

Beyond the CPA: Student Awareness of Accounting Certifications

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Abstract

Today's accounting profession offers a variety of certifications beyond the CPA, including but not limited to the following: CMA, CIA and CFE. However, are future accounting professionals fully aware of the opportunities offered by these certifications? In this paper, accounting students at a flagship state university were surveyed about their awareness of various certifications. We find that the CPA remains the most recognized certification, while the CMA and the CIA lag far behind. Compared with a survey conducted 15 years ago, students' awareness of the CMA and CIA actually declined. One of the newer professional certifications, the CFE, on the other hand, has received surprisingly wide recognition among students. The percentage of students aware of the CFE has surpassed that of the CMA and CIA, though it is still much lower than CPA. These results have significant implications for the professional organizations trying to attract tomorrow's professionals.

Introduction

The complexities of today's businesses not only increase the appreciation for accountants but also increase the demand for accountants. According to the 2015 edition of Trends in the Supply of Accounting Graduates and the Demand for Public Accounting Recruits (AICPA, 2015), there are more than 250,000 students enrolled in accounting programs in the United States and the demand for these students continues to increase. There are many career paths for accountants and professional organizations compete for the best and the brightest. These organizations engage in a great deal of self-promotion that focuses on career opportunities, salaries, promotion potential and more.

This paper will evaluate the promotional efforts of various professional organizations on today's students (future professionals). In particular, we examine accounting students' awareness of various certifications offered by professional organizations. Brody and Frank (2000) addressed this issue over 15 years ago but it is not known if students of today have the same views as those previously surveyed. While there are many certifications available to professional accountants, this paper will focus on three that have been around for a very long time (Certified Public Accountant [CPA], Certified Management Accountant [CMA], Certified Internal Auditor [CIA]) and one that is more of a newcomer (Certified Fraud Examiner [CFE]). We note here that while the CPA actually receives a license issued by the State Board of Accountancy in the state in which he/she practices (the certificate itself is not a license

to practice), for the purpose of expediency, we are grouping the CPA license in with the other certifications and will be referring to it as a certification. The terms “license” and “certificate” are often used interchangeably and we will follow that approach going forward.

The paper will provide benefits to the professional organizations offering these certifications (American Institute of Certified Public Accountants [AICPA], Institute of Management Accountants [IMA], Institute of Internal Auditors [IIA], and Association of Certified Fraud Examiners [ACFE]). According to James O’Malley (2016, para. 4), an experienced accounting recruiter, “In this highly competitive race for talent, accounting organizations are re-evaluating their recruitment strategies to gain a head start.” Our findings will help determine whether the professional organizations are reaching an important audience, current accounting students and will provide critical guidance to these organizations on how to attract future professionals. In addition, the paper will provide benefits to university faculty and students. Given that many future professionals make decisions about their career path while completing their degree in a university, students’ impressions of these four certifications will determine, to a large extent, the accounting workforce of the future. Students may need more information about careers before they actually select one. Do students know about and understand each of these certifications? If not, faculty may want to incorporate more information into the accounting courses and explore more career options with students.

Professional Organizations and Their Associated Certifications

The number of professional organizations serving the accounting profession and related fields and the certifications offered by these organizations have grown dramatically over the years. As stated by Boyle, Lawrence and Mahoney (2013), “In an era that demands new levels of specialized knowledge, it seems intuitive that both novice and veteran members of the profession would be well served by securing the kinds of credentials that reflect such knowledge” (p. 68). These authors also report that professional organizations focus their marketing efforts on the benefits associated with their certifications but “formal research on this topic has found mixed results” (p. 68). Given the importance of these issues to both professional organizations and current and future professionals, more research is needed.

In this paper, we focus on four organizations that were selected for three reasons. First, Brody and Frank (2000) focused on three of the four organizations (AICPA, IMA and IIA) and we are interested in analyzing changes in student impressions that may have occurred since the initial survey was conducted. Second, we view the CPA, CMA and CIA as three of the leading certifications in the areas of public accounting, management accounting and internal auditing, respectively. Finally, we have added the Association of Certified Fraud Examiners and its CFE because of the rapid growth of both the organization and its certification. We do not intend to suggest that other organizations/certifications are not relevant and it was our judgment to focus on the four included in this paper.

Before discussing the survey and results, brief background information will be provided for each of the four organizations. Table 1 summarizes the requirements to join and maintain the certification for each organization and compares current membership with that in 2000 when Brody and Frank’s (2000) paper was published. Because our research purpose is to evaluate accounting students’ awareness of various certifications offered by these organizations, we will also present some of the promotional efforts made by each organization to reach future professionals.

American Institute of Certified Public Accountants

The American Institute of Certified Public Accountants (AICPA) as it is known today began in 1887 and has since grown into the world’s largest accounting professional association with members in 144 countries. The AICPA website (www.aicpa.org) indicates that there are 412,107 members, 90% of which, 372,195, are regular voting members who have passed the Certified Public Accountant (CPA) examination. In 2015, professionals in public accounting represented 46% of the regular members, whereas business and industry, 35%. According to the 2014 - 2015 AICPA Annual Report (2015), over 43,000 new accounting graduates were hired by public accounting firms in 2014. Further, almost 240,000 sections of the Uniform CPA Exam were delivered globally in 2015.

As stated by Joanne Fiore of the AICPA, “The profession’s focus on the CPA pipeline has long been a priority. That will continue, with new approaches to attracting, engaging and inspiring the future generation of CPAs. We are constantly creating, implementing and evaluating programs to build the pipeline” (Fiore, 2015, para. 2). Some of the AICPA college initiatives mentioned by Fiore (2015) include www.thiswaytocpa.com (job searches, the CPA exam, career pathways, etc.), the AICPA Accounting Competition (case competition in which over 2,724 students have participated) and a professional skills video series (used by Beta Alpha Psi chapters around the country). Other initiatives are being considered but accounting students are already seeing increased benefits from a 46% increase in the dollar amounts of scholarships to students who plan to become CPAs (Nilsen, 2015). Clearly, the AICPA has recognized the importance and value of having a presence on college campuses and this also includes communication to accounting educators. The Academic Initiatives team created a newsletter, *Extra Credit*, for this specific audience and also re-launched the Accounting Education Center on AICPA.org with a significant amount of educator-specific content.

Institute of Management Accountants

Despite some name changes, the Institute of Management Accountants (IMA) effectively began in 1919. The IMA created the Certified Management Accountant (CMA) program in 1972 and the 2015 Annual Report (IMA, n.d.) refers to the CMA as being “widely recognized as the leading management accounting credential in the world” (p. 3). The IMA now has over 75,000 members in 140 countries and 300 professional and student chapters and over 47,000 CMA certificates have been awarded (“IMA’s CMA Certification,” 2015). According to Jeff Thomson, IMA president and CEO, “the CMA is one of the fastest growing credentials in the world” (“IMA’s CMA Certification,” 2015, para. 2).

The IMA has been working hard to promote itself among students. Student chapters and student membership continue to grow and the IMA is very involved with campuses around the world. “Our Campus Advocate Program empowers academic influencers on campus as ambassadors to promote the career value of management accounting and the CMA programs to students” (IMA, n.d., p. 3). The IMA Higher Education Endorsement Program is focused on making resources available to students and educating them about the CMA credential and career options. Another specific example of the focus on increasing the visibility of the organization to students and encouraging students’ career aspirations and offering opportunities for professional development, is the recently-created the IMA Accounting Honor Society [IAHS] (McCabe, 2015). The focus is on attracting high-performing students and providing them with recognition for their academic success, as well as offering them resources from the IMA and its members.

The IMA also regularly reports salary information in its IMA Salary Survey and the results suggest a competitive base salary (IMA, 2015). The 2014 Global Salary Survey reports a median global salary of \$60,000 (\$100,000 in the U.S.) and a global median total compensation of \$66,000 (\$113,000). It is also noted that salaries (and total compensation) of those holding the CMA are at least 25% higher than those of non-CMAs. These results indicate that (p. 9), “the CMA is a way of enhancing, validating, and promoting professional skills throughout one’s career.” These results are supported, and expanded upon, by Krippel and Mitchell (2014). They have conducted research on what they call the “CMA advantage” which highlights the impact the CMA has on the career earnings of an individual. As stated by these authors (p. 46), “There are many other reasons to earn your CMA but seeing the potential lifetime NPV of this certification can be a wake-up call to some.”

Institute of Internal Auditors

The Institute of Internal Auditors (IIA) was established in 1941 in New York with 24 members. By 2014, it had expanded to more than 170 countries with 180,000 members. The Certified Internal Auditor (CIA) program was launched in 1973 and “remains the standard by which individuals demonstrate their competency and professionalism in the internal auditing field” (“Celebrate the CIA’s 40th,” 2013, para. 2). By 2006, the IIA had certified 65,000 CIAs, and by 2014, about 129,000, posting an average 9% annual growth during this period.

The Academic Relations Manual (IIA, 2014a) describes internal auditing as “one of the world’s best kept secrets” (p. 4). Through its Internal Auditing Education Partnership, the IIA has increased its involvement with educational

institutions as the organization attempts to mold the future of the profession. The IIA established the Internal Auditing Academic Advancement Fund to support awareness and teaching of internal auditing in post-secondary institutions on a global basis.

The IIA also recognizes that the importance of salary information for both hiring and retention purposes (Cohn, 2015, para. 6) and has published “Building Awareness: A Toolkit with Tips and Templates for Elevating and Advocating for the Internal Audit Profession” (IIA, 2014b) to engage people outside of the profession. While salary information provided by the Audit Executive Center at the IIA found that salary increases in the past year have been modest, median salaries for many U.S. internal audit positions decreased (“Internal auditors receive,” 2016). On a positive note, the survey did report that internal auditors with advanced levels of education, training and certifications earned more than those without these assets. Specifically, those with the CIA tend to earn 43 percent more than non-certified counterparts.

Association of Certified Fraud Examiners

The Association of Certified Fraud Examiners (ACFE) was founded in 1988 in Austin, Texas by Joseph T. Wells with the mission of reducing fraud and white-collar crimes. According to the 2015 Report to Members (ACFE, 2016), the ACFE now has over 75,000 members in more than 150 countries and offers the Certified Fraud Examiner (CFE) credential. According to the ACFE website, “The CFE has emerged as the gold standard in the area of fraud” (“The CFE Credential,” n.d., para. 9) and “the CFE credential is recognized in the hiring and promotion policies of leading organizations” (para. 10).

The ACFE specifically focuses on providing benefits to both faculty members and their students. Educator membership is open to individuals who are employed full-time at a college or a university who have teaching as their primary means of employment. Educator members receive full access to all member benefits including additional training discounts. The ACFE also has an Anti-Fraud Education Partnership that provides educators with sample syllabus, teaching aids, suggested textbooks and copies of ACFE reference materials for use in the classroom. Further, the ACFE Foundation, a nonprofit entity, raises funds to support a scholarship program for students interested in pursuing a career in fraud examination or similar fields. The Foundation worked with chapters to raise over \$58,000 to award in scholarships to students worldwide for the 2015-2016 school year (ACFE, 2016).

The 2015/2016 Compensation Guide highlights the value of the CFE certification and indicates that CFEs earned 23% more than their non-certified counterparts and also reports very attractive numbers for the median total compensation (\$91,800) for a CFE (ACFE, 2015). As stated by James Ratley, President and CEO of the ACFE, “There is much more to earning the CFE credential than simply adding three new letters after your name. It is what those letters mean to you, your employers and your colleagues that makes the accomplishment so profound” (ACFE, 2015, p. 3).

Based on all of this positive and encouraging information provided by each of the four professional organizations, one might expect great success with students who are planning out their future careers. The paper will now turn to this issue.

Methodology

Brody and Frank (2000) surveyed accounting students to evaluate their appreciation of three certifications (CIA, CPA and CMA). They found that the CPA was the leader in both awareness and perceived importance, while the CIA followed the CMA in these categories. To improve future accountants’ perception of the CIA designation, they recommended more offering of internal auditing courses as well as increased interactions between practitioners and academicians. Since then, the corporate world has experienced some phenomenal changes that have substantial implications for the accounting profession. Several high profile accounting scandals (i.e., Enron, WorldCom), the implementation of the Sarbanes-Oxley Act of 2002, the increase in globalization and technology, the spread of terrorism, the recent financial crisis and the ensuing credit crunch have all presented new challenges to the profession.

Following Brody and Frank (2000), we use a modified survey instrument that also includes the Certified Fraud Examiner certification to obtain accounting students' appreciation of the certifications (see Appendix 1). Surveys were conducted in upper division and graduate accounting classes at a large southwestern public university. Students received and completed the survey during a normal class session, resulting in a 100% response rate. The majority of the students (94%) were pursuing an accounting or related degree. Less than half (42%) were contemplating a career in public accounting, and 21% in corporate/private accounting. In contrast, 52% and 31% of the respondents in Brody and Frank (2000) chose these two career plans. Table 2 presents additional descriptive information of the participants.

Results

Consistent with previous research, almost all participating students had heard of the CPA designation. Surprisingly, the proportion of students who had heard of the CMA dropped significantly from 84% to 49%; the same trend occurred with the CIA, which saw a drop from 67% to 50%. More of the students, 59%, were aware of the newer CFE designation (See Table 3). It should be noted that the CFE knowledge was much higher among graduate students (97%) than undergraduate students (48%). A potential explanation is that the graduate students in the sample had been exposed to the Association of Certified Fraud Examiners and the certification prior to taking the survey. However, this awareness of the CFE did not have a significant impact on other areas of the survey. In addition, while graduate students were more familiar with both the CIA and CMA when compared to the undergraduates, this is likely the result of the undergraduate accounting classes that they have taken prior to completing the survey and this awareness did not translate into significant differences in all other areas of this survey. For these reasons, results for the undergraduates ($n = 108$) and graduate students ($n = 31$) have been combined.

The same pattern is also seen in students' ranking of the four certifications by order of "overall usefulness" (Table 4). The CPA was seen as the most useful by 78% of the respondents, followed by the CFE, 10%; whereas the CMA and CIA were viewed as most useful by only 3% and 4% of the respondents, respectively. Since one's knowledge of other comparative certifications affects one's relative ranking, we also examine the ranking by those who are aware of all the four certifications.

Interestingly, an overwhelmingly 93% of these informed students believe the CPA to be the most useful, while the proportion who rank the CIA or CFE as most useful decreased significantly. This change suggests that limited information might be behind some respondents' ranking of the CIA (or CFE) before the CPA. It is likely that accounting certifications other than the CPA are more vulnerable to the threat of competing certifications. Since the CPA is a required entry ticket to the public accounting profession but other certifications are optional, the robustness of the CPA to competing certifications may be only true for college students. For them, the imminent entry requirement may be more salient than a requirement for career advancement, making the CPA to appear more attractive than an optional CIA or CFE.

A majority of the respondents (73%) realize that professional certifications increase the probability of promotion (Table 5). As to each certification's importance to a specific accounting career, 78% agree that the CPA is very important in public accounting, 32% believe that the CMA is very important in corporate/private accounting, and 47% indicate that the CIA is very important in internal auditing. These percentages have all dropped from 15 years ago: 90% for the CPA, 46% for the CMA, and 59% for the CIA, as reported by Brody and Frank (2000). This change might reflect the fact that globalization and information technology have broadened the set of skills demanded by all these accounting tracks. For example, a risk assurance path in public accounting does not require the CPA designation but instead emphasizes technology and risk management skills. Again, more people believe in the CFE's importance for fraud examination/forensic accounting than the CMA or CIA's importance for corporate accounting or internal auditing.

To further gauge the students' perceived benefits of professional certifications, we also asked them to score three specific advantages of the certifications: advancement opportunities, salary potential, and professional reputation

(Table 6). Again, the proportion of students who see these advantages has dropped for the CPA, CMA, and CIA, but the CPA designation still leads the other three by a large margin. Of those who are aware of these certification programs, 61 - 68% highly agree that the CPA carries the three specified advantages; 30 - 44% highly agree that the CMA, CIA, or CFE carries these advantages. In contrast, the percentages were over 94% for CPA and 61 - 70% for CIA or CMA 15 years ago.

Which of the three advantages stand out in the students' mind? It used to be advancement opportunities across the certifications surveyed. Today, this is only true with the CPA program. Close to 69% of the participants highly agree that the CPA designation has this advantage, while 65% and 61% highly agree that the CPA offers advantage in professional reputation and salary potential. But for other certifications, more participants highly agree to the advantage in professional reputation, 37 - 44%, than to advancement opportunities, 30 - 35%, and salary potential, 30 - 34%.

One interesting and consistent pattern is that salary potential is the specific advantage that fewest students realize, 30 - 61% for the CIA, CMA, CFE, or CPA. According to the 2015 Internal Audit Compensation Study of U.S. accounting professionals (IIA, 2015), the median salary of those who have one of these certifications is at least 40% higher than the median salary of those without any certification. However, this apparent advantage of a professional certification does not seem to be well understood by accounting students. In their minds, professional certifications are more likely to provide advancement opportunities or professional reputation, which are arguably somewhat vague benefits. A professional certification costs both money and time. The potential for higher salary directly offsets the cost. Helping students understand the salary advantage should be part of the promotional strategy of professional organizations.

While there is a limited amount of research with respect to student viewpoints on certifications and career track choices, CFO magazine recently reported the results of an academic working paper that "suggests that accounting students have significant negative perceptions about the internal-audit profession as a potential employer" (Hoffelder, 2012, para. 2). The article suggests that the internal audit profession may be in need of an overhaul with respect to entry-level employees. The results of the survey reported here do support that idea.

Concluding Remarks

This study is limited to the perceptions of students at one major university. Future research should expand the subject pool. This would include both students at other universities as well as accounting professionals (both new and experienced). In addition, researchers may wish to expand the certifications included in their work as others may become more popular in the future.

Regardless of any limitations, the results are both relevant and revealing. Such issues are a moving target as professional organizations continue to market themselves and their certifications. Using a slightly modified survey from Brody and Frank (2000) allows for direct comparisons to questions addressed over 15 years ago. Expanding the subject pool will provide additional evidence but the professional organizations can gauge the success/failure of their marketing efforts and consider modifications that may be necessary in order to reach their target groups in the future.

College accounting curriculums have always stressed public accounting and the CPA exam. Many schools actually report the CPA pass rate and use this as part of their self-evaluation. Some have in-house CPA review programs. This emphasis on the CPA certainly explains some of the results reported here. Conversely, the lack of emphasis on the other certifications and career paths also sheds light on the results. Thus, more schools may want to develop a CMA track, an IIA track and/or a CFE track that will help change student perceptions (or, at a minimum, get them more in line with what the professional organizations believe to be the case). While such tracks do exist, more focus may need to be placed on the related certifications; that is, students would be required to take the exam (CMA, CIA, CFE) as part of the program. Doing so may help prepare students for alternate (non-CPA) career paths.

Professional certifications demonstrate specialized training and signal the holder's superior ability. With the emergence of new certification programs, potential accountants have a wider choice of professional designations to differentiate themselves on the marketplace. Despite competition, the CPA is still the best recognized brand name among accounting students. But late comers such as the CIA and CFE are catching up with and in some aspects surpassing the CMA in brand recognition. To promote certification programs, professional organizations may want to construct their message to make the salary advantage and other relevant items more salient. Given that these organizations are targeting future professionals, the results reported here will give them some much-needed feedback related to their dissemination of information. It is clear that changes need to be made but they must determine if the problems are with the method of delivery, the consistency with which the information is distributed or simply that not enough resources are being expended to achieve the desired results.

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Table 1: Professional Organizations and Their Associated Certifications

| Professional Organization | Year started | Membership 2000* | Membership Current* | Professional Certification | Requirements for Designation |
|--|--------------|------------------|---------------------|---------------------------------------|---|
| American Institute of Certified Public Accountants (AICPA) | 1887 | 337,454 | 412,107 | Certified Public Accountant (CPA) | Passing the Uniform CPA Examination and having obtained 150 semester hours of education. |
| Institute of Management Accountants (IMA) | 1919 | 70,576 | 81,722 | Certified Management Accountant (CMA) | Completion of the 2-part CMA exam; having 2 years of work experience; holding a bachelor's degree. |
| Institute of Internal Auditors (IIA) | 1941 | 72,000 | 188,235 | Certified Internal Auditor (CIA) | Passing the CIA exam; holding a 3- or 4-year post-secondary degree; 24 months of internal auditing experience. |
| Association of Certified Fraud Examiners (ACFE) | 1988 | 25,000 | 80,000 | Certified Fraud Examiner (CFE) | Being an Associate member of the ACFE; holding a bachelor's degree; two years of related professional experience; passing the CFE exam. |

*Information was obtained from www.aicpa.org, www.imanet.org, www.theiia.org, www.acfe.com or directly from an individual at the respective organization.

Table 2. Demographic Information of Participants (N=140)

| | No. | % |
|---------------------------------------|-------|-------|
| Age (years) | | |
| Mean | 26.4 | |
| Median | 24.0 | |
| Standard deviation | 1.2 | |
| Range | 19-50 | |
| Gender | | |
| Male | 57 | 40.7% |
| Female | 83 | 59.3% |
| Degree program | | |
| Bachelor's in accounting | 101 | 72.1% |
| Master's in accounting/tax or MBA | 30 | 21.4% |
| Other | 9 | 6.4% |
| Year in program | | |
| Sophomore | 3 | 2.1% |
| Juniors | 39 | 27.9% |
| Seniors | 66 | 47.1% |
| Graduate/not seeking degree | 31 | 22.1% |
| Career plans * | | |
| Public accounting | 59 | 42.1% |
| Internal auditing | 14 | 10.0% |
| Corporate/private accounting | 29 | 20.7% |
| Fraud examination/Forensic accounting | 30 | 21.4% |
| Other (5 and x) | 27 | 19.3% |

*Some respondents made multiple choices for this question.

Table 3. Respondents' Awareness of Certification Programs

| Program | <i>All Participants</i> | | <i>Undergraduate</i> | | <i>Grad Students</i> | | <i>B & F All Participants</i> | |
|---------|-------------------------|------|----------------------|------|----------------------|-------|---------------------------------------|-------|
| | No. | % | No. | % | No. | % | No. | % |
| CPA | 138 | 98.6 | 107 | 98.2 | 31 | 100.0 | 316 | 100.0 |
| CIA | 70 | 50.0 | 47 | 43.1 | 23 | 74.2 | 211 | 67.0 |
| CMA | 68 | 48.6 | 49 | 45.0 | 19 | 61.3 | 266 | 84.0 |
| CFE | 82 | 58.6 | 52 | 47.7 | 30 | 96.8 | | n.a. |

Table 4. Ranking of Certification Programs as the "Most Useful"

| Ranking | CPA | | CIA | | CMA | | CFE | |
|---|-----|------|-----|-----|-----|-----|-----|------|
| | No. | % | No. | % | No. | % | No. | % |
| All students (N=140) | 109 | 77.9 | 5 | 3.6 | 4 | 2.9 | 14 | 10.0 |
| Undergraduates (N ₁ =109) | 83 | 76.1 | 5 | 4.6 | 4 | 3.7 | 11 | 10 |
| Grad students (N ₂ =31) | 26 | 83.9 | 0 | 0.0 | 0 | 0.0 | 3 | 9.7 |
| Students with knowledge of all four programs (M=41) | 38 | 92.7 | 0 | 0.0 | 1 | 2.4 | 2 | 4.9 |
| <i>B & F Results</i> | | | | | | | | |
| All participants | 285 | 90.5 | 10 | 3.2 | 20 | 6.3 | | n.a. |
| Students with knowledge of all three programs (N=191) | 173 | 90.6 | 5 | 2.6 | 13 | 6.8 | | n.a. |

Table 5. Respondents Who Perceived Certifications for Careers in Accounting as Very Important

| | Highly Agree | |
|---|--------------|------|
| | No. | % |
| The probability of promotion is greater with professional certification (i.e. CPA/CMA/CIA/CFE). | 102 | 72.9 |
| The CPA is very important in public accounting. | 109 | 77.9 |
| The CMA is very important for individuals in corporate/private accounting. | 39 | 27.9 |
| Students with knowledge of CMA program (n=68) | 22 | 32.4 |
| The CIA is very important for individuals in internal auditing. | 59 | 42.1 |
| Students with knowledge of CIA program (n=70) | 33 | 47.1 |
| The CFE is very important for individuals in fraud examination/forensic accounting. | 79 | 56.4 |
| Students with knowledge of CFE program (n=82) | 50 | 61.0 |

* Respondents were asked to choose from 1 to 6, indicating "Strongly Disagree" to "Strongly Agree".

Table 6. Perceived Advantages of Certification: Percentage of Students "Strongly Agree" with Specific Advantages

All students (N=140; 138, 68, 70, and 82 heard of the CPA, the CMA, the CIA, or the CFE, respectively.)

| Advantage | CPA | | CMA | | CIA | | CFE | |
|---------------------------|---------|-------|---------|-------|---------|-------|---------|-------|
| | Overall | Aware | Overall | Aware | Overall | Aware | Overall | Aware |
| Advancement opportunities | 67.9 | 68.84 | 36.4 | 35.29 | 34.3 | 30.00 | 38.6 | 35.37 |
| Salary potential | 60.0 | 60.87 | 33.6 | 33.82 | 32.1 | 30.00 | 37.1 | 34.15 |
| Professional reputation | 64.3 | 65.22 | 36.4 | 36.76 | 35.7 | 35.71 | 44.3 | 43.90 |

* Respondents were asked to choose from 1 to 6, indicating "Strongly Disagree" to "Strongly Agree".

Appendix 1: Student Survey

1. Degree Program

- Bachelor's (Major in accounting)
 Bachelor's (Business Major, not accounting)
 Masters in Accounting/Tax
 MBA
 Other (please Identify _____)

2. Year In school

- Freshman
 Sophomore
 Junior
 Senior
 Graduate Student

3. Gender

- Male
 Female

4. Age _____

5. Organization Membership(s) (Check all that apply)

- Beta Alpha Psi
 Student Accounting Association
 Institute of Management Accountants
 Institute of Internal Auditors
 Association of Certified Fraud Examiners

6. Career Plans (Select the ONE area that most closely represents your future plans immediately after graduation)

- Public accounting (Auditing/Tax/Consulting)
 Internal auditing
 Corporate/Private Accounting
 Government
 Fraud examination/Forensic accounting
Other _____

7. Which of the following programs have you heard of (check all that apply)

- CPA (Certified Public Accountant)
 CIA (Certified Internal Auditor)
 CMA (Certified Management Accountant)
 CFE (Certified Fraud Examiner)

8. Rank the programs below in order of their overall usefulness (i.e. career advancement, salary level, and reputation). One, indicating the most useful, 2 being second, 3 being third and 4 being the least useful.

- CPA (Certified Public Accountant)
 CIA (Certified Internal Auditor)
 CMA (Certified Management Accountant)
 CFE (Certified Fraud Examiner)

9. For each of the following statements circle the number that corresponds with the level to which you agree or disagree. If you don't know or are uncertain, circle the X;

| Strongly Disagree | | | | | | | Strongly Agree | | | | | | | Don't Know | | |
|-------------------|---|---|---|---|---|---|----------------|---|---|---|---|---|---|------------|--|---|
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | x | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | The CPA is very important in public accounting. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | The CMA is very important for individuals in corporate /private accounting. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | The CIA is very important for individuals in internal auditing. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | The CFE is very important for individuals in fraud examination/forensic accounting. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | The probability of promotion is greater with professional certification (i.e. CPA/CMA/CIA/CFE). |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Accounting is a male-dominated profession. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | In the field of accounting, women are likely to be judged less competent than their male counterpart. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a family or family commitments will not affect my career success. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Women in accounting can expect to have similar opportunities for promotions and raises as their male peers. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Women in accounting can expect to have similar quality job assignments their male peers. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Women in accounting can expect to have similar salaries as their male peers throughout their career. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CPA will enhance advancement opportunities. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CPA will enhance salaries. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CPA will enhance professional reputation. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CMA will enhance advancement opportunities. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CMA will enhance salaries. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CMA will enhance professional reputation. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CIA will enhance advancement opportunities. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CIA will enhance salaries. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CIA will enhance professional reputation. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CFE will enhance advancement opportunities. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CFE will enhance salaries. |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | | | | | | | | x | | Having a CFE will enhance professional reputation. |