceived to be of the same gender had slightly more contact with their advisor than continuing students who also perceived a shared gender match with their advisor.

There were some interesting observations among continuing special admission students. In both semesters, students who were not matched with an advisor based on a perceived gender match saw their advisor more than students who perceived a gender match (Table 14 and 15). Continuing special admission students who were not matched with an advisor based on a perceived gender match had more contact with their advisor than matched continuing students and, both matched and unmatched non-continuing students for both the Fall 2011 and Spring 2012 semesters.
Summary of Research Questions One Through Five

Due to the low response rate, the first five research questions were unable to provide inferential statistical analysis. However, the descriptive statistics suggested numerous patterns that are summarized here and described in Chapter V. First, both continuing and non-continuing special admission students reported a mean Developmental-Prescriptive Advising (DPA) scale score suggesting the perception of receiving developmental advising. However, the mean DPA scale score for continuing students was almost five points higher, which suggests a higher level of developmental advising. This pattern presents an interesting question: does developmental advising make a difference in the retention of non-continuing students? Second, continuing special admission students seemed to meet with their advisor more than non-continuing students. Third, regardless of advising style, continuing students seemed to have less contact with an advisor in the Spring 2012 semester compared to the Fall 2011 semester. A resulting question would be: Is this an indicative of increased student independence or a communication issue? Fourth, patterns did not suggest students had more advising contact with advisors of the same race or ethnicity. Though, the finding did yield the question: Are students seeking race or ethnicity match or a sense of respect for one’s race or ethnicity? Lastly, although non-continuous students seemed to meet more frequently with academic advisors of the same gender, the numbers are too small to see this pattern. However, the question remains an important one: does gender match matter for those students least likely to stay in school?
**Research Question Six**

*What are the challenges of recruiting non-continuing students to participate in an online survey?*

Research question six addressed some of the challenges faced by the field investigator during the online survey. These included difficulty reaching students and difficulty getting students to participate.

Early in the data collection phase of this research it was evident the non-continuing students were going to be difficult to recruit for participation in the online survey. Students were recruited to participate in the survey through an email invitation (Appendix E) to their Atlantic Urban University email address. After the first week, only one non-continuing student had followed the link in their email invitation; no students had completed the survey. In comparison, thirteen continuing students had followed the link in their email invitation with eight of them completing the survey. Email invitations were sent out weekly to students who had not completed the survey. Table 16 describes the weekly breakdown of student participation.
Table 16
Weekly Online Survey Student Participation

<table>
<thead>
<tr>
<th>Week</th>
<th>Continuing</th>
<th>Non-continuing</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Two</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Three</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Four</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Five</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Six</td>
<td>28</td>
<td>1</td>
</tr>
<tr>
<td>Seven</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>Eight</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Nine</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

*Note.* Research plan was amended to include $10 Amazon.com Gift Card to participants’ effective week 7.

The week six increase in respondents could be linked to a change in the recruitment strategy. Beginning week six, daily phone calls to survey participants were added to the field work. Phone calls and email invitations were made to any students (continuing and non-continuing) who had not completed the survey. The phone calls to non-continuing students had limited success in comparison to email solicitation, especially when compared to the continuing student sample (Table 16). Phone invitations to the forty-six eligible non-continuing students yielded varying responses, mostly of an unsuccessful nature. Table 17 depicts results from phone invitations.
Table 17
Non-continuing Phone Invitation Results

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed Survey</td>
<td>9</td>
</tr>
<tr>
<td>Agreed to Complete Survey But Did Not</td>
<td>7</td>
</tr>
<tr>
<td>Left Message</td>
<td>15</td>
</tr>
<tr>
<td>Wrong/No Phone Number</td>
<td>13</td>
</tr>
<tr>
<td>Did Not Wish To Participate</td>
<td>2</td>
</tr>
</tbody>
</table>

In addition to the difficulties reaching non-continuing students, another challenge experienced in the fieldwork portion of the study was getting respondents to actually participate. As illustrated in Table 17, there were nine instances where students agreed to participate in the study (n=7) and did not complete the online survey or did not wish to participate (n=2) in the study. Multiple follow-up phone calls were made to the students who agreed to participate, however these attempts did not yield any additional respondents. The inability to get students to complete the survey was a significant impediment to recruiting non-continuing students to participate.

Also, as a part of the change in the recruitment protocol (IRB Approval: Appendix C), a change in the compensation was made to increase responses. The original compensation plan called for participants (who completed the online survey) to be entered into a drawing for a $20 Amazon.com gift card. Given the low response rate from non-continuing students, the revised compensation plan called for non-continuing participants (who completed the online survey) to receive a $10 Amazon.com gift card for participation. The thought behind the change was
offering students guaranteed compensation may increase the response rate of the non-continuing population.

The phone survey invitations were only made to the non-continuing student sample. Due to the challenges experienced during the recruitment of non-continuing students, the phone survey asked questions (Appendix F) about students interactions with their advisor and what factors may have lead them to complete an online survey. Some follow-up questions were asked, as needed. In total, six phone surveys were conducted. All six phone survey participants were female; each participant agreed to the phone survey and shared some categorical responses that offered some insight to the experiences of the non-continuing student and ways in which to recruit students for online survey research. The phone survey participants did not receive additional compensation for their responses.

**Research Question Seven**

*What information was the phone survey able to provide about the non-continuing special admission students that the online survey was not?*

The phone survey offered responses that begin to provide a description of the issues faced by non-continuing special admission students. The researcher phoned participants and acquired their consent to participate in the study. The phone surveys were intentionally brief and invited descriptive responses. All responses were transcribed in the field by the researcher. The purpose of the phone survey was to provide insight as to what it would take to get difficult to reach groups to participate in an online survey. As the phone surveys progressed, themes began to emerge. The survey consisted of four questions (Appendix F) with applicable follow-up
questions, which served as the foundation for the themes presented in this section. The researcher coded responses by grouping similar themes from survey participants.

**Motivation to complete a survey.** It was important to begin to understand what it would take for students to complete an online survey. The responses fell into two categories; respondents either stated: (a) they wanted to be compensated (with no specific amount given) or (b) the survey is for a good cause.

**Compensation.** Students who stated compensation as a factor leading to their completing a survey did not specify a particular amount. The types of compensation varied, with respondents citing “free gift card,” a “reward,” and “money” as motivation to complete an online survey.

**Good cause.** Four of these respondents stated completing a survey for a “good” cause made them more likely to complete a survey. Bella saw no purpose in completing a survey lacking merit, stating, “If it’s going to help something I would do it, if it’s not helpful there’s no reason.” In addition to a survey with a good cause, the level of interest shown by the researcher is important, as Fiona stated, “It would also depend on the type of survey. The surveyor would have to be passionate and it would have to be for a good cause.”

**Reason(s) for Leaving.** As these participants were non-continuing students, it was significant to determine why they choose to leave school. One of the overarching questions of this study was to determine the differences between continuing and non-continuing special admission students based on academic advising factors, therefore determining why these students left school was very important. Two themes emerged from the respondents: (a) difficulties adjusting to campus area and (b) personal issues.
Difficulties adjusting to campus area. Three of the respondents who left school after their first year of enrollment indicted a difficulty adjusting to the campus and surrounding area. Proximity from home was a theme discussed by Danielle who, “wanted to be somewhere closer that wasn’t three hours away.” Similarly, Elaine described the pace of AUU’s campus and surrounding city to be unlike the “slow-paced stuff” to which she was accustomed; the “fast-paced lifestyle” she described at AUU was not conducive to her continued enrollment. Carmen also found being in the middle of campus life caused her to have a “hard time focusing on school, instead of the city life.”

Personal issues. Factors beyond AUU’s purview caused three of the respondents to discontinue enrollment. Amanda “found out she was pregnant” and school was no longer her primary focus. She chose not to discuss her pregnancy with her advisor because she wasn’t sure “if it would have made a difference.” Meanwhile, the high cost of attendance caused both Bella and Fiona to leave school. Bella explained how she “left school mostly because of money. I could not pay and my mom was sick so I have to come home and help with the family.” For Bella, her father was the only parent able to work and financial aid was insufficient for her study, and “didn’t give me as much [money] as my sister who went there [AUU], so I don’t know what happened.” Fiona also felt tuition was “too high” however, after some “helpful” dialogue with her advisor regarding some possible funding, “I decided it [leaving] was the best decision for me to make at that time.”

Student Informed Advisor of Departure. The advisor is viewed as the institutional representative to the student (Frost, 1991; Hunter & White, 2004). Therefore, it was important to determine whether the student informed their advisor of the pivotal decision to leave school. Four students did inform their advisor of their intention to depart from AUU, while two did not.
**Informed advisor.** After informing her advisor of her decision to leave AUU, Amanda shared that her advisor “tried to get [her] to stay.” Ultimately, she decided to depart from AUU, but she found her conversation with her advisor to be “helpful.” Carmen joked that after she informed her advisor of her decision to depart from AUU, “she [the advisor] forgot to put me in the system and I had people contacting me trying to figure out why I wasn’t enrolled.” The departing students found the conversation they had with their advisors helpful and even found insightful information about other institutions from advisors. As Danielle explained, “they tried to aid me in my transition to another school and talk to me about why I wanted to leave.”

**Did not inform advisor.** There were two respondents who did not inform their advisor of their intention to depart from AUU. Bella did not inform her advisor as she “didn’t feel like [her advisor] cared.” She continued that here advisor was “nice enough,” but did not “give you options or actually care about your school work.” When asked if a different perspective would have made a difference in her retention status, she stated “not really, family stuff was more important than school.” Elaine decided to depart from AUU “midway” through her second semester and did not think about calling her advisor until after the semester was over, as she “didn’t think it was necessary.”

**Advisor Initiated Contact-Since Departure.** As stated earlier, the advisor is considered the university’s representative for students (Frost, 1991; Hunter & White, 2004). Therefore, the last phone survey question sought to discover if there had been any attempts by the advisor to reach out to the student since their departure from the university.

**Advisor tried to contact me.** The two participants who responded yes indicated their advisor did phone in an attempt to get her to return to the university. Carmen stated that she did
receive some “voice messages” trying to determine why she did not register for classes. While, Fiona stated she received calls from her advisor with information on “different programs and funding the university had to offer for my major and asked did I want to come back, but it was too much [money].”

**Advisor did not try to contact me.** Four of the respondents stated, to their knowledge their advisor had not reached out to them since their departure from the university. Bella was not aware of any attempts to contact her by her advisor. She did not feel that any such attempts would have made a difference in her retention status. Bella explains, “The decision was mine, I decided that AUU didn’t have what I wanted or I was never offered the classes I wanted.” She was not enthused about the contacts she had with her advisor while enrolled and Bella declared, “I talked to my advisor a couple of times about different courses and she said the only way I could go was the way she put me, I didn’t appreciate that for one.”

Danielle shared a similar view that had attempts been made, the outcome would have been the same. She indicated, “I don’t think [there was anything my advisor could have done to get me to stay] because it was based on me and my mind was already set on leaving.” Her mind being set on leaving as, “distance from home was something I couldn’t get over.”

Elaine, however, did not receive any contact from her advisor, but acknowledged, “Yeah, I think [my advisor contacting me] would’ve made a difference and I might have stayed.” Elaine confessed that the lack of contact didn’t help her in the time she was making this pivotal decision and not hearing from her advisor was “maybe a psychological thing, I just wasn’t happy at school so that’s why I left.”
Lessons Learned From Additional Research Questions

The phone survey illustrated several areas of the study that could be altered to improve the overall design of the study. For example, creating questions relevant to non-continuing students could allow future research to discover valuable information about a population that is difficult to contact and subsequently not examined in research. Additionally, the study’s low response rate created a need to discover effective methods for online survey recruitment. Moreover, creating effective dialogue between students and advisors to determine student needs and plausible solutions may increase retention among those individuals considering departing the university. These and other areas will be discussed in greater detail in Chapter Five.
Chapter V: Conclusions and Recommendations

The retention of college students is essential to the success of the higher education system. There are many factors, both internal and external, that can have an effect on the retention of college students. The purpose of this study was to investigate the role of academic advising, as an internal/institutional factor of retention, and its effect on a specific group of students, special admission students. These investigations were made through the observations of the differences between continuing and non-continuing special admission students based on their perception of their academic advising experiences. Most data were collected through an online survey; phone surveys were also used with the non-continuing student participants. The findings (Chapter IV) illustrated a need for further investigation of academic advising and its role in special admission student retention, but the research questions and their preliminary findings serve as the catalyst for discussion and recommendations presented in this concluding chapter.

Conclusion of Findings

There were interesting findings in this study, with a caveat. Given the low response, the first five research questions did not present the opportunity to calculate inferential statistics. However, there were patterns derived from this research which begin to provide insight on special admission student retention. Moreover, research questions six and seven presented the opportunity to discuss some of the challenges faced by non-continuing students as well as insight into overcoming the challenges of increasing the participation of students no longer enrolled with the university.
Research Question One

*Is there a difference in the perception of styles of academic advising (developmental versus prescriptive) between continuing and non-continuing special admission students?*

Research question one sought to investigate any differences in the perceived style of advising received by continuing and non-continuing students. While no statistical differences could be determined, observations (Table 6) suggested both continuing and non-continuing students perceived receiving developmental advising, as opposed to prescriptive advising. However, continuing students (n=66) reported higher mean scores on the Developmental-Prescriptive Advising Scale of the Academic Advising Inventory than non-continuing students. These observations provide support for the hypothesis raised by the researcher.

Molina and Abelman (2000) described an advising style similar to developmental advising currently known as proactive advising (NACADA website, n.d.) as having an effect on special admission students. While proactive and developmental advising are not exactly the same, they share similarities. Proactive advising was derived from developmental advising by Robert Glennen (NACADA website, n.d.). Glennen took developmental advising a step further to help advisors reach out to students by mandating advising contacts for students who might not be seeking advising. The goal of proactive advising is for students to become less reliant on their advisor through the identification of any outlying issues or struggles (Molina & Abelman, 2000). Similarly, developmental advising encourages students to take ownership of their academic performance under the guidance of their advisor. This type of advising relationship is collaborative (Crookston, 1972). As illustrated in Table 10 and 11 students (who perceived developmental advising) in this study have less frequent contact with their advisor in the Spring 2012 compared to the Fall 2011 semester. In Molina and Abelman (2000), students who received proactive advising had a retention rate of 73%, (n=50); those special admission students
who did not receive proactive advising were retained at a 60% (n=50) rate. Eighty-eight percent of all special admission students in this dissertation study who perceived receiving developmental advising (n=60) were retained by the university.

The limited research on advising style and special admission student retention could stem from the overall lack of special admission investigations. Retention studies typically focused on external factors of retention, as opposed to internal factors like academic advising (Barefoot, 2004). Additionally, retention research tends to focus on regularly admitted students. Typically, the focus of retention research is specific to subcategories, like race, gender, and culture.

**Research Question Two**

*Is there a difference in the frequency of student-advisor contact between continuing and non-continuing special admission students?*

Research question two sought to examine differences between continuing students and non-continuing students related to the number of times they had contact with their academic advisor in their first two semesters. As illustrated in Table 7, continuing students had, on average, one additional contact with their academic advising than non-continuing students in the Fall 2011 semester. In contrast, during the Spring 2012 semester the mean number of contacts for both groups decreased, with the gap between continuing and non-continuing students narrowing to less than a .5 difference. The Spring 2012 findings suggested that after one semester of advising, continuing and non-continuing students have roughly the same amount of contact with their advisor. These findings did present some support for the hypothesis, as continuing students did have more contact with academic advisors than non-continuing students, particularly in their first semester.
In support of these findings, Noel (1985) argued that advisors who have face-to-face interactions with students provide the experiences that assist students in the identification and pursuit of their talents and goals. Noel considers the caring attitudes of academic staff as the driving force of student retention. While retention and graduation rates are different, successful graduation rates for an institution could imply successful retention. Moreover, the nature of the contacts described by Noel do not differentiate between academic advising and faculty contacts, but the researcher proposed that students who had multiple contacts with academic advisors would be more likely retained by the university.

There are few studies that focused on frequency of student-advisor contact. Moreover, there are not many studies that investigated frequency of student-advisor contact, with regard to special admission students. Nevertheless, the data suggested frequent advising in the Fall semester may be important to the retention of special admission students and that further study in this area is warranted.

**Research Question Three**

*Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived advising style?*

The third research question continued to investigate the frequency of the student-advisor contact dynamic. This inquiry sought to determine differences between continuing and non-continuing special admission students based on their perceived advising style. Students perceptions of their advisors’ advising style were determined by participants score on the Descriptive-Prescriptive Advising Scale of the Academic Advising Inventory. Table 8 illustrated the majority of continuing students (n=53) perceived receiving developmental advising, with only thirteen continuing students perceiving prescriptive advising. Table 9 showed seven non-
continuing perceived receiving developmental advising, compared with two perceiving prescriptive advising. Observations did not suggest any differences in frequency of advisor contact based on perceived advising style in either the continuing or non-continuing groups in the first semester. However, in the Spring semester, advising style may have made a difference for non-continuing students. For the Fall 2011 semester, regardless of perceived advising style, continuing students \((n=66)\), had more contact with their advisor than non-continuing students \((n=9)\). For the Spring 2012 semester, continuing students, regardless of perceived advising style, saw their advisors less frequently then they had in the Fall. On the other hand, non-continuing who perceived their advisors’ style as developmental maintained the same frequency of contacts in the Spring as they had in the Fall; in fact, in Spring semester, non-continuing student contacts were about the same as the rate for continuing students in Spring 2012 semester. Only those non-continuing students perceiving prescriptive advising had a decrease in contacts in the Spring semester compared to their Fall semester contacts. While the data did not suggest any differences in visits among continuing students due to advising style, an intriguing observation was the overall decrease in student-advisor contact between the Fall and Spring semester among continuing students. Another important observation of this study was that a developmental advising style may matter more for the non-continuing students than continuing students, especially in terms of frequency of contacts for non-continuing students in the Spring 2012 semester.

This study did not investigate possible reasons why students did or did not frequent an academic advisor. However, students in this study experienced a decrease in advisor contacts. Changes in the frequency of student-advisor contact could decrease for a number of reasons. The decrease could be attributed to the students’ increased comfort navigating through the
collegiate landscape. As the school year progresses, students presumably have increased their knowledge of campus life through the social connections made throughout the year. Data on faculty mentors and the role they play on special admission students’ academic integration, and ultimately retention could provide insight as to why students tend to become less reliant on academic advisors. Lee (1999) described special admission students’ perceptions of faculty mentor role. Students appreciate having someone with whom they share similar career and academic interest. Additionally, the resource of speaking with those who have undertaken a similar academic journey as them was appealing. Lee explained students’ perception of having a faculty member show them the ropes and mentor them as an important factor to their integration and satisfaction with the institution. As students seek out others to guide them through their academic journey, they could view faculty members as greater resources for guidance and assistance than academic advisors. The investigation into differences in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived advising style yielded four findings in the form of refined questions for the field. The four findings are as follows:

1. Do continuing special admission students have more contacts than non-continuing students overall? If so, how could this finding inform more effective interventions for those students most at-risk of not continuing?

2. Does advising style matter in terms of frequency of student-advisor contacts? If so, does it matter more in Fall or Spring semesters? Does it matter more to those students most vulnerable in terms of not continuing?
3. Does a developmental advising style make a difference in terms of advisor contacts for non-continuing students? Does it matter more in the Spring semester than the Fall?

4. Do continuing students, regardless of perceived advising style, see advisors less frequently in Spring than Fall? Should this decrease be seen as a sign of a communication problem, or, conversely, as a sign of growing independence among continuing students?

Research Question Four

Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived race/ethnicity matching?

The fourth research question further investigated potential factors that affect frequency of student-advisor contact. This portion of the investigation examined the perceived race or ethnicity match of the student and the advisor. Students provided their perception of whether their advisor was the same race as them. Tables 12 and 13 provided the data on special admission student’s perception of a race/ethnicity match for continuing and non-continuing students, respectively. Table 12 showed twenty (30.3%) continuing students perceived a race or ethnicity match with their advisor, compared to forty-six (69.7%) continuing students who perceived no race or ethnicity match. Compared to continuing students, proportionally more non-continuing students perceived a race or ethnicity match with their advisor. Table 13 illustrated four (44.4%) non-continuing students perceived a race/ethnicity match, compared to five (55.6%) students who do not perceive a match. The findings did not suggest any differences in advisor contacts between continuing and non-continuing students based on a perceived race or ethnicity match in the Fall semester. For the Fall 2011 semester, continuing students, regardless
of perceived race/ethnicity match, had more contact with their advisor than non-continuing students. In the Spring 2012 semester, however, the findings presented some variation. The five non-continuing students who did not perceive a race or ethnicity match had the most contacts for the semester followed by continuing students who did perceive a race or ethnicity match. While intriguing, these findings are likely due to the small number in the non-continuing group. However, based on the change in this group between the Fall and Spring, this category may bear further investigation.

The findings do not support the hypothesis of this study, which assumed students who perceived a race or ethnicity match would have more contact with their advisor. The assumption was based on the notion that students would feel more comfortable and connected to an advisor who shared the same race or ethnicity background. Research on the frequency of student-advisor contact is limited. Moreover, the studies that were found examined frequency of student-mentor contact. Mentoring and advising do not constitute the same type of academic support; however, some similarities bear implication. Santos and Reigadas (2004) described students (n=65) and faculty mentors matched by race/ethnicity as a factor leading to greater frequency of contact (β=.387; p<.01). Schlosser and Foley (2008) speculated that the race or ethnicity matching differences are not essential to frequency of contact; rather what mattered was, how any perceived matches or differences are approached in the relationship. Despite the lack of findings in this study, it is a reasonable assumption that students who perceive that their race and ethnicity identity are respected by their advisor, are more likely to develop a stronger rapport with their advisors.
Research Question Five

*Is there a difference in frequency of student-advisor contact between continuing and non-continuing special admission students based on perceived gender matching?*

The fifth research question concluded the investigation on potential factors that affect frequency of student-advisor contact. This portion of the investigation examined the perceived gender match of the student and the advisor. Students provided their perception of whether they were the same gender as their advisor. Tables 14 and 15 provided the data on special admission student’s perception of a gender match for continuing and non-continuing students, respectively. Table 14 showed the majority of continuing students (n=47) perceived having a gender match with their academic advisor. However, for both the Fall 2011 and Spring 2012 semester the continuing students (n=19) who did not perceive a gender match had more contact with their advisor. Table 15 illustrated the six non-continuing students who perceived a gender match with their advisor had more contact with their advisor for the Fall 2011 and Spring 2012 semesters than the non-continuing students who did not perceive a match with their academic advisor. The findings suggested a possible difference between continuing and non-continuing students based on a perceived gender match: continuing students who were not matched with an advisor based on gender had more contact than non-continuing students who were matched with an advisor. Moreover, continuing students who were not matched with an advisor by gender had more contact than any other group, continuing or non-continuing. Further investigation of this finding would be helpful in determining the significance of being matched with an advisor of the same gender.

Campbell and Campbell (2007), in a study examining the relationship of matching students with mentors based on gender, did not discover a significant difference between
students paired with mentors of the same gender compared to those not matched with a mentor of the same gender. The hypothesis of this study assumed students who perceived a gender match would have more contact with their advisor. The assumption was based on the notion that students would feel more comfortable and connected to an advisor who was similar to them. Like race/ethnicity matching, gender matching may or may not lead to more contact between advisor and students who are continuing in the program. Perhaps, like race/ethnicity matching, what matters most for the continuing students is that their gender is respected. However, gender matching might be an important factor for maintaining frequent contact with advisors for those who are most at risk of non-continuing. The gender matching observations indicate a need for further investigation. Determining the significance of these observations as well as reasons why students are more or less likely to contact an advisor based on a gender match could inform the research community of possible academic advising practices.

Summary of Original Research Questions

The original research questions of this study intended to investigate multiple aspects of the student-advisor dynamic. The investigation included what type of advising style students perceived receiving, and whether the advising factors: perceived advising style, overall frequency of student-advisor contact, and frequency of student-advisor contact based on perceived advising style, race or ethnicity and gender matching. Each research question presented some interesting observations. However, due to a low number of responses from continuing and non-continuing students, the study was not able to provide findings with any statistical significance.

Nevertheless, these preliminary descriptive findings raise intriguing new questions which may advance the research field. The investigation into differences between continuing and non-
continuing special admission students yielded six findings in the form of refined questions for the field. The six findings are as follows:

1. Do continuing special admission students have more advisor contacts than non-continuing students overall? If so, how could this finding inform more effective interventions for those students most at-risk of not continuing?

2. Does advising style matter in terms of frequency of student-advisor contacts? If so, does it matter more in Fall or Spring semesters? Does it matter more to those students most vulnerable in terms of not continuing?

3. Does a developmental advising style make a difference in terms of advisor contacts for non-continuing students? Does it matter more in the Spring semester than the Fall?

4. Do continuing students, regardless of perceived advising style, see advisors less frequently in Spring than Fall? Should this decrease be seen as a sign of a communication problem, or, conversely, as a sign of growing independence among continuing students?

5. What about race relations matters in the advisor/advisee relationship—is it race or ethnicity match or a sense of race or ethnicity respect? Does race or ethnicity matching matter more for those students most vulnerable to the risk of discontinuing?

6. Does gender and race/ethnicity matching mean more for those students more likely to not continue than those who continue? A careful study of the effects of race/ethnicity and gender matching on non-continuing students will require a larger sample.
The limitations presented by the low number of responses did present the opportunity to investigate non-continuing students further. This additional investigation included possible recruiting methods, and various topics in the non-continuing-advisor dynamic. The investigation focused on non-continuing students, as this group was considerably more difficult to recruit than the continuing student sample. The discussion now turns to these issues.

**Research Question Six**

*What are the challenges of recruiting non-continuing students to participate in an online survey?*

The sixth research question sought to determine some of the challenges of recruiting difficult to reach population, in this case, the non-continuing student sample of AUU. This question was derived during the administration of the online survey. As the survey progressed, despite multiple attempts, the non-continuing student population sample was difficult to contact for participation in the online survey. A non-continuing student did not participate in the online survey until week five of its availability (Table 14). Students received email and telephone invitations. This circumstance presented the opportunity to continue the initial research, while investigating the challenge of recruiting the non-continuing student population. After changes to the recruitment protocol (IRB Approval: Appendix C), non-continuing students who participated in the study received guaranteed compensation, in addition to the original opportunity for a chance to receive compensation. At the conclusion of the study, there were nine non-continuing students, who agreed to participate in the online study. Of the nine non-continuing participants, six agreed to participate in a brief phone survey.

The challenges of recruiting non-continuing students for participation in the online study were presented by multiple factors. First, at the time non-continuing students were invited to participate in the study they been not been enrolled with Atlantic Urban University (AUU) for a
full school year. Given the research plan called for students to be initially contacted using their AUU-issued email addresses, the ability to contact students was a challenge because, typically, a student who has departed from a university may perceive little reason to continue use of this email address. Also, non-continuing students may have lost access to the university-issued email upon departure. As contacting non-continuing students on their university email addresses was not the most ideal way to contact students, alternative forms of contact must be considered. For example, research on reaching difficult to reach populations might include the use of text messaging for communication. A Pew Internet Survey reported 66% (n=3,014) of 18-29 year-olds in the United States own a smartphone (Rainie, 2012). Furthermore, in a health care study, thirty-five participants (73%) indicated text messaging was a preferred method of contact (Maher, Pranian, Drach, Rumptz, Casciato, & Guernsey, 2010). This is not to suggest text messaging as means for administer online surveys; however, it could be used to invite and remind potential participants. Therefore, survey researchers have an opportunity to increase their reach among individuals who are difficult to reach (e.g., non-continuing special admission students) through their cell phone.

Second, once the researcher began making phone call invitations to non-continuing students, reaching students was still a challenge. Over half (n=28) of the non-continuing student population either had a wrong number or no phone number listed with AUU (n=13) or did not respond to multiple phone messages left on answering machines or with relatives (n=15). There are a myriad of reason why individuals change phone numbers. However, the lack of response from non-continuing students who had messages left could be due to a lack of interest in discussing anything related to their previous academic experiences. Moreover, there is reasonable possibility that messages left with answering machines and relatives were not relayed
to the intended party. As stated above, the use of cell phones as a source of contact may increase the ability to reach groups who have departed from the university.

Third, the initial research plan offered an opportunity to receive a $20 Amazon.com Gift Card for participation in the study. The opportunity to receive compensation may not have been enough incentive for the time commitment. Guaranteed compensation was listed by multiple participants in the phone survey as a reason they would participate in an online survey. Those findings are supported by Dillman (2007), who suggested providing guaranteed compensation to invitees invokes a sense of moral obligation to complete internet surveys. The notion of a moral obligation may have been responsible for the increase in non-continuing participants. Once guaranteed compensation was added to the research plan (IRB Approval: Appendix C), responses among the non-continuing student sample increased (Table 14). However, guaranteed compensation is not always a feasible method for researchers. Therefore, future research should examine the possibility of using social media and other online fundraising methods (e.g., Kickstarter, Indiegogo, Peoplefund.it) to generate funds to conduct research.

Research Question Seven

What information was the phone survey able to provide about the non-continuing special admission students that the online survey was not?

The purpose of the seventh research question was to discover details about the non-continuing special admission student sample through phone surveys, as opposed to the Academic Advising Inventory/External Factors of Retention Survey (AAI/EFRS). There were multiple findings yielded from the phone surveys that were not possible through the online survey. The findings from the phone surveys differed from the online survey as the objective of the two instruments were different. The AAI/EFRS was intended to gather data focused on student
perceptions of their academic advising experiences and their perceptions of external that could have an effect on their retention. In contrast, the phone surveys were administered in response to a lack of participation of the non-continuing student sample, with an objective of discovering potential methods to recruit difficult to reach population and details of the non-continuing student experience with academic advisors. While the AAI/EFRS was able to provide valuable information on student perceptions on advising, the phone offered a deeper investigation of recruiting methods and student-advisor experiences.

Motivation to Complete a Survey

The phone survey provided key insight into the requirements to recruit non-continuing student participation. The responses from phone survey showed there has to be some value for the participants. Value was reported in two ways; compensation and the perceived importance of the research. Respondents who listed some form of compensation seemed to be referring to financial compensation. Financial gain, in cash or gift card form, is presumably the preferred method for potential survey participants. None of the respondents mentioned the “chance” to receive financial compensation as motivation; therefore, offering guaranteed financial compensation is essential to potential online survey participants.

Research for a good cause was suggested as motivation for participation in an online survey. Respondents placed value in the knowledge that their participation would be going to further a worthy cause. Bella, Fiona, and two other participants declared research they perceived to be for a good cause as motivation for their participation in online survey research. For that reason, clearly stating the objectives and how participation serves said objectives could aid in the recruitment of difficult to reach populations, including non-continuing students.
This finding is supported by McPeake, Bateson and O’Neil (2014) in a study on maximizing electronic surveys. While the study does not account for difficult to reach populations, like non-continuing students, it does provide potential motivations for online survey completion. McPeake et al. suggested providing potential respondents with the study goals (e.g., for research and participation) and up-to-date response rates as motivation for potential respondents to participate in online survey research. Providing potential respondents with current response data could be accomplished (weekly or biweekly) by reporting the number of current responses and a target number of responses in the survey reminder email(s). Reasonable survey response rates can be tough to obtain regardless of format. Therefore, researchers must remain observant of ways to motivate respondents to participate in internet surveys, even with such simple things as providing clear purposes for the study and periodic updates of response rates.

**Reason(s) for Leaving**

Determining reasons students discontinued their enrollment at Atlantic Urban University was important to understanding the plight of the non-continuing student. The phone survey participants departed from the university citing lack of adjustment to campus life and personal reasons. Danielle was not comfortable with her distance from home. Elaine never got acclimated to campus life at AUU or its surrounding cityscape. Carmen found campus life to be a distraction that left her unable to focus on her school work. For one reason or another, each student described an inability to be comfortable with campus life at AUU. These findings illustrate a necessity for university like AUU to create an environment where students have multiple positive experiences that could promote comfort within the universities infrastructure.

Personal issues were a common theme amongst the phone survey participants. There were differing issues causing students to withdraw from classes at AUU. School became
secondary to Amanda, once she discovered she was pregnant, so much so that she did not discuss her pregnancy with her advisor because she did not feel it would have made a difference. Bella and Fiona both left school due to financial issues. Bella could not afford the tuition, as her father was the sole provider due her mother’s illness. Those financial restraints compelled her to leave school to work in an effort to assist her family financially. Similarly, Fiona perceived the tuition at AUU as too much for her family to afford and ultimately decided leaving school was the best decision for her. With annual rising costs for college attendance nationally it is imperative that students receive the most current education regarding financial aid and other assistance, particularly students who may receive less financial support from their families and thus incur student debt that can burden them for decades after graduation.

Singell (2004) reported non-continuing students \( n=1,236 \), admission type is assumed regular) who reported inadequate financial aid are 9.3% more likely to drop out of school. Providing information on financial aid and other collegiate funding opportunities (e.g., grants, scholarships) could reduce the students’ need to work, which may allow for additional focus on academic pursuits. Financial aid counseling could also serve as an introduction to opportunities for students to work with faculty and staff members in fields which they are interested. The benefits of these sorts opportunities are two-fold as they can give students the opportunity to earn income and tuition assistance, while gaining practical experience in their field of study. As described earlier, working with faculty and staff members can aid in increasing students’ academic integration, which can influence student retention (Ari, 2009; Tinto, 1993).

**Student Informed Advisor of Departure**

With the importance of the role of the academic advisor, it is essential for them to have current information on the students they serve, particularly enrollment information. Students for reasons unknown do not always inform their advisor of their intent to depart from the university.
The majority of the phone survey participants did inform their advisor of their intention to depart from the university. Amanda had a conversation with her advisor, in which her advisor tried to persuade her to remain enrolled. She found the conversation helpful despite her final decision to leave school. Danielle received some helpful advice and assistance in finding another school after discussing her decision to depart from AUU. The non-continuing phone survey participants who informed their advisor of their decision to leave AUU described mostly positive experiences. Those positive experiences are important to encourage students to continue their academic pursuits at other another institution or possibly to return to their previous institution, in this case AUU.

However, not all non-continuing students chose to inform their academic advisor of their decision to leave the university. Bella never got the sense her advisor showed a desired amount of care or interest in her. Their relationship could be described as amicable, but did not appear to cultivate the cooperative type of relationship Bella was seeking. Elaine made her decision to depart from AUU, and didn’t deem it necessary to inform her advisor. Instances where students leave the university without talking to an advisor can cause students to miss out on the opportunity to receive valuable information regarding their academic future. Moreover, the institution misses the opportunity to provide said information, while also beginning to rectify any negative views the student has about the institution. Developing a communication plan where advisors contact all students regardless of admission status at the end of the school year may offer insight to student perceptions of the institution and ways to serve students considering departure.
Advisor Initiated Contact-Since Departure

Once a student departs from the university, it is important to know if these students have had any contact with their advisor. Carmen and Fiona both stated they had received some form of contact from their advisor since their respective departures from the AUU. Carmen received a few voice messages from her advisor seeking to find out why she was not registered for the upcoming school year. Fiona was contacted by her advisor, who had information on different programs and funding opportunities to offset some of her financial burden. The nature of these contacts could begin to strengthen the connection between the student and the institution. While it may not lead to the retention of the individual students, it can add a positive experience to the student and prevent non-continuing students from sharing disparaging perspectives with their peers who may consider attending the university.

In this study, the majority of non-continuing phone survey participants did not have knowledge of their advisor’s attempt to contact them since their departure from the university. The non-continuing phone survey participants shared differing views of the influence contact with their advisor would have had on their decision to depart. Bella and Danielle both viewed their decision to depart from the university as irreversible. The perspectives they shared appeared to be indifferent towards the university. However, Elaine did not receive a call from her advisor, but confirmed a call could have had an impact on her decision to depart. Students sometimes leave the university with a negative perspective of their experiences. Institutional efforts, particularly from advisors, to reach out to these students could influence the students’ decision to continue enrollment.

Advisor outreach takes place when advisors invite students to take part in advising sessions throughout the semester (Schwebel, Walburn, Klyce, & Jerrolds, 2012). The notion that
advising outreach is beneficial to students has been shown in research. Schwebel et al. (2012) reported a significant difference ($t = -2.02; p < .05$) in number of student-advisor contact between students ($n = 501$) who received advising outreach compared to those who did not. Schwebel et al. examined students at the University of Alabama-Birmingham over a four year period. Students were randomly assigned into two groups: outreach and no outreach. All students received standard university messages, announcements, and exposure to academic advising programs and were encouraged to schedule regular academic advising appointments. However, students in the outreach group received additional reminders about academic advising during the Fall and Spring semester. During weeks three through five (fifteen week semester), students who had not scheduled an advising appointment received an email reminder, telephone call from support staff, and a telephone call from advisors, respectively, inviting them to do so.

In this dissertation, continuing students did average more contacts per semester than non-continuing students (Table 7). Determining outreach methods that promote frequent contact between students and advisors bears further investigation. These contacts are especially important prior to students making the decision to leave.

**Summary of Phone Survey Research Questions**

The research questions investigated by the phone survey intended to examine the experiences non-continuing students had with their advisor, as well as some of the challenges involved in recruiting them for studies such as this one. The investigation included reasons students would complete an online survey, why these students left AUU, if they informed their advisor of their decision to leave AUU, and if they had any contact with their advisor since their departure. These research questions provided a foundation for understanding the non-continuing special admission students. The participants offered context to an otherwise unexamined group
of students. The phone surveys presented a way to continue investigating non-continuing students. They raised two additional findings, in the form of advanced research questions:

7. How will engagement strategies—using cell phone technology and texting, emphasizing the purpose for the study, providing frequent updates on response rates—aid in the recruitment of difficult to reach populations, including non-continuing students?

8. How will formalized communication plans—that address targeted financial advising for special admissions students, periodic and end of year outreach, and tools for addressing advisor-advisee conflicts—influence the students’ decision to continue enrollment?

Study Limitations

There were multiple limitations to this study, these limitations included sample size, number of respondents, and the research plan employed. The original plan for the study was to examine differences between continuing and non-continuing students at two institutions. However, the second research location cited a lack of internal research conducted regarding the success of their special admission student population and program. The sole research site in this study (Atlantic Urban University) had a small special admission student population considering the varying numbers of universities who offer alternative (special) admission programs. Given the small sample ($n=250$), the low response rate received during the online survey administration yielded a low number of responses. The findings for this would not have been generalizable to all special admission students due to the singular research site. However, when compounded by the low number of responses among AUU continuing and non-continuing special admission
students, the findings of the online survey were unable to provide any statistical differences among the groups.

The research plan employed during this study also presented some limitations. The sample was invited to participate in the summer of 2013. The non-continuing student sample had not been enrolled at AUU since the summer of 2012 (at the latest), meaning they had little to zero contact with AUU for a year. This could explain the low number of responses among non-continuing students \((n=9)\). The research plan called for students to be invited via their university-issued emails, with minimal contact for a year could have rendered these email addresses impractical (due to limited use) or invalid (due to university revocation). Additionally, this investigation employed a quantitative design to examine special admission student perceptions on advising style. The use of qualitative or mixed methods could have presented the opportunity to invite in-depth insight on academic advising from continuing and non-continuing special admission students. For example, the phone survey provided insight into the non-continuing student population that would not have been achieved through the quantitative design. Despite the insight yielded from the phone survey, the opportunity for deeper understanding could result from a qualitative or mixed method design. Similarly, this methodology could include participation from academic advisors to determine their perceptions regarding student-advisor dynamics.

**Recommendations**

This research study yielded additional research questions that should be investigated further. The phone survey interviews illustrated that student experiences with academic advisors are essential to understanding the relationship between the student and the institution. Previous investigations typically included data from retained student populations, possibly due to the
convenience of recruiting participants and accessibility of students. However, the experiences of students, special admission or otherwise, who are not retained by the university present the opportunity to investigate any disconnects between the student and the institution. Therefore, retention research should include investigations of the experiences of non-continuing students. These studies would possibly be better framed as qualitative or mixed method studies focusing on the overall collegiate experience of non-continuing students, including relationships with academic advisors as well as other internal factors of retention.

In order to develop a deeper understanding of the non-continuing student population, research should examine possible motivations (e.g., compensation and interesting research objectives) for non-continuing students to participate in research. As the second stage of this study demonstrated, data could be collected from these groups in many ways. In addition to phone surveys, in-person interviews or in-person surveys increase participant connectedness.

Students who have departed from their university may not have retention efforts on their mind when making departure decisions; three students indicated during the phone survey that their departure from AUU was for personal issues. Therefore, examining reasons they would participate in research could advance retention research and other studies involving difficult to reach participants.

As this study was not able to determine any statistical differences between continuing and non-continuing students, there remain future research opportunities to continue the investigation of the original research questions. However, the following findings may inform the way these future studies are framed:

1. Continuing special admission students had approximately one more contact than non-continuing students for the Fall 2011 semester.
2. Although continuing students had a higher average score on the Developmental-Prescriptive Advising Scale (measure for advising style) of the AAI, the higher perceived advising style scores did not suggest a higher frequency of student-advisor contact in the first semester.

3. In the Spring 2012 semester, perceived advising style may have influenced frequency of student-advisor contact among non-continuing students. Non-continuing students perceiving developmental advising had a relatively equal amount of contacts (between the Fall and Spring semesters), compared to the decrease observed for non-continuing students perceiving prescriptive advising in the Spring semester.

4. Continuing students, regardless of perceived advising style, had a decrease in frequency of student-advisor contact from the Fall 2011 to Spring 2012 semesters.

The findings of this study present several suggestions for academic advisors of special admission students. Given the many issues reported in the phone survey (e.g., tuition cost, personal finance, adjusting to campus life, personal issues) that can cause discomfort to students and ultimately lead to their departure, advisors should continue to build strong relationships with students. The foundation of these relationships should be an open line of communication (Singell, 2004), which could have allowed advisors to work with students cited in the phone survey to work through some of the issues they faced.

First-year college students are entering into an environment with new information which may require guidance of seasoned collegiate representatives. Therefore, making consistent and frequent contact with students increases the opportunities students have to share the complex issues they may encounter. While this study was not able to provide statistical differences
between continuing and non-continuing students, there were patterns to suggest students who saw their advisor on a more frequently were retained compared to students who saw their advisor fewer times per semester. Increasing the frequency of student-advisor contact may have an impact on a student’s ability to find campus resources to resolve the varying issues they face.

Patterns in this study suggested continuing students perceived receiving a higher level developmental advising style than non-continuing students. While there is no universal, or “right or wrong” advising style, advisors who create an environment where the student is given a level of responsibility and choice in the direction of their academic pursuits may increase the likelihood of retention by the institution. Bella, a phone survey participant, stated displeasure with having an advisor who did not allow her to have more responsibility in the direction of her academics. Academic advisors are essential to the development of students; however, their role in the development may be better served as facilitators as opposed to authoritative directors. The patterns observed in this study suggest special admission students are interested in playing a role in their academic pursuits. Additionally, non-continuing students presented patterns that suggested that gender matching may be more important to the most vulnerable of the special admissions students. Finally, patterns from this study suggested expectations, in terms of advisory contacts, may need to vary over the course of the school year and yet we still need to better understand when decreases in contacts are signs of growing independence in, versus disengagement from, academic life.

The phone survey portion of this study presented findings that require further investigation. Some of the phone survey participants stated that clearly stating research objectives and benefits of participants would motivate them to participate in online survey research. However, the phone survey included six participants. Continued research on
motivations to participate in research studies should increase the number of participants to look for deeper themes and uncover findings. Additionally, the phone surveys suggested institutions reaching out to students at the end of the academic year may help increase students year-to-year enrollment. Given the recruitment issues experienced in this study, future studies should balance economical research/recruitment methods and participant needs to conduct research that would otherwise require funding. Future research could examine academic advisor follow-up and its effect on student retention using a quasi-experimental design. This design could be accomplished by partnering with academic advising programs and having a group of advisors make contact with a group of special admission students while another group of students does not receive contact over the summer. The two groups could be compared to examine the effect of advisor follow-up over the summer months on student retention.

Lastly, researchers who undertake retention projects involving non-continuing student populations must be purposeful in their recruitment efforts. Recruiting students as early as possible after their departure is essential to increasing the success of recruiting non-continuing students for online survey research participation. Moreover, the use of other contact methods may be critical to the success of recruiting this group of students.
References


Appendix A

Academic Advising Inventory/External Factors of Retention Survey

PART I

Part I of this Inventory concerns how you and your advisor approach academic advising. Even if you have had more than one advisor or have been in more than one type of advising situation this year, please respond to the statements in terms of your current situation.

There are 14 pairs of statements in Part I. You must make two decisions about each pair in order to respond: (1) decide which one of the two statements most accurately describes the academic advising you received this year, and then (2) decide how accurate or true that statement is (from very true to slightly true).

Mark your answers to all questions in the Inventory on the separate optical scan answer sheet provided. Use a number 2 pencil. If you need to change an answer, erase it completely and then mark the desired response.

EXAMPLE

80. My advisor plans my schedule.

A _______ B _______ C _______ D _______ OR _______ E _______ F _______ G _______ H _______

very true slightly true

RESPONSE ON ANSWER SHEET: 80 A B C D E F G H I J

EXPLANATION: In this example, the student has chosen the statement on the right as more descriptive of his or her academic advising this year, and determined that the statement is toward the slightly true end (response F).

1. My advisor is interested in helping me learn how to find out about courses and programs for myself.

A _______ B _______ C _______ D _______ OR _______ E _______ F _______ G _______ H _______

very true slightly true

2. My advisor tells me what would be the best schedule for me.

A _______ B _______ C _______ D _______ OR _______ E _______ F _______ G _______ H _______

very true slightly true

3. My advisor and I talk about vocational opportunities in conjunction with advising.

A _______ B _______ C _______ D _______ OR _______ E _______ F _______ G _______ H _______

very true slightly true
4. My advisor shows an interest in my outside-of-class activities and sometimes suggests activities.
A_________B__________C__________D
very slightly true
OR
My advisor does not know what I do outside of class.
E_________F__________G__________H
slightly very true true

5. My advisor assists me in identifying realistic academic goals based on what I know about myself, as well as about my test scores and grades.
A_________B__________C__________D
very slightly true
OR
My advisor identifies realistic academic goals for me based on my test scores and grades.
E_________F__________G__________H
slightly very true true

6. My advisor registers me for my classes.
A_________B__________C__________D
very slightly true
OR
My advisor teaches me how to register myself for classes.
E_________F__________G__________H
slightly very true true

7. When I'm faced with difficult decisions, my advisor tells me my alternatives and which one is the best choice.
A_________B__________C__________D
very slightly true
OR
When I'm faced with difficult decisions, my advisor assists me in identifying alternatives and in considering the consequences of choosing each alternative.
E_________F__________G__________H
slightly very true true

8. My advisor does not know who to contact about other-than-academic problems.
A_________B__________C__________D
very slightly true
OR
My advisor knows who to contact about other-than-academic problems.
E_________F__________G__________H
slightly very true true

9. My advisor gives me tips on managing my time better or on studying more effectively when I seem to need them.
A_________B__________C__________D
very slightly true
OR
My advisor does not spend time giving me tips on managing my time better or on studying more effectively.
E_________F__________G__________H
slightly very true true

10. My advisor tells me what I must do in order to be advised.
A_________B__________C__________D
very slightly true
OR
My advisor and I discuss our expectations of advising and of each other.
E_________F__________G__________H
slightly very true true

11. My advisor suggests what I should major in.
A_________B__________C__________D
very slightly true
OR
My advisor suggests steps I can take to help me decide on a major.
E_________F__________G__________H
slightly very true true
12. My advisor uses test scores and grades to let him or her know what courses are most appropriate for me to take.

A ______ B ______ C ______ D
very true
true

OR

My advisor and I use information, such as test scores, grades, interests, and abilities, to determine what courses are most appropriate for me to take.

E ______ F ______ C ______ H
slightly very true
true

13. My advisor talks with me about my other-than-academic interests and plans.

A ______ B ______ C ______ D
very true
true

OR

My advisor does not talk with me about interests and plans other than academic ones.

E ______ F ______ C ______ H
slightly true
true

14. My advisor keeps me informed of my academic progress by examining my files and grades only.

A ______ B ______ C ______ D
very true
true

OR

My advisor keeps informed of my academic progress by examining my files and grades and by talking to me about my classes.

E ______ F ______ C ______ H
slightly true
true
### Academic Advising Inventory-Part III

Considering the academic advising you have participated in **at this college in the 2011-2012 school year**, please respond to the following five statements.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am satisfied in general with the academic advising I have received.</td>
<td>Strongly Disagree • Disagree • Agree • Strongly Agree</td>
</tr>
<tr>
<td>I have received accurate information about courses, programs, and requirements through academic advising.</td>
<td>Strongly Disagree • Disagree • Agree • Strongly Agree</td>
</tr>
<tr>
<td>Sufficient prior notice has been provided about deadlines related to institutional policies and procedures.</td>
<td>Strongly Disagree • Disagree • Agree • Strongly Agree</td>
</tr>
<tr>
<td>Advising has been available when I needed it.</td>
<td>Strongly Disagree • Disagree • Agree • Strongly Agree</td>
</tr>
<tr>
<td>Sufficient time has been available during advising sessions.</td>
<td>Strongly Disagree • Disagree • Agree • Strongly Agree</td>
</tr>
</tbody>
</table>
### Academic Advising Inventory-Part IV

**Please respond to the following five statements.**

#### What is your gender?
- [ ] male
- [ ] female

#### What is your cultural/racial background?
- [ ] African American/Black
- [ ] Asian American or Pacific Islander
- [ ] Hispanic American/Latino/a
- [ ] Native American
- [ ] White/Caucasian
- [ ] Biracial/multiracial
- [ ] Other
- [ ] Decline to respond

#### What was your age at your last birthday?
- [ ] 18 or younger
- [ ] 19
- [ ] 20
- [ ] 21
- [ ] 22
- [ ] 23
- [ ] 24
- [ ] 25 - 30
- [ ] 31 or older

#### What is your academic class standing?
- [ ] Freshman (first year)
- [ ] Sophomore (second year)
- [ ] Junior (third year)
- [ ] Senior (four or more years)

#### Approximately how much time was generally spent in each advising session? (Please respond in terms of your experiences with this college in the 2011-2012 school year)
- [ ] less than 15 minutes
- [ ] 15-30 minutes
- [ ] 31-45 minutes
- [ ] 46-60 minutes
- [ ] more than 1 hour

---

### End of Academic Advising Inventory, please continue to the External Factors of Retention Survey
**External Factors of Retention Survey**

For the following questions, please base your answers on your perception (i.e., what you consider to be the truth) of your experiences *with this college in the 2011-2012 school year*.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you believe your desire to remain at this university played a role in your college re-enrollment?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you believe your family demands played a role in your college re-enrollment?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you believe your family support played a role in your college re-enrollment?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you believe your high school achievements (i.e., GPA, ACT/SAT Scores) played a role in your college re-enrollment?</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Do you believe your financial situation played a role in your college re-enrollment?</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Were you and your advisor of the same gender?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>

Were you and your advisor of the same race?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
</table>
Appendix B

Appendix B: IRB Approval

DATE: April 24, 2013

TO: William Muth, PhD
    Teaching and Learning
    Box 842020

FROM: Lisa M. Abrams, PhD
       Chairperson, VCU IRB Panel B
       Box 980568

RE: VCU IRB #: HMI5029
    Title: An Investigation of the Differences Between Continuing and Non-Continuing Undergraduate Special Admission Students Related to Academic Advising Factors

On April 23, 2013 the following research study qualified for exemption according to 45 CFR 46.101(b) Category 2. April 16, 2013. This determination includes the following items reviewed by this Panel:

RESEARCH APPLICATION/PROPOSAL: NONE

PROTOCOL: An Investigation of the Differences Between Continuing and Non-Continuing Undergraduate Special Admission Students Related to Academic Advising Factors, version 1-2/4/13, received 2/7/13
- Study Addendums, received 4/16/13
- Survey, version 1-2/4/13, received 4/16/13

CONSENT/ASSENT:
- Informed Consent Information, version 2-2/4/13, received 4/16/13

ADDITIONAL DOCUMENTS:
- Initial Email Invitation, version 1-2/4/13 received 2/7/13
- Follow-up Email Invitation, version 1-2/4/13, received 2/7/13

The Primary Reviewer assigned to your research study is John J. Cotter, PhD. If you have any questions, please contact Dr. Cotter at jcotter@vcu.edu and 828-1565; or you may contact Donna Gross, IRB Coordinator, VCU Office of Research Subjects Protection, at irbpanel@vcu.edu or 827-2261.

Attachment – Conditions of Approval (PLEASE NOTE RECENT CHANGES TO #3)
Appendix C

IRB Revised Approval

DATE: September 17, 2013

TO: William Muth, PhD
Teaching and Learning
Box 842020

FROM: Lisa M. Abrams, PhD
Chairperson, VCU IRB Panel B
Box 980568

RE: VCU IRB #: HM15029
Title: An Investigation of the Differences Between Continuing and Non-Continuing Undergraduate Special Admission Students Related to Academic Advising Factors

On September 5, 2013 the following change(s) to your research study have qualified for exemption according to 45 CFR 46.101(b) Category 2. This determination includes the following items reviewed by this Panel:

PROTOCOL: An Investigation of the Differences Between Continuing and Non-Continuing Undergraduate Special Admission Students Related to Academic Advising Factors, version 2-8/29/13, received 8/30/13
- Study Addendum, version 2-8/29/13, received 8/30/13
- Survey, version 2-8/29/13, received 8/30/13

CONSENT/ASSENT:
- Informed Consent Information, version 2-8/29/13, 2 pages, received 8/30/13.

The Primary Reviewer assigned to your research study is John J. Cotter, PhD. If you have any questions, please contact Dr. Cotter at jcotter@vcu.edu and 828-1565; or you may contact Donna Gross, IRB Coordinator, VCU Office of Research Subjects Protection, at irbpanelc@vcu.edu or 827-2261.
Appendix D

Intent to Use Academic Advising Inventory

Plan to Use the AAI

Kevin Reeves <reeveskp@mymail.vcu.edu> to nacada

To Whom It May Concern

My name is Kevin Reeves, I am a Doctoral Candidate in the School of Education at Virginia Commonwealth University (VCU) and a NACADA member.

I am writing this email to inform you of my plan to use the Academic Advising Inventory in my dissertation research. I must apologize for not notifying you of my intentions sooner. I was not aware of your desire to have members notify your office of their intent to use the AAI. Again, my apologies.

I intend to use the AAI to investigate the differences between continuing and non-continuing, conditionally admitted undergraduate students based on advising style. In other words, I would like to investigate the role advising style plays in the retention of conditionally admitted students.

My plan is to administer the AAI online via VCU REDCap survey software. I have converted parts I, II, and IV for use online in my research. Part II of the AAI was omitted, as it does not contribute to the study’s research questions.

If you have any questions, I can be reached at 248-797-9388 or by email reeveskp@vcu.edu.

Best,
Kevin

Re: Plan to Use the AAI

Publish NACADA publishing account <publish@k-state.edu> to me :)

Thanks for letting us know Kevin. Good luck on your research!
-Joey Lynch

NACADA: The Global Community for Academic Advising
2323 Anderson Ave Suite 225
Manhattan, KS 66002
Ph: 785.532.5717
Fax: 785.532.7732
www.nacada.ksu.edu
nacada@ksu.edu
Appendix E

Participant Email Invitation(s)

INITIAL EMAIL INVITATION

Subject Line: [K. Reeves-VCU] Your Advising Experience-Quick Survey

Hello

My name is Kevin Reeves. I am working on my dissertation at Virginia Commonwealth University (VCU). Before attending VCU, I worked as an academic advisor at Wayne State University. In my dissertation, I hope to get a better understanding about the role of academic advisors in helping students remain in college and not drop out. In other words, I am trying to figure out if advisors make a difference or not. The purpose of this email is to invite you to participate in my study.

This study will collect data as part of an investigation into the role academic advising may play into the retention of conditionally admitted students. The results will not only document your perceptions of academic advising styles, they will also provide information that can be used to improve the collegiate experience for special admission students.

All responses are confidential, so please give your honest answers. Simply click on the link below. The survey will take about 5-10 minutes to complete. Your participation is greatly appreciated by June 26, 2013. I want to thank you in advance for your participation in this study.

The project evaluator will secure all responses to insure confidentiality.

Sincerely,

Kevin Reeves, Project Evaluator.

FOLLOW UP EMAIL INVITATION (Participants who have not responded to survey)

Subject Line: [K. Reeves-VCU] Your Advising Experience-Quick Survey

Hello

This is Kevin Reeves. Throughout my time as an advisor at Wayne State University and student at Virginia Commonwealth University, I have learned a lot about the student-advisor relationship. Through my dissertation, I hope to get a better understanding about the role of academic advisors in helping students remain in college and not drop out. In other words, I am trying to figure out if advisors make a difference or not. This is a follow-up email to invite you to participate in a research study on the differences academic advisors may make in student retention.
This study will collect data as part of an investigation into the role academic advising may play into the retention of conditionally admitted (also known as special admission) students. The results will not only document your perceptions of academic advising styles, they will also provide information that can be used to improve the collegiate experience for conditionally admitted students.

All responses are confidential, so please give your honest answers. Simply click on the link below. The survey will take about 5-10 minutes to complete. Your participation is greatly appreciated by July 10, 2013. I want to thank you in advance for your participation in this study.

The project evaluator will secure all responses to insure confidentiality.

Sincerely,

Kevin Reeves, Project Evaluator

REMINDER EMAIL INVITATION (Participants who have not responded to survey)

Subject Line: Reminder: [K. Reeves-VCU] Your Advising Experience-Quick Survey

Greetings,

For the past four weeks, I have been inviting students to participate in survey research. The purpose of this research is to gain a better understanding about the role of academic advisors in helping students remain in college and not drop out (also known as student retention). This is a reminder email inviting you to participate in this research study on the differences academic advisors may make in student retention.

All responses are confidential, so please give your honest answers. Simply click on the link below. The survey will take about 5-10 minutes to complete. I want to thank you in advance for your participation in this study.

The project evaluator will secure all responses to insure confidentiality.

Sincerely,

Kevin Reeves, Project Evaluator
Appendix F

Phone Survey Questions

1. What would it take for you to complete an online survey?

2. Why did you leave school? (Plus a follow-up question, if necessary)

3. Did you inform your advisor that you were not returning to school? (Plus a follow-up question, if necessary)

4. To your knowledge, has your advisor tried to contact you since you left school? (Plus a follow-up question, if necessary)
Appendix G

Informed Consent

An Investigation of the Differences between Continuing and Non-continuing Undergraduate Special Admission Students Related to Academic Advising Factors

Informed Consent

By completing this survey, you acknowledge that you have read the following information and agree to participate in this research study, with the knowledge that you are free to withdraw your participation at any time without penalty. You must be 18 years or older to participate.

Purpose of the Study:
This is a study of academic advising experiences and student retention that is being conducted by Kevin Reeves, PhD Candidate in Education at Virginia Commonwealth University in Richmond, VA. The purpose of this study is to examine the link between academic advising style and the retention of special admission students.

What will be done:
You will complete a survey, via REDCap software, which will take 5-10 minutes to complete. The survey includes questions about the academic advising experiences you had during your first year (2011-2012 school year) of undergraduate study at Virginia Commonwealth University. Other survey questions will address your perceptions of some external factors of retention [for example, personal finances, family demands (obligations) and support, and pre-collegiate achievement], the quantity and quality of your academic advising experiences, the perceived style of academic advising you received, in general. We also will ask for some demographic information (e.g., age, gender, ethnicity, academic rank) so that we can accurately describe the general traits of the group of students who participate in the study. Additionally, the demographic information gender and ethnicity will be used to examine aspects of your academic advising experiences. After you complete the questionnaire, we will analyze your responses to examine the various differences between continuing and non-continuing students.

Benefits of this Study:
You will be contributing your experiences and perceptions about academic advising and these contributions may help examine the role academic advising may play in student retention. In addition, you will be entered in a drawing for one of five $20.00 Amazon.com Gift Certificates (we anticipate that 100 students will participate in the study). After we have finished data collection, we will conduct the drawing. Winners will receive the gift certificate via e-mail.

Risks or discomforts:
No risks or discomforts are anticipated from taking part in this study. If you feel uncomfortable with a question, you can either skip that question or withdraw from the study altogether. If you decide to quit at any time before you have finished the questionnaire, your answers will NOT be recorded.
Confidentiality:
Every effort will be made to keep your information completely confidential, however, confidentiality during Internet communications procedures cannot be guaranteed. We will NOT know your IP address when you respond to the Internet survey. We will ask you to include your e-mail address when you complete the Internet survey so that we can enter you in the drawing for the gift certificate. However, your email address will not be stored with the data from your survey. Instead, you will be assigned a participant number, and only the participant number will appear with your survey responses. Only the researchers will see your individual survey responses. The list of e-mail addresses of our participants will be stored electronically in a password protected folder; a hard copy will be stored in a locked filing cabinet. After we have finished data collection, we will destroy the list of participants' e-mail addresses.

Decision to quit at any time:
Your participation is voluntary; you are free to withdraw your participation from this study at any time. If you do not want to continue, you can simply leave this website. If you do not click on the "submit" button at the end of the survey, your answers and participation will not be recorded. You also may choose to skip any questions that you do not wish to answer. If you click on the "submit" button at the end of the survey, you will be entered in the drawing. The number of questions you answer will not affect your chances of winning a gift certificate.

How the findings will be used:
The results of the study will be used for scholarly purposes only. The results from the study will be presented in educational settings and at professional conferences, and the results might be published in a professional journal in the field of higher education. Because we will ask you about a number of different aspects of academic advising experiences, it is likely that we will use your data to address multiple questions regarding academic advising and student retention.

Contact information:
If you have concerns or questions about this study, please contact Principal Investigator Dr. William Muth at wrmuth@vcu.edu or Kevin Reeves at reeveskp@vcu.edu. If you have any questions regarding your rights as a research participant, contact the Virginia Commonwealth University Institutional Review Board (IRB) at (804) 828-0868.
VITA

Kevin P. Reeves was born June 7, 1980 in Detroit, Michigan. The third of four children, Kevin grew up in the metro Detroit area with his parents, Kenneth and Patricia, and three brothers Kenneth Jr., Keith, and Kellen. Kevin graduated from Southfield High School in 1998. After high school, he attended Wayne State University where he earned a Bachelor of Science degree in Computer Science in 2003. Kevin developed a growing interest in higher education administration and student development during his two years (2004-2006) as an academic advisor at Wayne State University. He continued his education receiving his Master of Science degree in Sport Leadership at Virginia Commonwealth University (VCU) in 2008. Upon completion of his Master’s degree, Kevin pursued a Doctor of Philosophy in Education at the VCU School of Education on the Urban Services Leadership track. His research interests include student retention, student development, and academic advising.

During his doctoral studies, Kevin was a Graduate Teaching Assistant for three years, working in the VCU Division of Community Engagement--Service Learning (two years) and the VCU School of Education--Department of Foundations (one year). In February 2014, he became the Assistant Director for the Office of Academic Support at the University of Florida.