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RECRUITMENT AND RETENTION OF FEMALE ACCOUNTING STUDENTS AT A  
DENOMINATION-AFFILIATE'S HIGHER EDUCATION INSTITUTIONS

by

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A dissertation submitted in partial fulfillment of the  
requirements for the degree of

DOCTOR OF BUSINESS ADMINISTRATION: HUMAN RESOURCE MANAGEMENT

2012

Baker College

Flint, Michigan

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## ABSTRACT

### RECRUITMENT AND RETENTION OF FEMALE ACCOUNTING STUDENTS AT A DENOMINATION-AFFILIATE'S HIGHER EDUCATION INSTITUTIONS

by

Beth T. Leslie

In the past, women students who attended higher education institutions affiliated with Pentecostal religious denominations selected major areas of study that were perceived as women oriented, such as preparation for careers in education, social sciences, practical ministry, and general business. Few women students focused on major subjects traditionally viewed as the domain of men students, such as accounting, engineering, and hard sciences. This tendency created a disparity in the number of women students who selected male-dominated areas of study, graduated with degrees in those areas, and moved into career positions in those lines of work. This mixed-methods study investigated how to recruit and retain women students in accounting at a denomination-affiliate's higher education institution. An eight person Delphi panel, consisting of deans, department chairpersons, and faculty from accounting departments at three denomination-affiliate's institutions located throughout the United States, answered a questionnaire along with two surveys to determine what attracted women students to select accounting as their major field of study, what predictors of success were evident for these women, and what major problems the women faced in completing accounting programs. The interpretations based on the panel responses indicated that successful completion of the first accounting course and a positive relationship with their accounting instructors were clear indicators of a woman's successful enrollment in and completion of the accounting program. Another interpretation from the panel responses presented a profile of a female accounting student as one who had a quantitative skillset, had confidence in her abilities, and had a

competitive and assertive nature. The final interpretation based on the panel's responses spoke to the challenges women students have in accounting – poor performance in Intermediate Accounting, an unwillingness to put forth the effort to be successful, and an aversion to the detail aspect of accounting. The information from this study will aid business college administrators and accounting faculty in their attempts to attract qualified women applicants to their accounting programs and will help department academic advisors in counseling potential female accounting majors.



*Dedication*

*In memory of my Aunt Alvis whose love and encouragement helped me believe that I had the grit and ability to receive my doctorate. You are the example I uphold as everything a college professor should be and what I desire to become. I miss you.*

## ACKNOWLEDGEMENTS

Thanks, first and foremost, to my heavenly Father who gave me the Word, “I can do all things through Christ who strengthens me” (Philippians 4:13). I could not have completed this journey without the support and encouragement of my husband. Thanks, Dwight, for not letting me quit and for surrounding me with your love and kindness, especially during the times when I wanted to throw a frustrated temper tantrum. Mama, your prayers and reminders that “Trimble women are made of tougher stuff” sustained me when I wanted to walk away and do anything else other than write. Also, thanks to the rest of my family – my step-children, my dad, my brother and his family – who cheered me on and who are so very proud of my accomplishment. Finally, thanks, Dr. Bojarczyk, for guiding, sometimes shoving, and always encouraging me throughout this process. I couldn’t have done it without you. Thanks also go to my other committee members – Dr. Folz, Dr. Langen, and Dr. Childs – who painstakingly worked to make my research better and in turn, taught me the value of a job well done.

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## CHAPTER ONE

### INTRODUCTION AND STATEMENT OF THE PROBLEM

#### **Introduction**

According to the United States Census Bureau 2009, women have surpassed men in their quests for undergraduate degrees from higher education institutions in the United States, totaling 21,071 of the 40,276 graduates. The National Assessment of Educational Progress (NAEP, 2009) shows that there is only a negligible difference between men's and women's quantitative performance on diagnostic tests. In 1970, women scored an average of 494 on the quantitative section of the Scholastic Aptitude Test (SAT), whereas men scored an average of 529. In 2009, women increased their quantitative SAT scores to an average of 499, and men scored an average of 534 (National Center Educational Statistics, n.d.). This increase in females' SAT quantitative scores may be attributed to the rise in their enrollment in upper-level mathematics courses.

According to the National Center for Educational Statistics (NCES, 2009), women made up 81% of geometry classes, 71% of Algebra 2 classes, 28% of pre-calculus classes, and 11% of calculus classes during the 2000 school year. Also, in 2002, the average women Advanced Placement (AP) calculus score was 3.3 on a 5.0 scale compared to the males' average AP calculus score of 3.5 (NCES, 2009). This rise in quantitative test scores among women, as well as an influx of women in the accounting profession, may be why women are entering the once male-dominated major field of study of accounting at higher education institutions.

Malgwi, Howe, and Burnaby (2005) found that the most important influence for women when choosing their major is their interest in the subject, and the second most important reason is their aptitude for the subject matter. For example, if a woman was bored in her senior high school mathematics class, she may ignore the option to major in accounting, a quantitative

course of study, because of her lack of interest in the mathematics component of that particular field. In addition, if she has never been exposed to a female accountant, she may perceive that accounting is just a male-dominated profession with little tolerance for a woman's contribution in the environment.

Although the trend of women in accounting has increased over the last 10 years (US Department of Labor Statistics, Annual Average, 2009), women at many denomination-affiliate's higher education institutions still pursue more traditional female-dominated majors such as education, music, and ministry instead of selecting a major that is perceived as male-dominated such as accounting. Because so few women major in accounting at these institutions, an exploration as to why this trend is still occurring, especially in light of the recent infusion of women into the accounting profession, was needed. The increase of female students in this environment indicated that these institutions needed to rectify the disproportionate ratio of women to men in the accounting major, and then it was imperative that recruiting and retaining female accounting students become a priority.

### **Statement of the Problem**

An obstacle for women exists at a denomination-affiliate's higher education institutions. The challenge is the inadequate recruiting and retaining of female accounting students. This problem affects a college's ability to offer the diversity of graduates needed in today's global marketplace. According to the United States Department of Labor Women's Bureau, 46.8% of the workforce was comprised of women in 2009. Also, 61.8% of all accountants and auditors are women (US Department of Labor Statistics, Annual Average, 2009). For schools to meet this labor demand, they need to change their practices. An awareness of this challenge among administration, academic program evaluators, and faculty provided the impetus to revise

curriculum, refine academic advising procedures, and remove barriers which inhibited women from declaring accounting as their major field of study or from completing the accounting course of study (Oakley, 2001).

### **Research Questions**

The study was guided by the following four questions:

1. What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?
2. What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?
3. What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?
4. What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to department academic advisors, business college administrators, and accounting faculty?

### **Significance of the Study**

One value of this study is to provide insight for developing strategies among academic advisors for recruiting and advising female accounting students. The study will enable the advisors to determine those factors that influence female students to choose accounting as their major field of study, and in doing so, augment the effectiveness of their advising sessions. Another value of this study is in helping business college and accounting department program recruiters identify how to position their departments in recruiting perspective female accounting students. With this information, departments will be better able to attract future female accounting majors.

### **Assumptions**

The researcher assumed that respondents had knowledge and experience about recruiting and retaining female accounting students. Based on anecdotal evidence (Harthern, 2010), the researcher assumed that women at the institutions under study have historically been encouraged to major in traditional, female-dominated fields instead of accounting, a male-dominated major.

### **Limitations**

Although the Delphi method was appropriate for this type of study, the following limitations were evident:

1. The population was limited to accounting deans, department chairpersons and accounting faculty at higher education institutions that are owned and operated by a conservative Pentecostal denomination.
2. Only one Pentecostal denomination was used; therefore, the study should not be used to generalize about other denomination-affiliate's institutions of higher education.
3. The Delphi study did not include the opinions of any accounting student.
4. The Delphi method was limited by participants' knowledge of and experience with female accounting majors; therefore, their opinions and perceptions were based on experience instead of research.
5. Although the intent was for participants to voice their opinions anonymously, due to the sharing of results, participants were able to see how their opinion was ranked next to others, potentially biasing their next round of answers.

### **Terminology**

For the purpose of this study, the following operational terms were defined as follows:

*Male-dominated major.* A major field of study where the student ratio is one-third women or less to two-thirds men or greater (Catron, 1995).

*Female-oriented major.* A major field of study where the student demographic has been traditionally women.

*Specific denomination-affiliate's.* Colleges and universities that have an affiliation with a particular denomination.

*Pentecostal.* A domination whose members believe that all Christians should expect to experience the same empowerment of the Holy Spirit, particularly evidenced by the gift of speaking in tongues (The Bible Study Web Site).

*Higher Education Institutions.* Four year colleges and universities that award baccalaureate degrees.

### **Purpose of the Study**

The purpose of this two-phase, mixed-methods study was to explore why women chose accounting as a major field of study by collecting anecdotal data from business department deans, chairpersons and accounting professors at institutions under study. Themes from the qualitative data informed development of an instrument to determine if there was a relationship between the independent variable (women choosing accounting as a major field of study) and the dependent variable (factors that attracted women to accounting, the predictors of success, and the major problems women faced in completing accounting programs).

### **Nature of the Study**

The Delphi method of inquiry was used for this study. Although the Delphi method is considered a quantitative design, it was used in conjunction with qualitative methods in the current study. According to Skulmoski, Harman, and Karhn (2007):

Qualitative research is interpretivist in the sense that the researcher is interested in how the social world is interpreted, understood and experienced; the researcher is flexible and sensitive to the social context in which the data was collected; and qualitative research is about producing holistic understandings of rich, contextual and detailed data. (p. 9)

In qualitative studies, researchers attempt to interpret the collected data (Creswell, 1998).

In the current study, quantitative data collected in Round 1 were coded for similar words and phrases, collated, and used in Round 2, where participants rated them quantitatively using a Likert scale. In Round 3, participants ranked factors in recruiting and retaining female accounting students. The Delphi approach allowed the researcher to collect opinions from participants about their institutions' recruitment and retention procedures. Quantitative data were collected to help the institutions under study clarify and describe resources and strategies to enhance academic recruiting and advising that will strengthen retention of female accounting majors. Therefore, this study used a mixed-methods design.

Since the colleges polled were located throughout the United States, and a consensus among participants was sought, the study was based on the Delphi approach. If clarification was needed, participants could be contacted by telephone or email. Each participant was assigned a unique number, so their responses remained anonymous to the other Delphi participants. The coded information was entered into a spreadsheet, common responses were tallied, and unique responses from Round 1 were kept as original data.

The sample for the Delphi group was accounting department deans or chairpersons along with four accounting professors from the three institutions under study that offered accounting as either a major or minor course of study.

The Delphi Round 1 questionnaire consisted of eight questions. The Round 2 questionnaire consisted of four questions that were adapted from Oakley (2001). She studied the recruitment and retention of accounting majors in the North Carolina community college system. The Round 3 survey consisted of the Round 2 questions along with the original responses from Round 1 and Round 2, ranked in order of importance.

### Conceptual Framework - of the Study

Conceptual frameworks allow a researcher to provide a “cognitive map” of the topic under study (Oakley, 2001, p. 29). This study focused on the recruitment and retention of female accounting students by assessing data that provided recruiters and advisors with information about attracting and retaining women in the male-dominated field of accounting. Figure 1 illustrates the major concepts explored in this study.

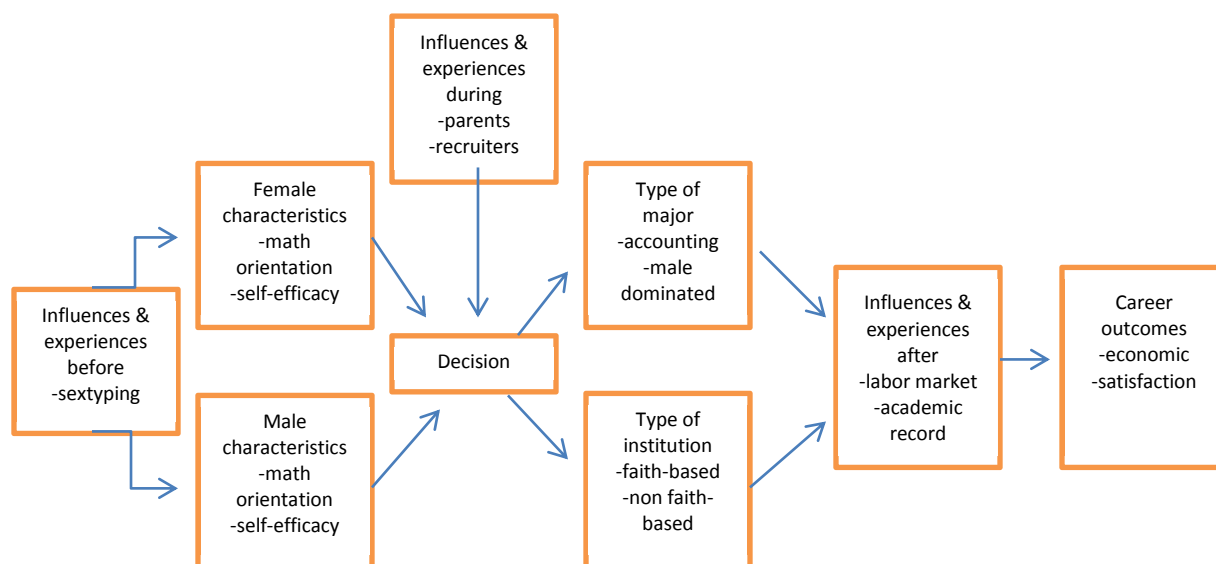


Figure 1. Conceptual framework.

Note. From Vinton (2011).

As Figure 1 illustrates, several major concepts undergirded this study: (a) influences on women from parents, recruiters and others about their choice of a college major, (b) a woman’s

quantitative ability, and (c) availability of a career path after graduation from college. Each of these factors directly or indirectly influences a woman to choose or ignore accounting as a major course of study.

Choosing a college major can be one of the most significant decisions a student makes. How she comes to that decision usually involves many influences: family, friends, and a myriad of other external voices (Easterling & Smith, 2008; Malgwi et al., 2005; Zafar, 2008). An understanding of these influences should help the institutions under study appropriately recruit and retain female accounting students.

Although the NCES (2009) reported that women currently surpass men in populating upper-level quantitative subjects in secondary education, they are underrepresented in upper-level quantitative subjects in college. Regardless of a woman's quantitative ability, most women shrink from majors that have a strong quantitative component (Morris & Daniel, 2008). Encouraging female students who have quantitative skill-sets to choose accounting as a major field of study would help institutions of higher learning meet the market demand of female accounting professionals.

### **Summary and Overview**

Though the field of accounting is growing in its ratio of women to men, female accounting students are not populating the accounting major at some denomination-affiliate's higher education institutions. Whether female students attending these institutions have been sex-typed (Bem, 1981) as children and think that they should not or cannot enter a male-dominated major or whether they are not being recruited into accounting, the problem needs to be addressed because the marketplace is ripe for female accountants. According to TopUSA Jobs (2011), there are currently 107,979 open accounting positions in the United States. Female accounting



graduates have opportunities to fill those positions. No research has addressed why the accounting departments at the institutions under study are unable to attract women. Armed with the results of this study, these institutions can position themselves to recruit and retain female accounting students, so that upon graduation, they can help fill the gap in the accounting profession.

The following chapters review relevant literature on why women choose not to enter male-dominated major fields of study like accounting and on solutions to address this problem. In Chapter 3, the study's methods are described.

## CHAPTER TWO

### LITERATURE REVIEW

#### **Introduction**

Since the passage of the Sarbanes-Oxley Act (SOX) in 2002, accounting firms across the United States have increased their hiring of new graduates. According to a SOX definition from investing answers.com (n.d.), “One of the most important goals of the Act is to ensure that company directors and officers are aware of and accountable for the financial condition of the companies they manage.” This act has caused an increase in the market need for accounting professionals, and because of that need, recruitment has included women (Thompson, Fernandez, Budnik & Boston, 2008). With this push in diversity, colleges and universities are tasked with recruiting and retaining women in their accounting programs, so upon graduation, they will help fill entry-level accounting positions. This change in thinking and demand has provided new opportunities for women. Therefore, it is crucial that higher education institutions identify those women students who can succeed in accounting, graduate with skills necessary for that specialty, and then enter the job market ready to make a contribution to a company.

#### **Conceptual Framework Research**

A strong understanding of quantitative-intensive subjects is essential for many careers. Unfortunately, according to Meece, Eccles and Wigfield (1990) and later confirmed in studies conducted by Kahveci, Southerland and Gilmer (2006); Spelke (2005), Buchmann, DiPrete and McDaniel (2008), and Monastersky (2005), many quantitatively capable students avoid taking advanced mathematics courses in high school, and once in college, avoid career tracks that would involve upper-level quantitative coursework. Research suggests that past performance in mathematics not only directly influences students’ grades, but also indirectly influences their

perceptions of how well they can perform mathematics, how important the subject is to their immediate and future decisions, and, the courses in which they will enroll. According to two relevant theories (Bem, 1981; Wigfield & Eccles, 1995), women will not select accounting as a major field of study because as small children, they were not provided with the appropriate tools to move easily in a quantitative environment, or they were not encouraged to value that environment. An understanding of the literature surrounding quantitative-intensive preferences in course work and career choices will help establish the need to study factors that influence college women to choose the male-dominated major of accounting at specific denomination-affiliate's Pentecostal higher education institutions. After a brief description of the two theories that help ground the literature, the review will be organized into eight areas: (a) choice of a college major, (b) male-dominated majors, (c) women and quantitative subjects, (d) characteristics of accounting students, (e), recruitment of female accounting students, (f) retention of female accounting students, (g) other studies that looked at recruitment and retention of accounting students, and (h) the conceptual framework of the study. The goal of this review is to justify the need to investigate why there is a lack of women entering the male-dominated field of accounting at specific denomination-affiliate's Pentecostal higher education institutions.

### **Expectancy-Value Theory of Achievement Motivation**

Wigfield and Eccles (1995) developed expectancy-value theory of achievement motivation, based on cognitive theories of motivation. They posited that a person's "choice, persistence and performance can be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity" (Wigfield & Eccles, 2000, p. 68). In the expectancy-value theory of achievement motivation, values and expectancies are not only influenced by how well the person perceives he or she will perform on a task, but also on the

individual's own goals, memories of past accomplishments or failures with similar tasks, and with his or her self-concept. Other factors also play an important role in beliefs of about task achievement: attainment value, intrinsic value, utility value and cost. Attainment value is the importance one places on doing a task well. Intrinsic value is the enjoyment one experiences from doing the task. Utility value measures the person's belief that the task will have value in some future plan. Cost refers to how much it will cost the individual (e.g., emotionally, time wise, effort) to engage in the task (Wigfield & Eccles, 2000).

In a 2-year study, Wigfield and Eccles (1995) examined elementary aged children through seniors in high school regarding their attitudes, beliefs, and achievement in mathematics as well as in English, music and sports. In mathematics, Wigfield and Eccles found a high correlation between what elementary aged through middle school aged children expected to achieve and the value they placed on the course. As the children matured, this correlation became weaker. By the time these children reached high school, they could look past their expected achievement in mathematics and acknowledge its future value as a prerequisite to a higher-level course or, for example, as required knowledge for a profession. Wigfield and Eccles also found a relationship between task difficulty in mathematics for older children (for themselves and in comparison to their peers) and level of effort in completing the mathematics topics/course well (p. 223). This finding is not a determinant in mathematics avoidance, but adolescents place a higher importance on selecting courses in which they can excel and devaluing any activity if they perceive that they will fail or will have to exert too much effort because of the level of difficulty. A final finding of this study is that the utility value of a task is not as much influenced by difficulty as it is by other factors. Achievement in mathematics is more apt to be influenced by societal values and gender stereotyping than by an individual's

perceived ability in completing a task. The findings from this study appear to indicate that women who have had any sort of difficulty in quantitative activities as a child are less likely to select accounting, a quantitative field, as their major field of study because of that experience.

### **The Influence of Sex Typing**

Schmidt (2011) conjectured that “certain colleges may have cultures that nudge women students into stereotypically female fields and men into stereotypically male ones” (p. 1). Bem’s (1981) gender schema theory, which postulates that men and women are conditioned to acquire gender-specific skills known as sex typing, concurs with Schmidt’s observation. A sex-typed child learns to process information according to the schema or cognitive structure that has been assigned to his or her sex. Every new piece of information the sex-typed child, teenager or adult receives is interpreted, evaluated and judged against that schema, so any societal gender prejudices and stereotypes are learned and then propagated. Bem’s theory states that a sex-typed child learns only those skills and attitudes attributed to his or her specific sex and is able to assess which skills and attitudes are designated as male or female by the child’s culture. Therefore, children believe what their schemata have conditioned them to believe; girls are good in soft-skill subjects, and boys are good in process-oriented subjects. The schemata influence their “information processing . . . problem solving . . . and memory” (Tool for SEO web site, n.d.). Consequently, women do not aggressively pursue quantitative-oriented activities as is presented in Bem’s theory because they do not consider it as viable in their schema.

### **Inclusion of Women in Specific Denomination-affiliate’s Institutions**

Women have made considerable progress in the hard sciences. However, women still lag behind men in careers that require strong quantitative skills (US Department of Labor Statistics, Annual Average, 2009). This disparity is evident when reviewing the disproportion between

women and men in their choices of quantitative majors in college and even more so in specific denomination-affiliate's higher education institutions. Because of the early practical ministry focus of the institutions under study, no major field of study other than ministry and ministry-related majors were offered to their students. Women were admitted to the Bible colleges but were only offered ministry and music classes where the focus was on helping in ministry. In 1931 when the first Bible college was established, women could not hold positions of leadership in the church, so the need to offer any type of quantitative course other than liberal arts mathematics was not part of the curriculum. Finally in 1955, the first liberal arts college of this specific denomination-affiliate's Pentecostal denomination was opened. Women had the opportunity to choose major fields of study in not only practical ministry but in education as well. Throughout the following 55 years, five of the Bible colleges reached university status with full accreditation by their regional accreditation body and began offering men and women a wide array of major fields of study including quantitative majors such as accounting, engineering, and computer science (AG College Guide, 2010).

After 1955 women who attended specific denomination-affiliate's institutions of higher learning entered fields such as education, practical ministry and social sciences. Prior to 1980, career fulfillment would have been limited to those fields that the church affiliate, parents, and peers saw as acceptable to women whose roles defined them as wives first, mothers second, and if necessary, a career outside the home as third. Teachers, counselors, and music ministers would have been considered appropriate occupations for women because of the nurturing flavor of those fields and the time flexibility those careers afforded. During that era, young women entering one of the institutions under study would not have been encouraged to select a quantitative field such as accounting because the demand of time away from family would not be

conducive to motherhood (A. Harthern, personal communication, September 15, 2010). This is not a sentiment unique to women at the institutions under study. According to Elam and Mendez (2010), a Career Builder survey reported that female college students wanted careers where they could advance in the company but still have a well-balanced work/home ratio.

Women at the institutions under study are still influenced by many factors in their selection of a major field of study. In the contemporary environment, parents, advisors, teachers and peers, along with personal experiences with courses, comprise the sphere of influence from which these women emerge seeking a major that will fulfill an intrinsic desire to be helpful and yet afford them the ability to be financially independent (Malgwi, Howe, & Burnaby, 2005; Easterling & Smith, 2008). However, the quantitative-based majors have remained the prominent domain of male students with current data indicating that the graduation rates of men and women in accounting are seven to one (AG College Guide, 2010).

Nevertheless, current data indicate that the learning environment and the acceptance of women into these areas are slowly changing. Now women at the institutions under study populate all offered fields of study including quantitative, male-dominated majors such as accounting (AG College Guide, 2010). The need for accountants is at an all-time high with the passage of the 2002 Sarbanes-Oxley Act (SOX) (Heiat, Brown & Johnson, 2007). High demand means a robust job market with competitive salaries for accounting graduates.

### **Barriers to Women in the Accounting**

Prior to 1970, women were more likely to major in education or the social sciences while men migrated to engineering and other quantitative majors. Since that time, women are represented in more male-dominated majors; even though, they are still proportionally men (National Center for Educational Statistics, n.d.). Therefore, a male-dominated major like

accounting can be problematic for a woman who wants to select accounting as her major and ultimately seek a career in a field controlled by the male establishment. Sometimes the chilly climate or infringement associated with a male-dominated major is a deterrent if the female student lacks the self-confidence and/or the determination to ignore the perception that the major is for men only (Morris & Daniel, 2008). Sometimes the stereotype threat (Steele, James & Barnett, 2002) can be intimidating and overwhelming and, ultimately, cause a woman with an accounting aptitude to convert to more traditional female majors like the arts or social sciences. If a woman can come into contact with a positive female mentor, these stereotypes and chilly climate perceptions can dissipate and warm the atmosphere (Morris & Daniel, 2008).

Because of these fears, it is critical that higher education address the fact that many female students may not be pursuing majors in specific fields not because of their lack of cognitive abilities or personal desires, but because of the stereotypes attached to these fields of study. Since 46.8 % of the workforce was comprised of women in 2009 (US Department of Labor Statistics, Annual Average, 2009), it is important that higher education institutions implement supportive programs to not only help women identify their preferred fields of study, but also assist them throughout their studies in order to be successful. In a study by Crawford, Dale and Toney-McLin (2003), the number one deterrent in successful academic performance in accounting and economic classes is lack of attendance. Encouraging women to attend all classes and take advantage of study sessions and offered tutoring could be strategies used to help women develop and maintain positive academic experiences that lead to graduation.

Once women have selected accounting as their major, it is vital that higher education institutions discover ways to advise these students, so they can and will be successful. Whether it is intense advisement, the active involvement of a mentor, or just someone to help them



acclimate to college life, systems need to be established to help these women from their freshman year to graduation, so they in turn, can help populate the demand for accountants in the workplace (Angrist, Lang & Oreopoulos, 2009; Heiat, Brown & Johnson, 2007; Ishitani & Snider, 2004).

### **Choice of a College Major**

College students are presented with the task of selecting a major field of study. Prior to college, academic decisions are usually made from the advice of a guidance counselor with input from teachers and then approved or rejected by parents. Maybe for the first time, students are making an independent or a perceived independent decision that will impact their futures in terms of career possibilities and dream fulfillment.

An independent decision does not discount the myriad of voices that influence the decision, though. Easterling and Smith (2008) found that influences on a student's choice of a college major can be placed in one of three factor categories: individual, external, or interpersonal. *Individual factor* is defined as a student's abilities and interests. Women are more apt to choose a major based on aptitude than men are (Malgwi, Howe & Burnaby, 2005). Also, students are drawn to majors that mesh with their personalities and that, in most cases, line up with their values (Easterling & Smith, 2008; Zafar, 2008). The two prevalent external factors for both men and women are job availability and pay (Easterling & Smith, 2008; Malgwi et al., 2005), yet Zafar found that pay accounted for less than one fourth of women's reasons for selecting a college major field of study. *Interpersonal* factors are relational: family, friends, teachers, and advisors. According to their study, career potential is the popular influencing factor for choosing a college major (Easterling & Smith, 2008).

However, parents still have the dominant influence over students and their choice of a major. Malgwi et al. (2005) studied the influences on students' choice of a college business major. Most research to this point has suggested that parental occupations and socioeconomic status have been the most impactful on the students' choice of major regardless of gender. But another strong influence, at least for women, is a related high school course in which they were successful (Malgwi et al., 2005). This success often transcends into an interest that becomes a major field of study. Women college freshmen with a penchant for business, select accounting as their major more frequently than men. Oftentimes, this selection comes after the students have completed their first accounting course. Malgwi et al. found that the course content was inconsequential to the students in selecting accounting as a major, but the instructor was a strong determining factor. This result supports the presence of interpersonal influences that Malgwi et al. found in their study of students and why they chose their major fields of study.

Dickson (2009), on the other hand, studied the differences that race and gender had on a student's choice of a college major. The study revealed several dominant reasons for this variation. First, students prepare differently for college. Some students take upper-level mathematics, science, and English classes and are given the opportunity to hone higher order thinking and problem solving skills. Dickson reports that women, in general, have lower mathematics skills than men but are reported to have a higher degree of representation in the upper 10% of their classes. This finding is in direct opposition to Spelke (2005), whose study found no differences in mathematics aptitude in men and women with women having better grades in the same upper-level mathematics courses. A second reason for the disparity in gender on college majors is that women are most likely to enter college with an undeclared major. When they do declare their major, it will be in fields like the humanities or social sciences instead of

the hard sciences, engineering or business. Dickson found women, more than any other demographic, are less likely to choose business as a major. A few causes for this disparity are the high demand course load that most women are unwilling to tackle, weak analytical Scholastic Aptitude Test (SAT) scores, or inadequate preparation in upper-level mathematics courses.

Heiat, Brown, and Johnson (2007) studied why students chose to major in accounting. In the mid- to-late 1990s, the number of students majoring and then graduating in accounting fell. Now, there is a rise in accounting graduates and several factors for this increase have been identified. First, the demand for accountants is at an all-time high with the passage of the 2002 Sarbanes-Oxley Act (SOX) (Heiat, Brown & Johnson, 2007). High demand means a robust job market with competitive salaries for accounting graduates. Second, the study found that even though accounting was labeled as a labor-intensive major, accounting students did not balk from this perception nor drop from the program because of the major's course difficulty. In fact, even the 150-hour requirement to sit for the certified public accountant (CPA) exam was not a deterrent to these students. Heiat et al. found another influence in selecting accounting as a major was the interest students had in the subject of accounting. Third, Heiat et al. found differences in the importance of influencing factors for men and women. The most significant factor is the importance female accounting students place on the opportunity to meet and interact with people; whereas, men accounting students rank prestige or social standing as being most important (Heiat et al., 2007). Heiat et al. speculated that the difference in the ranking of influences between men and women is probably caused by societal influences.

Antecol and Cobb-Clark (2010) found no gender difference in the selection of a business or business-related major field of study. Yet, they found that women are still less likely to enter a male-dominated major. Some would argue that societal influences cause this discrepancy, but

Antecol and Cobb-Clark learned that girls have outperformed boys in areas such as reading and GPA and have made significant strides in their mathematics scores and in the enrollment of high school upper-level mathematics and science classes – both traditionally boy-dominated. They posit that women who do enter male-dominated majors see themselves as intelligent and possessing male traits such as independence, assertiveness, confidence, straightforwardness and detachment.

### **Male-dominated Majors**

Since women no longer lag behind men in quantitative diagnostic assessment (NCES, 2009), the question can still be posed as to why the number of women in male-dominated majors is still low in proportion to total men and women enrolled in a denomination-affiliate's institutions of higher learning.

Morris and Daniel (2008) state that women traditionally populate majors that are associated with women instead of selecting those majors that are traditionally dominated by men; even though, after graduation salaries could be much higher. To further delineate which majors are male-dominated, Morris and Daniel define them as those majors that are comprised of 67% male. They posit that a chilly climate is a main driver for a woman not selecting a male-dominated major. This chilly climate manifests itself in several ways: what students hear, sexist attitudes and treatment, what students experience personally, classroom climate/course materials, and safety (Morris & Daniel, 2008). Statistics show that the perception of a chilly climate has negative effects on cognitive development. Women who experience a chilly climate do not develop their cognitive skills – writing and thinking skills, understanding science, academic preparation for a career, and understanding humanities and the arts (Morris & Daniel, 2008). Yet, Morris and Daniel also found that women who rate themselves higher on masculinity scales are

more apt to enter male-dominated majors than women who rate themselves higher on femininity. The high-masculinity scaled women do not perceive the chilly climate in those majors. Because of the confidence they have in their academic ability, these women expect to be compared to their male peers on equal footing and do not look for disparity due to gender.

Besides the chilly climate that women sometimes experience in male-dominated majors, Steele, James and Barnett (2002), found two other factors that can cause women to avoid these majors – sex discrimination and stereotype threat. Sex discrimination is defined as “an unjustifiable negative behavior directed at a person on the basis of his or her sex” (Kiefer & Sekaquaptewa, 2006; Steele, James, & Barnett, 2002, p. 46). A stereotype threat is defined as “an uncomfortable feeling that arises when people are at risk of confirming a negative stereotype in the eyes of others” (p. 46). According to Thoman, White, Yamawaki and Koishi (2008) and based on Eccles’ expectancy-value model of achievement, “The cultural transmission of gender role stereotypes can influence individuals’ goals and general self-schemata, which in turn influence specific thoughts, feelings, and behavior in direct encounters with stereotype-relevant activities” (p. 703). They go on to assert that those individuals who are stigmatized will more often than not underperform on diagnostic-type exams that measure knowledge of the subject area wherein the individual was stereotyped. If a female student feels she has been stereotyped or if she feels a stereotype-threat could happen to her in her career after graduation, more than likely she will change majors to avoid the contact (Steele et al., 2002).

The need to reduce stereotype threats is apparent. One way to achieve this goal is to expose women to female mathematicians and mathematics instructors as well as looking for alternative ways to instruct women within the discipline (Monastersky, 2005). Another way that Thoman, White, Yamawaki and Koishi (2008) recommend to reduce stereotype threat in the

field of mathematics is to change the way students view intelligence. If students are taught that performance is less about innate ability and more about effort, preconceived results could be eliminated making it easier for students to relax, take a mathematics exam, and achieve a score that is actually representative of their subject knowledge (Thoman, White Yamawaki & Koishi, 2008). “For students who are members of a culture that stresses the importance of ability in education and stigmatizes their sex for lack of ability in math, negative stereotype threat effects on performance seem to have been relatively alleviated when the stereotype content was reframed in terms of effort rather than ability” ( p. 710).

Park, Hayes and Foster (1994) found that female accounting majors outperform their male counterparts not because of a higher intelligence or aptitude for the subject, but because they have a stronger drive to perform well in their college courses. They wanted to discover why women were underrepresented in accounting, since academically, they were equal with their male classmates. The accounting students in the study, both men and women, were given the Clinical Performance Instrument (CPI) to see if there were differences in characteristics by gender. Park et al. found that there was no difference between genders in the characteristics of tolerance, intellectual efficiency, socialization or well-being. In the masculinity/femininity scale, the differences became apparent. Women saw themselves as being too sensitive; whereas, the men rated themselves high on action orientation. Also on the scale for dominance, women scored themselves as unassuming while men scored themselves high in assertiveness. The independence scale showed significant differences as well. Women rated themselves as lacking self-confidence and men rated themselves as self-sufficient. Park et al.’s conclusion was that female accounting students compete as intellectual equals with male accounting students, but they see themselves as more emotional than and not as able to handle tough situations as their male peer group.

### **Influence of the Classroom Experience on Women**

If students enter college as equals but women shy away from male-dominated majors like accounting by their sophomore year, is the educational atmosphere propagating self-confidence in men yet fostering a learning environment that causes women to lose theirs? One cause for the inequity could be the interaction between instructor and student. Brazelton (1998) observed interaction in accounting classes between the instructor and the students. More time was spent interacting with male students, and the quality of the interactions was in higher-order learning modes than interactions with female students. To break this trend, educators must allow female students to voice their opinions strongly, control the dynamics in the classroom, and mentor female students through showing them how to have a voice. Brazelton concludes by conjecturing that if colleges do not teach women how to be more assertive in school, they will not be assertive enough in the workplace. They will be under appreciated, under promoted, and under paid.

### **Women and Quantitative Subjects**

The search for barriers to women in quantitative-intensive fields is ongoing. Spelke (2005) studied the literature surrounding the theories that men and women are genetically predisposed with cognitive ability over the various mathematical functions, computations, language, and skill sets. She revealed numerous differences between men and women but none for sex differences in quantitative aptitude. Instead, she found more similarities in quantitative talent than she did differences and that is with children from infancy through college age. Spelke discussed how boys and girls take the same upper-level mathematics classes in high school with the girls making better grades, as a whole, than the boys. The same percentage of men and women take upper-level mathematics classes in college, and once again, the women make better grades. Some cause other than intelligence and/or aptitude is the defining factor in why there are

fewer women in majors that heavily rely on quantitative understanding and analysis such as accounting.

Kiefer and Sekaquaptewa (2006) also studied if gender differences in quantitative performance are influenced by societal stereotypes. Only when the women were told that the test was gender-fair or that it was not diagnostic in nature did they perform as well as men (Kiefer & Sekaquaptewa, 2006). Men and women associate themselves with the stereotype of men with mathematics and science and women with arts and humanities. These perceptions cross over in their relative performance in mathematics and promote the notion that women lack quantitative ability (Kiefer & Sekaquaptewa, 2006). Even as children, boys are naturally drawn to play with toys such as cars and blocks that enhance their ability to operate with spatial awareness that eventually translates into performing well in quantitative subjects. Girls, on the other hand, are generally not encouraged nor are predisposed to play with cars or blocks that would develop early those types of spatial skills necessary for many aspects of quantitative subjects. They, then, must rely upon what they learn in school with little to no additional experience with quantitative skills (Monastersky, 2005).

Boys, also, are typically more competitive than girls, whereas, girls will follow directions better than boys. Unfortunately though, the lack of a competitive nature combined with the dependence on instructions, lead girls on a prescribed path without the notion of changing strategies if something is not working well. This interdependence translates into looking for one solution to a mathematical problem instead of being open to multiple solutions. Again, boys are more adept at trying various treks before settling on the best answer (Monastersky, 2005). Since “math has been identified as the ‘critical filter’ which limits access to many high income and high-status careers, through acting as a gateway to many careers and field of study” (Watt et al.,



2006, p. 642), reaching some conclusions as to why girls opt out of higher-level quantitative courses is essential. Research shows that the discrepancy between boys and girls and their mathematics course choices generally begins in high school. Watt et al. found that intrinsic value was a determiner in high school-aged girls' mathematic course selection. If the girls thought the course would interest them, they were more apt to select it than if they thought they would just use the course to fulfill a future need, illustrating Wigfield and Eccles (1995) expectancy –value theory of achievement motivation.

### **The Potential Influence of the Family Environment**

Buchmann, DiPrete, and McDaniel (2008) studied the progress of women and men from kindergarten through college in regards to their mathematics and reading scores. They found that women outperform men on diagnostic tests as well as grade point average (GPA). Their question then became why are there gender inequalities in education if women are successfully competing with men in mathematics and reading? Buchmann et al. discovered that societal stereotypes and family influence contribute to a women's outlook on male-dominated majors and professions. According to their findings, women who come from families where the mother has a college degree, feel less of a pull to select a traditional female major than those women who come from families whose mothers are less educated. The role of family is found to be a strong indicator in a woman's selection of major because of its influence on a woman's perception of herself and her abilities. This perception could be developed from a skewed premise.

Watt et al. (2006) found that among upper-middle class families, parents teach their sons the importance of having productive careers while stressing to their daughters the importance of having a happy and fulfilling life. If quantitative subjects, then, are not viewed as a way to attain that vision of a girl's future, the need to increase an analytical knowledge base would not be

viewed as important. Another influencing factor is the role of teachers in a women's assessment of her own abilities. The study results show that women who have female teachers in subjects like reading and mathematics, have more confidence in their ability to perform well in these areas than when they have teachers who are men.

In yet another study of the role of sex-type and problem solving using the Bem Sex Role Inventory (Bem, 1974), Beckham, Carbonell, and Gustafson (1987) found no differentiation between men and women and their ability to problem solve. The use of student SAT analytical scores as a covariate strengthened their findings. Their conclusions parallel those of Meece et al. (1990). Meece et al. found when teachers took the time to enhance the learning environment with girls and taught them the value of mathematics by relating it to their everyday lives, the girls responded positively to mathematics and achieved to their potential. The literature confirms that reasons other than analytical ability are in effect for women not selecting quantitative college major fields of study.

### **Characteristics of Accounting Students**

Nelson, Vandrzyk, Quirin and Kovar (2008) participated in the collection and interpretation of data presented from a survey instrument designed, tested and administered to accounting students at the Federation of Schools of Accountancy (FSA) schools. The first survey was given in 1990 than again in years 1991 to 1995. It was also conducted in 2000, and then in 2006. Nelson et al. found that since 2000, accounting student high school GPAs of 3.6 or higher rose from 59% to 64%. There was also an increase in undergraduate college GPAs of 3.6 or higher from 28% to 33%. Unfortunately, a slight decrease in accounting course GPAs of 3.6 or higher occurred dropping from 37% to 29%. SAT scores of 1320 or above (or American College Testing (ACT) scores of 30 or above) also rose from 11% to 15% for accounting seniors. Nelson

et al. cautioned against placing too much emphasis on high school GPAs and standardized test scores, since these two items are self-reporting, although, they do connect with the increase in the number of graduating accounting majors.

Several trends for selecting accounting as a major field of study are evident from the survey responses. First, when asked to identify the most dominant influence on a student's choice of accounting as a major, the response was job availability. With the passage of SOX, jobs have opened up for accountants and the pay scale has increased. The second trend identified was that students are not entering college with a desire to major in accounting. Frequently, accounting majors begin college as business majors and then make the change to accounting in their sophomore year after they have completed their first accounting course. This trend necessitates the importance of making a good impression in the students' first accounting course. Third, 85 % of accounting seniors personally know someone in the profession. This is helping dispel the bad press from the last few years that has shown accountants as greedy and unethical. And fourth, most accounting graduates plan to sit for the CPA exam. Those intending to go on to graduate school are looking at Masters in Public Accounting (MPA) or Masters of Accounting (MAcc) programs instead of the Masters of Business Administration (MBA) program. This is a shift from 2000 when the majority of accounting graduates who desired a graduate degree, chose the MBA (Nelson et al, 2008).

### **Retention**

Once colleges are able to attract women into male-dominated majors, energy must be spent on retention strategies, so they do not get discouraged or overwhelmed and move into a traditional female major. DeWitz, Woolsey and Walsh (2009) studied self-efficacy, "defined as individuals' confidence in their ability to successfully complete a task" (p. 19), among college

students and how it related to their success. They used several indicators – high school GPA, student persistence, motivation, and coping strategies – along with a battery of diagnostic tests to determine students' self-efficacy. DeWitz et al. found that students with high scores in the indicators also had higher scores in self-efficacy and a greater chance of succeeding in and graduating from college. These students were more goal-oriented, adapted better to college, and built social as well as academic relationships. Because of this ability to meld with their surroundings, they were more apt to finish their degree and have a sense of fulfillment and accomplishment which, again, positively built self-efficacy.

In the study completed by Angrist, Lang and Oreopoulos (2009), college freshmen who were not in the top quartile of high school GPAs were randomly assigned to participate in one of three groups – the control group, a group with additional services and a cash reward for good performance, and a group with additional services and no cash reward. Over the course of the first year, the students who were in the group that received one-on-one intensive advising and the opportunity for a cash award for stellar grades, performed better than the other groups and more of them registered for spring classes. Also, the first group had the opportunity to develop note taking skills, test taking skills, questioning skills, and were offered tutoring based on critical thinking. Because of these skills, they performed better than the other groups in year two of their college experience. The group that only had advising with no cash award performed no better or no worse than the control group. The conclusions from their study suggest that advising and study skills development are two areas that can aid with retention (Angrist, Lang & Oreopoulos, 2009).

According to Ishitani and Snider (2004), the purpose of their study was to determine the longitudinal effects of secondary educational college preparation programs on college retention.

They found that the most important factor on attending college was parental support. If a student had a parent or parents that were college graduates, then the aspiration to go to and graduate from college was high. Also, high school students who had high GPAs were more likely to attend college than those students with lower GPAs. The same indicators that pointed to high school students attending college were also apparent in college retention. Students who had a strong support system and who immersed themselves in college life tended to complete their degrees. High school students who participated in college preparation programs and were accepted into college were more likely to go beyond the freshman year. A correlation, albeit weak, was determined between the persistence of seeking help to enhance college entry scores and a student's persistence to remain in college and complete his or her degree (Ishitani & Snider, 2004). Those students are also more likely to use college intervention services that may help them remain in college instead of dropping out when faced with a hardship.

Reason (2009) studied the recent literature of the changing demographics of college students and how that impacts retention. Since the 1980s, women are the highest demographic among college students. High school students with substantial GPAs along with race/ethnicity also significantly impact college retention. Finally, college GPA was an indicator to whether a student would remain in or depart from college. Yet among both male and female accounting majors, Francisco, Noland and Kelly (2003) state that a way to retain this demographic is to point out the "long-term salary prospects and the prestige of the accounting profession" (p. 39). They go on to report that job security is a top concern for college graduates, so recruiters and academic advisors should emphasize that accounting is a sustainable career. In a survey conducted by Csikszentmihalyi and Schneider (2000), the results showed that accountant/CPA

was the eighth ranked profession with 3% of those surveyed selecting “expect to have” this career (Milliron, 2008).

Although the statistics point to extrinsic benefits as a way to attain students, Kahveci, Southerland and Gilmer (2006) found that to retain women in the quantitative major fields of study, higher education needs to develop support systems for them beyond the traditional academic advisors. Kahveci et al. were part of a team that developed a cohort system for a sample of students who declared science, mathematics or engineering (SM&E) as a proposed major. The cohort met with science professors on campus throughout the academic year who offered them mentoring services, exposure to research, and availability to counseling. This cohort acted as a control group. In comparison to the students who were not part of the cohort, most of the SM&E students remained determined to major in one of the SM&E subjects whereas most of the non-cohort switched their major. Kahveci et al. concluded that the need to offer enhanced services to SM&E students is imperative for retention in these fields of study.

### **Related Mixed-methods Research Design Studies**

A mixed-methods research design allows the researcher the flexibility of collecting both qualitative and quantitative data (Creswell, 2003). Limas (2005) used a mixed-methods design for his study, as well as the Delphi data collection method, to query human resource (HR) professionals who had an expertise in performance appraisal systems to determine whether those systems helped organizations improve employee morale, productivity and their competitive advantage. Limas’s Delphi panel consisted of five experts who, through a series of survey responses, were asked to submit a confidence level from 1-5 (1-lowest, 5-highest) to indicate their level of agreement with the accumulated survey responses. Once a consensus was reached by the panel as to the structure of a survey instrument to be distributed to other HR professionals,

a sample of 232 of a population of 590 participants was polled to gather information on their organizations' use of performance appraisal data. Limas found that performance appraisals, for the most part, are tied to an organization's system of work versus reward instead of using appraisals to guide employee development. He concluded that performance appraisals could be a viable tool in employee training and leadership development as a means of determining skill gaps as long as the organization was willing to use them, at least in part, for that purpose.

Oakley (2001) also used a mixed-methods research design implementing the Delphi data collection method in her study of problems and possible solutions associated with recruitment and retention of accounting students in the North Carolina community college system. Her 14-person sample was extracted from a population of 59 accounting chairpersons in the North Carolina community college system. Oakley polled her panel to determine what barriers had been established that made it difficult for the recruitment and retention of accounting students. After one round of open-ended questions and two rounds of ranked responses using a Likert scale, Oakley ascertained that successfully recruiting and retaining accounting students was based on identifying qualified students who had a mathematical aptitude and were willing to be diligent in completing homework and attending classes. She also concluded that the first accounting course was a valid precursor to a student's propensity or lack thereof for the accounting major. Armed with this type of data, recruiters and academic advisors could aid students in their selection and continued success in an accounting major field of study.

### **Conclusion**

The literature review in this chapter confirms the validity of asking what influenced women to major in a quantitative-intensive, male-dominated major field of study like accounting at specific denomination-affiliate's Pentecostal higher education institutions. Suggestions were

made as to why women are hesitant to enter these fields. Societal stereotypes as well as a possible misperception of quantitative-intensive careers certainly add to the lingering suspicion that a field such as accounting is unfriendly to women and their familial focus and unrelenting on a woman's time and to her aspirations. The literature also suggested reasons why women are not as prepared to handle quantitative situations as well as their men counterparts. Although women have surpassed men in college GPAs and graduation rates, they still lag behind in quantitative-intensive fields of study.

It could be that women are taught that they are better equipped to perform soft-skill tasks and not encouraged to engage in higher-order critical thinking. Research-based studies are conclusive that women demonstrate quantitative ability either at or above the levels progressively established by men. Elementary aged girls are exposed to the same mathematics classes as boys, and yet, by the time they reach middle school and on into high school, mathematics classes are dominated by male students. Because of this course selection, college quantitative courses are predominately male again. Studies have shown that ability does not play a part in the discrepancy, so the factors are less apparent than pure academics. The literature does not address if attending any type of specific denomination-affiliate's higher education institution had a negative impact on women not choosing a quantitative-intensive major field of study such as accounting.

The information garnered from this literature helped establish the need for more research in determining which factors are evident when women who attend specific denomination-affiliate's higher education institutions select accounting as their major field of study. Armed with that data, department academic advisors can help influence women into quantitative-intensive fields like accounting.



## CHAPTER THREE

### METHODOLOGY

#### **Introduction**

An obstacle in accounting departments exists at a denomination-affiliate's higher education institutions. The challenge is the inadequate recruiting and retaining of female accounting students. This problem impacts a college's ability to offer the diversity of graduates needed in today's global marketplace. According to the United States Department of Labor Women's Bureau, 46.8 % of the workforce comprised women in 2009. Also, 61.8 % of all accountants and auditors are women (US Department of Labor Statistics, Annual Average, 2009). An awareness of this challenge among administrators, academic program evaluators and faculty provided the impetus to revise curriculum, refine academic advising procedures, and remove barriers that inhibit women from declaring accounting as their major field of study or from completing the accounting course of study (Oakley, 2001).

#### **Research Design**

A mixed-methods research design was used for this study. In a mixed-methods research design, "the researcher bases the inquiry on the assumption that collecting diverse types of data best provides an understanding of a research problem" (Creswell, 2003, p. 21). The study began with an open-ended questionnaire, followed by a Likert scale survey and a ranked survey, so both qualitative and quantitative data were available to the researcher.

The Delphi methodology of data collection, developed by the RAND Corporation in the 1950s for the purpose of forecasting, was selected for this study. It is a valid method of collecting data from subject matter experts when the knowledge about a problem is incomplete, but the goal is for a more robust understanding of the problem (Skulmoski, Hartman & Krahn,

2007). The Delphi method involves a series of sequential questionnaires “interspersed with opinion and information *feedback*, computer-derived consensus, to respondents” (Oakley, 2001, p. 37). The feedback comes in the form of statistical summaries of the group’s responses after each round of questioning, which is measured by a statistical score of consensus (Oakley, 2001). According to Oakley, the Delphi method has several advantages over other consensus-generating techniques:

1. The anonymity of the Delphi decision-making method is more accurate than the face-to-face methods.
2. The subject-matter experts may be located anywhere yet still participate without either the researcher or the participant traveling.
3. Written responses to the questionnaire encourage thoughtfulness about the specified topic.
4. Likert scales and descriptive statistics can be used to describe groups’ responses.

Oakley also listed the disadvantages to using the Delphi methodology:

1. The subject-matter experts may have been influenced by the researcher’s questions.
2. The subject-matter experts’ knowledge may not have been fully tapped because of the varied locations.
3. The researcher may not have explained the purpose of the study appropriately.
4. “Participants may not have fully participated in the total study leading to sample attrition and a reduction in reliability. Therefore, purposive sampling may have been necessary because of the time commitment of thirty minutes to two hours involved in each round of questioning” (p. 38).

The Delphi data collection method was an appropriate choice for this study because determining the reasons why a denomination-affiliate's higher education institutions have problems recruiting and retaining female accounting students can be found more readily from a mixed-methods discussion than from an objective questionnaire or survey where the participant must choose a designated response to a question. The Delphi method asks open-ended questions that encourage a deeper discussion and forces the respondents to go beyond a more simplistic answer by stating why they think the way they do. Also, the Delphi method seeks consensus, and since this study involved three higher education institutions that needed to address the same issue, it was the most logical choice. Oakley (2001) used this method when trying to determine how to recruit and retain accounting students for North Carolina community colleges. She was able to solicit responses from deans and department chairpersons from a sample of the community colleges in order to help create a marketing strategy to not only get students into the various community colleges but also to retain the accounting students that were already in the program of study. The current study focused on a more refined issue, recruitment and retention of female accounting students.

Several other research methods were considered. The qualitative method of face-to-face interviews would give the opportunity to view body language when participants are asked questions plus give the opportunity for follow-up questions (Singleton & Straits, 2005). But it would have proven cumbersome to conduct, since these institutions are located across the continental United States and travel would be too costly.

Besides face-to-face interviews, a true experimental within-subjects design, was considered. According to Singleton and Straits (2005), this design has each subject act as her own control. It seemed plausible to use this design because the research is comparing individual

preferences and experiences to determine what influences a woman to choose accounting as a major field of study. But the purpose of the study was to reach a consensus among experts instead of among female students at institutions under study, so this research design was not chosen.

The final quantitative experimental research design considered was the one-shot case study. In this design, female accounting students from each institution under study would have been observed in their accounting classes. But, according to Singleton and Straits (2005), this design does not offer a “basis for comparing the findings with other observations” (p. 192). It would not offer a way to compare female accounting students at all three institutions under study as a group. The one-shot case study was not a viable design.

The independent variables for the study were female accounting students who attended a specific denomination-affiliate’s higher education institution. The dependent variables for the study were the factors that attracted women into the accounting major field of study, the predictors of success for those women entering the accounting major field of study, and the major problems women faced in completing accounting programs of study.

### **Population**

The population of a study is defined as the totality to which the findings of the study could be generalized. McMillan and Schumacher (2001) explained that “generalizability is the extent to which the finding of one study can be used as knowledge about other populations and situations – that is, to predict” (p. 17). Therefore, the research population for this study was the faculty at four higher education institutions, owned and operated by a conservative Protestant denomination that have accounting departments. The sample drawn from this research population consisted of three deans and department chairpersons of the accounting area along

with five accounting faculty at three higher education institutions. The denomination chosen for this study is headquartered in Missouri and has churches and ministries world-wide. At present, the denomination owns and operates 18 four-year higher education institutions; however, only four of the universities are classified as liberal arts and offered accounting as either a major or a minor field of study (The Alliance of AG Higher Education, n.d.). Consequently, the four institutions that offer an accounting major and or minor were identified as appropriate, but only three elected to participate in this study.

### **Sample and Sampling Procedure**

A convenience nonprobability sample was used for this study because the researcher was a faculty member of one of the identified business colleges and had access to the contact information of the deans, chairpersons and accounting faculty at the other schools. As McMillan and Schumacher (2001) stated, “A convenience sample is [often] selected on the basis of being accessible or expedient” (p. 175). A sample was drawn from the research population, and in this study the sample criteria consisted of deans and/or chairpersons of the accounting departments, and one full-time accounting professor from each of the three institutions under study for a total of eight Delphi panel members. In the Delphi method, the sample should be experts in their field. The four requirements for being considered *expert* are: “1) knowledge and experience with the issues under investigation; 2) capacity and willingness to participate; 3) sufficient time to participate in the Delphi; and, 4) effective communication skills” (Skulmoski et.al., 2007, p. 5). The sample for this study were “professional academicians in the field of accounting whose daily experiences in both the classroom and administration place them in a unique position to reach consensus on how best to attack the [lack of female] accounting majors” in these designated institutions (Oakley, 2001, p. 39). This sample had the academic ranks of assistant professor,

associate professor or professor. They were also affiliated with a church and were predominately of Protestant faith. Because the focus of this study was to use the Delphi method to reach consensus on determining ways to recruit and retain women into the accounting major or minor field of study at these specific denomination-affiliate's universities, the sample was small. The Delphi method suggested a sample should be between five and twenty participants (Rowe & Wright, n.d.), and this sample had eight participants.

### **Instruments**

The central purpose of this study was to gather data to identify ways to recruit and retain women into the accounting major or minor field of study. To conduct the overall investigation in this study, the Delphi mixed-methods research methodology was used. The Delphi method can be typified by four key facets: 1) Participants do not know each other; therefore, there are no conformity pressures from others in the group. Each participant has the freedom to express their opinions, and decisions can be made without groupthink. 2) Participants are allowed to refine their opinions in relation to the group's progress after each round. 3) Participants are informed of the progress and opinions of the group and are given the opportunity to modify and/or clarify their own opinions. 4) A quantitative analysis and interpretation of the aggregate group response is possible. (Skulmoski et al., 2007, p. 4).

### **Pilot Study**

To help ensure the validity of the Delphi questionnaire, a pilot test was conducted at one of the institutions under study's campus located in Florida. The pilot tested for accuracy and understanding of the questionnaire. The pilot test was given to one accounting professor and the department chairperson of the Department of Business Administration. The questionnaire was administered via the Internet. Following the completion of the questionnaire, the pilot test

participants were asked to be part of a small focus group to discuss the questionnaire's meaning and readability. The focus group met at the Florida university campus. Any changes that needed to be made to the questionnaire to enhance readability and help ensure content validity were made after the pilot test was conducted and the focus group had convened.

No modifications to the questionnaire were made, and the sample of the study received an email that asked them to participate on the Delphi panel. An informed consent form (see Appendix F) was sent via the Internet to six accounting academicians and administrators at the other three institutions under study who agreed to be panel participants.

### **Data Collection**

The study consisted of three rounds of questioning that was administered during the 2012 spring academic semester. Round One was a questionnaire sent via the Internet. The following questions were asked:

1. What personal experiences significantly influence female students' decisions to choose accounting as a major field of study at your university?
2. What environmental factors influence a female student's decision to choose accounting as a major field of study at your university?
3. What skill set is valuable to a female student to succeed in the accounting major field of study?
4. What are a female student's initial perceptions regarding the introductory accounting course at your university?
5. How are the female students' perceptions and course performance related to the decision to major in accounting?

6. Why do female accounting students switch to other major fields of study at your university?
7. What support systems are in place to aid your female accounting students to be successful in this major?
8. What can be done to attract more female students into the accounting major field of study?

The panel participants were asked to return their questionnaires within 2 weeks of receiving them. Those respondents who do not return their questionnaires within the designated timeframe received a reminder email with an additional week to respond. At the end of the additional week, an alternate respondent was asked to participate because the original participant was unable to complete the questionnaire due to time constraints. Additional time was granted to the new respondent who wanted to participate on the panel.

The anecdotal data from Round One were collected and coded for common words and themes, and a comprehensive compilation of the responses from Round One was made. Duplicates were eliminated and any clarification needed by the researcher was done via email or by a telephone call. For Round Two, the comprehensive list of attractions, success predictors, problems facing the recruitment and retention of female accounting students, and potential ways to combat the problem was sent via email. The respondents were asked to rate the items using a Likert scale with 5 being “strongly agree” and 1 being “strongly disagree.” Once again, a request for a 2 week return timeframe was made. The responses were tallied and those that met a mean score of either 4 = agree or 5 = strongly agree were used in Round Two. A list of the rated responses from Round Two was sent to the panel participants for Round Three. They were asked to rank, for the final iteration, the responses from Round Two in light of the previous rating.



Again, a request for a 2 week return timeframe was made. These responses were tallied and ranked. This final ranking produced a consensual list of those elements that could help departmental recruiters steer women into the accounting major or minor field of study, and once there, academic departmental advisors could aid them towards a successful degree completion program.

A frequency distribution was used to make the determination of which attractions, success predictors, problems and recommendations for recruiting and retaining female accounting students were most common as an aggregate of the three institutions under study. A distribution was used because it “is a summary of the frequency of individual values or ranges of values for a variable” (Trochim, 2001, p. 269).

### **Data Analysis**

The following research questions were answered by the data collected from the survey:

*Research Question 1: What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate’s higher education institutions?*

The questionnaire and Likert scale responses gave the researcher information on those aspects of a female student’s personal perspectives and experiences that led her to choose accounting as her major field of study. A frequency distribution was used because it “is a summary of the frequency of individual values or ranges of values for a variable” (Trochim, 2001, p. 269). If there was a relationship between the independent variable of a woman choosing accounting as a major field of study and the various dependent variables- the factors that attracted women into accounting, the predictors of success for those women entering accounting, and the major problems women faced in completing accounting programs of study- it became

evident through the aggregate Likert scales' scores from Round Two and the ranked responses from Round Three.

*Research Question 2: What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?*

A frequency distribution was used to determine what predictors of success were most apparent at the three institutions under study. A Likert scale score rated the responses, and those responses that met the standard were again ranked by the Delphi panel in order of importance.

*Research Question 3: What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?*

A frequency distribution was used to determine what major problems women faced in completing accounting programs of study at the institutions under study. The Likert scale scores rated the responses, and those responses that met the standard were ranked in order of importance.

*Research Question 4: What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to department academic advisors, business college administrators, and accounting faculty?*

A frequency distribution was used to determine the most important recommendations that accounting professionals made to those who recruit and advise women in the accounting major field of study at their institutions. The results from the Likert scale and ranked listing populated this distribution.

### **Ethical Issues in Research**

According to Singleton and Straits (2005), “It is considered a violation of basic rights to harm others, to force people to perform actions against their will, to lie to or mislead them, and to invade their privacy” (p. 518). The following section addresses these ethical issues.

### **Protection from Harm**

The participants were administered a series of questionnaires that they accessed online. It took them approximately 30 minutes to complete Round One and 15 minutes each for Rounds Two and Three. The questionnaire asked the participants questions concerning their perspective on what attracted women into the major field of accounting, what were some predictors of success for these women, what major problems the women could potentially face to keep them from succeeding in the major, and what recommendations they had for recruiters, advisors, and faculty. At no time were participants subjected to a stressful or embarrassing environment. The participants were instructed that there was no right or wrong answer because the questionnaire’s intent was to gather data that could be used by their departments to better service potential and existing female accounting students.

### **Informed Consent**

The Internal Review Board (IRB) at Baker College in Flint, Michigan received a request for the approval of this study to be conducted. Once that approval was obtained (see Appendix G), the deans or department chairpersons at a specific denomination-affiliate’s higher education institutions gave their permission to allow their accounting faculty to be notified of the study. In the spring of 2012, an email describing the purpose of the study was sent to each college dean who in turn contacted the accounting professor in their colleges and gave them the opportunity to participate in the study. The accounting professionals who elected to participate in the study were given the researcher’s email address, so a consent form (see Appendix F) describing the

study and asking for their signature was obtained. Once the consent form was collected, the participant was sent the questionnaire via email. The participants were instructed that at any time they could withdraw from the study. If they chose to withdraw, they could notify the researcher at the researcher's email address.

### **Right to Privacy**

To maintain the privacy of the participants, the survey could be taken anywhere and at any time the participant had computer access. Also, the only identifier on the survey was the one question that asked the participants to select at which specific denomination-affiliate's higher education institution they were employed. These institutions were coded, so the data could be accurately recorded. The results from the questionnaires are available for each participant as well as each of the three institutions upon request to the researcher. The research records will be kept in a locked, password protected external data file that only the researcher has access to for 5 years.

### **Summary**

Chapter 3 is the description of the methodology used in this research study. Chapter 4 will present the results from the Delphi panel.

## CHAPTER FOUR

### RESULTS

#### Introduction

The purpose of this study was to reach consensus among a panel of accounting professionals at denomination-affiliate's higher education institutions about the challenges of recruiting and retaining female accounting students. Because of these challenges, the institutions lack the ability to provide the diversity of graduates needed in today's global marketplace. Since 61.8 % of all accountants and auditors are women (US Department of Labor Statistics, Annual Average, 2009), and less than 1% of the female graduates from these specific institutions graduate with degrees in accounting, the institutions need to discover the influences surrounding their challenge of recruiting and retaining female accounting students (see Table 1).

Table 1  
*Population Distribution for Participating Institutions*

<b>Institution</b>	<b>Total Enrollment</b>	<b>% Men</b>	<b>% Women</b>	<b>Total Business College Enrollment</b>	<b># Men with Accounting Major/Minor</b>	<b># Women with Accounting Major/Minor</b>
A	2,950	42	58	368	15	10
B	2,000	48	52	280	15	10
C	1,800	40	60	188	10	5
D	2,013	44	56	125	7	3
<b>Total</b>	<b>8,763</b>	<b>43.5</b>	<b>56.5</b>	<b>961</b>	<b>47</b>	<b>28</b>

A mixed-methods study was conducted using the Delphi data collection technique. Three rounds of questionnaires were created by the researcher and then distributed to the Delphi panel. Their responses were collected from eight questions in Round One (see Appendix A) and from four questions in Rounds Two and Three (see Appendices B & D).

The four research questions necessary to garner consensus among the Delphi panelists from a specific denomination-affiliate's higher education institutions were as follows:

1. What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?
2. What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?
3. What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?
4. What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to department academic advisors, business college administrators, and accounting faculty?

### **Delphi Panel Demographic Profile**

An analysis of the demographic information provided by the Delphi panel during Round One generated the following profile:

- The eight panelists responding to Round One questionnaires had a tenure range from 3 - 25 years in instructing and/or advising accounting students.
- Three of the panelists were chairpersons of their respective accounting departments, one was a dean of the business college, and four of the panelists were accounting faculty.
- Three accounting faculty were licensed CPAs and one of the department chairpersons was a licensed Certified Financial Advisor (CFA).
- Seven of the eight panelists have taught the following accounting courses: Principles of Financial Accounting, Principles of Managerial Accounting, Government and Non-Profit Accounting, Managerial Cost Accounting, Financial Statement Analysis, Accounting

Information Systems, Corporate Taxation, Individual Taxation, Intermediate Accounting, Advanced Managerial Accounting, Auditing, Accounting Software, and Forensic Accounting. One of the panelists has not taught an accounting course.

### **The Data**

The remaining sections of this chapter will present and discuss the results from the three rounds of questionnaires sent to the Delphi panel. Round One sample responses ( $n = 8$ ) were analyzed using qualitative methods while Round Two sample responses ( $n = 7$ ) and Round Three sample responses ( $n = 5$ ) were analyzed using quantitative methods.

### **Pilot Study**

Two accounting professionals from one of the denomination-affiliate's higher education institutions participated in the pilot study. These two professionals were selected from the panel due to the easy accessibility the researcher had to the panel members. Once the Round One questionnaire along with the informed consent form was sent to the pilot study panelists via the Internet and then returned to the researcher, the results were tallied and recorded. The two professionals were also willing to form a focus group to discuss the questionnaire. Once the research questions were revealed to the pilot study panelists, they were satisfied that the questionnaire for Round One had the potential to reveal appropriate opinions from which Round Two and potentially Round Three would yield valuable insights. They offered no alterations to its content, and the original questionnaire was deemed ready to distribute to the other panelists.

### **Round One Analysis**

The purpose of Round One was to obtain anecdotal information from the Delphi panel that represented the panel's experiences with female accounting students at their specific institutions. This round of questions was designed for brainstorming with the desire to elicit

panel responses based on actual student interactions and from their knowledge of the female accounting student demographic. The Round One questionnaire (see Appendix A) along with the informed consent form (see Appendix F), sent via the Internet, expanded as each of the eight questions were answered, so sufficient space was available for the panelist to respond and to encourage more than a superficial response.

The analysis of Round One progressed from general open-ended questions, to the specific responses of the individual panelists. Eight questionnaires, or a 100% response rate, were returned via the Internet, and each panelist was assigned an identifying number to ensure anonymity and for the researcher to track which institutions had responded. This number included the pilot group, since they, too, were sent the Round One questionnaire via the Internet. Every effort was made throughout the data collection to retain the anonymity of the panelists and to inhibit researcher bias in the analysis of the data (Oakley, 2001).

The responses from Round One were reviewed for common language, words and phrases found throughout the responses for each question. These commonalities were logged and tallied along with those responses that were unique to the entire panel. Relevant themes emerged and are noted in Table 2.

Table 2

*Delphi Panel Round One: Common Themes*



<u>Theme</u>	<u>% Referenced</u>	<u>#Referenced</u>
Challenging major	3.17	6
Job availability	4.25	9
Known accounting professional	2.93	5
Positive classroom environment	3.17	6
Use quantitative skills	4.25	9
Available study support systems	3.17	6
<i>Note: NVivo9 software was used to code the responses and compile the statistics</i>		

### **Round One Summary**

The responses from the Delphi panel reflected what they had observed throughout their tenure teaching and advising female accounting students. Two dominant themes emerged – job availability upon graduation and the use of quantitative skills in the accounting course of study. Having employable skills that are in demand upon graduation is a logical driver for choosing a particular major. Since over 60% of all accountants are women (US Department of Labor Statistics, Annual Average, 2009), it was not surprising that many of the panelists listed job availability as a reason women choose accounting as their major field of study and also an effective tool to use in recruitment and in academic and career advisement.

A second viable theme from Round One of the Delphi panel was the need for female accounting students to be proficient using quantitative skills. The field of accounting is quantitative, so if a female student is unable to successfully complete problems or is unable to understand the logic of a case study in which quantitative solutions are used to calculate the solution, accounting is not the appropriate major field of study for her; and therefore, retention could drop after the first accounting course. This factor also supported the theme that accounting

is a challenging major field of study, and study support systems are needed for the female accounting students. With only less than 1% of female students at the institutions under study majoring in accounting (see Table 1), this is a valid observation by the panel.

The final related themes from the Delphi panel responses were the outcomes of having a positive classroom experience and also the advantage of knowing a professional accountant. Both of these themes stem from female students being affirmed as accounting majors from their own experiences in accounting by either a professor in a classroom and/or having an accountant as a guest speaker in the classroom, an acquaintance from the marketplace, or from the reputation of a known community accountant. This panel observation could encourage accounting professors, accounting department chairpersons, and business college deans to solicit practicing accountants to be advocates for their profession with the female accounting majors.

### **Round Two Analysis**

The purpose of Round Two was to begin building consensus between the Delphi panelists as to why the institutions under study were unable to recruit and retain enough female accounting students to help meet the demand of female accountants in the marketplace. The panelists received a second questionnaire (see Appendix B) via the Internet that stated the four research questions with the panelists' aggregate individual responses from Round One listed beneath each one. They were asked to rate each response using a Likert scale with 5 being "strongly agree" and 1 being "strongly disagree." Seven of the eight Round Two questionnaires were returned for a response rate of 88%.

The quantitative responses to each statement addressing the four questions were tallied and averaged resulting in a mean score for each statement. The researcher determined that a mean score of three was a neutral response and anything below a three would be considered

trivial by the panel. Of the 49 statements rated, 10 statements received a mean score of 3, and 2 statements had a mean score of below 3. With a mean rate of 76% on the remaining 37 statements, the Delphi panel gained consensus on why female students avoid selecting accounting as a major field of study and what accounting faculty, department academic advisors, and business college administrators can implement to begin supplying the marketplace with additional female accounting graduates from the institutions under study.

### **Round Two Summary**

The standard set for considering a statement a consensus response by the Delphi panel was a mean rating of either a 4 or a 5 on the Likert scale. This importance placed on the statement by the panel assured the researcher that it was a valid concern. The remaining analysis will concentrate on those statements that were awarded a mean score of 4 or 5 on the Likert scale as the consensus of the Delphi panel rated them as “agree” and “strongly agree.” Three statements received a mean score of 5 identifying them as a unanimous consensus.

In Round Two, 37 or 76% of the statements fit the aforementioned criteria – a mean score of 4 or 5. Only 3 statements, 8%, were awarded a 5 “strongly agree” rating by the Delphi panel. This low unanimous consensus total could be attributed to the varied number of female accounting students at each location (see Table 1), the geographic differences between the locations, or a factor or combination of factors outside the purview of this study. The statements that received a 5 “strongly agree” rating were:

*Question 1: What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate’s higher education institutions?*

- Enjoys subject matter

*Question 2: What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?*

- Hard worker

*Question 4: What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to department academic advisors, business college administrators, and accounting faculty?*

- Academic advisors and accounting faculty who care.

The 34 statements that had a 4 “agree” rating by the Delphi panel were:

*Question 1: What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?*

- Understands the subject matter
- Arrives on campus knowing they want to do accounting
- Successful recruitment in the principles classes (Financial and/or Managerial Accounting courses)
- Experience of being recruited as an accounting major
- Possibility of landing a desired job at a desired rate of pay
- Word-of-mouth from other female accounting majors
- Successful experience in the introductory accounting course
- Positive influence of the accounting instructor.

Nelson et al. (2008) found that most students do not enter college with the desire to major in business, much less accounting. They also found that most accounting majors do not decide to major in accounting until after their first introductory accounting course. The panel's emphasis on female students having a successful experience with their first accounting course material,

along with the positive influence the accounting instructors can have on them, could lead to attracting more women into the accounting major field of study at the institutions under study.

*Question 2: What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?*

- Good at math
- Pays attention to details
- Quick learner
- Critical thinker
- Ability to understand relationships
- Has basic people skills
- Analytical
- Competitive
- Mildly assertive
- Develops confidence.

Question 2 had the second highest mean score. This question is directly related to the panelists' expertise as classroom faculty, even though, four of them had administrative duties on either a full or part-time basis. At the institutions under study, college and departmental administrators teach at least one course a semester, so this question's emphasis on success predictors indicates the importance the Delphi panel placed on identifying the skill set needed for female accounting majors to complete the accounting course of study and to be amply prepared for the marketplace. Not only did the panel list quantitative skills, an obvious choice for

accounting, but they also placed importance on female accounting students needing to develop business soft skills such as people and relationship-building skills.

*Question 3: What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?*

- Poor performance in Intermediate Accounting
- Unwilling to put in the effort to be successful in the major
- Doesn't have a natural aptitude for accounting
- Decides she does not like the detail aspect of this career.

The Delphi panel responses focused on four areas that are all aspects of the same challenge – targeting women with a penchant for the quantitative subjects who are willing to be diligent in their course preparations and who enjoy the detail work that is common in accounting courses, especially in Intermediate Accounting. The Delphi panel responses support DeWitz et al.'s (2009) conclusions about self-efficacy among college students and how it related to their success. DeWitz et al. used several indicators – high school GPA, student persistence, motivation, and coping strategies – along with a battery of diagnostic tests to determine students' self-efficacy and found that students with high scores in the indicators also had higher scores in self-efficacy and a greater chance of succeeding in and graduating from college. One of the biggest barriers to success for female accounting students is their decision to either not dedicate themselves to studying and/ or choosing accounting as a major field of study without having the required skill set – both of which would hinder successful completion of the accounting course of study.

*Question 4: What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to department academic advisors, business college administrators, and accounting faculty?*

- Accounting majors form their own support/study groups
- Performance is monitored and students are advised about options by their academic advisors who are accounting professors
- One-on-one discussions and positive feedback
- Advertise the demand for [female] accountants out in the business world
- Invite women who are currently succeeding in the profession to share their stories and give advice on why women should consider studying accounting
- Scholarships for women who choose to take on accounting as a profession
- Female students should not be encouraged to opt out of math or business classes
- Encourage and recruit capable female students
- Highlight that accounting is not as boring or as hard as people make it out to be
- Highlight that accounting is not devoid of human interaction
- Help female students understand that the accounting profession is a great stepping stone into management and other opportunities
- Identify great opportunities in private accounting for those who want work/life balance.

Question 4 received the highest mean score from the Delphi panel. With the question asking for suggestions on how to attract women into the respective accounting programs, the panel's responses indicated the importance placed on the recruitment and retention process. Though the opinions varied on how those two processes should be handled at each institution, the strength of

the need to recruit and retain female accounting majors was evident in their responses and will be addressed in more detail in Chapter 5.

### **Round Three Analysis and Summary**

The Delphi Panel was sent a survey (see Appendix D) via the Internet, using Zoomerang, a survey development instrument. The four research questions were put in the survey along with the rated responses from Round Two that met the mean standard of either a 4 “agree” or a 5 “strongly agree” beneath the corresponding question. The panel was asked to rank the responses in order of importance (see Appendix E).

The top ranked responses for each question are as follows:

*Question 1: What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate’s higher education institutions?*

- Successful experience in the introductory accounting course

*Question 2: What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate’s higher education institutions?*

- Analytical
- Hard worker
- Pays attention to detail

*Question 3: What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate’s higher education institutions?*

- Doesn’t have a natural aptitude for accounting
- Poor performance in Intermediate Accounting



*Question 4: What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to department academic advisors, business college administrators, and accounting faculty?*

- Help female students understand that the accounting profession is a great stepping stone into management and other opportunities.

The top ranked responses from the Delphi panel corresponded to the quick consensus in Round Two. Even though the three institutions under study are in different parts of the United States of America, the challenge of recruiting and retaining female accounting students is evident on each campus. Each of the institutions wants quantitatively adroit women in their accounting major field of study who work hard and are detail-oriented. Each of the institutions identified Intermediate Accounting as the biggest problem facing female accounting students in their degree completion. Finally, each of the institutions want to translate clearly to their female students that graduating with a degree in accounting can open doors to varied opportunities and professions.

### **Summary**

The three denomination-affiliate's higher education institutions that elected to participate in this study had many common opinions about the influences that hinder the recruitment and retention of female accounting students. They also listed a variety of ways that business college administrators, department academic advisors, and accounting faculty could direct female students into the accounting major field of study. The Delphi methodology afforded the researcher as well as the panel the opportunity to gain consensus from peers at the various institutions. An analysis of the results is presented in Chapter 5.

## **CHAPTER FIVE**

### **INTERPRETATIONS AND RECOMMENDATIONS**

#### **Introduction**

The purpose of this study was to reach consensus among a panel of accounting professionals at a denomination-affiliate's higher education institutions about the challenge of recruiting and retaining female accounting students. A consensus was sought to accumulate ideas among accounting professionals at these institutions as to why so few women students choose accounting as a major field of study or are unable to complete the accounting major course of study. The Delphi data collection method of this mixed-methods study was used because of its consensus developing techniques. Delphi panelists could participate from various locations, remain anonymous, and still be privy to the aggregate results from the group.

#### **Research Questions**

The four research questions necessary to gain consensus among the Delphi panelists from a specific denomination-affiliate's higher education institutions were as follows:

1. What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?
2. What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?
3. What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?
4. What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to department academic advisors, college administrators, and accounting faculty?

### Research Procedures

A mixed-methods research design was used for this study, and the Delphi methodology of data collection was also used. A 4-step procedure was employed in conducting the research for this study: (1) selection of the Delphi panel from the accounting professors and administrators at a specific denomination-affiliate's higher education institutions, (2) creation of three iterations of a questionnaire – one with open-ended questions, one Likert scale survey and one ranked survey, (3) consensus development of the panelists through rating and then ranking individual responses from the open-ended questions, and (4) analysis of the panel demographics drawn from the information requested on the initial questionnaire (Oakley, 2001).

The sample for the study was selected from a specific denomination-affiliate's higher education institutions that offer accounting as either a major or minor course of study. Ten business college deans, chairpersons, and accounting faculty were asked to participate in the study. Four institutions responded with a preliminary affirmative, but only three of those institutions actually contributed to the study. From the three participating institutions, one business college dean, three business department chairpersons, and four accounting faculty committed to join the Delphi panel for the Round One questionnaire, an open-ended, 8- question document sent via the Internet. Round Two had seven respondents because one of the panelists was unable to continue. In this round, the panelists were asked to rate, using a Likert scale, the other panelists' individual responses on the Round One questionnaire, again via the Internet. A 76% consensus was acquired after Round Two. Round Three used the Round Two survey and the responses that earned a 4 "agree" or a 5 "strongly agree" mean rating. Round Three was also sent via the Internet and used the website [www.Zoomerang.com](http://www.Zoomerang.com) to produce the ranked survey. For the Round Three survey, 5 of the 7 panelists participated, resulting in a 71% response rate.

## **Interpretations**

Based on the findings from the summarized research above, the following interpretations are considered significant:

### **Interpretation 1**

The Delphi panel achieved a “strongly agree” or “agree” on the following attractions for female students choosing accounting as a major field of study at a specific denomination-affiliate’s higher education institutions:

- Enjoys the subject matter
- Understands the subject matter
- Arrives on campus knowing they want to do accounting
- Successful recruitment in the principles classes (Financial and/or Managerial Accounting courses)
- Experience of being recruited as an accounting major
- Possibility of landing a desired job at a desired rate of pay
- Word-of-mouth from other female accounting majors
- Successful experience in the introductory accounting course
- Positive influence of the accounting instructor.

The Delphi panel was populated with educators who have immediate experience in the actual classroom. They observe the reactions and attitudes their women students have towards the subject matter and how it relates to their success or failure. The importance the panelists placed on the successful completion of the introductory accounting course in attracting women to the accounting major field of study was evident by its high rating and the first theme to appear from their responses. This interpretation supports Wigfield and Eccles (2000) who posited that a

person's "choice, persistence, and performance can be explained by their beliefs about how well they will do on the activity and the extent to which they value the activity" (p. 68). Women who perform well in their first accounting course will be more apt to select accounting as a major field of study, especially if they enter college with the intention of becoming a business major.

A second theme concerning what attracts women into the accounting major field of study was evident from the Delphi panels' responses. With the passage of the Sarbanes-Oxley Act (SOX) in 2002, an increase in the market need of accounting professionals has led to a push to recruit women (Thompson et al., 2008). Because of this insurgence of job possibilities upon graduation, women who are already accounting majors are a positive source of recruitment for their female peers who are undeclared business majors. Couple this peer encouragement with a robust job market, and Easterling and Smith (2008) concluded that it is a popular influencing factor for choosing a college major field of study.

Finally, a third theme became apparent from the Delphi panel. The positive influence the accounting faculty had on their female students was a determining factor in their decisions to choose accounting as a major field of study. Malgwi et al. (2005) found that it was not so much the course content that drew students to accounting as a major field of study, but it was rather the strong interpersonal influences that accounting faculty had on their students.

## **Interpretation 2**

The Delphi panel achieved a "strongly agree" or "agree" on the following predictors of success for female students choosing accounting as a major field of study at a specific denomination-affiliate's higher education institutions:

- Good at math
- Pays attention to details

- Quick learner
- Critical thinker
- Ability to understand relationships
- Has basic people skills
- Analytical
- Competitive
- Mildly assertive
- Develops confidence.

Accounting faculty, department chairpersons, and business college deans know the skillset that students need to be successful as an accounting major. The rigors of the major are evident with an extensive course of study, the 150 semester hours of college study required as the first step for professional licensure, and the demand of applying higher-order analytical, quantitative, and critical thinking skills to accounting problems. The Delphi panel determined that the female students who had a specific profile had the best opportunity to be successful as an accounting major. Not only did she need to be mathematically proficient, but she needed to have confidence, assertiveness and also competitiveness to succeed in her potential career path. This perception mimics the findings of Antecol and Cobb-Clark (2010) who posited that women who enter male-dominated majors [like accounting, need to] see themselves as intelligent, independent, assertive, outgoing, and able to handle situations without being overly sensitive or overly emotional.

A large body of work (Buchmann et al., 2008; Kahveci et al., 2006; Meece et al., 1990; Monastersky, 2005; Spelke, 2005) spoke to the issue of quantitatively capable students avoiding career paths that require advanced mathematics and other quantitative coursework,

and, therefore, limiting their potential. Fortunately, Spelke found no genetically predisposition of cognitive skills in men over women, so the Delphi panel's response to needing good math skills to be successful is a realistic expectation for potential female accounting students.

### **Interpretation 3**

The Delphi panel achieved "agrees" on the following major problems female students face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions:

- Poor performance in Intermediate Accounting
- Unwilling to put in the effort to be successful in the major
- Doesn't have a natural aptitude for accounting
- Decides she does not like the detail aspect of this career.

Of the many individual responses from the Delphi panel about problems female accounting students face in completing their major, all of them fit under the aforementioned themes. Expectancy-Value Achievement Theory speaks to determining how much a task engagement costs the individual in emotion, time and effort (Wigfield & Eccles, 2000). The panel responses reinforced this theory. It may not be that the female accounting students are not capable of successfully completing the program of study, but they are actually choosing to opt out of the program to major in a field of study that is less demanding on their emotion, time and effort. Wigfield and Eccles also noted that in adolescents, importance is only placed on those courses and activities in which they can excel and devaluing anything that they may fail or be required to exert too much effort because of the level of difficulty. This sentiment translates appropriately to potential female accounting students or to those declared accounting students who switch major fields of study partially through the program.

The literature also aligns with the panel's responses in regards to a female student's aptitude and choosing a college major field of study. Malgwi et al., (2005) discussed how women more often than men, select a major based on aptitude. They also have found that if women have been successful in a preliminary course, they are more willing to take the next course in the series or a related course that utilizes the skills from the previous course. It makes sense, then, that if women are unsuccessful in Intermediate Accounting, the second course in the series, they will elect not to complete an accounting degree program.

#### **Interpretation 4**

The Delphi panel achieved "agrees" and "highly agrees" on the following recommendations to accounting faculty, business college administrators and academic advisors for reducing female accounting major attrition at a specific denomination-affiliate's higher education institutions:

- Performance is monitored and students are advised about options by their academic advisors who are accounting professors
- One-on-one discussions and positive feedback
- Invite women who are currently succeeding in the profession to share their stories and give advice on why women should consider studying accounting
- Scholarships for women who choose to take on accounting as a profession
- Encourage and recruit capable female students
- Help female students understand that the accounting profession is a great stepping stone into management and other opportunities
- Highlight that accounting is not as boring or as hard as people make it out to be
- Identify great opportunities in private accounting for those who want work/life balance



- Accounting majors form their own support/study groups
- Advertise the demand for [female] accountants out in the business world
- Female students should not be encouraged to opt out of math or business classes
- Highlight that accounting is not devoid of human interaction.

Often accounting faculty also has the role and function of being an academic advisor as well as being a classroom instructor. The same could be said of business college administrators especially the institutions under study. The panel felt that one way to encourage female accounting students to finish the program of study is to expose them to female accountants and accounting instructors (Monastersky, 2005). It would help dispel the stereotype that women cannot have a balanced life and be an accountant.

The panel's advice supported DeWitz et al.'s (2009) study which suggested that college students who have confidence in their ability to complete a task successfully will be more apt to do assignments, attend class, and prepare for exams. Faculty, administrators and advisors who invest time and attention in their female students will be able to determine more readily if they are falling behind in their understanding or have lost interest in the subject matter. Kahveci et al. (2006) found that female students who were part of a cohort system in quantitative major fields of study were less likely to switch majors because of the camaraderie and potential expertise of the cohort. These self-selected groups could be encouraged by accounting faculty as a way to retain female students.

### **Recommendations**

Based on the interpretations of this study, the following recommendations for practice are suggested below:

#### **Recommendation One**

This study has indicated what some accounting professionals in participating institutions believe are factors that draw female students into the major field of accounting. It has also been presented why some female students leave the major field of accounting at some point within the program of study. It is recommended that business college administrators, accounting faculty and department academic advisors at other denomination-affiliated higher education institutions integrate the panel's suggestions into their retention programs designed for female accounting students.

### **Recommendation Two**

Business college deans and accounting department chairpersons may use these findings to open dialogue with sister institutions or other denomination-affiliated higher education institutions about female accounting student recruitment and retention. The importance of the first introductory accounting course should be a basis of discussion, since it is a standard course at most institutions and a reason why most female accounting students leave the major field of study.

### **Recommendation Three**

The Council for Christian Colleges and Universities (CCCCU) could utilize this study as a source for those members who wish to evaluate their population of female accounting majors.

### **Future Research**

Based on the interpretations of this study, the following recommendations for future research are suggested below:

#### **Suggestion One**

This study only investigated recruitment and retention of female accounting students. The techniques employed for the study could be expanded to include male students from a

denomination-affiliate's higher education institutions to determine why all accounting students chose their major.

### **Suggestion Two**

It would also be interesting to poll all of the business students from a specific denomination-affiliate's higher education institutions to discover why some students did not choose to major in accounting.

### **Suggestion Three**

To expand this study even further, the same techniques could be used to question the other CCCU members who have accounting as either a major and/or minor field of study to obtain information on whether they have sufficient women in accounting to help meet their local market demand for accountants.

### **Suggestion Four**

Instead of using only business college deans, accounting department chairs, and accounting faculty for the Delphi panel, partially populate it with practicing, licensed accountants to get an outside view of the accounting student demographic. They would bring another viewpoint to the curriculum that may help stimulate the program of study and thus help with recruitment and retention.

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## APPENDICES

**Appendix A: Delphi Panel Questionnaire Round One**

## Questionnaire Round One

*Please answer the following questions based on your expertise. The white space under each question expands for more writing space. Please return the questionnaire to [baleslie@seu.edu](mailto:baleslie@seu.edu) by \_\_\_\_\_ . Thank you for your time and willingness to share your knowledge.*

At which Assembly of God-affiliated university are you employed? \_\_\_\_\_

Please designate your current position(s) at the university:

\_\_\_ Dean

\_\_\_ Department Chairperson

\_\_\_ Accounting Faculty

How long have you been involved with accounting students? \_\_\_\_\_

Please list the accounting courses you currently teach or have taught in the past.

1. What personal experiences significantly influence female students' decisions to choose accounting as a major field of study at your university?
2. What environmental factors influence a female student's decision to choose accounting as a major field of study at your university?
3. What skill set is valuable to a female student to succeed in the accounting major field of study?
4. What are a female student's initial perceptions regarding the introductory accounting course at your university?
5. How are the female students' perceptions and course performance related to the decision to major in accounting?
6. Why do female accounting students switch to other major fields of study at your university?
7. What support systems are in place to aid your female accounting students to be successful in this major?
8. What can be done to attract more female students into the accounting major field of study?



## Appendix B: Delphi Panel Questionnaire Round Two

### Questionnaire Round Two

\*Under each question is an aggregate list of the responses from the Round 1 Delphi questionnaire that each of you completed for this study. Round 2 of this process uses a Likert scale (5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree) to begin the process of reaching a consensus of those factors affecting the institution's ability to attract and retain female accounting students. Please complete this survey, and return it to me via email. If you have any questions, please contact me at [baleslie@seu.edu](mailto:baleslie@seu.edu). Thank you.

***Question 1: What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?***

\_\_\_ Understands the subject matter

\_\_\_ Enjoys subject matter

\_\_\_ Successful recruitment in the principles classes (Financial and/or Managerial Accounting courses)

\_\_\_ Arrives on campus knowing they want to do accounting

\_\_\_ Enjoys learning something completely new

\_\_\_ Experience of being recruited as an accounting major

\_\_\_ Possibility of landing a desired job at a desired rate of pay

\_\_\_ Word-of-mouth from other female accounting majors

\_\_\_ Successful experience in the introductory accounting course

\_\_\_ Positive influence of the accounting instructor

\_\_\_ Positive interactions with significant figures who are/were accountants

Comfort with logic

Desire to help others (private or public accounting) with their finances

Prestige associated with being a female accounting major

***Question 2: What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?***

Hard worker

Good at math

Pays attention to details

Quick learner

Critical thinker

Ability to understand relationships

Willingness to research

Has basic people skills

Analytical

Competitive

Mildly assertive

Develops confidence

Strong communication skills

Interest in the topic

***Question 3: What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?***

Sees no future at a career in accounting

- \_\_\_ Poor performance in Intermediate Accounting
- \_\_\_ Potential drop in a good GPA
- \_\_\_ Unwilling to put in the effort to be successful in the major
- \_\_\_ Doesn't have a natural aptitude for accounting
- \_\_\_ Decides she does not like the detail aspect of this career

***Question 4: What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to college advisors, college administrators, and accounting faculty?***

- \_\_\_ Academic advisors and accounting faculty who care
- \_\_\_ Tutoring center for upper-level accounting majors
- \_\_\_ Accounting majors form their own support/study groups
- \_\_\_ Performance is monitored and students are advised about options by their academic advisors who are accounting professors
- \_\_\_ One-on-one discussions and positive feedback
- \_\_\_ Distribute more information about successful women in the field of accounting
- \_\_\_ Advertise the demand for [female] accountants out in the business world
- \_\_\_ Invite women who are currently succeeding in the profession to share their stories and give advice on why women should consider studying accounting
- \_\_\_ Scholarships for women who choose to take on accounting as a profession
- \_\_\_ Female students should not be encouraged to opt out of math or business classes

\_\_\_Encourage and recruit capable female students

\_\_\_ Highlight that accounting is not as boring or as hard as people make it out to be

\_\_\_Highlight that accounting is not devoid of human interaction

\_\_\_Help female students understand that the accounting profession is a great stepping stone into management and other opportunities

\_\_\_Identify great opportunities in private accounting for those who want work/life balance

## Appendix C: Delphi Panel Questionnaire Round Two Final Consensus

### Questionnaire Round Two

\*Under each question is an aggregate list of the responses from the Round 1 Delphi questionnaire that each of you completed for this study. Round 2 of this process uses a Likert scale (5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree) to begin the process of reaching a consensus of those factors affecting the institution's ability to attract and retain female accounting students. Please complete this survey, and return it to me via email. If you have any questions, please contact me at [baleslie@seu.edu](mailto:baleslie@seu.edu). Thank you.

***Question 1: What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?***

- \_4\_ Understands the subject matter
- \_5\_ Enjoys subject matter
- \_4\_ Successful recruitment in the principles classes (Financial and/or Managerial Accounting courses)
- \_4\_ Arrives on campus knowing they want to do accounting
- \_3\_ Enjoys learning something completely new
- \_3\_ Experience of being recruited as an accounting major
- \_4\_ Possibility of landing a desired job at a desired rate of pay
- \_4\_ Word-of-mouth from other female accounting majors
- \_4\_ Successful experience in the introductory accounting course
- \_4\_ Positive influence of the accounting instructor
- \_3\_ Positive interactions with significant figures who are/were accountants

\_4\_ Comfort with logic

\_2\_ Desire to help others (private or public accounting) with their finances

\_3\_ Prestige associated with being a female accounting major

***Question 2: What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?***

\_5\_ Hard worker

\_4\_ Good at math

\_4\_ Pays attention to details

\_4\_ Quick learner

\_4\_ Critical thinker

\_4\_ Ability to understand relationships

\_3\_ Willingness to research

\_3\_ Has basic people skills

\_4\_ Analytical

\_4\_ Competitive

\_4\_ Mildly assertive

\_4\_ Develops confidence

\_3\_ Strong communication skills

\_4\_ Interest in the topic

***Question 3: What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?***

\_2\_ Sees no future at a career in accounting

- \_4\_ Poor performance in Intermediate Accounting
- \_3\_ Potential drop in a good GPA
- \_4\_ Unwilling to put in the effort to be successful in the major
- \_4\_ Doesn't have a natural aptitude for accounting
- \_4\_ Decides she does not like the detail aspect of this career

***Question 4: What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to college advisors, college administrators, and accounting faculty?***

- \_5\_ Academic advisors and accounting faculty who care
- \_3\_ Tutoring center for upper-level accounting majors
- \_4\_ Accounting majors form their own support/study groups
- \_4\_ Performance is monitored and students are advised about options by their academic advisors who are accounting professors
- \_4\_ One-on-one discussions and positive feedback
- \_4\_ Distribute more information about successful women in the field of accounting
- \_4\_ Advertise the demand for [female] accountants out in the business world
- \_4\_ Invite women who are currently succeeding in the profession to share their stories and give advice on why women should consider studying accounting
- \_4\_ Scholarships for women who choose to take on accounting as a profession
- \_3\_ Female students should not be encouraged to opt out of math or business classes

\_4\_ Encourage and recruit capable female students

\_4\_ Highlight that accounting is not as boring or as hard as people make it out to be

\_4\_ Highlight that accounting is not devoid of human interaction

\_4\_ Help female students understand that the accounting profession is a great stepping stone into management and other opportunities

\_4\_ Identify great opportunities in private accounting for those who want work/life balance



## Appendix D: Delphi Panel Questionnaire Round Three

### Female accounting Students - Delphi Panel Round Three

1.

What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?

Arrives on campus knowing they want to do accounting  
 Enjoys subject matter  
 Experience of being recruited as an accounting major  
 Positive influence of the accounting instructor  
 Possibility of landing a desired job at a desired rate of pay  
 Successful experience in the introductory accounting course  
 Successful recruitment in the principles classes  
 Understands the subject matter  
 Word-of-mouth from other female accounting majors

2.

What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?

Ability to understand relationships  
 Analytical  
 Competitive  
 Critical thinker  
 Develops confidence  
 Good at math  
 Hard worker  
 Has basic people skills  
 Mildly assertive  
 Pays attention to details  
 Quick learner

3.

What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?

Decides she does not like the detail aspect of this career  
 Doesn't have a natural aptitude for accounting

Poor performance in Intermediate Accounting  
 Unwilling to put in the effort to be successful in the major

4.

What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to college advisors, college administrators, and accounting faculty?

Academic advisors and accounting Faculty who care  
 Accounting majors form their own support/study groups  
 Advertise the demand for [women] accountants out in the business world  
 Encourage and recruit capable women students  
 Female students should not be encouraged to opt out of math or business classes  
 Help women students understand that the accounting profession is a great stepping stone into management and other opportunities  
 Highlight that accounting is not as boring or as hard as people make it out to be  
 Highlight that accounting is not devoid of human interaction  
 Identify great opportunities in private accounting for those who want work/life balance  
 Invite women who are currently succeeding in the profession to share their stories and give advice on why women should consider studying accounting  
 One-on-one discussions and positive feedback  
 Performance is monitored and students are advised about options by their academic advisors who are accounting professors  
 Scholarships for women who choose to take on accounting as a profession

## Appendix D: Delphi Panel Questionnaire Round Three Final Consensus

### Female accounting Students - Delphi Panel Round Three

1.

What initially attracts women to choose accounting as a major field of study at a specific denomination-affiliate's higher education institutions?

- 3 - Arrives on campus knowing they want to do accounting
- 2 - Enjoys subject matter
- 3 - Experience of being recruited as an accounting major
- 2 - Positive influence of the accounting instructor
- 4 - Possibility of landing a desired job at a desired rate of pay
- 1 - **Successful experience in the introductory accounting course**
- 4 - Successful recruitment in the principles classes
- 3 - Understands the subject matter
- 3 - Word-of-mouth from other female accounting majors

2.

What are the predictors of success for those women entering as accounting majors in a specific denomination-affiliate's higher education institutions?

- 4 - Ability to understand relationships
- 1 - **Analytical**
- 3 - Competitive
- 2 - Critical thinker
- 3 - Develops confidence
- 2 - Good at math
- 1 - **Hard worker**
- 4 - Has basic people skills
- 3 - Mildly assertive
- 1 - **Pays attention to details**
- 2 - Quick learner

3.

What are the major problems women face in completing accounting programs of study at a specific denomination-affiliate's higher education institutions?

- 2 - Decides she does not like the detail aspect of this career
- 1 - **Doesn't have a natural aptitude for accounting**
- 1 - **Poor performance in Intermediate Accounting**
- 2 - Unwilling to put in the effort to be successful in the major

4.

What recommendations would accounting department chairpersons and accounting professors make for reducing female accounting major attrition to college advisors, college administrators, and accounting faculty?

3 - Academic advisors and accounting faculty who care

2 - Accounting majors form their own support/study groups

5 - Advertise the demand for [female] accountants out in the business world

3 - Encourage and recruit capable female students

5 - Female students should not be encouraged to opt out of math or business classes

**1- Help female students understand that the accounting profession is a great stepping stone into management and other opportunities**

4 - Highlight that accounting is not as boring or as hard as people make it out to be

4 - Highlight that accounting is not devoid of human interaction

3 - Identify great opportunities in private accounting for those who want work/life balance

3 - Invite women who are currently succeeding in the profession to share their stories and give advice on why women should consider studying accounting

4 - One-on-one discussions and positive feedback

4 - Performance is monitored and students are advised about options by their academic advisors who are accounting professors

4 - Scholarships for women who choose to take on accounting as a profession

## **Appendix E: Informed Consent**

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Informed Consent

Title of Research: Recruitment and Retention of Female accounting Students at a Denomination-affiliate's Higher Education

Investigator: Beth Leslie, Doctoral Candidate

Before agreeing to participate in this research study, it is important that you read the following explanation of this study. This statement describes the purpose, procedures, benefits, and precautions of the program. Also described is your right to withdraw from the study at any time.

### Explanation of Procedures

You are being asked to participate in a research study to investigate the factors that influence women to choose accounting as their major at faith-based Pentecostal higher education institutions. The approach of the research is through the use of an online questionnaire. You will complete 3 rounds of questionnaires online and return them to the researcher via email. The first questionnaire contains 4 questions that ask you to write a brief explanation of your opinions on various accounting-related issues. The first one should take you approximately 30 minutes to complete. The other 2 questionnaires will each take approximately 15 minutes. There is no place to put your name, and the only identifier on the questionnaire is your specific institution. The researcher is using the Delphi method, so everyone's responses will be compiled into a Likert scale for Rounds 2 and 3. The survey results will be made available to you upon your request.

### Benefits

There are no direct benefits by participating in this project. However, this research is expected to yield knowledge about the factors that lead women to choose accounting, and in turn, will help academic recruiters, advisors and instructors serve female accounting students better.

### Confidentiality

All information gathered from the study will remain confidential. Your identity as a participant will not be disclosed to any unauthorized persons; only the researcher and Baker College Institutional Review Board (the committee that approved this research project) will have access to the research materials, which will be kept in an external data file. Any references to your identity that would compromise your anonymity will be removed or disguised prior to the preparation of the research reports and publications.

### Withdrawal Without Prejudice

Participation in this study is voluntary. You are free to withdraw consent and discontinue participation in this project at any time without prejudice.

### Questions

Any questions concerning the research project can be directed to Beth Leslie (researcher for this project) at baleslie@seu.edu. Questions regarding rights as a person in this research project

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should be directed to **Mike Tyler, Associate Vice President of Institutional Effectiveness, at 810-766-4329**

Agreement

This agreement states that you have received a copy of this informed consent. Your electronic signature below indicates that you agree to participate in this study.

Signature of Subject

Date

Subject name (printed)

Signature of Researcher

Date

## Appendix F: Internal Review Board Approval




**Baker College System Headquarters**  
 1050 West Bristol Road  
 Flint, Michigan 48507  
 Telephone (810) 766-4280  
 Fax (810) 766-4279  
 Internet: [www.baker.edu](http://www.baker.edu)

**Protocol ID # 12-2**

*Please refer to this Protocol ID number in all communications about this project with the IRB.*

TO: Beth Leslie

FROM: Institutional Review Board 

DATE: April 9, 2012

RE: Recruitment and retention of female accounting students at a denomination-affiliate's higher education institutions.

Thank you for your submission of the above named protocol. The protocol has been reviewed and approved as submitted. The project has been identified as exempt under guidelines provided by rule of Health and Human Services. Please note that it is the researcher's responsibility to ensure that data is collected and maintained in a manner that meets the established criteria. No changes in procedure or documentation should be made without consultation with the IRB. Changes to procedures may require the project to be resubmitted under a different category.

This project has been approved for one year from 4-9-2012. Please remember that any changes to the protocol will require the submission of a revised protocol to the IRB. Any adverse reaction by a research subject is to be reported immediately to the Chair of the IRB through the Office of Institutional Effectiveness, Baker College, at 810-766-4329 or via e-mail at [irb@baker.edu](mailto:irb@baker.edu).

Questions concerning the IRB decision or any concerns may be directed to the IRB Chair, through Dr. Michael Tyler, Associate Vice President of Institutional Effectiveness.